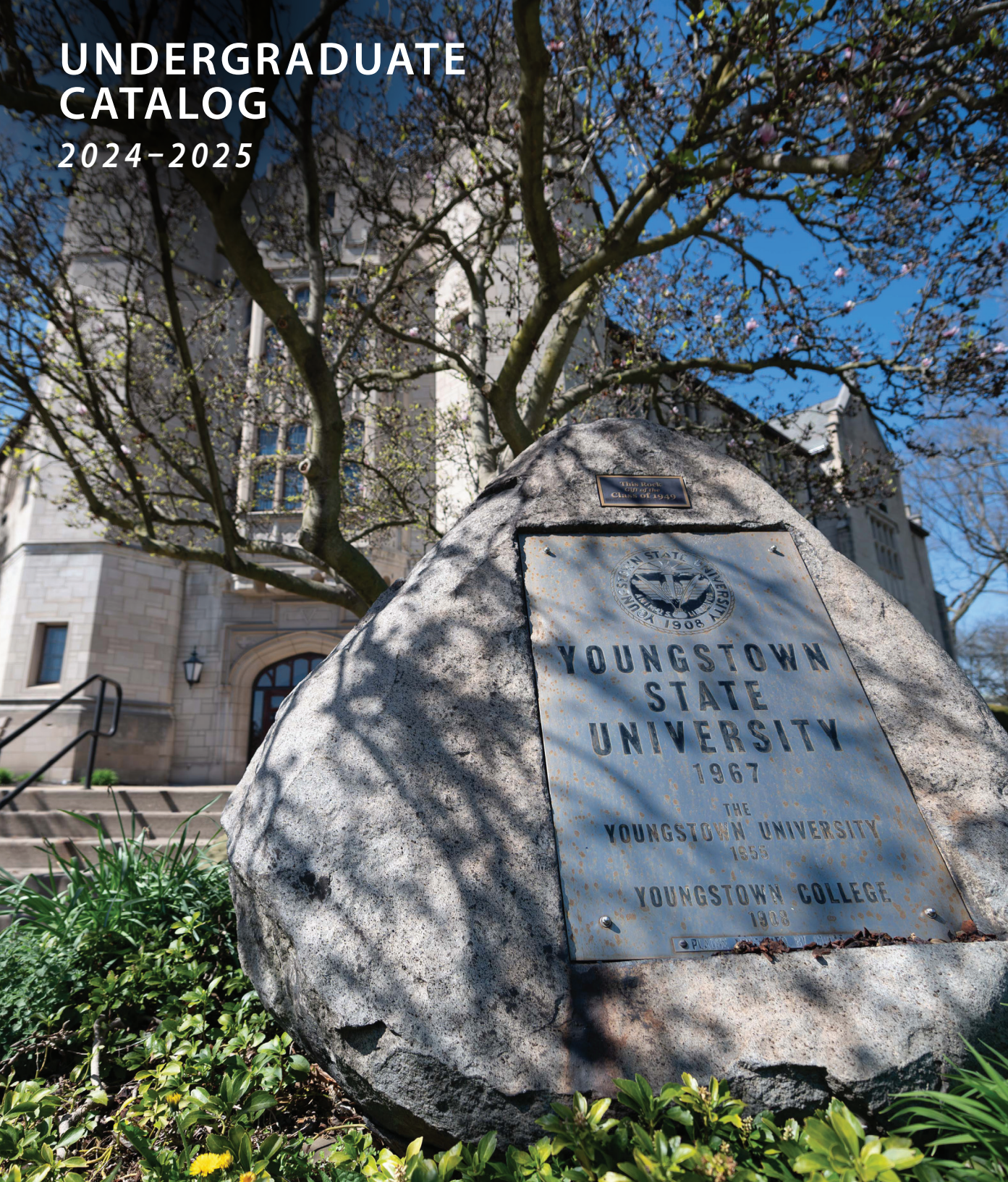


UNDERGRADUATE CATALOG

2024-2025



**YOUNGSTOWN
STATE UNIVERSITY**

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UNDERGRADUATE CATALOG

YOUNGSTOWN STATE UNIVERSITY UNDERGRADUATE CATALOG 2024-2025

1 Tressel Way

Youngstown, Ohio 44555

General Information

About the Catalog

Purpose/Disclaimer

The Youngstown State University catalog is the official source of undergraduate and graduate programs, courses, academic policies, and special programs. The catalog should be used as a guide in conjunction with the student's academic advisor in ensuring that the necessary requirements are met for graduation. Every effort has been made to ensure accuracy at the time of publication.

The online catalog contains the most current information. Sections of the online catalog may be printed as needed. Archived versions of catalogs (PDF format) are also available. Students have the responsibility to become familiar with catalog content as they pursue their educational goals.

Throughout the site, there are hyperlinks to other information and resources at Youngstown State University. The information contained in these links is not a part of the official University catalog. While every effort is made to provide accurate and current information, Youngstown State University reserves the right to make changes at any time with respect to policies, curricula, graduation requirements, courses, services provided, or other matters addressed in this publication and to make any changes retroactive for students currently enrolled.

Catalog Rights

Degree candidates are responsible for meeting university graduation requirements stated in the Youngstown State University catalog for the academic year in which they are admitted to Youngstown State University unless they change their major. These graduation requirements are known as catalog rights. Colleges reserve the right to alter the content of courses, add and delete courses, and change required curricula to comply with accreditation, licensure, or state or federal regulations. These changes may necessitate students update to a more recent catalog. It is the student's responsibility to remain informed about such changes through regular interaction with their academic advisor in monitoring progress towards graduation. No university official can relieve students of this responsibility.

Students may opt to update their catalog year to a more recent catalog; in doing so, students must comply with all requirements therein.

Students who interrupt their enrollment in the university for one full academic year or longer, consecutively, including summer, must meet the university graduation requirements of the catalog in effect when they return.

In all instances, students who return to Youngstown State University after enrolling at another college or university (except with transient or cross-registration permission) must follow the university graduation requirements of the catalog in effect at the time of their readmission.

Effective: Fall 2024 - Summer 2025

About the University

Mission

Mission Statement

An Institution of Opportunity: YSU inspires individuals, enhances futures, and enriches lives.

As a student-centered university, Youngstown State University's mission is to provide innovative lifelong learning opportunities that will inspire individuals, enhance futures and enrich lives. YSU inspires individuals by cultivating a curiosity for life-long learning; enhances the futures of our students by empowering them to discover, disseminate and apply their knowledge; and enriches the region by fostering collaboration and the advancement of civic, scientific, and technological development. YSU's culture of enrichment flourishes in our diverse, accessible, and quality education.

Vision

Youngstown State University is where students thrive in their educational and career pursuits, where scholarship creates innovative solutions, and where community engagement is a cornerstone of collaboration that collectively contribute to the sustainable prosperity of the region and beyond.

Values

We—the faculty, staff, administrators, and students of Youngstown State University—hold the following values essential to achieving the mission and realizing the vision.

Centrality of Students – We put students first, fostering their holistic and lifelong success.

Excellence and Innovation – We bring academic excellence and innovation to learning and life for all stakeholders.

Integrity and Human Dignity – We root all behaviors, decisions and actions in the achievement of integrity, mutual respect, collegiality, equity and inclusion.

Collaboration and Public Engagement – We embrace collaboration and create innovative partnerships to foster sustainability and enrich our university, our culture, and region.

For more information, visit Youngstown State University Mission Statement (<https://ysu.edu/mission/>).

Historical Sketch

Youngstown State University traces its beginnings to a commercial law course offered by the Young Men's Christian Association (YMCA) in 1908. The YMCA had offered high school level and vocational courses since 1888, but it wanted to meet the college-level needs of area residents in a society undergoing rapid industrialization and urbanization. The "Y" offered courses on law, business, and engineering, and in 1910, it even instituted a School of Law that granted no degree but prepared students to take the bar exam. In 1916, the YMCA incorporated all of its educational work under the Youngstown Association School.

By the early 1920s, the Ohio Board of Education granted the School of Law the power to confer the Bachelor of Science in Law degree, and in 1924 the School of Commerce and Finance the right to confer the bachelor's degree in commercial science. The YMCA also offered courses to prepare teachers for certification, a program that evolved by 1927 into a separate school named Youngstown College, recognized by the State Department of Education.

That same year, the school also established the College of Liberal Arts. Throughout the 1920s, the schools of law and commercial science were called the Youngstown Institute of Technology, which began a move from downtown to the present location with the purchase of several mansions owned by the Wicks and other prominent Youngstown families.

In 1931, the YMCA constructed its first classroom building, the present-day Jones Hall, and appointed Howard Jones as the educational director. By the mid-1930s, the Board of Directors decided to incorporate with the official name of Youngstown College separate from the other "Y" educational efforts; they appointed Howard Jones as the first president, a position he held until 1966.

In 1944, the trustees of the YMCA transferred control of the institution to the members of the Corporation of Youngstown College, and in 1955 the corporation was rechartered as The Youngstown University. The University joined the Ohio system of higher education in September 1967 as Youngstown State University.

Dana's Musical Institute, founded in nearby Warren in 1869, became Dana's Musical Institute of Youngstown College in 1941. In 1946, the Engineering Department, organized several years before, became the William Rayen School of Engineering; two years later, the Business Administration Department became the School of Business Administration; and in 1981 the school name was changed to the Warren P. Williamson, Jr. School of Business Administration. In 1960, the Education Department became the School of Education.

The Graduate School and College of Applied Science and Technology (CAST) were created in 1968, and in 1974, the College of Creative Arts and Communication was established.

In 1972, Youngstown State University, with the University of Akron and Kent State University, formed a consortium to sponsor the Northeastern Universities College of Medicine, which enrolled its first students in 1975.

In 1991, the engineering technology departments separated from CAST and joined the new College of Engineering and Technology; the remaining departments formed the new College of Health and Human Services.

In 2007, the Rayen College of Engineering and Technology incorporated the science and mathematics departments from the College of Arts and Sciences. This reorganization linked science, technology, engineering, and mathematics in one academic college, and the humanities and social sciences in another college.

Youngstown State University now consists of the College of Graduate Studies and six undergraduate academic colleges:

- Beeghly College of Liberal Arts, Social Sciences, and Education
- Bitonte College of Health and Human Services
- Cliffe College of Creative Arts
- College of Science, Technology, Engineering, and Mathematics
- Williamson College of Business Administration

Degrees offered range from associate to doctoral level. We offer numerous bachelor and master's degree programs; an educational specialist degree program and five doctoral degree programs.

Academic Organization

The Academic Division contains the following units:

- Beeghly College of Liberal Arts, Social Sciences, and Education (<https://ysu.edu/academics/beeghly-college-liberal-arts-social-sciences-education/>)
- Bitonte College of Health and Human Services (<http://www.ysu.edu/academics/bitonte-college-health-and-human-services/>)

- Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>)
- College of Science, Technology, Engineering, and Mathematics (<http://www.ysu.edu/academics/science-technology-engineering-mathematics/>)
- Williamson College of Business Administration (<http://www.ysu.edu/academics/williamson-college-business-administration/>)
- College of Graduate Studies (<http://www.ysu.edu/academics/college-graduate-studies/>)
- Sokolov Honors College (<http://www.ysu.edu/academics/honors-college/>)

Each academic college, along with its undergraduate major programs and curriculum, is described in the Colleges and Programs section of this catalog. The post-baccalaureate programs of the College of Graduate Studies are set forth in the Graduate Catalog (<http://catalog.ysu.edu/graduate/>).

Virtually all departments offer courses during daytime and evening hours, and several majors may be obtained by students who are able to attend only during the evening. Several degree programs are also available online. To accommodate working students, classes are offered on a flexible schedule – from classes that meet five days a week to classes that meet only one day a week. The main academic year runs from late August into May in two 16-week semesters. During the summer term, courses are offered for one 14-week session and two seven-week sessions.

Accreditation

Youngstown State University is accredited by the Higher Learning Commission (HLC) (telephone: (312) 263-0456 or (800) 621-7440). The HLC is an independent corporation that was founded in 1895 as one of six regional institutional accreditors in the United States. Please email info@hlcommission.org (hlcommission.org) if you have any questions.

For more information about YSU's accreditation, visit the Statement of Accreditation Status (<https://www.hlcommission.org/component/directory/?Action=ShowBasic&Itemid=&instid=1613>). Academic programs within the individual colleges may be further accredited by their respective professional bodies. Those accreditations are listed in each college section.

Contact for Questions/Concerns

Office: Academic Affairs

Location: Tod Hall

Website: <https://ysu.edu/provost> (<https://ysu.edu/provost/>)

Institute for Teaching and Learning

The mission of the Institute for Teaching and Learning (ITL) is to leverage data and best practices to guide innovative, inclusive, and integrative teaching at Youngstown State University. ITL is responsible for providing campus wide teaching and learning resources, including workshops, consultation, online tools, guest speakers, and more. In addition to faculty development efforts, ITL also coordinates and supports continuous improvement activities across campus, including academic and co-curricular student learning assessment. ITL supports the accreditation standards of the Higher Learning Commission by assisting faculty and staff in systematic, comprehensive assessment and improvement of student learning. All assessment data is shared in aggregate form only, and confidentiality of individual students is safeguarded. If assessment information is shared beyond internal efforts of program improvement or accreditation, departments and the Office of Assessment abide by the Institutional Review Board guidelines at YSU and FERPA regulations, as appropriate.

Contact for Questions/Concerns

Office: Institute for Teaching and Learning

Location: Jones Hall 3048

Website: <https://ysu.edu/institute-teaching-and-learning> (<https://ysu.edu/institute-teaching-and-learning/>)

Statement on Diversity, Equity and Inclusion

The Office of Diversity, Equity, and Inclusion (DEI) serves the Youngstown State University community as an educational resource enabling students, staff, and faculty to gain a better understanding of what it means to live in a pluralistic society. We promote this understanding through the development of workshops and collaborations. Providing educational resources based upon research studies and real-life experiences, we are here to help students develop a connection to campus while supporting staff and faculty as they develop an inclusive mindset. DEI is also where students can find several mentoring programs. Faculty and staff collaborate in these programs while learning more about the students who choose to come to YSU. The DEI staff has the ability to assist our community members in navigating difficult conversations.

Contact for Questions/Concerns

Office: Diversity, Equity, and Inclusion

Location: Jones Hall 1004

Website: <https://ysu.edu/office-diversity-equity-and-inclusion> (<https://ysu.edu/office-diversity-equity-and-inclusion/>)

Statement on Equal Opportunity and Non-Discrimination

Non-Discrimination, Title VI, Title VII

Youngstown State University is committed to a campus environment that values all individuals and groups and to non-discrimination and equality of opportunity in education and employment. University policy and federal and state law prohibit all forms of discrimination and/ or harassment based on sex, race, color, religion, national origin (including shared ancestry) age, sexual orientation, gender identity and/or expression, disability, or veteran/military status or any other basis protected by law.

Inquiries about Title VI and Title VII may be referred to Youngstown State University's Executive Director of Equal Opportunity, the U.S. Department of Education's Office for Civil Rights, or both. Youngstown State University's Executive Director of Equal Opportunity is Dana Lantz, Executive Director of Equal Opportunity and Human Resources, and Title IX Coordinator, 1 Tressel Way, Tod Hall Suite 312, Youngstown, Ohio, dclantz@ysu.edu 330.941.4629. The Deputy Equal Opportunity Coordinator is Debbie Kempers, dkempers@ysu.edu, 330.941.2107.

Youngstown State University's Title VI and Title VII non-discrimination policy can be located at 2-03 Discrimination/Harassment, (https://ysu.edu/sites/default/files/university_policies/3356-2-03_Discrimination_harassment.docx) Executive Order 2022-06D, (<https://ysu.edu/sites/default/files/Executive%20Order%202022-06D.pdf>) Executive Order 2023-01D (<https://ysu.edu/sites/default/files/Executive%20Order%202023-01D.pdf>) and the guidelines for initiating and investigating complaints can be located at Guidelines for Initiating and Investigating Complaints. (<https://ysu.edu/sites/default/files/users/seluce/Guidelines%20%20for%20Initiating%20and%20Investigating%20Complaints%20rev.%202023-2024.pdf>)

To report information about conduct that may constitute sex discrimination or make a complaint of sex discrimination under Title IX, please refer to <https://ysu.edu/title-ix/reporting> (<https://ysu.edu/title-ix/reporting/>).

Title IX

Youngstown State University does not discriminate on the basis of sex and prohibits sex discrimination in any education program or activity that it operates, as required by Title IX and its regulations, including in admission and employment.

Inquiries about Title IX may be referred to Youngstown State University's Title IX Coordinator, the U.S. Department of Education's Office for Civil Rights, or both. Youngstown State University's Title IX Coordinator is Dana Lantz, Executive Director of Equal Opportunity and Human Resources, and Title IX Coordinator, 1 Tressel Way, Tod Hall Suite 312, Youngstown, Ohio, dclantz@ysu.edu 330.941.4629 or TitleIX@ysu.edu.

Youngstown State University's Title IX non-discrimination policy and grievance procedures can be located at 2-05 Title IX Sexual Harassment Policy (https://ysu.edu/sites/default/files/university_policies/3356-2-05__Title_IX_sexual_harassment_policy.docx)

To report information about conduct that may constitute sex discrimination or make a complaint of sex discrimination under Title IX, please refer to <https://ysu.edu/title-ix/reporting> (<https://ysu.edu/title-ix/reporting/>).

AMERICANS WITH DISABILITIES ACT (ADA) COMPLIANCE

Students seeking information about or access to accommodations or support for a documented disability should contact the Disability Services office. Employees of the University and others seeking such information or resources should contact the Human Resources Title II/Section 504 Coordinator.

Assistant Director, Disability Services:

Gina McGranahan

1 Tressel Way, DeBartolo Hall, 3rd floor

Youngstown, Ohio 44555

330-941-2090

glmcranahan@ysu.edu

Title II/Section 504 Coordinator:

Stacey Luce

1 Tressel Way, Tod Hall, Suite 359

Youngstown, Ohio 44555

330-941-1322

seluce@ysu.edu (seluce@ysu.edu)

Statement on Health and Safety

Youngstown State University recognizes its responsibility to protect the health and assure the safety of the students, employees, and visitors to the campus. It is the responsibility of this department to assure that the University meets all of its legal obligations as they pertain to health, safety, and the environment, and to assist faculty, staff, and students in their efforts to comply with all regulatory agencies.

Youngstown State University is committed to the health and safety of its employees, students, and guests. The University will develop and maintain programs with the intent of preventing safety hazards and promoting health on our campus. The programs developed shall be compliant with, but not limited to, all federal, state, and local regulations applicable to safety, health, and the environment. All University-related facilities, activities, and programs shall be designed, conducted, and operated in a manner that reasonably protects human health and safety.

DEPARTMENTS:

The Campus Safety Division includes the University Police and the Department of Environmental Health and Safety (EHS).

EHS reports administratively to the Executive Director of Facilities. The primary goal is the elimination of hazards which may result in injury, illness to students, employees, and visitors to campus or the destruction of University property.

EHS is administratively responsible for assuring that the University is in compliance with all federal, state, and locally mandated programs dealing with safety or environmental issues. The department acts as the University's liaison with regulatory bodies such as: the Environmental Protection Agency,

the Ohio Department of Health, the Nuclear Regulatory Commission, and the Occupational Safety and Health Administration.

EHS RESPONSIBILITIES:

EHS is responsible for developing and implementing appropriate environmental health, safety, and emergency response programs and training. EHS regularly consults with the University's Office of General Counsel to ensure that the University maintains compliance with federal, state, and local legislation that affects the safety of the campus environment.

Contact for Questions/Concerns

Office: Department of Environmental Health and Safety

Location: Cushwa Hall

Website: <https://ysu.edu/ehs>

<https://ysu.edu/ehs/risk-management> (<https://ysu.edu/ehs/risk-management/>)

<https://ysu.edu/ehs/cmc> (<https://ysu.edu/ehs/cmc/>)

Academic Policies, Rights, and Responsibilities

Academic Advisement

Academic Advising Mission

Academic advising at YSU is an integrated teaching and learning process built upon an ongoing interactive partnership between students and their advisors.

Academic advising supports students in developing a balanced scholastic plan that will provide them with a solid foundation for academic success and empower them to take responsibility for achieving their life-long educational and career goals.

(Adopted February 2010)

Who Requires Academic Advising?

Advisement is required for the following students:

- Freshman and Sophomore (fewer than 60 hours)
- Post-secondary enrollment (College Credit Plus)
- Students not in good standing (warning, probation)
- First semester transfer students
- Returning former students
- Athletes

Reasons to See an Advisor

Academic advisors strive to support students as they navigate their way through college so they can reach their academic goals. Here are a few reasons why you might want to make an appointment to see an academic advisor:

- Need help understanding requirements to finish your degree
- Need an explanation of YSU academic policies and/or regulations
- Have questions about majors and/or minors
- Need assistance in the creation of an academic plan toward graduation
- Have academic difficulties and want to know where to find help
- Want to prepare for the application process to restricted majors such as nursing, dental hygiene, respiratory care, and social work
- Feel confused, overwhelmed, or generally unsure about what you should be doing
- Want to keep on the path to graduation

What You Will Learn from Meeting with Your Advisor

- You will gain an understanding of the requirements of your major
- You will learn about the university requirements to obtain a degree, including:
 - General Education requirements
 - Upper division requirements
 - Total hour requirements
 - Minor requirements
- You will be informed of relevant university policies and learn to navigate them, including:
 - Changing majors
 - Withdrawing from classes
 - Warning, probation, and suspension policies
 - Course repetition
 - Degree audit
 - Application for graduation audit
 - Graduation application
- You will learn about and be referred to relevant campus resources (as needed)
- You will learn to make short-term and long-range plans for your college career that will supplement your career and life goals
- You will understand how your curriculum and college experiences relate to your future career goals

Advising Offices

Each academic college assigns advisors differently. Students should contact the office below in which their major lies to find their advisor.

- Beeghly College of Liberal Arts, Social Sciences and Education (BCLASSE) Advisement Beeghly 330-941-3268; Advisement DeBartolo 330-941-3413
- Bitonte College of Health and Human Services (BCHHS), Cushwa Hall, Room 2104, 330-941-1820
- Cliffe College of Creative Arts (CCCA), Bliss Hall, Room 2324, 330-941-3625
- College of Science, Technology, Math, and Engineering (STEM), Moser Hall, Room 2325, 330-941-2512
- Williamson College of Business Administration (WCBA), Student Services Center, Room 1115, 330-941-2376
- Office of Career Exploration and Development (for Exploratory students), Jones Hall, Room 2002, 330-941-3515
- First Year Student Services (for students in YSU 1500), Jones Hall, Room 3032, 330-941-2131
- Resch Academic Success Center (for students in YSU 1500S), Kilcawley Center West, 330-941-3538

What to Expect from Your Academic Advisor

Your academic advisor will:

- Assist you in exploring areas of study on your way to choosing your major
- Encourage and support you in establishing your goals and tracking your progress toward those goals
- Provide a safe setting for you to share your thoughts, goals, and concerns
- Listen to your questions and concerns and provide resources and referrals as needed in order to facilitate your college experience
- Understand and explain YSU policies and procedures, general education requirements, academic programs, and student services
- Maintain confidentiality

What Your Academic Advisor Expects from You

In order to have a successful advising experience, you must:

- Accept responsibility for your decisions and actions
- Research your areas of interest including YSU programs and degree requirements
- Plan ahead (schedule appointments early and have the courtesy to cancel or reschedule as necessary)
- Come prepared for your advising appointment with your questions and concerns
- Follow up on referrals and inform your academic advisor of the outcome of the referrals
- Use all available campus services as necessary (Math Assistance Center, Writing Assistance Center, Counseling Services, Resch Academic Success Center, Career Development and Exploration)

Undergraduate Preparation for Post-Baccalaureate Degrees

Medical schools have specific requirements for pre-medical study, and many law, theological, technological, and graduate schools have curriculum requirements for those seeking admission. Anyone wishing to enter a professional, technological, or graduate school of any kind should consult advisors in the appropriate undergraduate college of this university as early as possible. Such special needs can usually be met within the degree requirements of Youngstown State University, but the proper selection of courses may have to begin in the first year.

Academic Calendar

Fall 2024

Date	Day	Time	Event
Aug 26	Mon.		Classes begin - full term and first 8 weeks
Aug 29	Thurs.		Last day to add classes or change grading option – first 8-weeks
Sept 1	Sun.		Last day for 100% refund - first 8-weeks
Sept 2	Mon.		Legal holiday – University closed
Sept 3	Tues.		Last day to add classes or change grading option – full term
Sept 8	Sun.		Last day for 100% refund – full term
Sept 27	Fri.		Last day to withdraw with a grade of 'W' – first 8-week term
Oct 4	Fri.		Last day to apply for fall term graduation
Oct 19	Sat.		First eight-week term ends
Oct 21	Mon.		Classes begin – second 8-weeks

Oct 24	Thurs.		Last day to add classes or change grading option – second 8-weeks
Oct 27	Sun.		Last day for 100% refund - second 8-weeks
Oct 27	Sun.		Last day to withdraw with a grade of 'W' – full term
Nov 11	Mon.		Legal holiday – University closed
Nov 22	Fri.		Last day to withdraw with a grade of 'W' – second 8-weeks
Nov 27	Wed.		No classes scheduled – University offices open
Nov 28	Thurs.		Legal holiday – University closed
Nov 29	Fri.		Legal holiday – University closed
Dec 2	Mon.	6 am	Thanksgiving academic break ends – classes resume
Dec 9	Mon.		Final examinations begin
Dec 14	Sat.		Final examinations end
Dec 14	Sat.		Classes end – full term, second 8-weeks
Dec 15	Sun.		Commencement

Spring 2025

Date	Day	Time	Event
Dec 24	Tues.		Legal holiday – University closed
Dec 25	Wed.		Legal holiday – University closed
Jan 1	Wed.		Legal holiday – University closed
Jan 6	Mon.		Classes begin – full term and first 8-weeks
Jan 9	Thurs.		Last day to add classes or change grading option – first 8-weeks
Jan 12	Sun.		Last day for 100% refund – first 8-weeks
Jan 13	Mon.		Last day to add classes or change grading option – full term
Jan 19	Sun.		Last day for 100% refund – full term

Jan 20	Mon.	Legal holiday – University closed
Feb 7	Fri.	Last day to withdraw with a grade of 'W' – first 8-weeks
Feb 14	Fri.	Last day to apply for spring term graduation
March 1	Sat.	Classes end – first 8-weeks
Mar 3	Mon.	Spring Break Begins
Mar 9	Sun.	Spring Break Ends
Mar 10	Mon.	Classes begin – second 8-weeks
Mar 13	Thurs.	Last day to add classes or change grading option – second 8-weeks
Mar. 16	Sun.	Last day for 100% refund – second 8-weeks
Mar 19	Wed.	Last day to withdraw with a grade of 'W' – full term
Apr 11	Fri.	Last day to withdraw with a grade of 'W' – second 8-weeks
Apr 28	Mon.	Final examinations begin
May 3	Sat.	Final examinations end
May 3	Sat.	Classes end – full term, second 8-weeks
May 3	Sat.	Commencement (see ysu.edu/commencement for details)
May 4	Sun.	Commencement (see ysu.edu/commencement for details)

Summer 2025

Date	Day	Time	Event
May 12	Mon.		Classes begin – full term, first 7-week
May 15	Thurs.		Last Day to add classes or change grading option – first 7-week
May 15	Thurs.		Last day to add classes or change grading option – full term
May 18	Sun.		Last day for 100% refund – first 7-weeks

May 25	Sun.	Last day for 100% refund – full term
May 26	Mon.	Legal holiday – University closed
June 9	Mon.	Last day to withdraw with a grade of 'W' – first 7-weeks
June 19	Thurs.	Legal holiday – University closed
June 20	Fri.	Last day to apply for summer term graduation
June 29	Sun.	Classes end – first 7-weeks (final exams are given during last class session)
June 30	Mon.	Classes begin – second 7-week term
July 4	Fri.	Legal holiday – University closed
July 6	Sun.	Last day for 100% refund - Second 7-Weeks
July 8	Tues.	Last day to withdraw with a grade of 'W' – full summer term
July 27	Sun.	Last day to withdraw with a grade of 'W' – second 7-weeks
Aug 16	Sat.	Full Term, second 7-weeks ends (final exams are given during last class session)

Accelerated Online Program - Fall 2024

Date	Day	Time	Event
Aug 21	Wed.		First 7-weeks last day to add classes or change grade option
Aug 26	Mon.		First 7-weeks term begins
Sept 1	Sun.		First 7-weeks last day for 100% refund
Sept 2	Mon.		Legal holiday – University closed
Sept 23	Mon.		First 7-weeks last day to Withdraw with a Grade of 'W'
Oct 13	Sun.		First 7-weeks term ends
Oct 16	Wed.		Second 7-weeks last day to add classes or change grade option

Oct 21	Mon.		Second 7-weeks term begins
Oct 27	Sun.		Second 7-weeks last day for 100% refund
Nov 11	Mon.		Legal holiday – University closed
Nov 18	Mon.		Second 7-weeks last day to withdraw with 'W'
Nov 27	Wed.		No classes scheduled – University offices open
Nov 28	Thurs.		Legal holiday – University closed
Nov 29	Fri.		Legal holiday – University closed
Dec 2	Mon.	6 AM	Thanksgiving academic break ends - classes resume
Dec 8	Sun.		Second 7-weeks term ends

Accelerated Online Program - Spring 2025

Date	Day	Time	Event
Jan 2	Thurs.		First 7-weeks last day to add classes or change grading option
Jan 6	Mon.		First 7-weeks term begins
Jan 12	Sun.		First 7-weeks last day for 100% refund
Jan 20	Mon.		Legal holiday – University closed
Feb 3	Mon.		First 7-weeks last day to withdraw with a 'W'
Feb 23	Sun.		First 7-weeks term ends
Mar 6	Thurs.		Second 7-weeks last day to add classes or change grading option
Mar 10	Mon.		Second 7-weeks term begins
Mar 16	Sun.		Second 7-weeks last day for 100% refund
Apr 7	Mon.		Second 7-weeks last day to withdraw with a 'W'
Apr 27	Sun.		Second 7-weeks term ends

Accelerated Online Program - Summer 2025

Date	Day	Time	Event
May 7	Wed.		First 7-weeks last day to add classes or change grading option
May 12	Mon.		First 7-weeks term begins
May 18	Sun.		First 7-weeks last day for 100% refund
May 26	Mon.		Legal holiday – University closed
June 9	Mon.		First 7-weeks last day to withdraw with a 'W'
June 25	Wed.		Second 7-weeks last day to add classes or change grading option
June 29	Sun.		First 7-weeks term ends
June 30	Mon.		Second 7-weeks term begins
July 4	Fri.		Legal holiday – University closed
July 6	Sun.		Second 7-weeks last day for 100% refund
July 27	Sun.		Second 7-weeks last day to withdraw with a 'W'
Aug 16	Sat.		Second 7-weeks term ends

Academic Eligibility

Academic Classification

All students working for any undergraduate degree conferred by this university are ranked in classes, by semester hours completed, as follows:

Freshman	0-29 semester hours of credit
Sophomore	30-59 semester hours of credit
Junior	60-89 semester hours of credit
Senior	90 or more semester hours of credit

For purposes of satisfying course prerequisites, the term "senior standing" may be defined by reference to the specified curricula of a given school or college, if it provides detailed programs leading to the attainment of a degree. A student who has completed a four-year degree and who continues undergraduate enrollment is classified as post-baccalaureate.

Academic Standing and Dismissal

Academic standing is based upon the total earned credit hours completed, including accepted transfer hours. Therefore, all new undergraduates begin with an enrollment status of eligible and earn an academic standing after their first semester with earned credits. Four categories of academic standing are established: Good, Warning, Probation, and Suspension. These categories are intended to signify a student's progress toward graduation or to provide an opportunity for making improvements and achieving academic success. They also determine eligibility to enroll in courses at the university; however, they do not determine eligibility to enroll in specific programs, schools or colleges at the institution. In addition, an undergraduate student's standing and eligibility to enroll in courses does not ensure satisfactory academic progress (SAP) for

financial aid purposes. Students who receive financial aid should review the Financial Aid and Scholarship (p. 63) section of the catalog for the SAP policy.

Good Standing:

- Students in Good Standing have earned the required cumulative grade point average of 2.00 or higher.
- Students' enrollment status is marked eligible and they may continue to enroll in courses.

Warning:

- Students on Academic Warning have earned a cumulative grade point average **below** 2.00. This indicates that grade standards consistent with graduation requirements are not being met.
- Students' enrollment status is marked eligible, and they may continue to enroll in courses after advisor approval of course load. Students with this status will have an advisement hold that will need to be cleared prior to registration activities.
- Students who are employed on campus are required to establish an action plan for academic success and have a letter of support from a supervisor as per the existing student employment policy.
- Students placed on Warning are required to participate in individual academic coaching.
- Students who register for the upcoming term but who do not register for academic coaching will be administratively dropped from all of their courses following the last day to add a course.
- Students who begin a semester on Warning will be assigned one of the following statuses at the end of the semester:
 - students who earn a cumulative grade point average of at least a 2.00 at end of the semester will return to Good Standing.
 - students who have not earned a cumulative grade point average of at least 2.0 will continue on Continued Academic Recovery.

Probation:

- Students on Academic Probation have continued to earn a cumulative grade point average below 2.00. This continues to indicate that grade standards consistent with graduation requirements are not being met.
- Students' enrollment status is marked eligible, and they may continue to enroll in courses after advisor approval of course load. Students with this status will have an advisement hold that will need to be cleared prior to registration activities.
- Students placed on Probation are required to participate in individual academic coaching.
- Students who begin a semester on Probation will be assigned one of the following statuses at the end of the semester:
 - students who earn a cumulative grade point average of at least a 2.00 at end of the semester will return to Good Standing.
 - students who have not earned a cumulative grade point average of at least 2.0 but have made substantial improvement by earning a term grade point average of at least 2.00 will continue on Probation
 - students who have not earned a cumulative GPA of at least a 2.0 and have not earned term grade point average of at least 2.00 at the end of the term will be moved to suspension.

Suspension:

- Students on Academic Suspension who have continued to earn a cumulative grade point average below 2.00 are required to be dismissed from the university for at least one semester before being able to petition for re-instatement.
- Students on Academic Suspension who have registered for a future semester will be administratively withdrawn from all classes by the Office

of the Registrar and will receive notification of their academic standing via email and U.S. postal mail.

Can a student return after an Academic Suspension?

A student may return to the university after Academic Suspension if granted reinstatement status. Students who have been academically suspended may petition the Academic Reinstatement Committee for re-instatement. The Committee's decision is final.

All petitions must be received by the specified deadline, and must include compelling and documented evidence of the circumstances beyond the student's control and an explanation of how they negatively impacted their ability to perform academically. The student must also prepare a statement that includes the following:

1. The steps they will take if re-instated to academic success
2. The individuals included in their support network (personal and on-campus)

Students who are granted reinstatement will be given a continuation plan by the Reinstatement Committee and will be required to discuss the plan with their academic advisor. The plan may include a recommended change of major, academic reassessment, YSU summer term enrollment, repeating classes, tutoring, individual coaching, and/or mental health counseling. When a student is granted reinstatement the student's academic standing is reset to Probation. All academic standing rules listed above apply for the term the student is reinstated. Therefore, a second suspension will have a duration of at least one full calendar year before reinstatement can be granted again. Students should not expect to be reinstated after two suspensions unless the Academic Reinstatement Committee believes that extraordinary conditions or circumstances have occurred. Additional suspensions will have a duration of at least two years.

Can a student be dismissed/suspended for other reasons?

A student may be dismissed from the university for a period of time or permanently for reasons other than those listed above for Academic Suspension.

- Students admitted to the university as a Conditional Admit or Strong Start student can be dismissed from the university for not meeting the requirements of those admission statuses. Students admitted in those categories should reach out to the Resch Academic Success Center (<https://ysu.edu/academic-success-center/>) for information on dismissal and reinstatement processes.
- Students who fail to meet their financial obligations to the university can be financially suspended from the university until all financial responsibilities are met. Students who have been financially suspended should reach out to the Office of the University Bursar for information on debt consequences, obligations, and reinstatement processes.
- Students who have been found to violate the Student Code of Conduct may be suspended or expelled from the university. Students who are responsible for a violation should reach out to the Office of Community Standards and Student Conduct (<https://ysu.edu/dean-of-students/student-conduct/>) for information on their status.

CONTACT FOR QUESTIONS/CONCERNS

Office: Penguin Service Center and Record's Office

Location: Meshel Hall

Website: <https://ysu.edu/penguin-service-center> (<https://ysu.edu/penguin-service-center/>) and <https://ysu.edu/registrars-office> (<https://ysu.edu/registrars-office/>)

Academic Grievances

The Student Academic Grievance Procedure provides students with a formal channel through which complaints concerning academic matters may be

heard. A student must attempt to resolve the complaint by first discussing the issue with the faculty member. If the complaint is not resolved at that level, the student should direct their complaint to the **Department Chair** (<https://ysu.edu/provost/academic-chairpersons/>) and, if the complaint is still not resolved, to the **Dean of their college** (<https://ysu.edu/provost/deans-associatedeans-divisionleaders/>).

Complaints not resolved following a discussion with the dean will be considered by the associate provost for academic administration or designee, who will serve as judicial administrator. If the complaint is grievable, it is presented to the Student Academic Grievance Subcommittee. Per the **YSU-OEA Agreement** (<https://ysu.edu/sites/default/files/users/aayanniello/2020-2023%20YSU-OEA%20Collective%20Bargaining%20Agreement%20-%20Signed.pdf>), (<https://ysu.edu/sites/default/files/users/aayanniello/2020-2023%20YSU-OEA%20Collective%20Bargaining%20Agreement%20-%20Signed.pdf>) Article 19.2, academic matters that may be grieved are the following:

- Material deviation from the instructor's policy on sanctions for academic dishonesty, as indicated on the course syllabus, to the detriment of the individual student, or in disputed cases of academic dishonesty.
- Material breach of faculty contractual obligations as specified in the article on Teaching Rights and Responsibilities (YSU-OEA Agreement, Article 27), to the detriment of the individual student or the entire class.
- Material deviation from the grading scale, grading criteria, assignment specifications, or grade weight distribution indicated on the course syllabus or other course materials, to the detriment of the individual student or the entire class.

Other areas of contention between a student and a faculty member may not be grieved under this section. The student should contact the department chair of the faculty member's department or the dean of the college housing the faculty member's department for further advisement in these situations. Additionally, a student may consider utilizing the **University's Student Complaint Process** (https://cm.maxient.com/reportingform.php?YoungstownStateUniv&layout_id=2) when concerns are not grievable.

Students wishing to file a grievance may contact the administrative assistant in the Office of Academic Affairs for an appropriate referral. A **Brief Guide to Student Academic Grievances** (https://ysu.edu/sites/default/files/Student_Academic_Grievance_Info_Sheet.pdf) available for further information about this process.

A digital copy of the **Student Academic Grievance Form** (<https://ysu.edu/sites/default/files/Academic%20Grievance%20Form.pdf>) is available for download or students can use the **electronic form** (https://cm.maxient.com/reportingform.php?YoungstownStateUniv&layout_id=7) to submit an academic grievance. An electronic copy of the **Student Academic Grievance Procedure** (<http://sga.ysu.edu/wp-content/uploads/2017/10/Grievance-Panel-Procedure-072917.pdf>) is also available for review.

Contact for Questions/Concerns

Office: Office of Academic Affairs

Location: Tod Hall, room 222

Website: <https://ysu.edu/provost> (<https://ysu.edu/provost/>)

Academic Honors

Honors are bestowed at the university as recognition of outstanding academic achievement and as a means to further encourage student success and sound scholarship. They are awarded to every undergraduate student attaining the required eligibility requirements. For some of the honors listed below, students may receive certificates of recognition or honor cords for commencement ceremonies.

Dean's List

Each academic college recognizes its finest students by naming them to the Dean's List. The students eligible for this award are full-time undergraduate students who have earned at least a 3.4 average for not less than 12 semester hours of credit in the semester just ended. This honor is only awarded at the end of fall and spring semesters. Included in the list at the end of spring term are those part-time students who have earned at least a 3.4 average and accumulated a minimum of 12 semester hours of credit combined for the fall and spring terms.

Courses with grades of I, AU, CR, CRX and PR do not count toward the minimum 12 hours requirement, but do not disqualify, as long as the student has an additional 12 hours or more of earned credit at the time of the Dean's List calculation. Students who receive grades of D, F, or NC are automatically ineligible for Dean's List recognition.

Courses that do not count toward meeting eligibility requirements are:

- ENGL 1509, 1512, 1539, 1540
- RSS 1510 A, B, C
- MATH 1500, 1501, 1502, 1503, 1504, 1507

Courses at the 6900 level or above **will count** toward meeting the Dean's List eligibility requirements.

Recipients receive a certificate from their academic college and are officially announced on the YSU Merit Page website. (<https://ysu.meritpages.com/>)

President's List

The university recognizes its top students by naming them to the President's List. The students eligible for this award are full-time undergraduate students who have earned a 4.0 grade point average for not less than 12 semester hours of credit in the semester just ended. This honor is only awarded at the end of the fall and spring semesters. Included in the list at the end of spring term are those part-time students who have earned a 4.0 grade point average and accumulated a minimum of 12 semester hours of credit combined for the fall and spring terms.

Recipients receive a certificate from the Office of the President and are officially announced on the YSU Merit Page website. (<https://ysu.meritpages.com/>)

Graduation Honors

Undergraduate graduation candidates who rank high scholastically are awarded graduation honors. All YSU grades will be counted in determining honors for graduation; this includes those grades deducted from accumulative totals as a result of an approved *Repetition/Recalculation* form and/or an approved *Academic Reassessment* form, etc. When calculating the GPA for graduation honors, only YSU undergraduate credit is considered; no transfer credit is included in the calculation. A student who has processed an approved *Academic Forgiveness* form is ineligible for graduation honors.

Honors announced at commencement exercises and/or published are preliminary and based on a calculation that includes the student's GPA as of the end of the preceding term. Final graduation honors are calculated after all grades have been submitted and reviewed. The honors recorded on students' official transcripts and diplomas may differ from those announced at the commencement ceremony.

Baccalaureate degree students:

Who have a minimum of 60 semester hours completed at YSU will be awarded Latin Honors as follows:

- *Summa Cum Laude*: Awarded to those who attain a grade point average of 3.8 or higher

- *Magna Cum Laude*: Awarded to those who attain a grade point average of less than 3.8 but not less than 3.6
- *Cum Laude*: Awarded to those who attain a quality point average of less than 3.6 but not less than 3.4

Who have a minimum of 30 semester hours completed at YSU but less than 60 semester hours at YSU will be awarded honors as follows:

- Highest Honors: student has earned a GPA of 3.8 or higher
- Great Honors: student has earned a GPA of less than 3.8 but not less than 3.6
- Honors: student has earned a GPA of less than 3.6 but not less than 3.4

Associate Degree Students:

Who have a minimum of 40 semester hours completed at YSU will be awarded honors as follows:

- With High Honors: student has earned a GPA of 3.7
- With Honors: student has earned a GPA of less than 3.7 but not less than 3.4

Who have a minimum of 20 semester hours completed at YSU (for Fall 2024 graduation the minimum 20 semester hour requirement will be waived) but less than 40 semester hours at YSU will be awarded honors as follows:

- Highest Honors: student has earned a GPA of 3.8 or higher
- Great Honors: student has earned a GPA of less than 3.8 but not less than 3.6
- Honors: student has earned a GPA of less than 3.6 but not less than 3.4

Other Awards and Honors

Other accolades in recognition of outstanding academic achievement and service are presented through the various colleges and departments.

Contact for Questions/Concerns

Office: Office of Academic Affairs

Location: Tod Hall

Website: <https://ysu.edu/provost> (<https://ysu.edu/provost/>)

Academic Integrity

Academic integrity is essential to the educational process and serves to uphold the educational mission of the university. Therefore, all members of the university community have a responsibility for maintaining high standards of honesty and ethical practice with regards to their academic endeavors. Students should consult with their instructor if they are not sure what may constitute a violation of the Academic Integrity Policy. The full policy can be found in Article III. 1. of *The Student Code of Conduct*.

Although instructors are responsible for taking all reasonable precautions to limit the possibility of students violating the Academic Integrity Policy, students share in this responsibility and should report any suspected violations to the instructor.

After an instructor has identified a possible violation(s) of the Academic Integrity Policy, they must notify the student of the allegation within two (2) university working days via university email and invite the student to participate in an Academic Integrity Conference. If mutually agreeable, the instructor and student may also hold the conference prior to email notification. The Academic Integrity Conference shall occur within five (5) university working days of the email notification to the student.

If an instructor concludes that a student is responsible for a violation(s) of the Academic Integrity Policy, they may impose a sanction, including the following:

- official warning
- lowering the grade on the exam, paper, or assignment in question

- lowering the student's final grade for the course in question
- requesting additional action from the Academic Grievance Subcommittee via a hearing

A complete description of the Academic Integrity process (<https://ysu.edu/dean-of-students/student-conduct/academic-integrity/>) is detailed in Article V. of The Student Code of Conduct (<https://ysu.edu/student-conduct/code-conduct/>). However, it should be noted that a student can:

- accept the charge(s) and sanction(s) offered by the instructor, which they acknowledge by signing the **Academic Integrity Form** (<https://ysu.edu/sites/default/files/YSU2017AcademicIntegrityForm.pdf>)
- accept the charge(s), but decline the sanction(s) offered by the instructor, which they acknowledge will transition the case to the Academic Grievance Subcommittee for a hearing; the student will not sign the Academic Integrity Form in this case
- decline the charge(s) and the sanction(s) offered by the instructor, which they acknowledge will transition the case to Academic Grievance Subcommittee for a hearing; the student will not sign the Academic Integrity Form in this case

Regardless of if the student chooses to sign the Academic Integrity Form, any case in which the student may face removal from their academic program or college, or University Suspension or Expulsion, requires a hearing before the Academic Grievance Subcommittee to ensure due process for the student. A representative from the Office of Community Standards & Student Conduct (<https://ysu.edu/dean-of-students/student-conduct/>) must be present at such hearings to serve in an advisory capacity.

In situations where the student has a prior recorded violation of the Academic Integrity Policy, an additional violation of the policy will require referral to the Office Community Standards & Student Conduct for possible additional charges and sanctions.

The Student Code of Conduct is available online.

Contact for Questions/Concerns

Office: Office of Academic Affairs

Location: Tod Hall, Room 222

Website: <https://ysu.edu/academic/affairs/> (<https://ysu.edu/provost/>)

Accommodations for Students with Disabilities

The Resch Academic Success Center Accessibility Services provides students, faculty, and staff with assistance and information regarding accommodations for students with disabilities, either permanent or temporary. Compliance with the Rehabilitation Act of 1973 and the Americans with Disabilities Act as amended in 2008 involves providing reasonable accommodations to qualified individuals with disabilities. These accommodations are provided in order to ensure equal access to people with disabilities regarding educational opportunities, programs, and activities.

The Resch Academic Success Center Accessibility Services addresses the needs of students with disabilities. Support for academic success includes:

- Serving as the gateway for accommodations for YSU students with disabilities
- Providing accommodation information
- Collaborating with faculty/staff regarding issues involving students with disabilities
- Arranging for classroom accommodations for students with disabilities to allow equal educational access
- Making campus referrals/connections

To inquire about accommodations or services, please contact the office at (330) 941-1372 (voice), or (330) 941-7470 (fax). A confidential appointment will be set up to discuss accommodation needs.

Contact for Questions/Concerns

Office: Resch Academic Success Center Accessibility Services

Location: Kilcawley Center Room 2082

Website: <https://ysu.edu/academic-success-center/accessibility-services>
(<https://ysu.edu/academic-success-center/accessibility-services/>)

Alternative Credit

Alternative Credit Options

Students may be awarded credit towards their academic program through methods other than completing courses at Youngstown State University. Various alternative credit options are available to current students who meet the requirements and submit official documentation directly from the awarding body (ie College Board, JST, etc.) to YSU. Notations on high school transcripts or unofficial score reports are not sufficient.

Alternative credit is often awarded as non-native credit (transfer credit) and does not count towards the YSU GPA or graduation honors calculations (ie Summa Cum Laude, etc.). The official transcript does not show credit equivalencies for individual courses; only that credit hours were awarded. Course equivalencies are based on the academic year the student matriculated to the University. Some alternative credit options may require a fee for test registration and administration.

Students may not take a CLEP test, department challenge exam, or other credit by exam opportunity for any course in which they are currently enrolled, have previously been enrolled and earned an evaluative grade, or for an earlier prerequisite course.

Advanced Placement (AP) credit

Students who were enrolled in Advance Placement (AP) courses and completed the appropriate AP tests while in high school may be eligible to earn credits for specific courses at YSU. Students must have an original score report sent from College Board directly to YSU and meet the minimum score requirements set by the Ohio Department of Education and academic department in which the course resides. Students should consult with their academic advisor and the Office of the Registrar website (<https://ysu.edu/registrars-office/credit-examination-ap-information/>) to determine which AP exams, scores, and course equivalencies are awarded.

Career Technical Credit (CTAG)

Students who successfully completed approved career-technical courses in high school or at an Ohio Technical Center and earned a qualifying score on the corresponding end-of-course exam may be eligible for CTAG credit. YSU must have an approved program that corresponds to the course/exam completed. Students must grant permission for YSU to post CTAG credit within three years of completing the approved secondary program.

College Level Examination Program (CLEP)

Current students who complete a College Level Exam (CLEP) administered by College Board and earn the minimum score required by Youngstown State University can earn college credit. Not all CLEP examinations are accepted for credit at YSU. Please contact the Comprehensive Testing Center (<https://ysu.edu/testing-center/>) for further information.

Department Challenge Exams

Currently-enrolled students may demonstrate their ability and knowledge in a particular subject area by taking a special examination (through the appropriate academic department). The exams are based upon established learning outcomes. Students are provided with a recommended reading list and/or a study guide to prepare for the examination. Contact the academic

department for which you would like sit for a department challenge exam. Note that not all departments offer challenge exams.

DSST

Active military or university veterans are encouraged to take exams such as the DSST where applicable. Please contact YSU's Office of Veterans Affairs (<https://ysu.edu/veterans-affairs/>) for more information.

Industry Recognized Credential Transfer Assurance Guide (ITAG)

Students who hold a current industry recognized credential that has been approved by the Ohio Department of Education at YSU for college credit may be eligible to earn credits for specific courses at YSU. Proof of your credential must be provided and must be current in order to qualify for ITAG credit.

International Baccalaureate (IB)

Students who were enrolled in an International Baccalaureate school and completed IB examinations may be eligible to earn credits for specific courses at YSU. Students must submit an official copy of IB transcripts to YSU for consideration (notation on a high school transcript will not suffice) directly from International Baccalaureate. Not all IB examination are accepted for credit at YSU. Students should consult with their academic advisor and the Office of the Registrar website (<https://ysu.edu/registrars-office/credit-examination-ib-information/>) to determine which IB exams, scores, and course equivalencies are awarded.

Military Credit (MTAGs)

Military Transfer Assurance Guides (MTAGs) provide a statewide guarantee that certain types of military training, experience, and/or coursework align to existing college and university courses and will be awarded appropriate credit. An official Join Service Transcript must be submitted to YSU's Office of Veterans Affairs (<https://ysu.edu/veterans-affairs/>) for consideration.

Prior Learning Assessment (PLA)

Prior Learning Assessment (PLA) offers an opportunity for current students to earn credits for student learning that has occurred outside of the University setting. Please contact the Manager of Degree Audit (<https://ysu.edu/prior-learning-assessment/>)/PLA for further information.

CONTACT FOR QUESTIONS/CONCERNS

Office: Office of the Registrar, Degree Audit

Location: Meshel Hall

Website: <https://ysu.edu/prior-learning-assessment> (<https://ysu.edu/prior-learning-assessment/>)

Change of Major Academic Reassessment Option

A student transferring to a new major before earning 60 credits has the option of requesting an Academic Reassessment. The student may request the deletion of up to 16 credits earned for courses required in the old major; these credits will be deducted from the total earned credits and will result in a recalculated cumulative GPA. No credits earned for a grade of "C" or higher may be deleted. These credits may only include courses required for the old major and for general education courses if also designated by the old major, but may not include courses only taken to fulfill general education requirements, requirements from the new major, or graduation requirements. The student must initiate the request through their Academic Advisor, and the request must be approved by the Department Chairperson of the new major.

The following provisions of Academic Reassessment Option shall apply:

- The Academic Reassessment option may only be used one time.
- To be eligible for the academic reassessment option, the student must be changing their major and have earned less than 60 overall credit hours.

- Students changing their major to or from exploratory or undecided are not eligible.
- All GPA recalculations completed as a result of the Academic Reassessment Option are final and cannot be reversed.
- The student's transcript reflects all courses taken, even if not computed in the GPA.
- The student, in consultation with his/her academic advisor, shall identify the courses to be included in the reassessment. The student may request up to 16 credits be included in the reassessment.
- Only undergraduate courses taken prior to the change of major at YSU are eligible to be included in the GPA recalculation.
- Courses included in the reassessment may include courses required for the old major as well as from the general education core only if also designated by the old major, but may not include courses only taken to fulfill general education requirements, requirements from the new major, or graduation requirements.
- Only courses in which the student earned a "D" or "F" may be included in the reassessment.
- Grades earned for the courses included in the reassessment are excluded from the calculation of the cumulative GPA, but will remain on the student's official transcript. Credits earned for courses included in the reassessment are deducted from the total credits earned.
- All grades, including those removed from the GPA due to academic reassessment, are included when calculating graduation honors (Cum Laude, etc.)
- The recalculated GPA is effective at the beginning of the term for which the major change becomes effective.
- Any academic probations, suspensions or dismissals earned prior to the reassessment shall not be forgiven.

Community Standards and Student Conduct

Students at YSU have an obligation to conduct themselves in a manner that is compatible with the university's purpose as an institution of higher education. The policies and regulations in The Student Code of Conduct (<https://ysu.edu/student-conduct/code-conduct/>) have been established to ensure a positive educational experience for every student. Therefore, all students should take time to familiarize themselves with *The Student Code of Conduct*, residence hall policies, university lease agreements, student organization policies, and other related policies to ensure they are aware of both the expectations of them, and the rights afforded to them as a member of the university community.

Students believed to be in violation of *The Student Code of Conduct* or other university policies will be referred to the Office of Community Standards & Student Conduct (<https://ysu.edu/dean-of-students/student-conduct/>) for a conduct conference and possible hearing. The student conduct process at YSU adheres to procedural due process and is intended to be part of the larger university educational process. Students found responsible for violations may be issued educational sanctions, fines, status changes, and restriction of privileges. In cases of repeated and/or egregious violations, suspension or expulsion may occur.

If a member of the university community needs to report a potential violation of *The Student Code of Conduct*, they may contact a staff member from Office of Community Standards & Student Conduct, Office of the Dean of Students (<https://ysu.edu/dean-of-students/>), the Office of Housing & Residence Life (<https://ysu.edu/housing-and-residence-life/>), Division of Student Affairs (<https://ysu.edu/student-affairs/>), Youngstown State University Police Department (<https://ysu.edu/ysu-police/>), or they may submit a report online via the YSU Incident Reporting Form (https://cm.maxient.com/reportingform.php?YoungstownStateUniv&layout_id=0). Additionally, the YSUPD website has a YSU Confidential Tip form that can be used to provide anonymity to the reporting person.

More information can be found on the **Community Standards and Student Conduct website** (<https://ysu.edu/dean-of-students/student-conduct/>).

CONTACT FOR QUESTIONS/CONCERNS

Office: Office of Community Standards & Student Conduct

Website: <https://ysu.edu/dean-of-students/student-conduct> (<https://ysu.edu/dean-of-students/student-conduct/>)

Course Final Examination

All courses offered for credit shall include either a final examination given at the scheduled final examination date/time or a summative assessment. No deviation from the exam schedule, approved by Academic Senate, is authorized. Specific exceptions for certain courses may be granted by the instructor obtaining prior approval from the appropriate academic unit head (chair/dean). Students shall be informed of any such exceptions in the course syllabus. The final examination schedule and regulations listed below are also posted on the Office of the Registrar's final exam website (<https://ysu.edu/registrars-office/final-exam-schedule/>).

- **Final examinations (finals) are not to be given before the final examination period.**
 - Finals for fall/spring full term courses are held during the sixteenth week of the semester.
 - Finals in any condensed parts of term for fall/spring courses are given on the last day the class meets, unless otherwise specified by the instructor.
 - Finals for all summer term courses are given on the last day the class meets, unless otherwise specified by the instructor.
- **Full term finals are scheduled based on the start time and first day of the week the course is held during the semester.** Therefore, in-person examinations must be held at the day/hour scheduled because the classroom may not be available at other times. It is recommended students confirm the date/time of their finals with the class instructors. The following exceptions apply for fall/spring full term courses:
 - Classes scheduled only one day or evening per week will meet at the time the class is scheduled, unless otherwise specified by the instructor.
 - Friday evening, Saturday and Sunday classes will meet at their regularly scheduled hours on that day for the final exam, unless otherwise specified by the instructor.
- **If a student has three or more examinations on one day, they should attempt to reschedule one (or more) of those examinations on another day when the instructor has an examination.**
- **Permission for taking a final examination at any time other than the scheduled time must be arranged with the instructor of the class involved.**

Contact For Questions/Concerns

Office: Office of the Registrar

Location: Meshel Hall

Website: <https://ysu.edu/registrars-office/final-exam-schedule> (<https://ysu.edu/registrars-office/final-exam-schedule/>)

Course Registration

Course registration for summer, fall, and spring semesters takes place multiple times throughout the year, and these dates are posted on the Office of the Registrar website. During the fall and spring semesters (in November and April), a two-week priority registration period is held for currently enrolled students to register for the subsequent semester; new transfer and readmitted students are also permitted to register during the priority period. An open registration period begins after the priority weeks and remains open through the last day to add a course for the semester. First time students, transient students, and participants in a college in high school program may register

during the open period and typically register during a scheduled session or meeting with an advisor.

Course Status

Course:

The terms "course" and "class" are used interchangeably at the university and are defined as learning for credit by a qualified instructor with regular and substantive student-instructor interaction.

Class Hour:

The class hour is a weekly 50-minute class period and is the basic unit of instruction.

Semester Hour:

The term "semester hour" (s.h.) signifies one class hour a week carried for one full semester (or the equivalent in a part of term, summer term or flexibly-scheduled class). A *semester hour of credit* (also known as credit hour) is the amount of credit given for one semester hour successfully completed. Each *semester hour of credit* represents an average of *three hours of study and instruction* every week through the term. Alternatively, a web-based semester hour will be defined as the learning that takes place in at least 45 hours of learning activities, which includes time in reviewing lectures or class meetings online, laboratories, examinations, presentations, tutorials, preparation, reading, studying, hands-on experiences, and other learning activities or a demonstration by the student of learning equivalent to that established as the expected product of such a period of study.

Enrollment Status

Current Student:

Enrollment is defined as consisting of three major components: admission to the university, course registration, and payment of all assessed tuition and fees. A currently enrolled undergraduate student is defined as one who is enrolled past the fourteenth day of the full-term or seventh day of an eight week or less part of term. Students who are considered current for a term, but do not register for the subsequent term, will still be notified about priority registration for two subsequent semesters. A student is no longer considered current or active if they have not enrolled for three consecutive semesters.

Full-Time Student:

A full-time undergraduate student is defined as one who is registered for at least 12 semester credit hours during a semester. Full-time enrollment for federal financial aid is always defined as 12 semester credit hours, including summer semester. Full-time tuition bulk rate is always defined as enrollment for 12 to 18 semester credit hours.

A full-time graduate student is defined as one who is registered for six or more semester credit hours during a semester. Graduate students who complete less than six hours per semester may lose eligibility for federal financial aid as a full-time student. Graduate students who wish to complete their program of study in a timely manner will likely need to enroll in nine or more hours per semester. Students are encouraged to discuss scheduling plans with their advisor. Assistantships/Fellowships and many scholarships require students to enroll in 9 or more semester hours during the Fall and Spring terms.

Enrollment Verification:

The National Student Clearinghouse serves as the university's authorized agent for enrollment and degree verification. The clearinghouse receives data electronically from YSU and dispenses the information electronically to requesting lending institutions, prospective employers, background investigation firms, and credit granting agencies. Students may also find that they need a letter from the university as proof of enrollment for things including but not limited to professional associations, licensure, insurance, and loans. The Office of the Registrar is responsible for verifying student enrollment status and can provide students with an enrollment verification

letter. The office maintains both current and past records of enrollment, but cannot verify future enrollment. Students may request a letter in the Penguin Portal. The letter will be printed the next business day and will list the student's enrollment status (i.e., full-time) for the term requested, anticipated graduation date, and start and stop dates of the term. An enrollment verification letter does not include courses taken or grades attained; an official transcript should be requested to verify this type of information.

Maximum Schedule:

The semester hours of credit a student carries per term depends on the degree sought and on the curriculum being followed. A minimum of 120 semester hours must be satisfactorily completed to earn a baccalaureate degree; a minimum of 60 semester hours for an associate degree. Students expecting to complete a bachelor's degree in four years or an associate degree in two years should average 16 semester credit hours per term. An undergraduate student may register for a course load maximum of 20 semester credit hours per term. Students interested in taking 21 credit hours or more per term must seek approval from the dean of their college.

Process/Procedure

All course registration takes place online through the Penguin Portal and students may not attend a course unless they have registered for that course. Course registration is defined as adding a class, dropping a class, or completely withdrawing from all classes. Initial course registration and schedule adjustments must be completed before the last day to add a course or the last day to withdraw deadlines for the term/part of term. Detailed instructions on registration, including how to use waitlist, add/drop courses, change a grade mode or variable credit hours, or complete withdrawal are available on the Penguin Service Center website.

In general, students should follow the steps listed below to complete the registration process each semester:

- Run a program audit to review remaining course requirements and/or complete an academic advisement session, as necessary
- Review the schedule of classes in the Penguin Portal
- Register for classes in the Penguin Portal
- Check financial aid requirements for eligibility and accept available aid in the Penguin Portal
- View and pay charges in the Penguin Portal
- Review course schedule in the Penguin Portal prior to first day of classes
- Review and adhere to academic calendar deadlines on the Office of the Registrar's website

Check Registration Status:

There are various reasons a student could have a hold on their record preventing them from completing registration. Students should check their registration status in the Penguin Portal prior to registration. If there is a hold on the student's account, it will indicate if it will prevent registration and a phone number of where to call to resolve the issue will be listed in the description. If an academic advisement hold is listed, students should make an appointment with their assigned advisor as promptly as possible. Each academic department or college has a procedure for assigning a student to a faculty or staff advisor. For advisement requirements, please review the advisement section of the catalog.

Pay Attention to Registration Error Messages:

Some courses have prerequisites or requirements that students must meet in order to enroll in their courses. If a student receives an error message while registering for a course, note the message and contact the academic department of the course or the Penguin Service Center for assistance; students will find that they may need an override to be placed on their account before completing the registration process.

Closed Classes:

Departments set capacity limits to the number of students that can be accommodated in each section. During the registration period, many class sections become filled. These sections are labeled "FULL" in the schedule of classes, which means that no more students will be admitted to the course section. Students should use the waitlist option to obtain entry into the course; instructions on how to waitlist are available on the website (<https://ysu.edu/penguin-service-center/online-instructions/>). Only the department chair offering the course can admit a student to a closed class or reopen a closed class.

Variable Credit Hour Classes:

Certain courses have variable credit hours which is a range of credits for which the course can be taken. Students wishing to register for such a course may do so after consulting with the department offering the course to determine the number of hours for which to register. The last day to add a class is also the last day to change a variable credit hour course's hours. Students can adjust the credit hours of these courses through the Penguin Portal before this deadline.

Change of Registration:

It is recommended that students consult with their advisor prior to changing their schedules or completely withdrawing for the semester to review how those decisions may affect degree completion. Students may add, drop, or withdraw through the Penguin Portal according to the semester's published deadlines in the academic calendar (<https://ysu.edu/registrars-office/calendars/>).

Exceptions**Undergraduates Registering for Conference Courses:**

Conference course work is available only in exceptional cases and if the academic advisor considers conference work essential. Students must obtain the required override approval(s) and complete the course registration through the portal. Conference courses have the following restrictions:

1. Permission is limited to seniors with a grade-point average of 3.00 or above (exceptions to this must be approved by the dean of the college in which the student is enrolled).
2. The course must be instructed by a full-time faculty member.
3. A brief description of the plan of procedure must be given by the full-time faculty member.
4. Student must have approval from the course's academic department and the dean of the college in which the course resides.

Undergraduates Registering for Graduate Level Courses:

Undergraduate students who do not have a bachelor's degree may request permission to take a 5800 level or higher graduate course(s) for graduate credit from the College of Graduate Studies. Before registering for the course(s), the student must have the approval of the student's advisor in the program where the credit will be applied, the course instructor, and the dean of the College of Graduate Studies. The student's advisor will complete a request form to be approved by the course instructor and College of Graduate Studies. Students must meet the following criteria in order to obtain permission to enroll:

1. Senior standing with un-recalculated grade point average of 2.7 or above
2. Graduate level course may not cause undergraduate schedule to exceed 15 semester credit hours
3. Graduate level course may not be used for graduate credit until undergraduate student is admitted to the College of Graduate Studies and the credit is approved by the admitting program department
4. Graduate level course credit total may not exceed 9 semester credit hours

The credit earned may be used for graduate credit in a YSU graduate level program only after the student is admitted to the College of Graduate Studies and the credit is accepted by the department in which the student continues graduate work. The maximum amount of such credit that will be accepted at Youngstown State University is 9 credit hours. Graduate level courses do not count toward the undergraduate GPA, but will count toward the graduate GPA. Please see the Academic Honors (p. 15) page of the catalog for more information on calculating GPA for graduation honors.

Undergraduates Registering for Over 20 Credit Hours in a Single Term:

Undergraduate students are limited to registering for a maximum of 20 semester credit hours each term. Students interested in registering for more than 20 semester credit hours must obtain approval from their academic college dean or their representative prior to registration. The academic college will complete an approval form and submit it to the Office of the Registrar for processing; once processed, the student's maximum hours will be adjusted and the student can register for the approved maximum beyond 20.

Undergraduates Obtaining Late Registration to a Course(s):

Obtaining admission to a course after the last day to add is only granted in certain circumstances. Students may petition to late register with the Penguin Service Center. If granted permission, the student must already be registered for other coursework, hold good academic standing status, have an account free from holds that prevent registration, and instructor approval.

Undergraduates Obtaining Late Withdrawal from a Course(s):

Course withdrawal after the last day to earn a "W" deadline or unofficial withdrawal is typically recorded as an "F" on the student's transcript. If that grade resulted from circumstances over which the student had no control, the student may file a petition for late withdrawal with the academic college of their major within one year from the time the grade in the course was recorded.

Undergraduates Obtaining Registration in a Closed Course(s):

Academic departments set limits to the number of students that can be accommodated in each course section. During the open registration period, many course sections become filled. These classes are called "Full" or "Closed" in the schedule of classes, which means that no more students will be admitted to them. If a student has an extenuating need to register for a closed course, the student should appeal to the chair of the academic department for the course; the department is the only authority that may permit a student to enter a closed course or reopen a closed course.

Undergraduate Student Cancellation of Registration:

A student's registration may be cancelled and withdrawn or administratively changed for any of the following reasons and are notified of the cancellation via email and/or letter:

1. Academic suspension from the previous term
2. Conditional Admission or Strong Start program dismissal
3. Disciplinary action via Student Conduct
4. Failure to meet admission or course prerequisite requirements
5. Registering for more hours than permitted
6. Failure to satisfy past-due financial obligations to the university
7. Course section is cancelled (due to insufficient class enrollment)

CONTACT FOR QUESTIONS/CONCERNS

Office: Penguin Service Center

Location: Meshel Hall

Website: <https://ysu.edu/penguin-service-center> (<https://ysu.edu/penguin-service-center/>) and <https://ysu.edu/registrars-office> (<https://ysu.edu/registrars-office/>)

Degrees, Majors, and Minors

Youngstown State University grants the following bachelor and associate degrees:

- Bachelor of Arts (BA)
- Bachelor of Engineering (BE)
- Bachelor of Fine Arts (BFA)
- Bachelor of General Studies (BGS)
- Bachelor of Music (BM)
- Bachelor of Science (BS)
- Bachelor of Science in Applied Science (BS in AS)
- Bachelor of Science in Business Administration (BS in BA)
- Bachelor of Science in Dental Hygiene (BSDH)
- Bachelor of Science in Education (BS in Ed)
- Bachelor of Science in Nursing (BSN)
- Bachelor of Science in Respiratory Care (BSRC)
- Bachelor of Social Work (BSW)
- Associate of Arts (AA)
- Associate of Applied Business (AAB)
- Associate of Applied Science (AAS)
- Associate of Individualized Studies (AIS)

All bachelor's and associate degrees may be taken as honors degrees. An integrated BaccMed program is offered in conjunction with the Northeast Ohio Medical University and Lake Erie College of Osteopathic Medicine Educational System.

Majors

DECLARING OR CHANGING A MAJOR/DEGREE

A student may enter the university as an undetermined/exploratory major.

A major and minor (if required) must be declared by the time the student has completed 63 semester hours.

In order to change or declare a major or degree, the student must fill out the Intra-University Transfer Request form in the department of the desired major. The approved form will be forwarded to Records Services. Requests for change of major received by Records Services on or before the 14th day of the full term will be processed for the current semester. Requests received by Records Services after the 14th day of the full term will be effective for the subsequent semester.

Students enrolled in an associate degree program must earn 24 credit hours at YSU and be in good academic standing (or meet the program requirements) in order to transition into a bachelor's degree.

Students who need help selecting a major should contact an academic advisor, the academic department, or the Office of Career Exploration and Development for assistance with academic and career planning. See majors in Graduation Requirements (p. 25) for additional information.

ADDITIONAL MAJORS AND DEGREES

A student interested in pursuing more than one major or degree at a time should contact the departments offering majors to be assigned an advisor for each program. Multiple majors or degrees may be awarded concurrently. Students earning both an Associate degree and a Bachelor's degree concurrently will have the Bachelor level degree listed as their primary degree and the Associate degree listed as secondary. This designation will be reflected on the student's record.

MULTIPLE MAJORS/SINGLE DEGREE

A degree – e.g. Bachelor of Science, Bachelor of Arts – may be awarded only once. However, more than one major for the degree may be posted on the

transcript when the appropriate department chairpersons certify completion of the requirements. The student should indicate in each of the appropriate colleges each major completed when filing for graduation. When the student completes more than one major in a given degree, one diploma is awarded. A minimum of 30 semester hours or 50% of the credits counted towards a major, whichever is less, must be specific to that major and not shared by any other major.

MULTIPLE MAJORS/MULTIPLE DEGREES

If a student wishes to complete the requirements for multiple majors that are awarded under different degrees, the student must fulfill all requirements for each major and each degree. The appropriate chairpersons and deans must then certify completion of the requirements for each major and degree. The student must file intent to graduate and graduation application forms for each major and each degree in the appropriate colleges. A minimum of 30 semester hours or 50% of the credits counted towards a major, whichever is less, must be specific to that major and not shared by any other major.

Students may not earn the Bachelor of General Studies concurrently with another bachelor's degree. Students who hold a bachelor's degree are not eligible for a Bachelor of General Studies degree.

Any student who has received a degree from another institution and desires a second degree from YSU must complete a minimum academic residency of 20 semester hours for an associate degree and 30 semester hours for a baccalaureate degree, meet all requirements for the second degree, and complete the requirements for a new major. Students coming from another university or from YSU with an already-completed bachelor's degree will not have to complete any additional general education requirements at YSU but will have to satisfy the residency requirements described above.

Individualized Curriculum Program

The student whose needs are not met by existing conventional programs may wish to investigate and apply for the Individualized Curriculum Program (ICP (<http://www.ysu.edu/academics/college-liberal-arts-social-sciences/individualized-curriculum-program/>)). This option requires a student to design the curriculum suited to his or her particular background and needs, allowing alternative paths for reaching the currently offered undergraduate degrees.

A student admitted to the program will have the help of a committee of faculty advisors selected by the student. This committee will help to develop a program that will serve a valid educational goal not attainable within the regular curricular structure of the university. To receive approval, the overall program needs to be of a scope and intensity comparable to conventional programs leading to the degree being sought.

Students wishing to develop an individualized curriculum must meet the following requirements:

1. Sophomore standing 32 s.h. completed (for baccalaureate degree)
2. GPA of at least 2.50
3. Students pursuing a baccalaureate degree must have at least 30 s.h. to complete once the program has been approved. Students pursuing an associate degree must have at least 20 s.h. remaining upon approval.

Minors

DECLARING OR CHANGING A MINOR

A minor is an intellectual venture that broadens and deepens the student's intellectual growth.

A minor consists of at least 12 hours but not more than 19 hours of an approved, published set of courses. (A minimum of 12 s.h. in a discipline with at least 6 s.h. at 3700-level or above)

Each student must complete a minor, unless the student has a combined major or is enrolled in a professional or technical curriculum that does not require a delineated minor. Check with academic advisor for specific

information. See Minors at Graduation Requirements (p. 25) for more information.

In order to change or declare a minor, the student must fill out the Intra-University Transfer Request form in the department of the desired minor. The approved form will be forwarded to Records Services.

Contact for Questions/Concerns

Office: Advisement Office (in which your major lies)

Location: Academic College (in which your major lies)

Grading Method and Procedures

Grading System

Faculty assign grades on the basis of achievement in the subject matter of the course and in accordance with accepted professional standards for that subject. The grade earned by a student thus represents the quality of work and is not based merely on competition within the class.

- The grade of **A** represents exceptional work in which the student shows that the students have firmly grasped and achieved the objectives of the course.
- The grade of **B** indicates very good work and considerable grasp of the essentials of the course.
- The grade of **C** indicates good work and a usable grasp of the essentials of the course.
- The grade of **D** indicates a definite, but not necessarily coherent, knowledge of the course.
- The grade of **F** indicates that the student has not achieved even a minimum grasp of the essentials of the course. This grade can also result from failure to withdraw officially from a course (see Change of Registration (p. 18) and Refund of Fees Upon Withdrawal (p. 83)) (p. 68).

Grade of Incomplete (I)

An incomplete grade of "I" may be given to a student who has been doing satisfactory work in a course but, for reasons beyond the control of the student and deemed justifiable by the instructor, had not completed all requirements for a course when grades were submitted. A letter grade may not be changed to an "I" after the term has ended and grades have been recorded. A written explanation of the reason for the "I" must be forwarded by the instructor to the Office of Records. This explanation will be included in the student's permanent record, with copies to the student and department chairperson. For fall term courses, the final date to complete an "I" will be March 1 of the following term; for the spring term courses, September 1; for all summer term courses, October 1. With approval by the instructor and the dean of the college in which the course is taught, the completion date may be extended. Courses not completed by the appropriate date will be converted to an "F."

Students should not register for the same course the subsequent term. Rather, the student should work individually with the instructor to fulfill the course requirements. The instructor will initiate a grade change upon completion of the course requirements. If no formal grade change occurs within the allotted time frame, the I automatically converts to an "F." Any I that is still pending by graduation will be converted to an "F."

If a student receives an "I" as a result of being summoned to active military duty, the student will have one academic year from the date when he or she is released from active duty to complete the course requirements and have the change of grade recorded. It is the student's responsibility to inform the registrar or associate director of records regarding the Incomplete grade.

Department chairs are granted authority to convert grades of "I" into final grades in cases where instructors may have severed connections with the university or have been otherwise unable to convert the grades.

Grade of Progress (PR)

A progress grade, "PR," is given in certain approved courses to indicate that work is still in progress on a project that occupies more than one semester. This grade is changed to a final letter grade at the end of the term in which the work is completed.

The "PR" grade may also be given at the end of a term in courses specifically identified as competency-based¹ to indicate that the student needs more time to demonstrate a mastery of the subject matter. In such instances, the "PR" grade will be converted to a letter grade by the instructor no later than the end of the subsequent term, excluding the summer. A "PR" grade not changed by this time is automatically converted to an "F" grade.

Grade of Withdrawal (W)

"W" represents a withdrawal properly processed within the period established for each semester. A grade of "W" shall appear on a student's academic record for any course withdrawal(s) processed after the 14th day of the fall or spring semester through the 60% period of the semester. For summer semester courses, a grade of "W" shall appear on a student's academic record for any course withdrawal(s) processed after the 7th day of a session through the 60% period of the session. For courses involving foreign travel, the last day to drop a course with a "W" shall be the date at which the student first leaves the campus to begin the travel. Withdrawal after the designated date (or an improper withdrawal) is recorded as "F." Withdrawal thereafter (or improperly done, at any time) is recorded as "F."

Petitions for Late Withdrawal must be submitted within one year from the time a grade in the course was earned. If the grade resulted from circumstances over which the student had no control, the student may petition the appropriate dean for a late withdrawal. If the Late Withdrawal is approved, only courses with a grade of "F" will be changed to a grade of "W". A Petition for Late Withdrawal and the Repetition Form cannot be used for the same course. In other words, Petition for a Late Withdrawal cannot be processed for any course that was repeated and a recalculation of point average processed and posted on the student's academic record. Approved late withdrawals are recorded as "W."

The Point Average and Scholastic Standing

The student's scholastic standing is indicated by the quality point average (also called "grade point average," "grade average," or "point average").

For determining this average, every grade has a quality point value for each semester hour it represents, as follows:

- **A**, four quality points
- **B**, three points
- **C**, two points
- **D**, one point
- **F**, zero points

For example, an **A** in a three-hour course is worth 12 quality points; a **D** in a four-hour course, four points; and an **F** in any course, zero points. To find the point average, the total number of quality points earned is divided by the total GPA hours. Thus, a student who earns 16 hours and 40 quality points has a point index of 2.50. Only grades of A, B, C, D, and F are included in the calculation of the point average.

Grading Options

CHANGING OF GRADING OPTIONS

You may change your grading option only through the last day to add a class.

Traditional Grade/No CREDIT (A,B,C/No Credit)

To receive credit for courses offered on a traditional grade/no credit basis, a student must earn a grade of "C" or better. If the student fails to do so, an "NC" is entered on the student's transcript.

An "**NC**" does not fulfill the requirements for satisfactory completion of the course; it does not affect the grade point average.

Audit (AU)

The "**AU**" grade indicates a student has registered for a course on an audit basis and has met the audit attendance requirement established by the instructor. Failure to meet the attendance requirement results in a grade of "**AU (W)**."

Students must indicate their election of the audit grading option at the time of registration or within the time limits established for adding a class. The audit option will not be changed to the standard grading option beyond the last day to add a class.

A student may audit any course. The student pays the full tuition, as well as any other applicable fee, for the course(s) audited. Audited courses are carried in a student's load only for fee purposes. A student receiving financial aid should confer with the Office of Financial Aid and Scholarships before electing to audit a course.

A student may not change registration from audit to credit status or from credit to audit status after the last day to add a class.

Credit/No-Credit (CR/NC)

Credit/no-credit grades are given in some specific courses as approved by the Academic Senate. Such courses are identified in the course descriptions.

Credit/No-Credit (CR/NC) (Student Option)

To encourage students to experiment with courses outside their major field of concentration, a credit/no-credit policy exists within the following guidelines.

- Youngstown State University students who have completed at least 15 semester hours of credit and have a grade point average of 2.00 or better, or transfer students admitted unconditionally who have at least 30 semester hours of transfer credit, may elect to take a course for credit/no-credit.
- The grade recorded for the student is not a letter grade, but either "**CR**" (credit) or "**NC**" (no-credit). If a student who has opted for CR/NC earns an A, B, or C in the class, the grade officially assigned is CR; otherwise it is NC. In either case, the grade point average is not affected.
- This option may be elected for a maximum of twelve (12) semester hours for the baccalaureate degree or six (6) semester hours for the associate degree. Courses offered only under the **CR/NC** option (by department designation) *do not* count as a student-elected credit/no credit class. Students are restricted to taking one CR/NC course per fall and spring semester and one CR/NC course per non-overlapping summer term.
- **Courses taken under the CR/NC option may not be counted toward a student's major or minor.** Students should confer with their advisors prior to electing the CR/NC option.
- Students must indicate their election of the CR/NC option at the time of registration or within the time limits established for adding classes. **The CR/NC option will not be changed to the standard grading option beyond the last day to add a class.**

Grade Reports

Final grades are available through the Penguin Portal.

Grade Changes

A request for a grade change must be made to the course instructor.

Applications for grade changes must be signed by the instructor, department chair, and dean. All grade changes must be submitted by the dean or the instructor to the Office of Records; they will not be accepted from the student.

After a degree has been conferred, in no case may a grade change be made for a course or courses taken while pursuing that degree.

A student's academic record contains a complete history of his or her academic performance while earning a degree. Therefore, the academic record

of a student who graduates may not be revised using a *Grade Change Form*, *Recalculation Form*, *Petition for a Late Withdrawal*, or *Academic Reassessment*.

In the case of a student who has completed an associate degree, the above policy may, on occasion, be waived, but only if the student is currently pursuing a baccalaureate degree. However, changes cannot be made in a student's record which would affect the status of the awarded associate degree. Waivers must be approved by the appropriate dean.

Credit by Examination-Departmental

A currently enrolled student who can demonstrate ability and knowledge in a particular subject area may establish credit in certain courses without enrolling in them, by taking a special examination (through the appropriate department). An examination fee is assessed for each examination. The only grade possible is "CRX", and there is no effect on the student's grade point average. For the examination fee, see "Fees and Expenses". Information on courses for which credit by examination is possible may be obtained from the student's academic dean or the Office of Testing (<https://ysu.edu/testing-center/>). Registration for departmental tests is done through the specific department.

Course Repeat

A student may repeat a course once, unless otherwise stipulated in the course description or unless an additional repeat is authorized by the student's academic dean. If the course is a prerequisite to another course, the repeated course must be successfully completed before the other course is taken. If the student has received credit for a more advanced course in the same subject, a repeated course is treated merely as another course, along with the first, in calculating the point average, unless the student secures an approved repetition form for recalculation of point average from the dean of the college in which the student is enrolled. A course repeated, however, may be counted only once as credit toward a student's total academic hours for graduation.

Credit towards graduation will not be given for a course on the semester system if the student has credit for the equivalent course on the quarter system.

Recalculation of GPA

Current undergraduate students may improve their GPA by repeating a course and requesting a recalculation in which a grade of "D" or "F" was earned. In order to recalculate the GPA, the repetition must be consistent with the policy on course repeats, and the student must initiate the recalculation process with the approval of their advisor (or the dean, if it is a second repetition).

Only one recalculation for any course will be applied to the student's transcript record, which is the most advantageous for the student's GPA, regardless of the number of times the course was repeated. The course repeat policy limits the student to taking the course no more than three times. The two most recent attempts are taken into account when recalculating grades.

In order to properly document the repeated course that will be removed from the GPA, students must submit a Recalculation form to their advisor prior to graduation. Upon approval and processing the grade, GPA hours, and earned hours (if applicable) are removed from the GPA calculation and cumulative hours. The course and grade will be excluded from the GPA, but the letter grade will remain on the official transcript and noted with a "R" indicating the course has been repeated. The hours credited toward degree hours completed, are those earned with the passing grade.

Only courses taken at Youngstown State University may be used in recalculating the GPA. The original course and subsequent attempts must be completed at YSU. Transfer, study abroad, and/or transient courses are not eligible to be used as a repetition. Students who have been conferred a bachelor's degree cannot repeat a course for recalculation of the students' GPA. A student holding an associate degree may petition for a GPA recalculation only if currently pursuing a bachelor's degree at YSU. The

Recalculation form (formerly known as a Repetition form) and the Petition for a Late Withdrawal cannot be used for the same course.

All YSU grades, including grades of "D" or "F" deducted from the GPA as a result of an approved Recalculation form, will be counted in determining honors for graduation.

Academic Reassessment

Purpose: A student transferring to a new major before earning 60 credits has the option of requesting an Academic Reassessment. The student may request the deletion of up to 16 credits earned for courses required in the old major; these credits will be deducted from the total earned credits and will result in a recalculated cumulative GPA. No credits earned for a grade of "C" or higher may be deleted. These credits may only include courses required for the old major and for general education courses if also designated by the old major, but may not include courses only taken to fulfill general education requirements, requirements from the new major, or graduation requirements. The student must initiate the request through their Academic Advisor, and the request must be approved by the Department Chairperson of the new major.

Eligibility: The student must be changing their major and have earned less than 60 overall credit hours. Students changing their major to or from exploratory or undecided are not eligible.

Procedure: The student, in consultation with his/her academic advisor, shall identify the courses to be included in the reassessment. The student may request up to 16 credits be included in the reassessment. Only courses in which the student earned a "D" or "F" may be included in the reassessment. Only undergraduate courses taken prior to the change of major at YSU are eligible to be included in the GPA recalculation. The request must be approved by the Department Chairperson of the new major.

Exceptions/Explanations: The Academic Reassessment option may only be used one time. All GPA recalculations completed as a result of the Academic Reassessment Option are final and cannot be reversed. Any academic probations, suspensions or dismissals earned prior to the reassessment shall not be forgiven. The student's transcript reflects all courses taken, even if not computed in the GPA.

Excluding Older Grades (Academic Forgiveness)

A degree-seeking undergraduate student who re-enrolls at Youngstown State University after an absence of five or more calendar years may be eligible for academic forgiveness. At the time of the petition the student must be currently enrolled and have successfully completed at least 15 semester hours with a grade point average of no less than 2.00 following their return. An absence is defined as a period of time in which no enrollment activity (i.e. attempted or earned academic credit) is posted to a student's record.

*Students who return to YSU in Fall 2024 as transfer students from Eastern Gateway Community College are eligible for Academic Forgiveness after an absence of one year, after having completed one semester at YSU, with a minimum GPA of 2.0. All other academic forgiveness policies and procedures apply.

To request academic forgiveness an eligible student may petition the dean of his or her college to exclude from the calculation of the grade point average grades earned five or more calendar years before. If the petition is approved, all grades (not merely grades of D and F) earned during the specified quarter or semester and all previous grades (not merely grades of D and F) will then be removed from the calculation. However, all grades remain on the permanent record.

Excluded course credit will not count toward the total hours required for graduation. However, courses passed may fulfill general education requirements and may satisfy prerequisites for higher courses where applicable. Courses excluded may be taken again and repeated once without

infringing upon repeat privileges specified in catalog course descriptions. Courses excluded are not subject to credit by examination. *A student whose petition has been approved is ineligible for graduation honors.* Only one petition from each student may be approved and is irreversible once it is applied. A student who has earned a degree or certificate from YSU may not petition for academic forgiveness.

Absence from Classes and Examinations

The problem of excessive class absence concerns instructor and student, and consequently requires their mutual effort. All students must realize that for their own welfare, they are expected to attend all class meetings of courses in which they are enrolled.

The instructor, however, has the prerogative of determining the relationship between class attendance, achievement, and course grades, and the responsibility for communicating the relationship to the students at the beginning of each term.

A student must have the instructor's consent in order to take any examination at a time other than that scheduled.

The faculty believes that classroom activities are essential to learning. The student is responsible for knowing and meeting all course requirements, including tests, assignments, and class participation, as indicated by the course instructor.

The responsibility for work missed during absence rests with the student. The instructor has no obligation to give make-up graded coursework or to review other class work missed by a student as a result of absence except under those specific conditions cited below:

- Participation in University-sponsored activities. University-sponsored activities are those that are scheduled by academic, student affairs, and athletic units. They include, but are not limited to: intercollegiate athletic competitions activities approved by academic units, including artistic performances; R.O.T.C. functions; academic field trips; professional conferences; and special events connected with coursework.
- Government-required activities, such as military assignments, jury duty, or court appearances.
- Religious observances that prevent the student from attending class.
- Death of an immediate family member, including father, mother, sister, brother, spouse, children, step-children, step-parent, parent-in-laws, sons-in-law, daughters-in-law, brothers-in-law, sisters-in-law, grandparents, foster parents, foster children, legal guardians, any person who stands in the place of a parent (loco parentis), or a domestic partner.
- Documented personal illness.

Procedure

The following guidelines describe procedures for students, sponsors of appropriate activities, and instructors.

Students shall:

- Provide all scheduled activity dates to their instructors at the start of the semester. For unforeseen absences, notify the instructor as early as possible in the semester of the upcoming activity.
- In the case of a University-sponsored event, provide the sponsor of the activity with a list of classes that conflict with the proposed activity.
- In the event the absence was due to illness or injury, verification from a health center or medical professional should be presented to the instructor. If the illness was not severe enough to warrant a medical visit, instructors should use their best judgment in determining if it should be excused.
- Be responsible for all material covered in class during their absence. Students are responsible for completing any work resulting from their absence. In no case is an excuse from class to be interpreted as a release from class responsibility.

- Out of courtesy, remind the instructor of the absence approximately one week prior to the absence.

Sponsors of University-sponsored activities shall:

- Provide each participating student with a signed letter for each of the student's affected classes to be given to their instructors, including time, date, and location of the event. This letter should be provided at the beginning of the semester, or as early as possible in the semester.
- Address any concerns a faculty member might have related to the scheduled activity.

Instructors shall:

- Inform the student about graded coursework that will be or was missed.
- Determine an alternative due date for graded coursework missed.

Religious Accommodations of Students

Youngstown State University instructors will provide students with reasonable alternative accommodations with regard to examinations and other academic requirements missed due to an absence described in the Religious Accommodations of Students policy 3356-8-09 (https://ysu.edu/sites/default/files/general_counsel/3356-8-09%20Religious%20accommodations%20of%20students.docx) if the student's sincerely held religious belief or practice severely affects the student's ability to take an examination or meet an academic requirement.

To request an accommodation, no later than fourteen calendar days after the first day of instruction in a course, a student is required to provide the instructor with written notice of the specific dates for which the student requests alternative accommodations. If you have any questions about the policy, contact the Dean of Students, Dr. Nicole Kent-Strollo, at nkentstrollo@ysu.edu or 330.941.4721.

If you have a complaint about the implementation of this policy, you may submit an academic complaint electronically by visiting the Dean of Students' website and selecting Student Complaint System, or you may contact Dana Lantz, Executive Director of Equal Opportunity at dclantz@ysu.edu or (330) 941-4629. Complaints will be addressed pursuant to the [Guidelines for Initiating and Investigating Complaints](#) on the Youngstown State University Office of Equal Opportunity, Policy Development and Title IX webpage.

CONTACT FOR QUESTIONS/CONCERNS

Office: Office of the Registrar

Location: Meshel Hall

Website: <https://ysu.edu/registrars-office/grades> (<https://ysu.edu/registrars-office/grades/>)

Graduation Requirements

Catalog of Entry

The *Undergraduate Catalog* in effect when a student first enrolls at the university or any one subsequent catalog will be the guide to graduation requirements, provided the student is in continuous attendance and does not change majors.

When a student changes majors, the guide to graduation requirements will be the catalog in effect at the time of change or any one subsequent catalog. Exceptions to this rule include the requirements for the minor and general education requirements. Unless the minor is specified by the new major, a student who has been in continuous enrollment and changes majors can fulfill the requirements for a minor by using the criteria in effect in either the catalog of entry or the catalog in effect at the time of the change in major. See the section on General Education Requirements (<https://catalog.ysu.edu/undergraduate/colleges-programs/academic-initiatives/general-education-requirements/>) for the relevant policy on general education.

Readmitted students will use the catalog in effect at their last readmission or any one subsequent catalog as the guide to graduation requirements. Any exceptions to requirements must be approved by the student's department chair and/or college dean. The university reserves the right to change course offerings, academic programs, and academic requirements.

Candidacy for a Degree

Youngstown State University confers degrees and certificates three (3) times a year:

May for Spring graduates

August for Summer graduates

December for Fall graduates

Please refer to the academic calendar for specific conferral dates.

To be eligible for candidacy for any degree, students must fulfill the following four requirements:

Application

You must file a Request for a Senior Sheet (Graduation Evaluation) with the dean of your college after the completion of 40 semester hours for the associate and 100 semester hours for the baccalaureate degree.

An online Application for Graduation form must be filed by the deadline indicated in the University Academic Calendar. The application is available on the student's YSU Penguin Portal. If a student fails to carry out the proper application procedures by the published deadlines, the degree will not be granted. Instead, the student must complete a graduation application and have the degree conferred for the next term.

If the student does not graduate for the term which the original application has been filed, the student must reapply by the published deadlines. The student must fulfill the University-wide, college, degree, and departmental requirements as well as the minimum credit hours.

Residency

*Overall Residency: The last 20 semester hours leading to an associate degree and the last 30 semester hours leading to a baccalaureate degree must be completed at Youngstown State University. (In the pre-forestry, pre-law, and pre-medical curricula, however, which allow the student to earn final credit hours in absentia, the last 30 semester hours prior to the period of absence must be spent at Youngstown State University.)

*Major/concentration Residency: A minimum of 16 semester hours in the concentration area for the associate degree, and a minimum of 16 hours of credits in the major in the baccalaureate degree, must be earned in residence.

Upper Division Residency: A minimum of 21 semester hours of upper-division credit for the baccalaureate degree must be earned in residence.

Exceptions: Any exceptions to residency must be approved by the Office of Academic Affairs. Additional requirements may be specified by individual colleges.

*For students transferring from Eastern Gateway Community College (EGCC) to Youngstown State University (YSU) in Summer 2024 or Fall 2024 semester, the minimum residency requirements for overall credit hours and major/concentration hours will be waived for Associate degrees. This waiver allows these students to complete their degree programs at YSU.

Prerequisites

No student may receive credit towards graduation for a course that is a prerequisite for a more advanced course which the student has already successfully completed, unless an exception to this policy is recommended by the appropriate chair and approved in writing by the student's academic college dean.

Grades

The cumulative point average must be at least 2.00 (see The Point Average and Scholastic Standing (p. 22)) at the time candidacy is approved and at the time the degree is granted.

Additional requirements for the baccalaureate and associate degree appear below.

Baccalaureate Degree

A *minimum* of 120 semester hours must be successfully completed to earn a bachelor's degree. In addition to requirements stated under Candidacy for a Degree, the following requirements must also be fulfilled for a baccalaureate degree:

Course Levels

At least 60 semester hours must be completed in courses numbered 2600 or higher; at least 39 of these 60 hours must be in courses numbered 3700 or higher. (Updated 12/5/2019)

Majors

Each student must complete a major. A department major consists of at least 30 semester hours of an approved set of courses. A combined major, in which courses are given by more than one department, consists of at least 42 semester hours. At least two disciplines must be represented in a combined major with the core discipline having the majority and at least 12 s.h. coming from outside of the core (these 12 s.h. may be spread over multiple disciplines, but at least 6 s.h. must be at the 3700-level or above). All grades in the major must be "C" or better.

Each department determines the course requirements for its own major or majors. Responsibility for certifying that a student has completed a major rests with the chairperson of the major department. The student may be required to do more than the minimum stated in the preceding paragraph.

As soon as a student has decided on a major, he or she should consult with the department chair of the major department. A major must be declared by the time a student has achieved junior standing. Early consultation with the department chair is strongly recommended, since in some departments the student must begin coursework related to the major during the freshman year or risk a delay in graduation. (Updated per 3/4/2020 Academic Senate resolution.)

Minors

A minor is an intellectual venture that broadens and deepens the student's intellectual growth. An intellectual framework and coherence are evident in the scope and sequence of the minor course of study. A minor is intended to contrast with or deepen the major or General Education and is to be taken in a discipline other than that of the major. In approved interdisciplinary minors, courses from the student's major discipline can be counted in the minor provided that the same courses are not counted toward the major. Each student must complete a minor, unless the student has a combined major or is enrolled in a professional or technical curriculum that does not require a delineated minor. Check with an academic advisor for specific information.

A minor consists of at least 12 hours (but not more than 19 hours) of an approved, published set of courses as listed in the *Undergraduate Catalog*. All grades in the minor must be "C" or better. Courses taken under the Credit/No Credit option may not be counted toward the minor. Upper-division courses must comprise at least 6 s.h. in the minor. Each department develops the specific pattern or sequence of courses for any minor(s) it offers. However, the department in which the student receives the major is responsible for certifying that a student has completed a minor. Certification will be guided by the description of minors published in the *Undergraduate Catalog*. Students should declare a minor prior to their junior year.

Courses which fulfill requirements of both a major and a minor may be counted toward the completion of both the major and the minor, up to but not to exceed one-third of the total course hours of the minor. Autonomy to approve

courses rests solely within the department of the minor for each course that is to be considered for both the major and the minor. Formal approval will be conducted by chairpersons upon consultation with expert faculty within their department. (Updated 4/7/2021)

An individualized minor may be developed and approved through the Individualized Curriculum Process (<https://ysu.edu/academics/beeghly-college-liberal-arts-social-sciences-education/individualized-curriculum-program/>) (ICP). Transfer students may also use the ICP process for approval of a minor course of study. An official minor is designated on the student's transcript at the time the degree is awarded. In instances when extenuating circumstances are present, students who have taken courses that meet the guidelines of a minor (a minimum of 12 s.h. in a discipline with at least 6 s.h. at 3700-level or above) but do not have the designated courses of the official minor may declare an unofficial minor to meet graduation requirements. Only courses that are part of the major curriculum (from the discipline being used for the unofficial minor) can count toward an unofficial minor. This minor must be agreed to by the chairperson of the major department.

For a list of minors and their requirements see Minors List (<https://ysu.edu/academics/>).

Associate Degree

A *minimum* of 60 semester hours must be successfully completed in order to earn an associate degree. Students in associate degree programs must follow the general education requirements as stated by the Undergraduate catalog. All grades in the major must be "C" or better. Students should check with their departments to see if certain general education courses are mandated by their program.

Certificates

A certificate identifies a concentration of study in an academic area. There are a limited number of academic areas where certificates are available, and students should consult the program descriptions for this information. All grades for the certificate must be "C" or better.

Commencement

Graduation ceremonies (commencement) occur twice a year. Fall commencement is held in December, and spring commencement is held in May. Students who graduate in summer are invited to participate in either spring or fall commencement activities.

Participation in the commencement ceremony does not indicate the completion of degree requirements. The transcript is the official academic record and will indicate any degrees that have been conferred.

CONTACT FOR QUESTIONS/CONCERNS

Office: Advisement Office (in which your major lies)
Location: Academic College (in which your major lies)

Notification of Rights Under FERPA

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. They are:

1. *The right to inspect and review the student's education records within 45 days of the day the university receives a request for access.*
A student should submit to the registrar, dean, head of the academic department, or other appropriate official, a written request that identifies the record(s) the student wishes to inspect. The university official will make arrangements for access and notify the student of the time when and the place where the records may be inspected. If the records are not maintained by the university official to whom the request was submitted, such official shall advise the student of the correct official to whom the request should be addressed.

2. *The right to request the amendment of the student's education records that the student believes are inaccurate, misleading, or otherwise in violation of the student's privacy rights.*

A student should write the university official responsible for the record in question, clearly identifying the part of the record the student wants changed, and specifying why it is inaccurate, misleading, or otherwise in violation of the student's privacy rights.

If the University decides not to amend the record as requested by the student, the university will notify the student of the decision in writing and advise the student of their right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. *The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.*

Personally identifiable information is information that, if disclosed, would make a student's identity easily traceable, e.g., name, address or social security number. An exception which permits disclosure without consent is disclosure to university officials with legitimate educational interests. A university official is a person employed by Youngstown State University in an administrative, supervisory, academic, research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the university has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student or volunteer serving on an official committee, or assisting a university official in performing their tasks.

A university official has a legitimate educational interest if the official needs to review an education record in order to fulfill their professional responsibility for Youngstown State University.

Also, the requirement for consent does not apply to the following:

- Requests by officials of another institution where the student seeks to enroll or is already enrolled for purposes related to enrollment or transfer.
 - Requests in compliance with a lawful subpoena or judicial order.
 - Requests in connection with a student's application for or receipt of financial aid.
 - Requests by state authorities and agencies specifically exempted from the prior consent requirements by FERPA, conducting studies on behalf of the university, if such studies do not permit the personal identification of students to any persons other than to representatives of such organizations and if the personal identification data is destroyed when no longer needed.
 - Information submitted to accrediting organizations.
 - Requests by parents of a dependent student, when claimed by a parent on one's Federal Income Tax Return.
 - In the case of a health or safety emergency, the university may release information from education records to appropriate persons in connection with an emergency, if the knowledge of such information is necessary to protect the health or safety of a student or other persons.
 - To authorized federal officials who have need to audit and evaluate federally-supported programs.
 - The results of any disciplinary proceeding conducted by the university against an alleged perpetrator of a crime of violence or non-forcible sex offense to the alleged victim of that crime.
 - Disclosure to a parent of an underage student in violation of university policy governing the use or possession of alcohol or drugs.
4. *The right to prevent the university from disclosing any or all of the information about the student the university has designated as directory information.* FERPA permits the disclosure of directory information without the consent of the student. Directory information is information contained in a student education record which would not generally be considered harmful or an invasion of privacy if disclosed. Youngstown State University has designated the following types of information as directory information:

- name;
- address (local, home, and email);
- telephone listing (campus and home);
- enrollment status (e.g., full-time, part-time, withdrawn);
- field of study (including college of enrollment, major and campus);
- participation in officially recognized activities and sports;
- weight and height of members of athletic teams;
- dates of attendance and graduation;
- degrees, honors, and awards received;
- previous educational institutions or agencies attended; and
- photographic, video or electronic images of student.

Any student wishing to exercise this right must inform the Registrar in writing by submitting the *Student Privacy Hold* form. If no such written notification is submitted, the university will assume that a student does not object to the release of the directory information. A student's request for such non-disclosure will remain in effect until the student notifies, in writing, the Registrar otherwise.

5. *The right to file a complaint with the U.S. Department of Education concerning alleged failures by Youngstown State University to comply with the requirements of FERPA.*

The name and address of the office that administers FERPA is:

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, S.W.
Washington, D.C. 20202-5920

Sharing Academic Record Information with Others

A student may authorize a third party (i.e., a parent, guardian, spouse, etc.) access to academic record information. Education Information Release via Proxy (<https://ysu.edu/penguin-service-center/education-information-release-proxy/>) allows students to grant access for others to see and/or discuss academic grades/records, billing records, financial aid records, and other student information such as academic advising, housing information/action, student advocacy and support, and student conduct. Students have the ability to grant or restrict access to any or all of this information at any time. If parents/guests are granted access via Proxy, they will be notified via email with instructions on how to access student information; they will also be notified if their access has been removed. This online form is designed to give students specific control over the parties to whom protected academic record information may be released.

Filing a Complaint if FERPA Rights are Violated

If a student believes their rights have been violated under the Family Educational Rights and Privacy Act (FERPA), a complaint can be filed internally by completing a Student Complaint Form (https://cm.maxient.com/reportingform.php?YoungstownStateUniv&layout_id=2). The student also has the right to complete a complaint form through the U.S. Department of Education (<https://studentprivacy.ed.gov/file-a-complaint/>).

Contact for Questions/Concerns

Office: Office of the Registrar
Location: Meshel Hall
Website: <https://ysu.edu/registrar-office/ferpa> (<https://ysu.edu/registrar-office/ferpa/>)

Ohio Residency

Ohio student residency for state subsidy and tuition surcharge purposes

1. Intent and authority

- a. It is the intent of the chancellor of the Ohio Department of Higher Education in promulgating this rule to exclude from treatment as residents, as that term is applied here, those persons who are present in the state of Ohio primarily for the purpose of receiving the benefit of a state supported education.
- b. This rule is adopted pursuant to Chapter 119 of the Revised Code, and under the authority conferred upon the chancellor of the Ohio Department of Higher Education by section 3333.31 of the Revised Code.

2. Definitions

- a. "Resident" shall mean any person who maintains a twelve-month place or places of residence in Ohio, who is qualified as a resident to vote in Ohio and receive state public assistance, and who may be subjected to tax liability under section 5747.02 of the Revised Code, provided such person has not, within the time prescribed by this rule, declared themselves to be or allowed themselves to remain a resident of any other state or nation for any of these or other purposes.
- b. "Financial support" as used in this rule, shall not include grants, scholarships and awards from persons or entities which are not related to the recipient.
- c. An "institution of higher education" shall have the same meaning as "state institution of higher education" as that term is defined in section 3345.011 of the Revised Code, and shall also include private medical and dental colleges which receive direct subsidy from the state of Ohio.
- d. "Domicile" as used in this rule is a person's permanent place of abode, so long as the person has the legal ability under federal and state law to reside permanently at that abode. For the purpose of this rule, only one domicile may be maintained at a given time.
- e. "Dependent" shall mean a student who was claimed by at least one parent or guardian as a dependent on that person's internal revenue service tax filing for the previous tax year.
- f. "Residency Officer" means the person or persons at an institution of higher education that has the responsibility for determining residency of students under this rule.
- g. "Community Service Position" shall mean a position volunteering or working for:
 - i. VISTA, Americorps, City Year, the Peace Corps, or any similar program as determined by the chancellor of the Ohio Department of Higher Education; or
 - ii. An elected or appointed public official for a period of time not exceeding twenty-four consecutive months.

3. Residency for subsidy and tuition surcharge purposes.

The following persons shall be classified as residents of the state of Ohio for subsidy and tuition surcharge purposes:

- A student whose spouse - or a dependent student, at least one of whose parents or legal guardian - has been a resident of the state of Ohio for all other legal purposes for twelve consecutive months or more immediately preceding the enrollment of such student in an institution of higher education.
- A person who has been a resident of Ohio for the purpose of this rule for at least twelve consecutive months immediately preceding his or her enrollment in an institution of higher education and who is not receiving, and has not directly or indirectly received in the preceding twelve consecutive months, financial support from persons or entities who are not residents of Ohio for all other legal purposes.
- A dependent student of a parent or legal guardian, or the spouse of a person who, as of the first day of a term of enrollment, has accepted full-time, self-sustaining employment and established domicile in the state of Ohio for reasons other than gaining the benefit of favorable tuition rates. Documentation of full-time employment and domicile shall include both of the following documents:

- a. A sworn statement from the employer or the employer's representative on the letterhead of the employer or the employer's representative certifying that the parent, legal guardian or spouse of the student is employed full-time in Ohio.
- b. A copy of the lease under which the parent, legal guardian or spouse is the lessee and occupant of rented residential property in the state; a copy of the closing statement on residential real property located in Ohio of which the parent, legal guardian or spouse is the owner and occupant; or if the parent, legal guardian or spouse is not the lessee or owner of the residence in which he or she has established domicile, a letter from the owner of the residence certifying that the parent, legal guardian or spouse resides at that residence.

Additional criteria which may be considered in determining residency may include but are not limited to the following:

1. Criteria evidencing residency:
 - a. If a person is subject to tax liability under section 5747.02 of the Revised Code;
 - b. If a person qualifies to vote in Ohio;
 - c. If a person is eligible to receive Ohio public assistance;
 - d. If a person has an Ohio's driver's license and/or motor vehicle registration.
2. Criteria evidencing lack of residency
 - a. If a person is a resident of or intends to be a resident of another state or nation for the purpose of tax liability, voting, receipt of public assistance, or student loan benefits (if the student qualified for that loan program by being a resident of that state or nation);
 - b. If a person is a resident or intends to be a resident of another state or nation for any purpose other than tax liability, voting, or receipt of public assistance (see paragraph (D)(2)(a) of this rule).
 - c. For the purpose of determining residency for tuition surcharge purposes at Ohio's state-assisted colleges and universities, an individual's immigration status will not preclude an individual from obtaining resident status if that individual has the current legal status to remain permanently in the United States.

Exceptions to the general rule of residency for subsidy and tuition surcharge purposes:

1. A person who is living and is gainfully employed on a full-time or part-time and self-sustaining basis in Ohio and who is pursuing a part-time program of instruction at an institution of higher education shall be considered a resident of Ohio for these purposes.
2. A person who enters and currently remains upon active duty status in the United States military service while a resident of Ohio for all other legal purposes and his or her dependents shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile.
3. A person on active duty status in the United States military service who is stationed and resides in Ohio and his or her dependents shall be considered residents of Ohio for these purposes.
4. A veteran, veteran's spouse, or dependent of a veteran who meets both of the following conditions:
 - a. Served one or more years on active military duty and was honorably discharged, or received a medical discharge, or was killed while serving on active duty, and
 - b. Establishes domicile in Ohio as of the first day of the term of enrollment.
5. A person who is transferred by his employer beyond the territorial limits of the fifty states of the United States and the District of Columbia while a resident of Ohio for all other legal purposes and his or her dependents shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile as long as such person has fulfilled his or her tax liability to the state of Ohio for at least the tax year preceding enrollment.

6. A person who has been employed as a migrant worker in the state of Ohio and his or her dependents shall be considered a resident for these purposes provided such person has worked in Ohio at least four months during each of the three years preceding the proposed enrollment.
7. A person who was considered a resident under this rule at the time the person started a community service position as defined under this rule, and his or her spouse and dependents, shall be considered a resident of Ohio while in service and upon completion of service in the community service position.
8. A person who graduated from an Ohio high school, left the state, and returns to enroll in an Ohio public institution of higher education and establishes domicile in the state. (Forever Buckeye)
9. A person who withdrew from an Ohio high school, left the state and returned to enroll in an Ohio public institution of higher education--and has not received a high school diploma from a school in another state or country. If person, while a resident of Ohio, took a high school equivalency test and was awarded a GED (certificate of high school equivalence), they are eligible under Forever Buckeye.
10. A person who returns to the state of Ohio due to marital hardship, takes or has taken legal steps to end a marriage, and reestablishes financial dependence upon a parent or legal guardian (receives greater than fifty percent of his or her support from the parent or legal guardian), and his or her dependents shall be considered residents of Ohio.
11. A person who is a member of the Ohio National Guard and who is domiciled in Ohio, and his or her spouse and dependents, shall be considered residents of Ohio while the person is in Ohio national guard service.
12. A person who is eligible, or whose benefits have been exhausted or have expired, for benefits under the Post 9/11 Veterans Educational Assistance Act of 2008 or any prior federal act establishing veterans' education benefits, who has been honorably discharged or released from service, who, as of the first day of a term of enrollment, is domiciled in Ohio, and his or her spouse and dependents, shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile.
13. A person who is using federal veterans' educational assistance under the "Vocational Rehabilitation and Employment" program who has been honorably discharged or released from service, who, as of the first day of a term of enrollment, is domiciled in Ohio, and his or her spouse and dependents, shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile.

Documentation determined to be acceptable by the institution:

1. DD214 or other military document showing honorable discharge.
2. Documentation of domicile shall include a copy of the lease under which the person or spouse is the lessee and occupant of rented residential property in the state; a copy of the closing statement on residential real property located in Ohio of which the person or spouse is the owner and occupant; or if the person or spouse is not the lessee or owner of the residence in which he or she has established domicile, a letter from the owner of the residence certifying that the person or spouse resides at that residence.

Procedures

1. A dependent person classified as a resident of Ohio for these purposes under the provisions of paragraph (C)(1) of this rule and who is enrolled in an institution of higher education when his or her parents or legal guardian removes their residency from the state of Ohio shall continue to be considered a resident during continuous full-time enrollment and until his or her completion of any one academic degree program.
2. In considering residency, removal of the student or the student's parents or legal guardian from Ohio shall not, during a period of twelve months following such removal, constitute relinquishment of Ohio residency status otherwise established under paragraph (C)(1) or (C)(2) of this rule.

3. For students who qualify for residency status under paragraph (C)(3) of this rule, residency status is lost immediately if the employed person upon whom resident student status was based accepts employment and establishes domicile outside Ohio less than twelve months after accepting employment and establishing domicile in Ohio.

Reclassification

1. Any person once classified as a nonresident must apply to the institution he or she attends for reclassification as a resident of Ohio for these purposes if such person in fact wants to be reclassified as a resident. It is the student's responsibility to initiate contact. Should such person present clear and convincing proof that no part of his or her financial support is or in the preceding twelve consecutive months has been provided directly or indirectly by persons or entities who are not residents of Ohio for all other legal purposes, such person shall be reclassified as a resident. Evidentiary determinations under this rule shall be made by the institution which may require, among other things, the submission of documentation regarding the sources of a student's actual financial support.
2. Any reclassification of a person who was once classified as a nonresident for these purposes shall have prospective application only from the date of such reclassification.
3. Any institution of higher education charged with reporting student enrollment to the chancellor of the Ohio Department of Higher Education for state subsidy purposes and assessing the tuition surcharge shall provide individual students with a fair and adequate opportunity to present proof of his or her Ohio residency for purposes of this rule. Such an institution may require the submission of affidavits and other documentary evidence which it may deem necessary to a full and complete determination under this rule.

Contact for Questions/Concerns

Office: Office of Admissions

Location: Sweeney Hall

Website: <https://ysu.edu/admissions> (<https://ysu.edu/admissions/>)

Student Complaints and Appeals

Youngstown State University is committed to the continuous improvement of the services it provides to its students. On occasion, a student may have a complaint regarding the fairness or quality of service they received. Students are encouraged to share their concerns pursuant to this policy so that the university may address issues in a timely and professional manner.

If students experience a problem on campus, they are encouraged, but not required, to try resolving it by speaking directly with the staff, faculty member, or administrator with whom they have had an issue. If they prefer not to address the issue with the respective employee, or if the problem still continues, the following resources are provided to aid a student in coming to a resolution.

Academic-Related Complaints (Excluding Grade Appeals)

Academic-related complaints are student complaints related to fulfillment of responsibilities or to services provided by departments within Academic Affairs, including but not limited to academic colleges, academic departments, Student Success, Diversity, Equity and Inclusion, Distance Education, Maag Library, Mathematics Achievement Center, Reading and Study Skills, Dean of Students, Research Studies, Institute for Teaching & Learning, Student Counseling Services, and Writing Center.

Students can submit a complaint using the Student Complaint Form. YSU will keep student information confidential to the fullest extent of the law. Students who desire to make an anonymous complaint are encouraged to use YSU's ethics reporting process, which is hosted by a third party and can maintain students' anonymity.

Academic-Related Complaints with Grade Appeals

Student complaints concerning academic matters related to the following must follow procedures outlined in the Student Academic Grievance Procedure (<http://sga.yzu.edu/wp-content/uploads/2017/10/Grievance-Panel-Procedure-072917.pdf>).

- Material deviation from the instructor's policy on sanctions for academic dishonesty, as indicated on the course syllabus, to the detriment of the individual student, or in disputed cases of academic dishonesty.
- Material deviation of faculty contractual obligations as specified in the article on Teaching Rights and Responsibilities in the Faculty Collective Bargaining Agreement, to the detriment of the individual student or the entire class.
- Material deviation from the grading scale or weight distribution indicated on the course syllabus by the faculty member, to the detriment of the individual student or the entire class.

Discrimination, Harassment, or Retaliation

Faculty, staff, students, or others who experience discrimination, harassment or retaliation have several options for reporting such concerns. Inappropriate student behavior may be reported to either the Office of Community Standards & Student Conduct (<https://ysu.edu/dean-of-students/student-conduct/>) (any such behavior), or the Title IX office (<https://ysu.edu/title-ix/>) (behavior based on sex or gender, such as sexual harassment, sexual assault, stalking, etc.). Inappropriate behavior by faculty, staff, or others should be reported to the Office of Equal Opportunity, Policy Development, and Title IX or Human Resources. If the reporting party feels they are in danger, they should also contact YSU Police Dept (<https://ysu.edu/ysu-police/>).

Non-Academic Complaints

A non-academic complaint is a student complaint related to the services and responsibilities provided by the departments and divisions listed below:

Finance & Business Operations

- Budget Planning & Treasury Operations
- Bursar's Office
- Controller's Office
- Enterprise Risk Management (ERM)
- Facilities Maintenance & Support Services
- Information Technology Services
- Internal Audit
- YSU Police Department

Legal Affairs/Human Resources

- General Counsel
- Human Resources

Student Affairs, Institutional Effectiveness and Board Professional

- Institutional Research & Analytics
- International Programs Office
- Registration & Records

- Student Enrollment and Business Services
- Student Experience
- University Relations

These, as well as concerns not listed here, can be reported using the electronic Student Complaint Form (https://cm.maxient.com/reportingform.php?YoungstownStateUniv&layout_id=2). The university will keep student information confidential to the fullest extent of the law. Students who would like to make an anonymous complaint are encouraged to use YSU's [ethics reporting process](https://secure.ethicspoint.com/domain/media/en/gui/49559/) (<https://secure.ethicspoint.com/domain/media/en/gui/49559/>), which is hosted by a third party and can maintain student anonymity.

Complaints to External Agencies

Student Complaints to the Ohio Department of Higher Education

The Ohio Department of Higher Education (ODHE) (<https://higher.ed.ohio.gov/>) is responsible for responding to formal complaints against public, independent non-profit and proprietary institutions of higher education in Ohio. Although the ODHE has limited authority over colleges and universities and cannot offer legal advice or initiate civil court cases, the Chancellor's staff will review submitted complaints and work with student complainants and institutions.

Complaints not under the Chancellor's jurisdiction:

- Complaints filed more than two years after the incident
- Grade disputes
- Student conduct violations
- Criminal misconduct
- Violations of federal law

If a student is unable to resolve a complaint through YSU's established complaint process, and they would like to elevate their concern, an online complaint form (<https://www.ohiohighered.org/students/complaints/>) is available on the ODHE website.

Student Complaints to the Pennsylvania Department of Education

For additional information, contact:

Pennsylvania Department of Education

Bureau of Postsecondary and Adult Education

333 Market Street, 12th Floor
Harrisburg, PA 17126-0333

If a student is unable to resolve a complaint through YSU's established complaint process, and they would like to elevate their concern, a complaint form (<https://www.education.pa.gov/Educators/Misconduct/Pages/File-A-Complaint.aspx>) is available on the Pennsylvania Department of Education (<https://www.education.pa.gov/Pages/default.aspx>).

Student Resources:

Office of the Dean of Students (<https://ysu.edu/student-affairs/dean-of-students/>)

In support of YSU's commitment to "place students at its center" the Office of the Dean of Students provides support, education, guidance, and advocacy to students by addressing extenuating situations and concerns that may impede their success, all while maintaining campus safety and fostering a culture of civility, character, and respect.

Student Government Association (<http://sga.ysu.edu/>)

The Student Government Association (SGA) serves as a sounding board for students' concerns and complaints regarding the university experience.

Additionally, SGA assists students the proper procedures regarding filing academic grievances and participating in grievance-related hearings. For more information, visit SGA website (<http://sga.ysu.edu/>).

Contact for Questions/Concerns

Office: Dean of Students

Location: DeBartolo Hall Room 301

Website: <https://ysu.edu/dean-of-students> (<https://ysu.edu/dean-of-students/>)

Student Record Information and Transcripts

Changing Student Demographic Information

Students may formally change certain personal information on their record with supporting documentation. The following demographic information may be changed:

- Address: Students may change their permanent address and add a mailing address different than permanent.
- Name: Students may change their first, middle or last name with a valid State or Federal issued photo ID and legal documentation supporting the change(s).
- Preferred Name: Students may add a preferred first name to their account that will appear in place of their legal first name on the Penguin Portal, Blackboard and Early Alert. The student's legal name will appear on the academic transcript and diploma.
- Gender

Students are able to edit some personal information through Self-Service Banner (the Penguin Portal) such as preferred first name, address, and telephone number. Areas such as name, date of birth, marital status, legal sex, and YSU student email address cannot be edited by students through Self-Service Banner. To change any of these areas, students should contact the Penguin Service Center at 330-941-6000 or onestop@ysu.edu for assistance.

If a typographical error has occurred in the student's name, social security number, or date of birth due to incorrect information submitted during the time of application, a copy of an original document must be provided verifying the correct information. Documents that can be provided include, for example, birth certificates, passports, social security cards, driver's licenses, or other documents issued by federal, state, or local government agencies.

Transcripts

The official transcript is a record of all coursework taken at Youngstown State University. A student's academic record contains a complete history of the student's academic performance. The transcript (grades and other notations) is finalized when a degree is officially posted to the permanent academic record. Therefore, the academic record of a student who graduates may not be

revised using a *Grade Change Form*, *Repetition/Recalculation Form*, *Petition for a Late Withdrawal*, *Academic Reassessment form*, *Academic Forgiveness form*, etc.

The files maintained by the Office of Student Conduct are separate from transcripts, which are maintained by the University Registrar. If a student is expelled from the university due to a violation of *The Student Code of Conduct*, the expulsion is noted on the student's official transcript indefinitely and cannot be removed. Students who have been suspended due to misconduct and request an official transcript during the time period of their suspension may have an addendum added to their transcript at the discretion of the Office of Student Conduct. This addendum will be removed once the period of suspension elapses.

Students are advised that most graduate/professional schools and many employers accept transcripts only if sent directly by the university. Current and former students, as well as alumni, can request an official transcript for academic work completed at Youngstown State University. Please be aware that only the student may request an official transcript. Photo identification is required if ordering a transcript in person. Transcripts will be released only for those students who do not currently have a financial or administrative obligation to the university.

An official transcript will only verify Youngstown State University coursework.

Transcripts may be ordered online at the YSU website (<http://cms.ysu.edu/administrative-offices/registrar/transcript-request/>) or in person.

For release of transcripts with administrative or financial holds, the originating office (Bursar's, etc.) must provide a written authorization to Records Services to release a transcript once it has been ordered.

Unofficial Transcripts

Current students may access and print their unofficial record from their Penguin Portal.

To access unofficial transcripts, former students who no longer have access to the Penguin Portal can view instructions here (<https://ysu.edu/registrar-office/request-transcript/>) or pick up in person at the Penguin Service Center, 2nd floor, Meshel Hall. Please bring photo ID. The unofficial transcript is a copy of the student's coursework on plain paper, and is not validated in any way.

CONTACT FOR QUESTIONS/CONCERNS

Office: Penguin Service Center

Location: Meshel Hall

Website: <https://ysu.edu/registrar-office/request-tr> (<https://ysu.edu/registrar-office/request-transcript/>)

Testing Faith Act

Youngstown State University instructors will provide students with reasonable alternative accommodations with regard to examinations and other academic requirements missed due to an absence described in the Religious Accommodations of Students policy 3356-8-09 (https://ysu.edu/sites/default/files/general_counsel/3356-8-09%20Religious%20accommodations%20of%20students.docx) if the student's sincerely held religious belief or practice severely affects the student's ability to take an examination or meet an academic requirement.

To request an accommodation, no later than fourteen calendar days after the first day of instruction in a course, a student is required to provide the instructor with written notice of the specific dates for which the student requests alternative accommodations. If you have any questions about the policy, contact the Dean of Students, Dr. Nicole Kent-Strollo at nkentstrollo@ysu.edu, (330) 941-4721 or in person at DeBartolo Hall Room 301.

If you have a complaint about the implementation of this policy, you may submit an academic complaint electronically by visiting the Dean of Students' website and selecting Student Complaint System, or you may contact Dana Lantz, Director of Equal Opportunity at dclantz@ysu.edu or (330) 941-4629. Complaints will be addressed pursuant to the Guidelines for Initiating and Investigating Complaints on the Youngstown State University Office of Equal Opportunity, Policy Development and Title IX webpage.

Contact for Questions/Concerns

Office: Dean of Students
Location: DeBartolo Hall Room 301
Website: <https://ysu.edu/dean-of-students> (<https://ysu.edu/dean-of-students/>)

Transient Student Authorization

Under certain circumstances, it may be appropriate for students to complete coursework at another accredited college or university while still enrolled at Youngstown State University. Current students who desire to take a course(s) from another institution must receive approval from the dean or the dean's designee for the college in which the student's major lies by submitting a "Transient Student Authorization" request. The request requires students to list the course or courses they wish to take at the other institution to be certain the coursework is applicable to their degree. If the form is completed after the course(s) is taken, applicability cannot be guaranteed; students are strongly encouraged to gain approval before completing coursework.

To receive credit for approved transient coursework, the student must:

- Receive a grade of "C" or better
- Attend Youngstown State University the semester following the completion of the transient term
- Submit an official transcript from the other institution to the YSU Office of Admissions.

CONTACT FOR QUESTIONS/CONCERNS

Office: Advisement Office (in which your major lies)
Location: Academic College (in which your major lies)

Voluntary and Involuntary Medical Leave/Withdrawal

Medical Leave/Withdrawal is available for all students (undergraduate and graduate level) with a documented physical or mental health-related condition of a serious nature that requires them to leave the University mid-semester, without completing their coursework. Students whose grades have been negatively affected due to a medical condition that occurred during a previous semester may qualify for a Retroactive Medical Withdrawal.

The intention of this policy is to allow students time to focus on their health. Therefore, students, in general, should intend to withdraw from all semester coursework. Those requesting withdrawal from less than their full course load (due to a medical reason), with appropriate rationale, will be considered on a case-by-case basis. If a student wishes to withdraw from any or all courses after the last day to withdraw with a grade of "W" (<https://ysu.edu/registrar-office/calendars/>) for non-medical reasons (i.e. job transfer, shift change imposed by the employer that creates a direct conflict with the class schedule, or death in the family), they must contact their academic advisor and obtain approval from the Dean of their College (<https://ysu.edu/provost/deans-associatedeans-divisionleaders/>) by submitting a Petition for Late Withdrawal.

If the reasoning for late withdrawal is due to military requirements, students should contact the Office of Veterans Affairs (<https://ysu.edu/veterans-affairs/>). Students seeking Retroactive Medical Withdrawal for previous semesters should understand that only grades of "F" are eligible for conversion to "W" grades.

Please Note: After two (2) consecutive semesters on Medical Leave, a student who does not take appropriate steps to return to the University will be deemed officially separated from the institution. Approved Medical Leave/Withdrawal **does not** guarantee students the ability to return to the University without approval from the Dean of Students (or designee). See "Returning from Medical Leave" for more information.

Medical Leave/Withdrawal is intended to assist students academically. It does not necessarily grant or guarantee a refund for tuition or fees, nor does it release students from other financial obligations, such as off-campus leases, etc. We strongly recommended contacting the Office of Financial Aid and Scholarships (<https://ysu.edu/financial-aid-and-scholarships/>) at ysufinaid@ysu.edu or 330-941-3505 and the University Bursar (<https://ysu.edu/university-bursar/>) at accounts@ysu.edu or 330-941-2343 to discuss how an approved Medical Leave/Withdrawal may impact you.

Students who have been found responsible for violation(s) of *The Student Code of Conduct* and expelled or suspended from the University are **not** eligible for Medical Leave/Withdrawal for the semester(s) in which the violation(s) occurred.

VOLUNTARY MEDICAL LEAVE/WITHDRAWAL PROCESS

Requests for Medical Leave/Withdrawal are processed by the Medical Withdrawal Review Committee and approved/denied by the Dean of Students (or designee). The Committee is comprised of the Director of Student Counseling Services, Associate Director for Accessibility Services, Associate Vice President for Student Experience, Assistant Dean of Students, and Dean of Students Case Manager(s). **Completed requests for Medical Leave/Withdrawal must be submitted no later than the last day of regular classes of the semester from which the student wishes to withdraw (i.e. Friday before Finals Week).**

The Dean of Students (or designee) **does not** have the authority to retroactively withdraw students from previously-completed semesters. However, in order to protect students' privacy, the Medical Withdrawal Review Committee reviews medical documentation and recommends approval or denial of students' requests for Late Withdrawal to the Dean of the College in which they are/were enrolled. Students should visit the Application for Retroactive Medical Withdrawal (Previous Semester's) (https://cm.maxient.com/reportingform.php?YoungstownStateUniv&layout_id=20) for additional information on the Retroactive Medical Withdrawal process.

Students are encouraged to discuss medical and/or mental health-related concerns with a licensed care provider as soon as it becomes apparent that their health is preventing them from successfully completing their coursework. This serves both the best interests of the student and the University. For a Medical Leave/Withdrawal request to be considered, students must provide medical documentation from a licensed care provider, with whom they have an established provider-patient/client relationship. Students may contact Wick Primary Care (<https://ysu.edu/wick-primary-care-ysu/>) and/or Student Counseling Services (<https://ysu.edu/student-counseling-services/>) to establish care, or consult a licensed care provider of their choosing. **Documentation may be attached to the student's Request for Medical Leave/Withdrawal (Current Semester), delivered to the Office of the Dean of Students (DeBartolo Hall 301), or submitted via e-mail (dos@ysu.edu), fax (330-941-1824), or U.S. Mail. If sending by U.S. Mail, please address using the following information:**

c/o Dr. Nicole Kent-Strollo, Dean of Students
Office of the Dean of Students | DeBartolo Hall 301 | Youngstown State University
1 Tressel Way
Youngstown, OH 44555

Supporting medical documentation should include the following:

- Care provider's name on office letterhead
- Brief letter identifying the student as a patient or client

- Date of onset of condition(s)
- Dates of care
- General nature/symptoms of the student's condition(s)
- Impact of the condition on the student's academics
- EXACT date student was last able to attend classes
- Length of time student will require Medical Leave (up to two consecutive semesters)
- **Please DO NOT include detailed medical records with your request!**

Upon receipt of the aforementioned information, the Medical Withdrawal Review Committee will review and verify the documentation. The Committee reserves the right to discuss documents and request authentication from the University's currently-contracted health center, as necessary. After documentation has been validated, the Dean of Students (or designee) will approve or deny the Medical Leave/Withdrawal request.

Once **approved**, the following steps will occur:

- The Dean of Students (or designee) will notify the student, the Office of the Registrar (<https://ysu.edu/registrar-office/>), University Bursar (<https://ysu.edu/university-bursar/>), Office of Financial Aid and Scholarships (<https://ysu.edu/financial-aid-and-scholarships/>), the student's College Dean (<https://ysu.edu/provost/deans-associatedeans-divisionleaders/>), and appropriate departmental academic advisor that Medical Leave/Withdrawal was approved, or that Retroactive Medical Withdrawal was recommended for approval (the Dean of the College must then initiate/submit a Petition for Late Withdrawal (http://ysu.edu/sites/default/files/academics/graduate_studies/Petition_For_Late_Withdrawal.pdf)).
- The Office of the Registrar will adjust the student's transcript to reflect a grade of "W" for all semester courses. Grades of "W" do not affect GPA or a student's academic standing.
- The University Bursar will audit the student's account and bill for any outstanding fees. The audit may take up to 30 days to conclude. If the student has no active balance, or has a credit on their account, they will receive a statement containing this information. Students who are approved for Medical Leave/Withdrawal may receive a reduction of tuition fees in proportion to the number of weeks attended, in accordance with the effective withdrawal date established by the University Bursar.
- If the student lives in University housing, the Dean of Students (or designee) will notify the Office of Housing & Residence Life of their Medical Leave/Withdrawal. The student is individually responsible for scheduling a time to vacate their space and return room keys.
- If the student receives veteran's benefits, is an international student on a visa, or is an NCAA athlete on scholarship, the student must independently notify the appropriate office(s) to avoid disruption to aid, additional benefits, or eligibility.
- If the student is a dependent, the Dean of Students (or designee) does not notify their parents/guardians of the Medical Leave/Withdrawal, unless the student authorizes them (<https://ysu.edu/penguin-service-center/education-information-release-proxy/#:~:text=Educational%20Information%20Release%20via%20Proxy,as%20academic%20advising%20records%2C%20housing>) to receive this specific information as proxies.

The decision of the Dean of Students (or designee) is final. However, additional supporting documentation will be considered if received by the last day of regular classes of the current semester (i.e. Friday before Finals Week). Students may also submit future applications, as appropriate, due to change(s) in circumstances. For Retroactive Medical Withdrawals, applicable components of the aforementioned process occur **after/if** the request is approved by the Dean of the student's College.

INVOLUNTARY MEDICAL LEAVE/WITHDRAWAL

In order to provide a safe environment in support of the University's mission, a student may be required to take Involuntary Medical Leave/Withdrawal when their behavior, relative to their condition, is incompatible with community

standards. Requiring a student to take a leave of absence is rare and only considered when no reasonable accommodations can adequately reduce the risk(s) described below. The Dean of Students (or designee) will review information and consult with the University's CARE Team (<https://ysu.edu/student-affairs/care-team/>), Medical Withdrawal Review Committee, and/or others with knowledge of the situation, on a case-by-case basis, as appropriate. The Dean of Students (or designee) will issue a written notice to the student that an Involuntary Medical Leave/Withdrawal is under consideration.

Students may be considered for Involuntary Medical Leave/Withdrawal when:

- Objective evidence suggests a significant risk to the student's health or safety and/or the health or safety of others, including, but not limited to, significant risk of suicide, persistent self-harm, and/or homicidal intentions.
- The student's physical/psychological condition requires specialized services unavailable at the University or locally.
- The student's behavior severely disrupts the University environment, causing significant emotional and/or physical distress to other students, staff, and/or faculty in the classroom, campus community, or within the living learning community. Such disruption may stem from a single incident or a pattern of ongoing behavior.
- The student has not complied with previously-established assessment and/or treatment plans required by University officials. Failure to follow these plans of action increases the likelihood that a student's behavior progresses toward long-term impairment and inability to function as a successful student at the University.

A student may appeal the decision for Involuntary Medical Leave/Withdrawal in writing to the appropriate authority within the Division of Academic Affairs within five (5) business days of notice of the Involuntary Medical Leave/Withdrawal. The Provost or designee (other than the Dean of Students) will review the appeal and provide a decision in writing within eight (8) business days of receipt. While this is the final level of appeal, the appellate authority has the discretion to alter or extend the return date on a case-by-case basis. During the appeals process, the University reserves the right to initiate or uphold interim measures (i.e. removal from University housing, etc.).

RETURNING FROM MEDICAL LEAVE

Students on Medical Leave are not regarded as having permanently separated from the University and are not required to apply for readmission unless the leave period exceeds two (2) consecutive semesters. Upon departure from the University, a medical leave hold will be placed and remain on a student's account, prohibiting them from registering for courses. **For this hold to be removed, a student must provide the following information (detailed below) for review. This documentation should be received at least 60 days in advance of the semester during which the student wishes to return and can be submitted using the University's Application for Re-Entry Following Medical Leave, delivered to the Office of the Dean of Students (DeBartolo Hall 301), or submitted via e-mail (dos@ysu.edu), fax (330-941-1824), or U.S. Mail. If sending by U.S. Mail, please address using the following information:**

*c/o Dr. Nicole Kent-Strollo, Dean of Students
Office of the Dean of Students | DeBartolo Hall 301 | Youngstown State University
1 Tressel Way
Youngstown, OH 44555*

A student requesting to return from Medical Leave must:

- (On office letterhead) Have a licensed care provider (with whom you have an established provider-patient/client relationship) provide a specific diagnosis and a detailed report that discusses the nature of the medical or mental health-related condition, outlines the major symptoms of the condition, and indicates how the condition affects you in the University environment.
- Have a licensed care provider (with whom you have an established provider-patient/client relationship) establish and outline a treatment

plan, including necessary medications and any substantial side effects that could impair your ability to return to campus. Any recommended accommodations should be included in the report, if long-term disability exists. You must provide this plan to the Office of the Dean of Students.

- Sign a release of information allowing the Dean of Students (or designee), Director of Student Counseling Services (if reason for leave is related to a mental health condition), and Dean of Students Case Manager(s) to communicate with the licensed care provider to determine readiness to return to the University.
- Provide proof of progress toward or completion of active recommendations from the licensed care provider.
- Complete any required student conduct sanctions stemming from prior behavioral incidents, if applicable.

After receiving the aforementioned information, the Dean of Students (or designee) consults with the Medical Withdrawal Review Committee to determine if re-entry requirements have been satisfied and decides if a student is ready to return to campus. If approved, the student must agree to meet with the Dean of Students, Dean of Students Case Manager(s), and/or other appropriate designee, for regular check-in meetings, as requested. The decision of the Dean of Students (or designee) is final; however, additional supporting documentation will be considered, if received within the 60-day timeframe prior to the desired semester of return.

An update regarding the student's request for Re-Entry Following Medical Leave/Withdrawal and requirements for return will be sent to the student and forwarded (via e-mail) to the following offices: Office of the Registrar (<https://ysu.edu/registrar-office/>), University Bursar (<https://ysu.edu/university-bursar/>), Office of Financial Aid and Scholarships (<https://ysu.edu/financial-aid-and-scholarships/>), Office of Housing & Residence Life (<https://ysu.edu/housing-and-residence-life/>) (if appropriate), the student's College Dean (<https://ysu.edu/provost/deans-associatedeans-divisionleaders/>), and appropriate departmental academic advisor.

CONTACT FOR QUESTIONS/CONCERNS

Office: Dean of Students

Email: dos@ysu.edu

Website: <https://ysu.edu/dean-of-students> (<https://ysu.edu/dean-of-students/>)

Withdrawal for Military Duty from a Course/Semester

This policy is provided to minimize disruptions or inconveniences for students fulfilling their U.S. military responsibilities in the midst of an academic semester. Every effort should be made to plan accordingly for known military assignments. However, Youngstown State University realizes students who are members of the U.S. Armed Forces may be unexpectedly called to active duty, specialized training, or as part of disaster relief efforts with little notice.

Unanticipated duty may include the following circumstances:

- Active Duty change of duty assignments
- Overseas or stateside military deployments
- State Emergency "call-ups"
- Initial Active Duty Training (Basic Training and Job Skill Training)
- Short-Term Training Assignments (Annual Training Periods, Military Schools, etc.)

Any student called to duty as listed above may withdraw from all courses and receive a 100% refund of tuition and fees. Alternatively, with the permission of the instructor(s), a student may receive an incomplete or a final grade in some or all of the courses taken. Any of the options may be taken any time during the semester through the last day of classes.

PROCESS/PROCEDURE

All withdrawal for military duty is coordinated by the Office of Veteran Affairs. In general, students should follow the steps listed below to complete a withdrawal request.

- Students who wish to withdraw from any or all courses as a result of being called to active duty must provide a copy of their orders to the Office of Veterans Affairs along with a signed note asking to be withdrawn. The request to withdraw needs to be submitted within one week of official notification by the military service and may be made by either the student or other responsible party who has the student's military information.
- Students should note that they will maintain their access to university accounts such as the Penguin Portal and email during their absence.
- Students receiving financial aid will be subject to the refund policies as provided for by the agencies sponsoring the aid. Students may want to contact the appropriate agency for more information.
- Retroactive military withdrawal can be done within one year from the time grades were earned for the semester in question.

ELIGIBILITY FOR FUTURE ENROLLMENT

Students who use this withdrawal process for a semester, will be eligible for future semester registrations. Students who cannot enroll for a future term due to military commitments can also be placed on a military leave of absence that will extend access to their university computer and email accounts while they are gone. A copy of orders provided to the campus Veterans Affairs Office will initiate this action.

CONTACT FOR QUESTIONS/CONCERNS

Office: Office of Veteran Affairs

Location: Carl A. Nunziato Veterans Resource Center

Website: <https://ysu.edu/veterans-affairs> (<https://ysu.edu/veterans-affairs/>)

Withdrawal from a Course/Semester

Course withdrawal indicates that a student intends to stop attending any or all courses for the current term. Course withdrawal for summer, fall and spring semesters can be accomplished at several times and deadlines are posted on the Office of the Registrar website. Students will use the Penguin Portal self-service registration functions to withdraw from one or more courses by the deadlines.

- Students have until the 14th day of a full term to withdraw from a course or all courses and receive a 100% refund and no academic penalty or record of course registration; students withdrawing from an 8 week or less part of term course have until the 7th day.
- Students may also withdraw from courses after the refund period. Students who withdraw during by the 60% deadline for the term or part of term are responsible for all financial obligations and earn a grade notation of a "W" on their transcript.
- After the "W" deadline, students can no longer access withdrawal functions in the Penguin Portal to withdraw from any courses. Students may submit a request for withdrawal in writing to the Penguin Service Center, but the withdrawal will result in a mark of "F" recorded on a student's transcript.
- When a withdrawal changes a student's status (i.e., full-time to part-time), the student immediately forfeits any privileges contingent upon full-time status, and all interested parties which legally require it will be notified.

Students who fail to withdraw from a course by the deadline, regardless of their level of class participation/attendance, are financially and academically responsible. Non-attendance of class, or notification to the instructor/department, does not constitute official withdrawal. A student's lack of participation/attendance will likely result in the course instructor submitting a Non-Attendance F (NAF) grade for the student and a mark of "F" will be

recorded on the student's transcript. Therefore, all students are strongly encouraged to withdraw before the published deadlines.

Process/Procedure

All course registration takes place online through the Penguin Portal and students are not considered withdrawn from a registered course unless they have completed the withdrawal process. Detailed instructions on registration, including how to drop a course or all courses for a semester are available on the Penguin Service Center website.

In general, students should follow the steps listed below prior to completing a course withdrawal or complete withdrawal for the semester:

- Contact your academic advisor and/or program coordinator about any type of withdrawal. Withdrawals may impact a student's time to degree completion.
- Contact your athletic advisor if you are a student athlete and your withdrawal will mark you less than full-time credit status (below 12 credit hours). Withdrawal may impact a student's athletic eligibility.
- Contact the International Programs Office if you are an international student and your withdrawal will mark you less than full-time credit status (below 12 credit hours). Withdrawal may impact an international student's visa eligibility.
- Contact the Office of Financial Aid and Scholarships if you receive Title IV financial aid. **Title IV financial aid counseling is a federal requirement and must be completed with a staff member prior to completely withdrawing for the current term.**
- Complete the online exit survey in the Penguin Portal prior to completely withdrawing for the current term if you are completely withdrawing during the "W" period.

Exceptions

Late Withdrawal:

A withdrawal granted after the designated deadlines is known as late or retroactive withdrawal and may be granted in extraordinary circumstances. Students seeking a late withdrawal must do so in writing to the college in which the student's major lies by filing a "Petition for Late Withdrawal." Late withdrawal must be requested within one year from the last day of classes for the semester in which a withdrawal is requested. The college dean or dean's designee will be responsible for reviewing the student's petition and providing a decision to the student; the decision of approval or denial shall be final and non-appealable. If the late withdrawal is approved, only courses with a grade of F will be changed to a grade of W.

A Petition for Late Withdrawal and the Repetition Form cannot be used for the same course. In other words, Petition for a Late Withdrawal cannot be processed for any course that was repeated and a recalculation of point average has processed and posted on the student's academic record.

Eligibility for Future Enrollment

New, readmitted and current students who withdraw from any or all courses after the 14th day of the term (7th day of the part of term) will be eligible for future registrations as long as their accounts are free from holds that prevent registration. The following student situations will only be able to register for future registrations once their start/return term is changed on record:

- New students who withdraw from all courses prior to the 14th day of the term will not be eligible for future registrations unless they request that the Office of Admissions defer their application to a future term.
- Readmitted students who withdraw from all courses prior to the 14th day of the term will not be eligible for future registrations unless they request that the Record's Office defer the readmission application to a future term.

Contact for Questions/Concerns

Office: Penguin Service Center
Location: Meshel Hall

Website: <https://ysu.edu/penguin-service-center> (<https://ysu.edu/penguin-service-center/>) and <https://ysu.edu/registrars-office> (<https://ysu.edu/registrars-office/>)

Withdrawal from the University

The decision to leave Youngstown State University and not return is not an easy one to make. There are several reasons why a student might choose to exit the university at the end of a semester. A student may plan to:

- Transfer to another institution
- Take a break in education and return at an unidentified date
- Leave the university without a definite plan to return

It is the university's sincere hope to retain all students as members of the university community. However, if a student has decided to leave the institution on a temporary or permanent basis, we ask the student to submit an "University Exit Request" in the Penguin Portal. The exit request does not apply to students who just wish to drop a course or completely withdraw from the current semester but maintain their enrollment eligibility. Students who wish to withdraw from the current term and have plans to re-enroll the next semester should refer to the "Withdrawal from Course/Semester" section of the catalog.

Process/Procedure

The University Exit Request is submitted through the Student Dashboard card in the Penguin Portal. Once a university exit request has been submitted, students should be aware of the following:

- The student account will be classified as inactive, which will prevent the student from registering for classes but will not delete the student's permanent record or prevent the student from requesting transcripts of completed coursework.
- The student will be responsible for any debt owed to the university.
- The student will be responsible for any Title IV financial aid responsibilities, if applicable.
- The student will be responsible for canceling residential agreements for campus housing, if applicable.
- The student will be responsible for notifying the International Programs Office of departure, if an international student.

The university welcomes students' return to resume their education activities.

A student's account will only be switched to active after a completed readmission application or former transfer application is processed. Students who wish to return after filing a university exit request should contact the Penguin Service Center to identify which application process to follow.

CONTACT FOR QUESTIONS/CONCERNS

Office: Penguin Service Center

Location: Meshel Hall

Website: <https://ysu.edu/penguin-service-center> (<https://ysu.edu/penguin-service-center/>) and <https://ysu.edu/registrars-office> (<https://ysu.edu/registrars-office/>)

Admission

Undergraduate admission is handled by the Office of Admissions, located in Sweeney Welcome Center at the corner of Tressel Way and Bryson Street. You may contact the Admissions Office in any of the following ways:

Phone: Toll free (877) GO-TO-YSU | (877) 468-6978 | (330) 941-2000

TDD: (330) 941-1564

Fax: (330) 941-3674

E-Mail: enroll@ysu.edu

YSU Web Site

Admissions Web Site

The Office of Admissions is open weekdays and selected Saturdays. Please call the numbers above or visit the website for times. Campus tours are available Monday through Friday and on selected Saturdays. Tours can be scheduled by calling the Admissions Office or by scheduling online (<https://ysu.edu/admissions/plan-a-visit/>).

Tours are best scheduled a week or more in advance, but you are welcome to visit the YSU campus and stop in the office any time without an appointment. If you schedule ahead, we can arrange free parking on week days; otherwise, visitors can park in the F-1 (Tressel Way) lot across from the Sweeney Welcome Center for a nominal fee that covers parking for a full day.

Admission to the University does not guarantee admission to every program. Some programs within the University have separate admission standards that must be met before a student may enroll in that particular program. Courses are available to assist in satisfying scholastic deficiencies. Those students who lack high school subjects required by the various colleges within the University may be admitted with the understanding that these courses will be completed as soon as possible and no later than the end of the college sophomore year.

Academically qualified 7-12th grade students may apply and enroll in courses prior to high school graduation through the College Credit Plus (CCP) program. For more information, visit the CCP website (<https://ysu.edu/ocat/college-credit-plus/>) or scroll down to Early Enrollment Opportunities.

Admission With Conditions

Students may be admitted to YSU with conditions under certain circumstances. Please see Conditional Admission in the New Freshman Applicants (<https://catalog.ysu.edu/undergraduate/general-information/admission/new-freshman-applicants/>) section of the catalog for more information.

State Residency Status

Place of residence for tuition purposes will be determined at the time of admission or readmission by the Office of Admissions on the basis of the residency rules stated in the Ohio Revised Code (<http://codes.ohio.gov/oac/3333-1-10/>) and from the information supplied on the "Application for Admission" or the "Undergraduate Application for Readmission" form.

If at any time you have questions about your appropriate classification, you should immediately bring it to the attention of the Office of Admissions for review. Students requesting Ohio residency are required to complete a State of Residency Verification form, available by request from the Office of Admissions, and provide additional supporting documentation. A change to resident status cannot be made retroactive if supporting documentation is received after the first day of the requested semester.

Residency Status Appeal

After the Office of Admissions makes its determination, a decision will be sent in writing to the student. If a student wishes to appeal the decision, the student can submit an appeal form to the Residence Classification Board. Such reviews occur within two weeks of the request, if possible. The Residence Classification Board's appellate decision is final.

Please see the Ohio Residency (p. 27) section of the undergraduate catalog for the complete text of the Ohio Department of Higher Education residency criteria.

Application Fee

A non-refundable application fee of \$45 is required unless the applicant is a former YSU student, participated in the YSU College Credit Plus (CCP) program or those who have served or are currently serving in the Armed Forces of the United States. Current high school students, who are eligible for an

application fee waiver, should request to have their school counselor submit the appropriate form to the Admissions Office.

High School Preparation

Students desiring to pursue a baccalaureate degree should have completed the following college preparatory units:

Baccalaureate Degree College Preparatory Units

English	4
Mathematics	4
Science	3
Social Studies	3
Foreign Language ¹	2
Arts	1
Total Units	17

¹ Two units in one language

It is recommended that coursework include:

- English composition
- Algebra I, Geometry and Algebra II or equivalent
- Laboratory science
- United States history and government

In addition, the Bachelor of Engineering (BE) degree program suggests a unit of mechanical drawing, a half-unit of trigonometry, and in the sciences, one unit of chemistry and one unit of physics specifically. Students interested in programs such as computer science, information technology, physical sciences, and mathematics should also take a fourth year of mathematics. For the Bachelor of Music (BM) degree program, the applicants are expected to have proficiency in one or more branches of applied music. See the Dana School of Music (p. 240) section.

Students wishing to pursue an associate degree should have completed the following college preparatory units:

Associate Degree College Preparatory Units

English	4
Mathematics	2
Science	2
Social Studies	2
Other Subjects	6
Total Units	16

Students admitted to the University may have their high school records evaluated by the college in which they are enrolled. Specific coursework, in addition to what is listed above, may be required in order to be accepted into a specific program or major. Since such coursework may vary depending on the college and degree requirements, students should check with advisors as to the academic expectations that need to be met.

Application Deadlines

We encourage all students to apply at least two months prior to the application closing dates listed below. Review of applications received after these dates cannot be guaranteed.

Fall Semester 2024

Freshman	
Application Deadline:	August 1
Credentials Deadline:	August 1

Former Transfer and Transfer

Application Deadline:	August 1
Credentials Deadline:	August 15

Former Transient and Transient

Application Deadline:	August 1
Credentials Deadline:	August 15

**Beginning Dates for Each Semester/
Part of Term**

Full-Term, First 8-Week Term, AOP First 7-Week Term:	Monday, August 26, 2024
Second 8-Week Term, AOP Second 7- Week Term:	Monday, October 21, 2024

Spring Semester 2025

Freshman

Application Deadline:	December 1
Credentials Deadline:	December 1

Former Transfer and Transfer

Application Deadline:	December 1
Credentials Deadline:	December 15

Former Transient and Transient

Application Deadline:	December 1
Credential Deadline:	December 15

**Beginning Dates for Each Semester/
Part of Term**

Full-Term, First 8-Week Term, AOP First 7-Week Term:	Monday, January 6, 2025
Second 8-Week Term, AOP Second 7- Week Term:	Monday, March 10, 2025

Summer Semester 2025

Freshman

Application Deadline:	April 15
Credentials Deadline:	April 15

Former Transfer and Transfer

Application Deadline Summer I:	April 15
Credentials Deadline Summer I:	May 15
Application Deadline: Summer II:	May 15
Credentials Deadline: Summer II:	June 1

Former Transient and Transient

Application Deadline Summer I:	April 15
Credentials Deadline Summer I:	May 15
Application Deadline: Summer II:	May 15
Credentials Deadline: Summer II:	June 1

**Beginning Dates for Each Semester/
Part of Term**

Full-Term, First 7-Week Term, AOP 7- Week Term:	Monday, May 12, 2025
Second 7-Week Term, AOP 7-Week Term:	Tuesday, June 30, 2025

New Freshman Applicants

Application Requirements

Applicants must have graduated from a high school approved or accredited by the department of education in the state where the school is located or have successfully completed the General Education Development (GED) test to be considered for admission. Freshman applicants applying for admission

to Youngstown State University must submit an official high school transcript or official GED transcript. Submission of American College Test (ACT) or Scholastic Assessment Test (SAT) scores is optional. Please note: some majors require test scores to be admitted into the program.

Bachelor Degree Admission Requirements: Applicants must have a cumulative weighted high school grade point average of 2.00 (on a 4.00 scale) or higher, a core unweighted grade point average* of 2.00 (on a 4.00 scale) or higher and have an ACT composite score of 17 or higher, or a SAT composite score of 920 or higher (evidence-base writing and reading and math) to be admitted unconditionally. (*Core GPA is calculated based on grades earned in the following courses - English, mathematics, science, social science, and foreign language, if applicable, from 9th through 12th grade.)

Associate Degree and Pre-Associate Degree Certificate Admission

Requirements: Applicants must have earned a high school diploma or GED. An official final high school transcript or official GED transcript is required.

A test-optional admissions policy was implemented beginning Fall 2020 semester. For more information regarding the test-optional admissions policy, please visit the Admissions (<https://ysu.edu/admissions/apply-to-ysu/new-freshmen/>) website.

For more information regarding Career-Technical Credit Transfer, visit the Ohio Department of Higher Education Career-Technical Credit Transfer (CT) (<https://transfercredit.ohio.gov/initiatives-upd/career-technical-credit-transfer-ct2/how-to-access-ct2-credit/>)² Verification of Course/Program Completion Form webpage.

Home-schooled applicants must meet the following criteria:

1. An official transcript showing documentation of coursework completed of grades 9-12 including date of completion of studies or graduation must be sent to Admissions. See above for specific admission requirements.
2. Submission of results from the ACT or SAT is optional. Please note: some majors require test scores to be admitted into the program.
3. A copy of academic assessment (i.e. Iowa Basic Skills Test, California Achievement Test, etc.) reports submitted to the appropriate superintendent of school pursuant to Section 3301-34-04 of the Ohio Administrative Code must be received by Admissions.
4. A copy of the Superintendent's Exemption Notice showing the student is excused to receive home-schooling.
5. Home-schooled students from states other than Ohio must submit the appropriate documentation required for allowing home-schooling in their state, along with above criteria #1 and #2.

Athletics Participation

Students planning to participate in intercollegiate athletics in their first year at YSU should call the Office of Intercollegiate Athletics at (330) 941-2282 for information about eligibility for athletics participation.

English Requirement

YSU requires proof that you have sufficient knowledge of the English language to follow your program of study. If your native language is not English, please see International Undergraduate Admissions (<https://catalog.ysu.edu/undergraduate/general-information/admission/international-undergraduate-admission/>).

Articulated Credit

In the presence of a formal bi-lateral agreement between Youngstown State University and a particular career center or high school, students may earn college credit for specified technical courses they successfully completed in high school. Youngstown State University has many program-specific articulation agreements with career and technical centers and high schools in northeast Ohio. Students in those approved articulated programs of study receive instructions from their career and technical center or high school about

how to have earned credits posted to their YSU transcripts after they enroll at YSU and meet college readiness criteria. Students who complete career-technical programs of study may also receive specified articulated college credit. Students have 18 months from high school graduation to apply for the credit. For information about College Tech Prep (<https://ysu.edu/college-tech-prep-special-projects/>) at YSU, visit their website.

High School Transcripts

Applicants must arrange to have their high school send a transcript of all coursework completed along with grades received in each course to the Admissions Office. Partial transcripts will be given consideration for early decisions. If the applicant's academic record meets or exceeds YSU's admission requirements, notification of conditional acceptance will be made before high school graduation. A final official high school transcript showing a graduation date must be received prior to the first day of the semester in which the student is enrolled. Official transcripts can not be emailed or faxed to the Admissions Office.

Conditional Admission

In certain situations, students who do not meet the requirements for unconditional or regular admission to YSU may be offered conditional admission. For more details regarding first-year and transfer student conditional admission, please review the Strong Start and Transfer Students sections below.

Conditionally admitted status is not to be applied to students in the BCHHS's Police Academy program. Students accepted in the Police Academy are not required to take the placement test.

Students entering Distance Learning Programs will not be considered for conditional admission status.

If a Youngstown Rayen Early College (YREC) student has earned a GPA of 2.00 or above and has passed all required developmental courses, the student's ACT or SAT test score will not be considered in establishing the student's conditional admission status.

Strong Start

Incoming first-time students with a cumulative weighted high school grade point average of a 2.00 (on a 4.00 scale) or higher but unweighted core grade point average does not meet test optional requirements or ACT composite is below 17 or SAT composite below 920 (evidence-based writing and reading and math), or have no ACT or SAT scores, will be reviewed for possible admission to YSU through the Strong Start Program.

Students offered admission to YSU through the Strong Start Program:

- May only begin in the fall semester.
- Are required to attend new student orientation; failure to do so will defer admittance to a subsequent fall semester.
- Must earn a C or better in their Strong Start Success Seminar.

Transfer Students

Transfer students with a transfer GPA below 2.00 (out of 4.00) are not eligible for regular admission but may be admitted with conditions after review by the Admissions Committee.

Conditionally admitted transfer students must meet the following requirements:

1. Conditionally admitted transfer students are required to attend a Transfer Student Orientation (TSO); failure to do so will defer admittance to a subsequent semester. Transfer students may meet this requirement by attending a transfer orientation or by completing the online orientation module for transfer students.

2. During their first semester, conditionally admitted transfer students must fulfill a contract with the Resch Academic Success Center, which includes meeting weekly with their academic coach and two times during the term with their academic advisor.
3. Students placing into ENGL 1541 Fundamentals of College Writing or ENGL 1549 Writing 1 with Support must take these courses in their first semester. Students may not withdraw from these courses unless they make a complete withdrawal from the university.
4. All conditionally admitted transfer students are to be advised by their college's professional advisors and not by faculty or departmental advisors.
5. Conditionally admitted transfer students must receive approval of their course schedule by a college academic advisor and may not make further changes without approval of the advisor.
6. Failure to fulfill the first semester guidelines and achieve good academic standing (a GPA of 2.00 or above) shall result in the conditionally admitted transfer student being dismissed from the university. The student may not be admitted to any other YSU college until the dismissal period has expired.

The restrictions imposed on coursework and semester hours will be removed when the student has done the following:

1. Successfully completed all developmental course into which the student has tested:

COURSE	TITLE	S.H.
ENGL 1541	Introduction to College Writing	3
2. Successfully completed six semester hours of non-developmental courses.
3. Achieved good academic standing (a GPA of 2.00 or above). See the Academic Eligibility (<https://catalog.ysu.edu/undergraduate/general-information/academic-policies-procedures/grade-requirements/#:~:text=Four%20categories%20of%20academic%20standing,improvements%20and%20achieving%20academic%20success>) page of the Undergraduate Catalog for more information on academic standing.
4. Fulfilled the conditional admission contract. Students fulfilling these requirements may file a petition with a college academic advisor to have the restrictions and their conditionally admitted status removed.

Career-Technical Credit Transfer (CT) ² / CTAG

Secondary or adult students who successfully complete specified technical programs are eligible to have technical credit transfer to public colleges and universities. This transfer of credit is described in Career-Technical Assurance Guides (CTAG). Students are guaranteed the transfer of applicable credits among Ohio's public colleges and universities and equitable treatment in the application of credits to admissions and degree requirements. (CT)² helps more high school and adult career-technical students to go to college and enter with college credit; technical credit saves students money and time; and Ohio business and industry will benefit from more employees with higher education and advanced skills.

The language in section 3333.162 ([https://codes.ohio.gov/ohio-revised-code/section-3333.162#:~:text=\(B\)%20The%20chancellor%20of%20higher,to%20transfer%20agreed%20upon%20technical](https://codes.ohio.gov/ohio-revised-code/section-3333.162#:~:text=(B)%20The%20chancellor%20of%20higher,to%20transfer%20agreed%20upon%20technical)) of the Ohio Revised Code requires the Ohio Department of Higher Education and the Ohio Department of Education to develop policies and procedures ensuring that students at an adult career-technical education institution or secondary career-technical education institution can transfer agreed upon technical courses completed there (that adhere to recognized industry standards) to any public institution of higher education "without unnecessary duplication or institutional barriers."

To access credit, students will need to request a CTAG Verification Form be sent by the career-institution from which they attended/graduated, to the YSU Office of College Tech Prep and Special Projects. Students have three years from high school graduation to apply for credit. For more information on how to access (CT)² credit visit the Ohio Department of Higher Education Career-Technical Credit Transfer (CT) (<https://transfercredit.ohio.gov/initiatives-upd/career-technical-credit-transfer-ct2/how-to-access-ct2-credit/>)² Verification of Course/Program Completion Form webpage.

International Undergraduate Admission

For admission and tuition purposes, someone is considered an international applicant if they are NOT a U.S. citizen or permanent resident, or do not hold refugee or political asylum status. Those who are U.S. citizens, permanent residents, refugees, or political asylum holders, should apply for domestic student application.

International Student Applicants

Youngstown State University welcomes applications from qualified students around the world. The University's International Programs Office (IPO) provides a wide range of support services for international students, described in detail in other sections of this Undergraduate Catalog.

For issuance of an immigration document, F-1 and J-1 students must demonstrate the financial ability to pay for at least **one year of academic and living expenses**.

General Admission Statement

The admission information contained in this section reflects standard admissions requirements. Meeting these requirements does not guarantee admission to the university or to specific programs.

Academic Credentials

Academic credentials include high school and college transcripts, test scores, GED scores, and/or any other records required for admission or granting credit. Unofficial copies of academic credentials are accepted for admission purposes. Applicants who are admitted based on the submission of unofficial credentials must produce all official academic credentials by the end of their first term of enrollment. **Only properly certified and signed credentials issued to YSU and received directly from the issuing institution will be accepted. All must be in a sealed envelope(s) from the issuing institution.**

International Application Deadlines

Semester	Freshman
Fall	June 1
Spring	November 1

International Freshman and Overseas Transfer Students

Applicants from overseas must submit the following information well in advance of the desired date of admission. Admission is possible during all terms provided the deadline for application is met. Students must attend the mandatory new international student orientation.

- A completed application form, a \$75 non-refundable application fee and submission of all required supplemental items.
- Applicants seeking F-1 or J-1 (student) non-immigrant status must submit certification of sufficient financial resources available for education and living expenses while attending the University.
- Official credentials and transcripts from all secondary schools, colleges, and universities that the student has attended, including subjects studied,

grades, and a key to the grading system. If credentials are not in English, official translations will be required.

- Transfer credits may be granted for courses taken at U.S. and overseas accredited institutions only if an official syllabus or course description is provided; evaluation of transfer credit will be made prior to the start of classes. Applicants must present evidence of academic excellence with a minimum grade point average of 2.0 (on a 4.0 scale) and disciplinary good standing at the previous institution. Some YSU programs may have higher grade point average requirements.
- *Transfer applicants* must submit all college official transcripts prior to the I-20 issuance.
- Applicants who have a grade point average of 2.0 or lower (on a 4.0 scale) may be considered for Special Admission. The applicant will be required to submit additional supporting materials in their application for consideration, at the discretion of the International Programs Office Special Admissions Committee.
- English Language Proficiency - Applicants whose education is from an English-medium secondary or post-secondary institution in certain countries may exempt from the standardized English proficiency testing requirement. See Information on International English Proficiency (<https://ysu.edu/international-programs-office/apply-now/quick-menu/more-information/english-proficiency-requirements/#EXP>). International students who graduate from an English medium secondary school in the United States may be exempt from submitting English Language Proficiency test score.

All other undergraduate applicants for whom English is a second language must present evidence of proficiency in the English language with official test scores on one of the following:

- Test of English as a Foreign Language (TOEFL): minimum score of 67 or higher on the Internet Based TOEFL test (IBT) sent directly from the Educational Testing Service (ETS)
- International English Language Testing System (IELTS) a minimum score of 6.0 composite (with at least 5.0 on each subscale)
- SAT: minimum score of 920
- ACT: minimum score of 17
- PTE Academic (Pearson Test of English): 50
- Duolingo English Test (DET): 95
- Successful completion of 24 semester hours of college-level coursework from an accredited English-medium college in the United States or another country where English is an official language.

The English Language Institute (ELI)

The English Language Institute (ELI) at Youngstown State University offers an intensive English program with non-credited classes for English language learners. In addition, the ELI provides an orientation to college life and American culture. Classes are available to college-bound students, permanent residents, immigrants, and special interest groups.

Upon graduation from the program, students will have satisfied the English proficiency requirement necessary for admission to an undergraduate or graduate University program.

Please note: ELI courses cannot be used as credit toward a degree. Applicants should be aware that deficiencies in English may increase the amount of time and money required for completing a regular program of study.

Types of Admission for International Students

Regular Admission

Regular admission will be granted if the student's records meet YSU's academic requirements for admission, satisfy the high school curriculum

requirements, and show that the applicant has adequate preparation for study in the proposed major.

Conditional Admission

Students meeting all the above admissions requirements except the specified level of English proficiency may be admitted conditionally. This admission is conditional upon successful completion of English language study at YSU's English Language Institute (ELI). Conditionally admitted students are not permitted to submit TOEFL or IELTS scores as evidence of English proficiency.

Admission with Transfer Credit

Credits from accredited or officially recognized institutions in other countries will be evaluated upon presentation of official transcripts, official translations and complete course descriptions and/or syllabi. Students holding undergraduate degrees equivalent to the bachelor's degree may be admitted to the University for post-baccalaureate undergraduate study upon recommendation of the Dean of the proposed college, IPO's Associate Provost, and the Chair of the relevant department.

International pathway program admission

Applicants with a qualifying English Proficiency score may be admitted to the International Pathway Program on a 1 or 2 semester pathway. Applicants who are eligible for admission to the 1 semester pathway must present one of the following scores: IELTS 5.0, TOEFL 46, DET 85. Upon successful completion of the International Pathway Program, the student's admission status will be changed from Pathway to undergraduate.

SPECIAL ADMISSION

Special admission may be considered if the student's academic records do not meet YSU's requirements for admission. In such instances, eligibility for special admission will be made on a case-by-case basis. Applicants who qualify under this policy will be required to demonstrate evidence of admissibility as determined by the IPO Special Admissions Committee.

International Graduate Admission

Application for admission to the University for graduate study is made directly to Graduate Admissions (for details, consult the Graduate Catalog or the College of Graduate Studies (<https://ysu.edu/international-programs-office/apply-now/quick-menu/international-graduate-admissions/>) website).

Transfer Applicants

An applicant who has graduated from high school and was enrolled in another college or university for at least one course during the fall semester following high school graduation is classified as a transfer applicant. This classification includes post-baccalaureate applicants from other institutions seeking additional undergraduate coursework.

The Ohio Department of Higher Education in 1990, following a directive of the 118th Ohio General Assembly, developed the Ohio Articulation and Transfer Policy to facilitate students' ability to transfer credits from one Ohio public college or university to another in order to avoid duplication of course requirements. A subsequent policy review and recommendations produced by the Articulation and Transfer Advisory Council in 2004, together with mandates from the 125th Ohio General Assembly in the form of Amended Substitute House Bill 95, have prompted improvements of the original policy. While all state-assisted colleges and universities are required to follow the Ohio Articulation and Transfer Policy, independent colleges and universities in Ohio may or may not participate in the transfer policy. Therefore, students interested in transferring to independent institutions are encouraged to check with the college or university of their choice regarding transfer agreements. In support of improved articulation and transfer processes, the Ohio Department of Higher Education (ODHE) has established a transfer clearinghouse to receive, annotate, and convey transcripts among state-assisted colleges and universities. This system is designed to provide standardized information and help colleges and universities reduce undesirable variability in the transfer credit evaluation process.

ODHE Ohio Transfer 36

The Ohio Department of Higher Education's Transfer and Articulation Policy established the Ohio Transfer 36, which is a subset or entire set of a college or university's general education curriculum in AA, AS, and baccalaureate degree programs. Students in applied associate degree programs may complete some individual general education courses within their degree program or continue beyond the degree program to complete the entire Ohio Transfer 36. The Ohio Transfer 36 contains 36-40 semester or 54-60 quarter hours of course credit in:

- English composition (minimum of 3 semester or 5 quarter hours)
- Mathematics, statistics, and formal/symbolic logic (minimum of 3 semester or 3 quarter hours)
- Arts/humanities (minimum of 6 semester or 9 quarter hours)
- Social and behavioral sciences (minimum of 6 semester or 9 quarter hours)
- Natural Science (minimum of 6 semester or 9 quarter hours)
- Oral communication and interdisciplinary areas may be included as additional options to satisfy Ohio Transfer 36 requirements
- Additional elective hours from among these areas make up the total hours for a completed Ohio Transfer 36

Courses for the Ohio Transfer 36 should be lower-division level general education courses commonly completed in the first two years of a student's course of study. Each state-assisted university, technical, and community college is required to establish and maintain an approved Ohio Transfer 36.

Ohio Transfer 36 course(s) or the full Ohio Transfer 36 completed at one college or university will automatically meet the requirements of individual general education course(s) or the full Ohio Transfer 36 at another college or university once the student is admitted. Students may be required, however, to meet additional general education requirements at the institution to which they transfer. For example, a student who completes the Ohio Transfer 36 at Institution S (sending institution) and then transfers to Institution R (receiving institution) is said to have completed the Ohio Transfer 36 portion of Institution R's general education program. Institution R, however, may have general education courses that go beyond its Ohio Transfer 36. State policy initially required that all courses in the Ohio Transfer 36 be completed to receive its benefit in transfer. However, subsequent policy revisions have extended this benefit to the completion of individual Ohio Transfer 36 courses on a course-by-course basis.

ODHE Conditions for Transfer Admission

1. Ohio residents with associate degrees from state-assisted institutions and a completed, approved Ohio Transfer 36 shall be admitted to any state institution of higher education in Ohio, provided their cumulative grade point average is at least 2.0 for all previous college-level courses. Further, these students shall have admission priority over out-of-state associate degree graduates and transfer students.
2. When students have earned associate degrees but have not completed the Ohio Transfer 36, they will be eligible for preferential consideration for admission as transfer students if they have grade point averages of at least a 2.0 for all previous college-level courses.
3. In order to encourage completion of the baccalaureate degree, students who are not enrolled in an AA or AS degree program but have earned 60 semester or 90 quarter hours or more of credit toward a baccalaureate degree with a grade point average of at least a 2.0 for all previous college-level courses will be eligible for preferential consideration for admission as transfer students.
4. Students who have not earned an AA or AS degree or who have not earned 60 semester or 90 quarter hours of credit with a grade point average of at least a 2.0 for all previous college-level courses are eligible for admission as transfer students on a competitive basis.

5. Incoming transfer students admitted to a college or university shall compete for admission to selective programs, majors, and units on an equal basis with students native to the receiving institution.

Admission to a given institution, however, does not guarantee that a transfer student will be automatically admitted to all majors, minors, or fields of concentration at the institution. Once admitted, transfer students shall be subject to the same regulations governing applicability of catalog requirements as native students. Furthermore, transfer students shall be accorded the same class standing and other privileges as native students on the basis of the number of credits earned. All residency requirements must be completed at the receiving institution.

ACCEPTANCE OF TRANSFER CREDIT

To recognize courses appropriately and provide equity in the treatment of incoming transfer students and students native to the receiving institution, transfer credit will be accepted for all successfully completed college-level courses from regionally accredited colleges and universities. Students who successfully complete AA or AS degrees with a 2.0 or better overall grade point average would also receive credit for all college-level courses they have passed. (See Ohio Articulation and Transfer Policy, Definition of Passing Grade, Appendix E on the ODHE website.) While this reflects the baseline policy requirement, individual institutions may set equitable institutional policies that are more accepting. Pass/fail courses, credit by examination courses, experiential learning courses, and other nontraditional credit courses that meet these conditions will also be accepted and posted to the student record.

See information for Transfer Students for related documents.

Transfer Assurance Guides

Transfer Assurance Guides (TAGs) comprise of Ohio Transfer 36 courses and additional courses required for an academic major. A TAG is an advising tool to assist Ohio university and community and technical college students planning specific majors to make course selections that will ensure comparable, compatible, and equivalent learning experiences across the state's higher-education system. A number of area-specific TAG pathways in the arts, humanities, business, communication, education, health, mathematics, science, engineering, engineering technologies, and the social sciences have been developed by faculty teams. TAGs empower students to make informed course selection decisions and plans for their future transfer. Advisors at the institution to which a student wishes to transfer should also be consulted during the transfer process. Students may elect to complete the full TAG or any subset of courses from the TAG. Because of specific major requirements, early identification of a student's intended major is encouraged. TAG courses count toward the major without adding to the overall total of credits in the particular major.

Students should also check with their department about which courses have received approval from ODHE as part of the Transfer Assurance Guides program. Only those courses that have received such approval can be guaranteed transfer credit as part of the major. Students may also check with the ODHE TAG website.

Transferring to YSU TRANSFER CREDIT

Transfer credit is given for all coursework taken at a regionally accredited institution, provided that the student has a cumulative grade point average equivalent to 2.0 (on a 4.0 system). Cumulative gpa includes work from all previous institutions. Earned credits transferring into YSU will apply to one of three areas including general education, major coursework, or elective credit. Developmental/remedial courses do not apply toward any degree at YSU. YSU accepts a "D" grade on the same basis as the rules governing native students.

For example, a "D" grade might not satisfy a prerequisite for which a higher grade is needed.

Courses from non-regionally accredited institutions may be accepted on a case-by-case basis due to ODHE policy. Credit will not be blanketly posted to the student's file, but a student may request that courses earned at such institutions be reviewed and evaluated to determine if the course can be accepted and applied to the student's program of study. Courses may not be evaluated from certain non-regionally accredited institutions if a student applied for loan forgiveness through the U.S. Department of Education. Any courses reviewed will go through the same process as those from regionally accredited institutions, which may require the student to provide additional information on each reviewed course (e.g. course description, syllabus, etc.). All approved courses must be a minimum of 1 credit and cannot be developmental. Please refer to the full Ohio Department of Higher Education policy.

Conditions for transfer admission to the University are in line with ODHE rules and regulations (see above). Per ODHE policy, the University recognizes the associate degree as preliminary to the baccalaureate and admits advanced-standing students possessing the associate degree from a regionally accredited institution. Transfer credit is granted for all work successfully completed from the associate degree. Admission to the University does not guarantee that a transfer student will be automatically admitted to all majors, minors, or fields of concentration. Some programs within the University have separate admission standards that must be met before a student may enroll in that particular program. Please consult the appropriate college or department for information on restricted program admissions. Once admitted, transfer students shall be subject to the same regulations governing applicability of catalog requirements, class standing, and other privileges as all other native students.

Transfer applicants who are in good standing at the last institution attended and who have a cumulative grade point average of 2.0 or higher (on a 4.0 system) for all previous college-level courses are admitted in good standing. Transfer applicants with a cumulative grade point average of less than 2.0 or who are on probation, may be considered on a case by case basis. Applicants suspended or dismissed from their most recent institutions are not eligible for admission until at least one semester (excluding summer) has passed following the term in which the suspension occurred. Transfer students with multiple suspensions or dismissals may not be eligible for admission. See the reinstatement policy for YSU students in the *Undergraduate Catalog*. Consistent with undergraduate academic policy, failure to maintain a grade point average of 2.0 or higher (on a 4.0 system) during the probationary semester will result in academic suspension.

The university is continuing the process of examining all courses from surrounding collegiate institutions. The Office of Degree Audit along with the department chairs and the coordinator of General Education work with the Office of Admissions to identify courses that equate or courses that could count toward a major or general education credit. The appropriate school or college and/or department and/or coordinator of general education in accordance with policies governing the fulfillment of degree requirements will determine distribution of any accepted course work.

CREDENTIALS FOR TRANSFER STUDENTS

Official transcripts may be sent directly from the issuing institution by mail to the YSU Office of Admissions or can be delivered in person in a sealed and stamped envelope. Official transcripts may be sent electronically through a secured provider (e.g. Parchment, TranscriptsPlus/Credentials Inc., National Student Clearinghouse, etc.)

PRE-BACCALAUREATE

All transfer applicants are required to submit all undergraduate transcripts from regionally accredited colleges and universities attended. Official high school transcripts are also required to be submitted unless a student has earned an associate or Bachelor's degree. All transcripts should be sent to YSU's Office of Admissions.

POST-BACCALAUREATE

Post-baccalaureate applicants are required to submit all undergraduate transcripts from regionally accredited colleges and universities attended. High school transcripts are not required unless specifically requested by YSU.

PRIOR LEARNING ASSESSMENT CREDIT

Prior Learning Assessment (PLA) is an option that enables students to demonstrate what they have learned outside the classroom and translate that learning into college credit. Prior Learning Assessment validates learning acquired through corporate training programs, extensive volunteer activity, military service, workplace experience, civic engagement, individual readings and studies, training sponsored by professional organizations, and training sponsored by governmental agencies. Credit is awarded for college-level learning (knowledge, skills, and competencies) that students have obtained as a result of their prior learning experiences.

Students must demonstrate their mastery of the knowledge in a subject area in order to earn college credit. Prior learning can be verified by:

- Performance on standardized tests or department challenge exams
- Creation and evaluation of a portfolio
- Demonstration of military service learning

For more information regarding PLA credit and guidelines, please see the Prior Learning Assessment website.

GENERAL EDUCATION AND THE OHIO TRANSFER 36

1. Per the articulation and Ohio Transfer 36 guidelines developed by the Ohio Department of Higher Education, any student transferring to YSU with a completed Ohio Transfer 36 from another Ohio public institution of higher learning will receive credit for all hours (36-40 semester hours; 54-60 quarter hours) contained within the Ohio Transfer 36. Furthermore, the Ohio Transfer 36 portion of YSU's General Education Requirements will be judged to be completed.
2. Students transferring into YSU with the Ohio Transfer 36 completed at another institution will have all general education courses completed with the exception of the capstone course (3 semester hours). Students may find a list of approved capstone courses on the General Education website. (<https://catalog.ysu.edu/undergraduate/colleges-programs/academic-initiatives/general-education-requirements/>)
3. Transfer students with an earned Associate of Arts (AA) or Associate of Science (AS) degree from a domestic, regionally accredited institution outside of the 61 Ohio state funded institutions will have met the general education requirements, save the senior capstone at Youngstown State University. Completion of the entire set of general education requirements may not constitute completion of specific program requirements unless the specified requirements are successfully completed as part of the broader institutional general education requirements.
4. For those students who have not completed the Ohio Transfer 36 at another school, ODHE has guaranteed that any approved Ohio Transfer 36 course taken at one institution must receive general education credit at the receiving institution. YSU has also determined that courses beyond the Ohio Transfer 36 list may satisfy general education requirements. The Office of Degree Audit will process equates between the transferred and YSU courses. The General Education Committee will determine which courses being transferred fit within the YSU general education model. The student will then be advised as to how many courses in each domain must be taken to satisfy the general education requirements at this university. Each student must complete a capstone course at Youngstown State University.

TRANSFER FROM A REGIONALLY ACCREDITED INSTITUTION-ARTICULATION AGREEMENTS

YSU also has a number of articulation agreements with colleges in Ohio and western Pennsylvania. Through these agreements a maximum number of credits from the associate-degree-granting institution will be applied toward

a bachelor's degree program at YSU. Associate-degree holders meeting that criterion will, in most cases, be admitted with junior standing at Youngstown State and entitled to all the rights and privileges of native junior students, including eligibility for financial aid and priority in registration. Please refer to the Degree Audit website for more information and for a current list of articulation agreements.

The University also has articulation agreements with many career and technical centers to award college credit for various courses. For a complete list of these agreements, refer to the Degree Audit website under Partnership Program Information 2 and 4 Year Agreements with other Institutions.

Articulation agreements are pending with several other institutions in the region. Applicants who have not completed an associate program are considered on the same basis as other transfer applicants.

Transferring From YSU

In order to facilitate transfer with maximum applicability of transfer credit, prospective transfer students should plan a course of study that will meet the requirements of a degree program at the receiving institution. Students should use the Ohio Transfer 36 (see below), Transfer Assurance Guides, and the Transferology system for guidance in planning the transfer process. Specifically, students should identify early in their collegiate studies an institution and major to which they desire to transfer. Furthermore, students should determine if there are language requirements or any special course requirements that can be met during the freshman or sophomore year. This will enable students to plan and pursue a course of study that will articulate with the receiving institution's major. Students are encouraged to seek further information regarding transfer from the college or university to which they plan to transfer.

YSU Ohio Transfer 36

Based on ODHE guidelines, students wishing to transfer to another state college or university can complete the Ohio Transfer 36 by taking the following general education courses:

- English 1550 Writing I, English 1551 Writing II (6 semester hours)
- Mathematics, statistics, and logic (3 semester hours)
- Oral Communications (3 semester hours)
- Natural Science (must include one laboratory science, minimum of 7 semester hours)
- Arts and Humanities (minimum of 6 semester hours)
- Social Science (minimum of 6 semester hours)
- Additional approved general education courses to meet a minimum of 36 total semester hours typically based on student's academic interest.

It is recommended that students take a minimum of six of the hours from Natural Science, Arts and Humanities, or Social Science from courses that are cross-listed as general education electives. In doing so, a student can still complete YSU's General Education Requirements in a timely manner should that student choose not to transfer.

No course may count unless it is on the 1500 or 2600 level. The student must take the minimum credits in each category and at least 36 credits overall to complete the Ohio Transfer 36. However, each course approved as part of a university's Ohio Transfer 36 is guaranteed credit at another state institution as a general education course.

Students planning to transfer from YSU should refer to the *Undergraduate Catalog* (General Education Courses by Knowledge Domain) for a list of general education courses approved as part of the Ohio Transfer 36. Only those courses footnoted will receive general education credit. This information will also be available on the General Education (<https://catalog.ysu.edu/undergraduate/colleges-programs/academic-initiatives/general-education-requirements/#capstonetext>) website, which is linked to the YSU homepage.

Credit from Professional Schools

Students at YSU wishing to enter professional schools with the option of completing their baccalaureate degree in absentia may do so with the completion of at least 94 semester hours of coursework, which must include the following:

- All general University requirements
- Completion of major
- Completion of minor (if required)
- 54 s.h. of upper-division coursework (3700-4800-Level)

The University will accept the completion of not more than 30 semester hours from any professional school granting any of the degrees listed below and approved by the accrediting agency of that profession, provided that the student has been accepted for further study at the professional school. The student may thus secure the baccalaureate degree after three to three-and-a-half years in the University followed by approximately a year in the professional school. The relevant professional degrees are:

- Doctor of Dental Surgery or equivalent
- Doctor of Medicine
- Doctor of Osteopathy
- Doctor of Podiatry
- Doctor of Veterinary Medicine
- Doctor of Jurisprudence or equivalent
- Doctor of Ministry or equivalent
- Bachelor of Divinity or equivalent

Advanced Placement (AP)

The state of Ohio, working through the University System of Ohio, has initiated policies to facilitate the ease of transition from high school to college as well as between and among Ohio's public colleges and universities.

Beginning in the fall term 2009:

1. Students obtaining an Advanced Placement (AP) exam score of 3 or above will be awarded the aligned course(s) and credits for the AP exam area(s) successfully completed.
2. General education courses and credits received will be applied towards graduation and will satisfy a general education requirement if the course(s) to which the AP area is equivalent fulfill a requirement.
3. If an equivalent course is not available for the AP exam area completed, elective or area credit will be awarded in the appropriate academic discipline and will be applied towards graduation where such elective credit options exist within the academic major.
4. Additional courses or credits may be available when a score of 4 or 5 is obtained. Award of credit for higher score values varies depending on the institution and academic discipline.
5. In academic disciplines containing highly dependent sequences (mathematics, sciences, etc.), students are strongly advised to confer with the college/university advising staff to ensure they have the appropriate foundation to be successful in advanced coursework within the sequence.

CLEP (College Level Placement Test), Departmental Credit By Exam

1. Students may not take a CLEP test, department challenge exam, or other credit by exam opportunity for any course in which they are currently enrolled or have been previously enrolled and earned an evaluative grade.
2. Students who have already received credit for coursework for a subject in which the courses are sequential may not receive academic credit by means of CLEP, department challenge exam, or other credit by exam opportunity for an earlier prerequisite course.

3. Students pursuing a baccalaureate degree may earn up to a maximum total of 30 semester hours via credit by exam; an associate degree may earn a maximum total of 15 semester hours via credit by exam.

Appeals

A student who disagrees with the award of transfer credit by the receiving institution has the right to appeal the decision and should contact the Office of Degree Audit to begin the process. The institution will make the student aware of the entire appeal process at the time of contact. You can also visit the Appeal (<https://ysu.edu/sites/default/files/admissions/Transfer%20credit%20Appeal%20Process.pdf>) website for an explanation of the process.

Admission with Non-Traditional Credit

You may be admitted to Youngstown State University with credits from non-traditional educational sources. All non-traditional credit earned is posted as transfer credit on the student's academic record.

Prior Learning Assessment Credit

Prior Learning Assessment (PLA) is an option that enables students to demonstrate what they have learned outside the classroom and translate that learning into college credit. PLA validates learning acquired through corporate training programs, extensive volunteer activity, military service, workplace experience, civic engagement, training sponsored by professional organizations, and training sponsored by governmental agencies. Credit is awarded for college-level learning (knowledge, skills, and competencies) that students have obtained as a result of their prior learning experiences.

Students must demonstrate their mastery of the knowledge in a subject area in order to earn college credit. Prior learning can be verified by one or more of the following:

- performance on standardized tests or department challenge exams
- demonstration of military service learning
- obtainment of professional certifications

Some certifications awarded by accrediting organizations are given automatic academic credit at YSU once proper paperwork is completed and proof of certification is presented. Please visit the Prior Learning Assessment Crosswalks (<https://ysu.edu/prior-learning-assessment/training-certification-crosswalks/>) webpage and look at crosswalks. If you feel as though you have life experiences that warrant PLA credit, please reach out to your academic advisor or department chair to discuss the credits in which you may qualify. If you are uncertain if you are eligible and what type of documentation you will need, please contact the Coordinator, Kim Verdone at kjverdone@ysu.edu for assistance.

For more information regarding PLA credit and guidelines, please see the Prior Learning Assessment (<https://ysu.edu/prior-learning-assessment/>) website.

Veterans

The U.S. Military is considered one of the finest training institutions in the world. Every Veteran or currently serving military student is entitled to a review of their military training to determine if college credit can be awarded.

Military Veterans, current service members (Active, Reserve and Guard), and certain qualified dependents often arrive at the university with various Department of Defense (DOD), Veterans Administration (VA), or State of Ohio Education benefits. The Office of Veterans Affairs (located at the Carl A. Nunziato Veterans Resource Center, 633 Wick Avenue, Youngstown State University) helps these military connected students make sense of their education benefits. Youngstown State University will not engage in unethical recruitment practices of this protected student population. Unacceptable

practices include offering inducements to any individual for the purpose of securing enrollments of Service members, providing commission, bonus or other incentive payment based directly or indirectly on securing Service member enrollments, or engaging in high-pressure recruitment tactics.

Student Veterans at Youngstown State University are afforded certain benefits in recognition for their service to country. The benefits include but are not limited to:

- waiver of application and fees
- advocacy services
- accessibility services
- priority registration
- weekly communications relative to veterans
- student Veterans group
- military friendly deployment practices
- special recognition at graduation
- access to the Veterans Resource Center
- evaluation of military transcripts

Courses taken through the United States Armed Forces Institute (USAFI) or the Defense Activity for Non-Traditional Education Support (DANTES) as well as certain formal service school courses will be considered for transfer toward the student's degree program. USAFI or DANTES courses must be evidenced by an official transcript, and service school courses through the (JST) Joint Service Transcript (Army, Navy, Marines, Coast Guard) or the (CCAF) Community College of the Air Force Transcript.

An individual who has served or is serving in the United States Armed Forces and has completed Basic Military Training will receive appropriate credit for that training. Credit may also be granted for "military job skill training" obtained while a member of the U.S. Armed Forces. A copy of the applicant's DD Form 214 and JST or CCAF must be supplied to the Office of Veterans Affairs in order to validate and award such credit. Be advised that credit awarded for various military education may not relate, or be applicable to the student's chosen field of study and as a result may not fulfill specific degree requirements. Every effort will be made to maximize the amount of college credit awarded for military training.

In addition, current military members (Active, Guard and Reserve), when called away to official duty during the semester, will be given special consideration as it applies to late withdrawals, and re-admission to programs in which they satisfactorily participate.

In accordance with the Veterans Benefits and Transition Act of 2018, Youngstown State University will not impose any penalty, including the assessment of late fees, the denial of access to classes, libraries or other institutional facilities, or the requirement that a fully covered Chapter 31 or Chapter 33 recipient borrow additional funds to cover the individual's inability to meet their financial obligations to the institution due to the delayed disbursement of a payment by the U.S. Department of Veterans Affairs. Note: proper documentation of eligibility for these VA benefits must be on file at the YSU Office of Veterans Affairs.

Questions should be addressed to the Office of Veterans Affairs, (330) 941-2503. See the Office of Veterans Affairs (<https://ysu.edu/veterans-affairs/>) website for more information.

Credit By Examination

Credit by examination is available to students who satisfactorily complete the appropriate subject examination.

The four available credit-by-exam opportunities include:

- Advanced Placement Program (AP) - available *only* through student's high school.

- International Baccalaureate (IB) - available *only* through student's high school
- College Level Examination Program (CLEP)
- Departmental Examinations - Call the specific department for a list of available exams and registration information.

Guidelines for students taking credit by examination:

- Students may not take a CLEP test, department challenge exam, or other credit by exam opportunity for any course in which they are currently enrolled or have previously been enrolled and earned an evaluative grade.
- Students who have already received credit for coursework for a subject in which the courses are sequential may not receive academic credit by means of CLEP, department challenge exam, or other credit by exam opportunity for an earlier prerequisite course.
- Students pursuing a baccalaureate degree may use a maximum total of 30 semester hours of credit by exam applied to their degree; an associate degree may have a maximum total of 15 semester hours of credit by exam applied to their degree.

Online Credit

The University will accept online work taken in connection with a regionally accredited institution under the same circumstances as provided in the section titled "Transfer Credit."

Transient Applicants

A student seeking a degree at another institution may ordinarily take one semester of course work at YSU as a transient student. The student must apply for admission to the University and provide a statement from the registrar from the student's current institution indicating the student is in good standing or a copy of their current transcript showing a cumulative grade point average of 2.00 (out of 4.00) or higher. Only students in good academic standing and eligible to return to their institution will be permitted to enroll as transients. Students who wish to remain as a transient student for a second consecutive semester should contact Admissions.

Former Student Applicants

All students who have interrupted their attendance at Youngstown State University for three consecutive semesters must reapply. Information regarding readmission can be found at undergraduate readmission (<https://ysu.edu/registrar-office/readmission-former-students/>). Students who have attended any accredited college or university since last attending YSU must contact the Office of Admissions, submit a Former Transfer application and provide all official documentation described under, "Credentials for Transfer Students."

Non-Matriculated Admission

The option of non-matriculated admission provides an opportunity for adults out of high school two or more years to enroll in undergraduate courses without completion of the regular admission process. High school or previous collegiate transcripts are not required until the non-matriculated student completes 18 credit hours or decides to seek admission to a degree program. Coursework taken in the 18 semester hours as a non-matriculated student can be applied to a degree program at Youngstown State University. Non-matriculated students are able to register only after current students have registered.

Applications for non-matriculated admission can be obtained through the Office of Admissions.

Suspended Students

A former student who was academically suspended must apply for reinstatement to the University through the Academic Reinstatement Committee.

See Academic Eligibility (<https://catalog.ysu.edu/undergraduate/general-information/academic-policies-procedures/grade-requirements/>) under Academic Policies, Rights and Responsibilities for rules regarding suspension and reinstatement.

Early Enrollment Opportunities

Early Enrollment Opportunities

Youngstown State University offers programs that provide additional academic opportunities to 7th-12th grade students who have demonstrated college readiness. The programs allow students to experience college-level course work, supplement their high school curriculum, enjoy special interests, and accumulate college credit. Course work may be applied toward a program at Youngstown State University or may be transferable. Students who plan to continue at YSU after graduation from high school must reapply to YSU and provide a final high school transcript to the Office of Admissions. These programs include:

COLLEGE CREDIT PLUS

The YSU College Credit Plus program (CCP) offers credit-bearing college courses to 7th-12th grade students. Students earn college credit on an official YSU transcript, transferable to any state-funded college or university in Ohio and some private and out-of-state schools. CCP students who plan to continue at YSU after graduating high school must reapply to YSU and provide their final high school transcript. In addition:

- Students can enroll in eligible classes for which they are qualified. Classes are offered on campus, online, or at the high school (course offerings vary). See the College Credit Plus (<https://ysu.edu/ocat/college-credit-plus/>) website for course eligibility and information about course offerings in each school district.
- There are two payment options in the CCP program. Students can either be self-pay (Option A) or state-funded (Option B). See the Student Cost: Option A vs. Option B (<https://ysu.edu/ocat/college-credit-plus/student-cost-option-vs-option-b/>) webpage for more information.

COLLEGE TECH PREP

Ohio College Tech Prep blends high-level academics with advanced career technical education. Focused on student success and workforce development, this educational initiative requires collaboration among secondary and post-secondary partners to support students through a smoothly structured transition from high school to college to careers.

Students who successfully complete the high school portion of College Tech Prep and continue their career pathway at YSU may earn articulated college credit or Career-Technical Credit (also known as CTAGs).

College Tech Prep is coordinated in Ohio through six regional centers. Ohio College Tech Prep is jointly managed by the Ohio Department of Higher Education and the Ohio Department of Education's Office of Career-Technical Education. For more information, contact the Division of Workforce Education & Innovation or email workforce@ysu.edu.

YOUNGSTOWN RAYEN EARLY COLLEGE (YREC)

YREC, the first school of its kind at a public university in Ohio, helps Youngstown city school district students succeed in high school and make a successful transition to higher education. From YREC's home base in the Rayen Building, just south of the YSU campus, students take a combination of high school and university classes, graduating from high school with up to 64 hours of college credit. Youngstown Rayen Early College was developed with the assistance of the KnowledgeWorks Foundation and the Bill and Melinda

Gates Foundation. For more information, contact the Office of College Access and Transition at ocat@ysu.edu.

College Prep Programs

Academic Achievers

Since 2002, Academic Achievers prepares 9th-12th grade students at Warren G. Harding High School in Warren, Ohio, for college through academic, cultural, and social experiences throughout the school year and over the summer. The program assists students with their studies, promotes service to the community, and prepares them to have successful high school and college careers. For more information, visit the Academic Achievers (<https://ysu.edu/upward-bound/academic-achievers/>) website.

SCOPE

SCOPE is a career exploration program that serves juniors and seniors at East and Chaney High Schools in the Youngstown City School District. For more information, email scope@ysu.edu.

Readmission of Former Students

A former student is one who was previously admitted into an undergraduate degree seeking program at YSU, has not attended for three or more consecutive terms, and has not attended another accredited college since attending. Students meeting this criteria, and are not an exception listed below, can complete an application for readmission via the Penguin Service Center. There is no application fee. Upon receipt of the application, former students will be contacted by mail or email regarding the status of readmission, as well as advisement and registration information.

Students who return to YSU and must be readmitted are readmitted under the Catalog in effect for the term of readmission.

How to re-apply:

To Apply by Mail: Students may apply by using the YSU Readmission Request Form (<https://ysu.edu/sites/default/files/registrar/Readmission%20Application%20Revised%20March%202022.pdf>) - Undergraduate Majors, Certificates and Tracks (<https://ysu.edu/academics/>). The completed form may be submitted to the Penguin Service Center in-person or by mail, fax or email.

To Apply Online: You can submit a readmission application online by using this link (<https://ysu.edu/registrars-office/undergraduate-readmission-application/>). You are required to submit your YSU ID number (Y00XXXXXX) or the last four digits of your social security number.

Exceptions:

RN to BSN students: Former students returning to YSU to pursue the RN to BSN program should contact the Office of Undergraduate Admissions (<https://ysu.edu/admissions/>).

International Students: Former students returning to YSU who still hold international status should contact the International Programs Office (<https://ysu.edu/international-programs-office/>).

Graduate Students: Former graduate students returning to YSU should contact the College of Graduate Studies (<https://ysu.edu/academics/college-graduate-studies/>).

If a student has attended another accredited college during their time away from YSU, the student should apply as a **former transfer student** through the Office of Admissions (<https://ysu.edu/admissions/>); they can be reached at (330) 941-2000.

CONTACT FOR QUESTIONS/CONCERNS

Office: Penguin Service Center
Location: Meshel Hall

Website: <https://ysu.edu/penguin-service-center> (<https://ysu.edu/penguin-service-center/>) and <https://ysu.edu/registrars-office> (<https://ysu.edu/registrars-office/>)

Faculty and Staff

University Administration

The Agency

The Ohio Department of Higher Education is a Cabinet-level agency for the Governor of the State of Ohio that oversees higher education for the state. The agency's main responsibilities include authorizing and approving new degree programs (<https://highered.ohio.gov/wps/portal/gov/odhe/educators/academic-programs-policies/academic-program-approval/>), managing state-funded financial aid programs (<https://highered.ohio.gov/wps/portal/gov/odhe/educators/financial-aid/sgs/sgs-overview/sgs-overview/>) and developing and advocating policies (<https://highered.ohio.gov/wps/portal/gov/odhe/initiatives/>) to maximize higher education's contributions to the state and its citizens.

The Chancellor

As a member of the Governor's Cabinet, the Chancellor of the Ohio Department of Higher Education advises the Governor on higher education policy and implements the Governor's plan to make college more affordable for Ohioans and drive the state's economic advancement through the public universities and colleges of Ohio (<https://highered.ohio.gov/wps/portal/gov/odhe/about/ohios-campuses/map/>), the state's network of public universities, regional campuses, community colleges, and adult workforce and adult education centers. The Chancellor is responsible for carrying out the responsibilities of the agency, including authorizing and approving new degree programs and managing state-funded financial aid programs. Chancellor Mike Duffey (<https://highered.ohio.gov/wps/portal/gov/odhe/about/odhe-overview/chancellor-duffey/chancellor-duffey/>) was appointed the eleventh Chancellor of the Ohio Department of Higher Education in January 2024.

University Administration

University Board of Trustees

University Board of Trustees	Term Expires
Charles T. George, Vice Chair	2027
Sergul Erzurum	2031
Anita A. Hackstedde, Secretary	2030
Joseph Kerola	2029
Laura Lyden	2026
Michael A. Peterson, Chair	2025
Allen L. Ryan, Jr.	2028
Richard C. Fryda	2032
Sterling A. Williams	2033
Natalie Dando, Student Trustee	2024
Zane Perrico	2026

Executive Level

Executive Level	Position
William L. Johnson	President
Jennifer A. Pintar, PhD, MPH	Provost and Vice President for Academic Affairs
Holly A. Jacobs, JD	Vice President for Legal Affairs and Human Resources and General Counsel
Neal P. McNally, MPA	Vice President for Finance and Business Operations

William M. Sherman, PhD	Vice President for Student Affairs, Institutional Effectiveness, and Board Professional
Sarah Keeler, MA	Vice President for Government Affairs
Ron Strollo, BA	Executive Director, Intercollegiate Athletics

Division of Academic Affairs

Division of Academic Affairs	Position
Jennifer A. Pintar, PhD, MPH	Provost and Vice President for Academic Affairs
Kevin E. Ball, PhD	Associate Provost, Academic Programs and Planning
Claire Berardini, PhD	Associate Provost, Student Success
Sara Michaliszyn, PhD	Interim Dean, BCHHS, Bitonte College of Health and Human Services
Amy Cossentino, PhD	Dean, Honors College & Associate Provost, Strategy and Engagement
Charles L. Howell, PhD	Dean, BCQE, Beeghly College of Liberal Arts, Social Sciences, and Education
Betty Jo Licata, PhD	Interim Dean, WCBA, Williamson College of Business Administration
Phyllis M. Paul, PhD	Dean, CCCA, Cliffe College of Creative Arts
Sal A. Sanders, PhD	Dean, College of Graduate Studies & Assistant Provost for Cyberlearning
Wim F. Steelant, PhD	Dean, STEM, College of Science Technology, Engineering and Mathematics
Vacant	Assistant Provost, Office of Belonging, Empowerment, and Engagement
Hillary Fuhrman, ME	Assistant Provost, Institute for Teaching and Learning
Christine Adams, MLS	Co-Director, Maag Library and Head of Research and Academic Support
Mike Latessa, MEd, EdS	Interim Executive Director, Rich Center for Autism
Sara Fugett, MS	Director, Career Exploration and Development
Amy Gordon, MA	Director, Comprehensive Testing Center
Jessica Gaskell, MS	Director, First Year Student Services
Terri Orlando, MBA	Academic Budget Officer
Sharon Schroeder, MSED	Director, College Access and Transition
Ana M. Torres, BBA	Co-Director, Maag Library and Head of Library Services and Operations
Severine Van slambrouck, PhD	Director, Research Services
Becky Varian, MSE	Director, Resch Academic Success Center

Division of Finance and Business Operations

Division of Finance and Business Operations	Position
Neal McNally, MPA	Vice President, Finance and Business Operations
Steve Hoffmaster, CPA, MBA	Interim Associate Vice President for Finance and Controller
John Hyden, BCT	Associate Vice President, University Facilities

James Yukech, MSE	Associate Vice President, Chief Information Officer
Marianne Cohol, BAS	Director, IT Application and Project Management Office Services
Rosalyn Donaldson, MSEd	Director, IT Training and Academic Continuity Team Program Manager
Susan Ewing, CPA, MBA	Bursar
Ryan Geilhard, MBA	Director, IT Customer Services
Julie Gentile, MS	Director, Environmental and Occupational Health and Safety
William Haas, BS, BSAS	Director, Engineering
Barb Greene, MBA	Director, Procurement Services
Daniel O'Connell, MA	Director, Support Services
Theresa Orwell, CPA, MBA	Associate Controller, Gifts Accounting and Director of Grants Accounting
Lisa Reichert, CPA, MBA	Special Assistant to the AVP and Controller
Richard White, BSAS	Director, Capital Planning and Construction
Shawn Varso, BSAS	Chief of Police

Division of Institutional Effectiveness

Division of Institutional Effectiveness	Position
William M. Sherman, PhD	Vice President for Student Success, Institutional Effectiveness, and Board Professional
Jeanne Herman, BSBA	Associate Vice President for Institutional Effectiveness
Shannon Tirone, MS	Associate Vice President, University Relations
Ross Morrone, MS	Chief Marketing Officer
Eron Memaj, PhD	Director, International Programs Office
Rebecca Rose, BA	Director of Marketing and Communications
Tysa Egleton, MS	Registrar
Jacquelyn LeViseur, BA	Director, University Events and Alumni Engagement
Gary Sexton, MM	Director, WYSU-FM

Division of Legal Affairs and Human Resources

Division of Legal Affairs and Human Resources	Position
Holly A Jacobs, JD	Vice President for Legal Affairs and Human Resources and General Counsel
Gregory Morgione, JD	Associate General Counsel and Liaison for Local Government Relations
Kevin Kralj, JD	Director, Labor Relations
Jennifer Lewis-Aey, MHR	Executive Director of Human Resources and Chief Human Resource Officer
Dana Lantz, JD	Executive Director, Equal Opportunity, and Human Resources
Ross Miltner, JD	Associate General Counsel for Athletics

Office of the Dean of Students

Office of the Dean of Students	Position
Nicole Kent-Strollo, EdD	Dean of Students and Ombudsperson
Francine Packard, PdD	Director, Student Counseling Center

Student Enrollment and Business Services	Position
Elaine Ruse, MBA	Associate Vice President, Student Enrollment and Business Services
Vacant	Director, Financial Aid and Scholarships
Christine Hubert, MA	Director, Undergraduate Admissions
James Stanger, MBA	Director, Technology Services, Financial Aid and Scholarships

Student Experience	Position
Joy Polkabra Byers, MA	Associate Vice President, Campus Recreation and Wellness
Erin Driscoll, MBA	Executive Director, Housing and Residence Life
John Young, BS	Executive Director, Auxiliary Services
Olivia Cupp, MHHS	Director, Housing and Residence Life
Ryan McNicholas, MHHS	Director, Campus Recreation
Rick Williams, MBA	Associate Director, Office of Veteran's Affairs

Division of Workforce Education and Innovation

Division of Workforce Education and Innovation	Position
Rachel L. McCartney, MA	Director, Grants Development
Lindsey F. Ekstrand, ME	Director, Workforce Education Programs
Hazel Marie, PhD	Program Director, Williamson Innovation Park
Jenna Binsley, MBA	Associate Director, Marketing and Communications
Nico Morgione, BS	Associate Director of Business Development and Industry Partnerships

Full-Service Faculty

A

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Financial Aid and Scholarships

Youngstown State University has a comprehensive program of financial assistance which includes scholarships, grants, work-study, and loans. Most of these programs are administered by the Office of Financial Aid and Scholarships.

Links to the following resources are conveniently located at the Office of Financial Aid and Scholarships' website Financial Aid and Scholarships (<http://www.ysu.edu/content/office-financial-aid-and-scholarships/>).

1. **Free Application for Federal Student Aid (FAFSA):** A common form used to apply for federal and state need-based grant aid and student loans.
2. **Youngstown State University Scholarship Search:** An online search engine to locate and apply for YSU-specific scholarship funds offered through the Youngstown State University Foundation.
3. **Youngstown State University Foundation Scholarship Application:** An online form application which, upon completion, considers students for a number of scholarships awarded through the YSU Foundation and its donors.

All YSU applicants for admission, or current students, seeking financial assistance through the Free Application for Federal Student Aid (FAFSA) should apply no later than February 1 for new students and February 15 for continuing students. Students interested in applying for institutional grants and scholarships should adhere to those individual deadlines as noted on their respective applications.

For maximum consideration, both new and continuing students are encouraged to meet priority deadlines in applying for financial aid.

Scholarships

Scholarships are gift aid awarded to students on the basis of superior academic performance or talent, other specific criteria as set forth by the individual donor, and/or on the basis of financial need. Scholarships do not have to be repaid. Amounts may vary depending on the academic ability, financial need, and/or the current state of funding or endowment support for the scholarship. Scholarship funds have been established at YSU by individuals, corporations, clubs, and both religious and fraternal organizations. In addition, the Youngstown State University Foundation administers endowments which provide substantial funding for numerous scholarship programs at Youngstown State University, including the Scholarships for Excellence program.

Scholarships awarded to current Youngstown State University students are based on the student's academic record, character, and/or financial need. Scholarships for incoming freshmen are awarded on the basis of high school academic record, grade point average (GPA), scores on standard college entrance examinations, and in limited situations, class rank. Scholarship applicants are considered for all scholarships appropriate to their aims and interests.

To be considered for scholarships, students should complete all appropriate forms by their established due date each year. To search a complete listing of scholarships, visit the office website (<https://ysu.edu/content/office-financial-aid-and-scholarships/>). Additionally, students seeking consideration for need-based scholarships will also need to complete a Free Application for Federal Student Aid (FAFSA) found at studentaid.gov (<https://studentaid.gov/h/apply-for-aid/fafsa/>).

Scholarships for Excellence

Please check with the Office of Financial Aid and Scholarships for the most current scholarship information.

Scholarships for Excellence programs are awarded by the University and jointly funded by the YSU Foundation and the University. The YSU Foundation, with an endowment of over \$300 million, is committed to providing the

"edge of excellence" for the University, providing more than \$10.9 million in scholarship assistance annually for YSU students. The Scholarships for Excellence programs are awarded to eligible **new high school graduates, transfer students, and current students**. Current and transfer students will automatically be considered for these scholarships. In addition, incoming freshmen should apply for admission by February 15 to be considered for these scholarships automatically.

Please note: Undergraduate Scholarships for Excellence program guidelines **are subject to change**. Students cannot be awarded more than one scholarship through the Scholarships for Excellence program.

Click the following link to view a current list of the Scholarships for Excellence (<http://www.ysu.edu/content/office-financial-aid-and-scholarships/scholarships/>).

YSU Foundation Scholarship Application

The Youngstown State University Foundation (YSUF) is an independent, non-profit organization that distributes resources from privately held funds to support YSU students through scholarships. The YSU Foundation is the designated philanthropic entity of Youngstown State University. Upon completion of the single application, students will be considered for a number of YSU Foundation scholarships. See the YSU Foundation Scholarship Application (https://cfweb.cc.ysu.edu/finaid/ysuf/ysuf_application.cfm) on the office website for additional information and to apply.

Other YSU Scholarships

For a listing of scholarship opportunities currently available to YSU students, go to the Scholarship Search (http://cfweb.cc.ysu.edu/finaid/scholar/est_scholar.cfm).

Students are also encouraged to explore these supplemental options for scholarship resources:

- Their particular college or department for academic specific scholarships
- Student's and/or parent's employer for scholarships or fee remission opportunities
- Local community resources for scholarship programs, such as church organizations and libraries
- Free internet web searches through sites such as Fastweb (<http://www.fastweb.com/>) or FinAid (<http://www.finaid.org/>)

Grants-in-Aid

Grants-in-Aid are gift monies that do not need to be repaid. The amount of grant aid awarded is determined by the recipient's financial need and/or academic record and character. The following is a list of Grant-in-Aid funds a student could potentially qualify to receive:

- **Federal Pell Grant:** A need-based federal grant provided to eligible undergraduate students pursuing a first bachelor's degree or associate's degree. A FAFSA must be filed yearly to be considered for this grant.
- **Federal Supplemental Educational Opportunity Grant (FSEOG):** A need-based grant funded by the federal government and awarded by YSU. Students who meet the eligibility requirements for the Federal Pell Grant, and meet the priority filing deadline of February 1 for new students and February 15 for continuing students, receive primary consideration for this campus-based aid program.
- **Ohio College Opportunity Grant (OCOG):** Grant funds awarded by the State of Ohio to full-time, undergraduate students who are residents of Ohio and who are pursuing a first bachelor's degree or associate's degree. Eligibility is based on family income. The FAFSA must be completed by October 1 of each year to be considered for this grant.
- **Pennsylvania State Grant Program (PA State Grant):** Grant funds provided to Pennsylvania residents who are YSU students. Students may be full-time or half-time undergraduates enrolled in an approved program of study

requiring at least two years to complete. File the FAFSA by May 1 of each year to be considered for this grant.

- **YSU Foundation PA State Grant Supplemental Grant:** Due to the legislative cap on Pennsylvania grants to Pennsylvania residents attending Ohio universities, YSU has initiated a supplemental grant program funded by YSU and the YSU Foundation. This grant will be automatically awarded to YSU students who are awarded and eligible to receive a PA State grant. The supplemental grant will be awarded in amounts up to 200% of the PA State grant, subject to availability of funds.
- **Veterans' Administration Education Assistance:** The Department of Veterans' Affairs provides education assistance to veterans or current armed service personnel. Programs include contributory plans, rehabilitation benefits, work-study, and dependent/spousal benefits. Contact the Office of Veterans Affairs at (330) 941-2503 or toll-free at 888-GI-BILL1 (888-442-4551).
- **Bureau of Vocational Rehabilitation Awards:** Programs funded by the Bureau of Vocational Rehabilitation in Ohio (BVR) and the Office of Vocational Rehabilitation in Pennsylvania (OVR) that provide grants for tuition, fees, and/or books for residents with disabilities. Eligibility is determined by each state's Bureau.
- **Ohio War Orphans:** Grant funds for children of disabled or deceased U.S. Armed Forces veterans. There is a needs test required, the student must be an Ohio resident attending an Ohio college or university, and be under the age of 25 upon application. The grant pays a percentage of tuition and fees. For additional information, contact (614) 752-9528.
- **Ohio National Guard:** Provides grants paying for 100% of instructional and general tuition fees for members who are full-time undergraduates. Apply through the National Guard. Pay close attention to deadlines. For additional information, contact (614) 336-7053

Employment

To assist in paying for educational and living expenses, currently enrolled students in good standing may apply for on-campus employment. On-campus employment opportunities are posted online (<https://ysu.edu/welcome-student-employment/>). Students are encouraged to check regularly for open positions.

Federal Work-Study is a need-based program that provides eligible students with funding for on-campus employment. Federal Work-Study students receive paychecks for hours worked and may utilize those funds toward educational and living expenses. To receive maximum consideration for this campus-based program, the FAFSA must be filed by the priority deadline of February 1 for new students and February 15 for continuing students.

Loans

Loans are a form of self-help financial aid utilized by many students to help meet educational expenses. Borrowing responsibly is key as many loans have borrowing limits, accrue interest, and must be repaid.

- **Federal Direct Subsidized and Unsubsidized Stafford Loans:** The federally funded Subsidized Stafford Loan has its interest paid while the student maintains at least half-time enrollment. Federal Unsubsidized Stafford Loan interest accrues from the time the loan is first disbursed (Note: Graduate students are only eligible for unsubsidized loans). For a list of the most current interest rates on Stafford Loans, please see the Federal Student Loan (<http://www.ysu.edu/content/office-financial-aid-and-scholarships/student-loans/>) page on the Office of Financial Aid and Scholarships website. Repayment of both types of Stafford Loans begins six months after graduation, separation, or enrollment of less than half-time. Student borrowers cannot exceed their designated annual loan limits and maximum total debt allowed by federal law (see the Office of Financial Aid and Scholarship's website (<http://www.ysu.edu/content/office-financial-aid-and-scholarships/>) for more information).
- **Federal Direct PLUS Loan:** This federally funded loan is for the parents of dependent, undergraduate students who are potentially eligible to borrow based on their credit-worthiness. Parents interested in this loan option

should log into studentaid.gov (<https://studentaid.gov/>) and complete the Parent PLUS Loan application for consideration. Repayment of the Federal PLUS Loan generally begins sixty days after the final loan disbursement of each academic year. Current interest rates on the Federal Parent PLUS loan can be found on the Federal Student Loan (<http://www.ysu.edu/content/office-financial-aid-and-scholarships/student-loans/>) page of the Office of Financial Aid and Scholarships website.

- **Federal Direct PLUS Loans for Graduate and Professional Students:** This federally funded loan is available to students who are enrolled in a graduate or professional program (a program that leads to a master's or doctoral degree) and who have reached their annual Stafford Loan limit. Additional requirements include minimum half-time enrollment and good credit history as a credit check is required for approval. Repayment will begin within sixty days of the loan reaching full disbursement. Current interest rates on the Federal Direct PLUS Loan for Graduate and Professional Students can be found on the Federal Student Loan (<http://www.ysu.edu/content/office-financial-aid-and-scholarships/student-loans/>) page of the Office of Financial Aid and Scholarships website.

Please see the department's website (<https://ysu.edu/financial-aid-and-scholarships/>) for the most current information on all federal loan programs.

Part-time Students

Aid is available for part-time students, though the amount of part-time aid and the types of aid available vary. Be sure to file the FAFSA by February 1 for new students and February 15 for continuing students for maximum consideration. It is also recommended to check directly with the Office of Financial Aid and Scholarships to discuss how part-time attendance can ultimately affect a student's overall financial aid eligibility.

Federal Verification

Students selected for verification are required to submit certain documentation to the Office of Financial Aid and Scholarships. Students should submit this requested documentation as soon as possible so that the processing of financial aid is not delayed. Even if the student initially applies on time, any delay in processing due to verification could result in that student not receiving financial aid that they may have otherwise been eligible to obtain. Processing typically takes up to 3 weeks, but can take longer during peak processing periods.

Keep copies of all tax forms, tax return transcript(s), and W-2 forms each year, as well as any documents or forms submitted to the Office of Financial Aid and Scholarships.

Submitting Tax Information

There are two ways to provide your tax information for the verification process:

1. [Provide consent to the disclosure of Federal Tax Information \(FTI\) from the IRS to the Department of Education via the FUTURE Act Direct Data Exchange \(FA-DDX\)](#)
2. Provide a copy of your IRS Tax Return Transcript or signed copy of the IRS tax form 1040

Tax return transcripts can be ordered by calling 1-800-908-9946, or online (<https://www.irs.gov/individuals/get-transcript/>).

Special or Unusual Circumstances

[Students attending Youngstown State University can request an adjustment to the FAFSA due to a special or unusual circumstance through a process with the Office of Financial Aid and Scholarships, contact the Office of Financial Aid and Scholarships to discuss the situation with a counselor.](#)

Satisfactory Academic Progress (SAP) Policy

Federal and State of Ohio regulations require that Youngstown State University review the academic progress of students annually, whether they are a previous aid recipient or not. SAP is evaluated during the spring semester. The purpose of this review process is to measure whether a student is making satisfactory progress towards their educational goals. All federal programs and the Ohio College Opportunity Grant (OCOG) are affected when a student is not in compliance with the Satisfactory Academic Progress Policy. The Pennsylvania State Grant Program (PA State Grant) is not governed by the Satisfactory Academic Progress Policy, but rather by the respective state.

YSU's Satisfactory Academic Progress requirements for undergraduate and graduate students include the following three components:

1. Grade Point Average (GPA)

All students at Youngstown State University are required to maintain a minimum cumulative grade point average. Undergraduate students must maintain a minimum 2.0 GPA. Graduate students are required to maintain a 3.00 GPA. The following grades are included in the GPA calculation: A, B, C, D, and F. The GPA calculation excludes the following grades: CR-credit; NC-no credit; AU-audit; I-incomplete; W-withdrawal. For incompletes, the credit hours apply to the term the student was enrolled, not the term the student was making up the incomplete. Students who wish to improve their cumulative GPA by repeating a course will be subject to a GPA recalculation. However, a recalculation will be made for only the immediately preceding grade for the course, regardless of the number of repeats, and may be made only once for any course.

Students academically suspended cannot receive federal aid during the period of suspension.

2. Max Time Frame

When a student's attempted hours reach 150% of the maximum hours needed to complete an associate (between 90 and 110 hours) or bachelor's degree (between 180 and 216 hours), federal financial aid eligibility will be suspended unless the time frame is extended with an appeal accompanied by an Academic Advisor Evaluation. Graduate degrees must be completed by the length of time standards established and monitored by the School of Graduate Studies.

Please Note:

- All credit hours attempted including graded courses, hours accepted as transfer credit, credit/no credit courses, repeated courses or hours when changing majors or degrees are included in the maximum time frame calculation regardless of the number of degrees a student chooses to pursue. Students seeking second degrees may reach the maximum time frame component at an accelerated pace under this policy.
- All terms of attendance are reviewed including terms of remedial coursework or when no federal aid was received, these hours are included in the attempted hours.

3. Percentage Completion

At the time of the annual assessment, completed hours as a percentage of attempted hours, must meet the following minimum requirements:

1. **Freshmen** (0-29 hours earned) must complete a minimum of 55% of the total cumulative hours attempted;
2. **Sophomore** (30-59 hours earned) must complete a minimum of 60% of the total cumulative hours attempted;
3. **Junior** (60-89 hours earned) must complete a minimum of 65% of the total cumulative hours attempted;

4. **Senior** (90+ hours earned) must complete a minimum of 70% of the total cumulative hours attempted;
5. **Graduate** (13+ grad hours attempted) must complete a minimum of 50% of the total cumulative hours attempted

Percentage completion is calculated by dividing earned hours by cumulative hours attempted. For financial aid satisfactory academic progress purposes, attempted hours exclude audited hours and withdrawals made by the last date to receive a 100% refund. The following grades negatively impact the percentage completion calculation: F-failed; NC-no credit; AU-audit; I-incomplete; W-withdrawal. For Incompletes, note that the credit hours apply to the term in which the student was enrolled in the course, not the term the student was making up the Incomplete. Repeated courses are included in the percentage completion calculation.

Transfer Students

Transfer students will be eligible for federal aid through the spring semester of the academic year they begin at YSU. During the spring semester, these students will be evaluated under the Satisfactory Academic Progress Policy. Transfer hours will be included in the number of hours earned and attempted, but only YSU grades enter into the GPA calculation.

Non-Degree Students (undergraduates, post-undergraduate, and graduate)

A student must be enrolled in a degree program to receive federal financial aid.

SAP Appeal Process

If a student is non-compliant, they must appeal the denial of financial aid by submitting an appeal form that explains the circumstances. Supporting documentation may be required to review conditions that can include: severe physical or mental illness or injury of the student or immediate family, death of a relative, or other mitigating circumstances. Appeals will be evaluated by the Satisfactory Academic Progress Appeal Committee, which will respond via email with the decision within 30 days, whether approved or denied.

Students who do not appeal, or who are denied by the Committee, will not be eligible for federal financial aid programs effective summer semester and until they satisfy all deficiencies without receiving federal student aid funds. Federal regulations require students who successfully appeal to be placed on a semester based Financial Aid Probation and Academic Progress Plan. At the end of the probationary term, the semester based grade point average, semester based completion percentage, and/or semester based academic action plan requirements must be met to receive federal aid for the subsequent semester unless across-the-board compliance with overall SAP was established. The decision made by the Satisfactory Academic Progress Appeal Committee is final. As previously indicated, students can expect to receive an appeal decision via email within 30 days of the office receiving their Satisfactory Academic Progress Appeal form.

Financial Aid Refund Policy

The refunding of financial aid funds to the appropriate funding source corresponds to federal regulations, the Return of Title IV fund requirements and YSU's refund policy regarding student fees upon withdrawal from class(es). This policy is explained in greater detail in the Undergraduate Catalog.

Commonly Used Financial Terms

Cost of Attendance (COA): The total cost of attending school for one academic year, including direct costs (tuition, fees, living expenses (food and housing) and indirect costs (books, supplies, and equipment, transportation, and additional miscellaneous personal expenses).

Student Aid Index (SAI): The SAI is used to determine a student's federal aid eligibility and calculate a student's financial need as determined by the federal government; based on the information supplied on the FAFSA.

FAFSA (Free Application for Federal Student Aid): A common form found online at studentaid.gov (<https://studentaid.gov/h/apply-for-aid/fafsa/>) that a student (and parents when applicable) complete in order for the federal processor to determine the student/family SAI. The SAI is then used by YSU to determine a student's overall financial need. FAFSA must be completed each year in order for a student to be considered for loans, grants, and certain scholarships.

Financial Aid: All forms of financial assistance which include gift aid (scholarships and grants), as well as self-help aid (work programs and loans).

Financial Need: The difference between the Cost of Attendance and the Student Aid Index.

Gift Aid: Aid, usually in the form of scholarships and grants, that does not have to be paid back.

Grant: Gift aid awarded to a student on the basis of financial need, and in some cases, academic performance and character. Grants do not have to be paid back.

Scholarship: Gift aid awarded on the basis of academic performance, talent, other unique criteria as established by the donor/organization, and/or financial need.

Subsidized: A subsidized loan is a need-based loan in which the government pays the interest while the student is enrolled at least half-time in school.

Verification/Documentation: The process by which YSU confirms the accuracy of the information supplied on FAFSAs each year as required by federal regulation. If a student is selected for verification/documentation, they (and their parents when applicable) will be asked to supply the Office of Financial Aid and Scholarships with additional information and copies of documents such as W-2's and federal tax return transcripts.

Unsubsidized: An unsubsidized loan is not based on financial need. The borrower is responsible for all interest that accrues.

Office Information And Hours

Mailing Address:

Youngstown State University
Office of Financial Aid and Scholarships
1 Tressel Way
Youngstown, OH 44555-3505

Telephone: (330) 941-3505

Appointment Line: (330) 941-3506

Fax: (330) 941-1659

Email: ysufinaid@ysu.edu

Web address: www.ysu.edu/finaid (<http://www.ysu.edu/content/office-financial-aid-and-scholarships/>)

Office Hours: Monday-Friday; 8:00am-4:30pm

Walk-in Hours: Monday-Friday; 10:00am-12:00pm and 2:00pm-4:00pm

Information for Entering Students

First Year Requirement

Success Seminar

All first-time degree seeking undergraduates and transfer students with fewer than 30 transfer credits are required to take a Success Seminar in their first

semester at YSU. Success Seminars are designed to provide students with a strong foundation for academic success at YSU.

First-year students admitted to the Strong Start program will take **YSU 1500S: Success Seminar**. Students learn the “ins and outs” of the academic community, strengthen their study and time management skills, learn habits of mind that promote success, identify and balance competing priorities, and use appropriate campus resources to overcome challenges that arise.

First-year students admitted to the Honors College will take **HNRS 1500: Introduction to Honors**. This course prepares students for the expectations and requirements of the Honors Program. Students develop skills that aid in their overall academic endeavors and explore topics pertinent to their development within the Honors Program and as citizens of the university, local, national and global communities.

All other first-year students admitted to YSU will take **YSU 1500: Success Seminar**. This course helps students learn the conventions that govern the academic community including what is expected of them and what they are responsible for, skills needed to successfully manage their academic workload, study strategies, and habits of mind that promote success in college.

Contact for Questions/Concerns

Office: First Year Student Services

Location: Jones Hall

Website: <https://ysu.edu/first-year-student-services> (<https://ysu.edu/first-year-student-services/>)

Orientation

First-Year Student Orientation

Orientation is a requirement for all first-year undergraduate students. During orientation, students meet with current YSU students, academic advisors, and staff who help them learn about university resources, build connections with other incoming first-year students, and register for their first-semester courses. Students also learn about support services and student organizations.

Student must take the following steps to register for orientation:

Upon admittance to the university, students will receive a packet from the Office of Undergraduate Admissions with instruction on activating their Penguin Portal account.

Once the account is activated and the student is logged in, they select, as appropriate, the “New Freshman Start Here” or the “New International Students Start Here” card to confirm their intent to enroll at YSU and register for Orientation

After the Orientation reservation has been submitted, an email will be sent to the student with further information on the orientation program details and agenda.

After attending Orientation, students will then register for and attend the IGNITE program.

Transfer Student Orientation

Transfer student orientation provides an opportunity for incoming transfer students to learn about the university, navigate any campus resources/technology, review transfer credit, and meet with an academic advisor. This program is offered in two different formats. Students can choose to complete the program in real time or through a prompted, self-paced program.

Transfer students must take the following steps to register for orientation and select their preferred format:

Upon admittance to the university, students will receive a packet from the Office of Undergraduate Admissions with instruction on activating their Penguin Portal account.

Once the account is activated and the student is logged in, they select the “New Transfer Students Start Here” card and sign up for Orientation.

After the reservation has been submitted, an email will be sent to the student with further information on the orientation program details and agenda.

IGNITE

IGNITE is a one-day program for first-year students to connect with one another, the campus community, and find their place at YSU. It is a “Welcome to Campus” program for our newest Penguins that have attended summer/fall orientation. The IGNITE program occurs the week prior to the start of fall classes each August.

CONTACT FOR QUESTIONS/CONCERNS

Office: First Year Student Services

Location: Jones Hall

Website: <https://ysu.edu/first-year-student-services> (<https://ysu.edu/first-year-student-services/>)

Placement Tests

New students may be required to take placement tests to determine their readiness for college-level work. If placement testing shows that students are not prepared for college-level work, they will be placed into one or more developmental courses in English Composition and/or Mathematics. The Composition Placement Test and the ALEKS® Math Test are required of all students unless there is an automatic placement or exemption due to ACT/SAT scores. Students who have AP credit, College Credit Plus (CCP) credit, or transfer coursework may not need placement testing. Students will be informed about what testing is needed when they are accepted for admission to the University.

Students who are required to take one or more placement tests must do so before advisement and registration.

Composition Placement Test

The Composition Placement Test is required of a student who has not been placed through ACT/SAT scores, or is not required to take the ACT/SAT test. No student is permitted to register for classes without having taken the tests, except those students placed into English classes for non-native speakers and those with approved transfer credit.

Students placing into the following courses must complete the specified coursework within their first 36 semester hours. Otherwise, the student will be limited to enrolling only for those developmental classes until they are completed successfully.

COURSE	TITLE	S.H.
ENGL 1541	Introduction to College Writing	3
ENGL 1549	Writing 1 with Support	4

Conditionally admitted students placing into the following courses must take these courses within their first 20 semester hours.

COURSE	TITLE	S.H.
ENGL 1541	Introduction to College Writing	3
ENGL 1549	Writing 1 with Support	4

Students directed to enroll in the following courses must do so. The student may not withdraw from these courses unless he or she is making a complete withdrawal from the University.

COURSE	TITLE	S.H.
ENGL 1541	Introduction to College Writing	3
ENGL 1549	Writing 1 with Support	4

None of the above-named courses may be taken more than twice without the approval of the college dean. Should a student not successfully complete any of these courses within two attempts, or if he or she withdraws from them twice, the student will be unenrolled from the University.

Please note that credit hours from the following courses will not count toward a degree.

COURSE	TITLE	S.H.
RSS 1510A	Advanced College Success Skills	3
ENGL 1509	Academic English for International Students	3
ENGL 1512	English Conversation for Non-native Speakers	1
ENGL 1541	Introduction to College Writing	3

English Composition Requirement

A student must complete the regular English composition requirement for graduation within the first 60 hours of coursework. A student who does not complete the English requirement within the first 60 hours of coursework will be prohibited from registering for any additional upper-division courses until the English requirement has been met. Transfer students having completed 60 hours or more are exempt from this policy for their first 12 hours of enrollment at Youngstown State University.

For more information about Placement Tests, please visit the Testing Center (<https://ysu.edu/testing-center/>) website.

ALEKS Math Test

Students who have not been placed through ACT/SAT scores or are not required to take the ACT/SAT test must take the ALEKS® Math Test unless they have approved AP math credit or sufficient transfer coursework. Students will be placed into appropriate mathematics courses based on their ACT/SAT scores or the ALEKS® Math Test.

For information regarding math coursework, visit the Department of Mathematics and Statistics (<https://academics.ysu.edu/mathematics-and-statistics/>) website. For a sample math placement test, visit www.aleks.com (<https://www.aleks.com/>) and click on 'Free Trial' on the top right of the page.

Foreign Language Placement Test (FLPT)

Foreign language requirements are determined by the student's major program. Students should consult their academic advisor and curriculum requirements in the Undergraduate catalog. Students in the BA and BM degree programs in the Cliffe College of Creative Arts should consult with advisors in that college.

Students may enroll in any elementary (1501) foreign language course without taking the FLPT.

Students with a proficiency in a foreign language may take the FLPT to satisfy the foreign language requirement or to begin higher foreign language study. The FLPT is offered in Italian, Spanish, French, and Latin. For more information email the Testing Center at testing@ysu.edu.

Students who earn Advanced Placement (AP) credit in a foreign language have completed the requirement. Students with transfer credit for college foreign language courses may enroll in the next course in the sequence.

For Questions or Concerns

Office: Comprehensive Testing Center
Location: Maag Library

Website: <https://ysu.edu/testing-center> (<https://ysu.edu/testing-center/>)

Tuition, Fees, and Charges

Tuition and fees are assessed based on the number of credit hours of enrollment, residency, course and/or program. The Board of Trustees of Youngstown State University has pledged to make every effort to keep the required fees as low as is consistent with providing quality education. It is intended that fees not be adjusted more often than annually and that fee changes be announced in the spring or early summer. The Board of Trustees does, however, reserve the right to change any fee, charge, or fine without notice if conditions warrant.

Application for Involuntary Withdrawal

If a student withdraws from courses for reasons beyond their control (e.g. military service, job transfer, shift change imposed by the employer that creates a direct conflict with the class schedule, or death in the family¹), the fee charges may be reduced in proportion to the number of weeks enrolled, upon submission and approval of an Application for Involuntary Withdrawal. An Application for Involuntary Withdrawal can be processed only for courses in which the student has already received a grade of "W" (withdrawn).

To receive "W" grades, students may withdraw from courses through the Penguin Portal (<https://ysu.edu/penguin-portal/>) until the deadline published on the Office of the Registrar's Academic Calendar (<https://ysu.edu/registrar-office/calendars/>) each semester. Students seeking to withdraw from courses after the semester deadline should request approval from the Dean of their academic college by submitting a Petition for Late Withdrawal (https://ysu.edu/sites/default/files/academics/graduate_studies/Petition_For_Late_Withdrawal.pdf). Alternatively, Medical Leave/Withdrawal (<https://ysu.edu/student-affairs/medical-leavewithdrawal/>) is available for students with a documented physical or mental health-related condition of a serious nature that requires them to leave the University mid-semester, after the last day to withdraw with a grade of "W." Students who may qualify for Medical Leave/Withdrawal should complete the application for medical withdrawal relative to their specific circumstance (i.e. Current Semester Medical Leave/Withdrawal (https://cm.maxient.com/reportingform.php?YoungstownStateUniv&layout_id=11) or Previous Semester/Retroactive Medical Withdrawal (https://cm.maxient.com/reportingform.php?YoungstownStateUniv&layout_id=20)). For questions, please contact the Office of the Dean of Students (<https://ysu.edu/student-affairs/dean-of-students/>) at dos@ysu.edu.

Once a student receives "W" grades, Applications for Involuntary Withdrawal may be considered only for semesters falling within the immediately preceding one (1) year time period (3 semesters). Appeals pertaining to semesters beyond this one (1) year time limit will not be accepted. All Applications for Involuntary Withdrawal must be documented. Applications are processed only by mail on forms provided by Office of University Bursar. Please address such correspondence to:

Fees and Charges Appeals Board
c/o Office of University Bursar
Youngstown State University
1 Tressel Way
Youngstown, OH 44555

1. For more information on immediate family members, visit Absence from Classes and Examinations (<https://catalog.ysu.edu/undergraduate/general-information/academic-policies-procedures/grading-system/>)

The decision of the Board is final and not subject to re-appeal.

Billing

Student accounts are billed each semester (bills will be issued mid-July for the Fall semester and mid-December for the Spring semester, and payments are due approximately the 1st of the following month respectively). Go to Online Programs (<https://online.yzu.edu/>) for information on billing for online programs. ALL tuition statements will be issued electronically and must be viewed online. Paper bills are never mailed. If you need a paper copy of your statement, you may print it directly from the Penguin Portal. An e-mail notice that the bill is online for your review will be sent, to the student and all authorized users, each time a new statement is released as well as each time account activity alters a payment plan balance. This statement, as well as all subsequent tuition statements, will also be available online for your review via the Penguin Portal (<https://penguinportal.yzu.edu/>): Go to View My Bill (<https://www.yzu.edu/viewmybill/>) and log in to review statements, make online payments, enroll in payment plan, establish an authorized user, view holds, and select tax information.

Go to View My Bill (<https://www.yzu.edu/viewmybill/>) and log in to review statements, make online payments, enroll in payment plan, establish an authorized user, view holds, and select tax information.

YOU ARE STRONGLY ENCOURAGED TO PAY YOUR BILL ONLINE AT YSU.EDU/VIEWMYBILL.

You may also make payment by check or debit card (no cash payments accepted):

*in person at the payment windows on the second floor of Meshel Hall. **Cashier Hours are Monday through Friday 10:00 a.m. - 2:00 p.m.** or

*via the payment drop box also located on the second floor of Meshel Hall (check only, no cash) or

*by mail to: Youngstown State University, Attention Office of University Bursar, 1 Tressel Way, Youngstown, OH 44555 (check only, please do not mail cash). Please make checks payable to Youngstown State University.

You may pay online by e-check (no additional charge) or with Visa, MasterCard, Discover, or American Express. There is a 2.95% convenience fee assessed by the processor on all domestic credit card transactions and 4.25% on all international credit card transactions (minimum \$3.00 on both).

If you deliver a check in person, mail it, or place it in the payment drop box, you authorize us to convert that check to an electronic Automated Clearing House (ACH) transaction. That check will then appear on your monthly bank statement as an Electronic Debit. If you do not wish to have your paper check converted to an ACH, you must present it in person or select an alternative payment method (for instance, credit card).

Your enrollment at the University creates a contract between you and YSU. If you choose not to attend the University, you must officially withdraw from all courses in accordance with the published tuition refund schedule at University Bursar Tuition Refund Policy (<https://ysu.edu/university-bursar/tuition-refund-policy/>) to receive 100% refund or reduction of charges. All days of the week are counted, including weekends and holidays. Please be advised that all University offices are not open on weekends and holidays; thus, online withdrawal may be required.

If you decide to withdraw from the University once you have enrolled, you must access the registration functions through the Penguin Portal.

Students may choose to opt-out of the First Day Ready electronic materials charge by opting out in Blackboard. The deadline for opting out of a First Day Ready electronic materials charge is the same as the 100 percent refund period for tuition as posted in the published tuition refund schedule at University Bursar Tuition-Refund Policy (<https://ysu.edu/university-bursar/tuition-refund-policy/>). For instructions and additional information go to First

Day Ready Electronic Materials Opt-Out Process (<https://ysu.edu/university-bursar/opt-out-process/>).

You may also enroll in a payment plan, for current term charges, through the Penguin Portal. Payment plan enrollment must be processed online and requires an initial payment at the time of enrollment. There is a fee for enrollment in the payment plan, and late payments are subject to late payment fee assessment. All tuition balances are due in full by the due date unless you enroll online in an authorized payment plan. Please note, if your balance is not paid in full by the due date, or you have not enrolled online in the payment plan, your account will be subject to late payment fee assessment. Payment plan enrollment is not available for the accelerated online programs.

Students may designate another individual as an "authorized user(s)" by going to View My Bill (<https://www.yzu.edu/viewmybill/>) log in, and click on Authorized Users on the right side of the page. Follow the instructions to set up an authorized user. Once an authorized user has been set up by the student, that individual will also have online access to the student's tuition statements by logging on at Youngstown State University Student Account Suite (https://epay.yzu.edu/C21820_tsa/web/login.jsp). Online payments can also be made via this website. E-mail notifications will be sent to both parties whenever a transaction is processed.

Please note, if a payment is made by credit card and subsequently a refund is due, it will be issued by direct deposit directly to the student. The Youngstown State University e-mail system is the official means of communication, and all students and employees are responsible for information sent to them via their MyYSU account. It is the policy of this institution that:

- all students, faculty, and staff have access to e-mail, and
- the university will send official communications via e-mail and electronic mailing lists

Please be advised that failure to read e-mail, or regularly review your student account online, does not relieve a student of the responsibility to make on-time payment in the correct amount. Any adjustment to your student account (increase and/or decrease) due to registration changes, changes in financial aid awards, assessment of late fees, fines or penalties, or any other transaction will be immediate and will be reflected (after 8:00 am on the following business day) in all remaining balances due, including unpaid payment plan installments. Your account can be reviewed at any time by accessing your online account via the View My Bill (<https://www.yzu.edu/viewmybill/>) link.

Students are solely responsible for timely payment of their tuition and fees. In the event that the account becomes past due, the University reserves the right to withhold services (e.g., diplomas, registration, other University services), and occasionally transcripts until the past-due balance is paid in full. If full payment cannot be obtained, then the delinquent balance must be turned over to the Ohio Attorney General's Collection Enforcement Office for collection and it will be reported to the Credit Bureau. Once an account becomes delinquent, the student will be required to pay in advance of registering for at least one subsequent term. An account turned over to the Attorney General will incur interest and collection expenses which must be paid before any of the adverse sanctions can be removed.

Questions regarding billing and/or payment of fees should be directed to the Penguin Service Center at (330) 941-6000, or in person, second floor of Meshel Hall. Any payments received via the online payment website will be applied to the oldest charges first. Please note that the University reserves the right to change any fee at any time, without notice, by action of the University Board of Trustees.

Payment of Tuition and Fees

Student accounts are billed each semester. Tuition statements are sent out electronically, and an e-mail is sent each time a bill is issued. Current account information – including charges, payments, and refund amounts – is available

online at ysu.edu/viewmybill. Tuition statements may also be printed from this site.

Students are expected to have their student accounts in a paid status prior to attending the first class meeting for a term. In order to have a student account in a "paid status," students must be either paid in full for the term or officially signed up and paid the first payment on the approved payment plan. Payment plan enrollment is not available for the accelerated online programs. Late and/or partial payments are subject to late payment fee assessment.

YOU ARE STRONGLY ENCOURAGED TO PAY YOUR BILL ONLINE AT YSU.EDU/VIEWMYBILL.

You may also make payment by check or debit card (no cash payments accepted):

*in person at the payment windows on the second floor of Meshel Hall. **Cashier Hours are Monday through Friday 10:00 a.m. - 2:00 p.m.** or

*via the payment drop box also located on the second floor of Meshel Hall (check only, no cash) or

*by mail to: Youngstown State University, Attention Office of University Bursar, 1 Tressel Way, Youngstown, OH 44555 (check only, please do not mail cash). Please make checks payable to Youngstown State University.

You may pay online by echeck (no additional charge) or with Visa, MasterCard, Discover, or American Express. There is a 2.95% convenience fee assessed by the processor on all domestic credit card transactions and 4.25% on all international credit card transactions (minimum \$3.00 on both).

If you deliver a check in person, mail it, or place it in the payment drop box, you authorize us to convert that check to an electronic Automated Clearing House (ACH) transaction. That check will then appear on your monthly bank statement as an Electronic Debit. If you do not wish to have your paper check converted to an ACH, you must present it in person or select an alternative payment method (for instance, credit card).

A payment plan is also available that will allow you to spread your payments out over a longer period. Payment plan enrollment must be processed online and requires an initial payment at the time of enrollment. There is a fee for enrollment in the payment plan, and late payments are subject to late payment fee assessment. Payment plan enrollment is not available for the accelerated online programs.

Penguin Tuition Promise

The YSU Penguin Tuition Promise is a cohort-based, level-rate tuition, room and board, and fee guarantee model that assures a student and their family a set of fixed rates for the pursuit of an undergraduate degree at Youngstown State University. The Penguin Tuition Promise is designed to make the cost of college predictable and affordable. Beginning with the 2018-2019 academic year, every new first-year, transfer, or re-admitted degree-seeking undergraduate student will be part of the Penguin Tuition Promise. For additional information visit the YSU Penguin Tuition Promise (<https://ysu.edu/ysu-penguin-tuition-promise/>) page.

Tuition and fees are assessed based on the number of credit hours of enrollment, residency, course, and/or program. The Board of Trustees of Youngstown State University has pledged to make every effort to keep the required fees as low as is consistent with providing quality education. It is intended that fees not be adjusted more often than annually and that fee changes be announced in the spring or early summer. The Board of Trustees does, however, reserve the right to change any fee, charge, or fine without notice if conditions warrant.

Penguin Tuition Promise Description of Fees

The Board of Trustees of Youngstown State University has pledged to make every effort to keep the required fees as low as is consistent with providing quality education. It is intended that fees not be adjusted more often than annually and that fee changes be announced in the spring or early summer. The Board of Trustees does, however, reserve the right to change any fee, charge, or fine without notice if conditions warrant.

Fees

INSTRUCTIONAL FEE

This fee is assessed to all penguin tuition promise students each term. This fee supplements the state subsidy and is a source of revenue for the University's educational and general fund.

GENERAL FEE

This fee covers costs associated with non-instructional services, including but not limited to the student union, intercollegiate athletics, campus recreation, performing artists and lecture programs, student organizations, student government and student counseling services.

NON-RESIDENT SURCHARGE

Those students who are not legal residents of Ohio must pay a surcharge in addition to tuition.

AUDITED COURSES

Students may audit courses (i.e., register to take a course without receiving credit). The fee for auditing a course is the same as if the course were taken for credit.

COLLEGE FEE

This fee is designed to recognize the differential cost of instruction among colleges. Examples of use include research instrumentation, enhanced teaching equipment, specialized software, specialized information resources (databases), maintenance and repair of capital equipment, technical and laboratory personnel support, and lab and instructional space upgrades.

COURSE BOOK AND SUPPLY FEE

This fee represents the cost for electronic materials such as eBooks that are used in designated course(s). This fee is non-refundable after the 100% tuition refund period and cannot be appealed.

COURSE FEE

This fee is designed to partially offset expenses associated with courses that make use of supplies, equipment or personnel support beyond that associated with typical lecture courses. Examples include chemical supplies, engineering equipment, computers, software, and lab monitors. In addition, the Student Success Course Fee is designed to partially offset expenses associated with Campus Sexual Violence Elimination (SaVe) Act training, Financial Aid materials and training sessions with Financial Aid, content and programming for a common intellectual experience including speakers and campus-wide events, other materials, handouts, and software related to common elements of first-year experience courses.

CREDIT BY EXAMINATION FEE

A fee is charged for each course for an individual examination provided by an academic department to determine whether a student can be given academic credit for their knowledge of the course material. The fee must be paid before the test can be taken. This fee is charged on a per-credit basis.

DISTANCE EDUCATION LEARNING FEES

This fee is to offset the cost of technology and support needed to support online courses and programs.

GRADUATE ACCELERATED PROGRAM FEE

This fee is assessed to all undergraduate students taking graduate level courses that are part of an approved accelerated/dual-credit degree program. The fee is assessed to each course approved for the accelerated/dual-credit degree program for which a student registers. This fee is for administrative costs associated with these programs such as individualized application, registration, and tracking of course credits.

GRADUATION FEE

This nonrefundable fee is assessed when students apply to graduate to cover costs associated with graduation. If a student defers graduation and has paid the fee, the payment remains valid for the two academic terms following the term of application. Should a student graduate with more than one degree at a time, the fee will only be charged once.

HONORS COLLEGE FEE

This fee supports student learning objectives within the five pillars of the Honors College. Some of the programs and activities supported by this fee are the Honors College Retreat, Academic Journal, student research, student presentations, annual showcase, and volunteer and community service projects. Additionally, the fee serves as a source to staff programs and equip buildings with technology to foster and support educational development and student success.

INTERNATIONAL STUDENT CREDENTIAL EVALUATION FEE

The International Programs Office (IPO) is responsible for evaluating credentials from applicants earned at foreign high schools and universities. This fee supports the evaluation of those credentials including professional development of staff in this area. Each graduate applicant who submits credentials to be evaluated by IPO staff will be assessed this fee.

INTERNATIONAL STUDENT HEALTH INSURANCE FEE

Per YSU policy, all international students who attend YSU on an F-1 or J-1 visa and who are not sponsored by a government-related organization, are required to purchase health insurance. International students will be assessed this fee on their student account. YSU transfers the fee to the insurance company to provide health insurance for the individual student. The rates are set by the insurer; therefore the fee is variable and may change from year-to-year.

INTERNATIONAL STUDENT PROGRAM FEE

The International Programs Office (IPO) is responsible for providing pre-admission advising and a wide array of student services unique to the international student population. This fee will support expenses related to pre-admission advising including technology support, travel, mailing and related expenses and international student services including providing appropriate academic advising to applicants, supporting immigration advising, supporting staff professional development related to immigration regulations and admission, and providing a range of general student support services including orientation, airport pickup and international activities. Each international student who is classified as either an undergraduate or graduate student will be assessed this fee with the exception of online and distance learning programs.

LATE APPLICATION FOR GRADUATION

Application for graduation must be submitted within the first three weeks of the term. Applications submitted after this date will be assessed a non-refundable late fee.

LATE PAYMENT FEES

Payment of a bill received after the due date results in assessment of a late payment fee. All fees and charges billed must be paid in full. Partial payments will result in assessment of a late fee. Payment plan participants who do not pay their scheduled payment amount by the due date are also subject to assessment of a late payment fee.

NCAA PERMISSIBLE EXPENSES

This fee is for approved NCAA expenses such as meals incidental to participation, approved housing costs and fees, missed appointment charges, and other NCAA approved costs or charges.

PARKING PERMIT (OPTIONAL)

This fee is optional each term for penguin tuition promise, accelerated online, and associate degree seeking students. This will allow the student to have unlimited access to shuttle service. The Daytime parking permit will grant access to approved lots from 7:00 a.m. to 11:00 p.m. The Overnight parking permit will grant access to approved lots without any time restrictions. This fee is charged, upon request of the parking permit via Penguin Portal. The fee supports the operating and maintenance costs of campus parking facilities, roadways and sidewalks, as well as student shuttle service. The fee does not guarantee an available space in any particular lot. Some facilities are restricted (e.g. for students only, for faculty and staff only, or overnight parking only). The current Driving and Parking Regulations pamphlet and parking lot map should be consulted. The fee is refundable only if the student returns the parking permit access card and validation sticker within five days of either the withdrawal date or the last date of the 100% tuition refund period, whichever is earlier. This fee is non-refundable after the 100% tuition refund period and cannot be appealed.

A daily fee is charged anyone without a permit who wishes to park in facilities designated for cash business.

PERFORMANCE MUSIC FEE

This fee offsets the cost of maintaining the programs and facilities of the Dana School of Music including the purchase and repair of equipment, rental of performance venues, recording and archiving of Dana events, and other expenses. The performance fee helps us provide the best possible experience for our students and follow standards set by the National Association of Schools of Music. This program fee is charged in addition to regular tuition. It is assessed students taking music lessons and is applied on a per-credit basis.

PROFICIENCY EXAMINATION FEE

A fee is charged for an examination provided by an academic department to determine a student's proficiency for some reason other than assignment of academic credit. If academic credit is to be awarded, the credit by examination fee applies and not this fee.

STUDIO ART FEE

This fee enables the Department of Art to strategically plan for essential equipment upgrades and investment in new technologies that drive development and implementation of innovative curriculum including the purpose of large and costly equipment and digital technologies. As new processes and directions emerge in contemporary art, the Department of Art must introduce new and innovative instructional art making options into the curriculum to remain enrollment competitive with regional and national peer institutions.

TESTING FEES

The University Office of Testing supervises a variety of special tests used for admission to college, graduate, or professional schools. The fees are established by the agencies responsible for the tests. Students are advised to contact the Testing Office for information and to make reservations.

Service Charges

COMPUTER-BASED PLACEMENT RE-TEST FEE

A nonrefundable fee is charged each time a computer-based placement test is retaken.

DATA RECOVERY SERVICE FEE

Fee assessed to recover data and/or transfer data that was successfully recovered onto a media device provided by the students (i.e. flash drive, hard drive, or DVD). No fee assessed unless some or all of the data is recovered. Note: If it is necessary to remove the hard drive from the PC in order to recover data, the IT Service Desk will NOT be able to perform the service, and no fee will be charged to the student.

HEALTH CENTER FEE

Mercy Health Wick Primary Care at YSU is located on the corner of Wick and Lincoln Avenue. The Center provides health care to all currently enrolled YSU students—both resident and commuter students. These services are provided because of the Health Center Fee that is paid by all students taking a minimum of one on-campus class each semester. The mandatory fee provides revenue to Mercy Health System to give student access to their Primary Care Facility. Students enrolled in an on-line program and taking classes strictly on-line, will have the opportunity to purchase access to the student health center per semester. The fee is \$34 per semester. The center will be staffed by a full-time primary care physician and advanced proactive provider. It will also provide the following services below:

Full service primary care practice

- Establish and develop continuity of care
- Address acute issues
- Continuation of allergy shots
- Walk-In Care location for non-scheduled visits
- Wellness and Preventative Care
- Lab draw site

Mental health Services

- Mental health, behavioral health and addiction issues addressed
- Two half-days per week
- Psychiatrist

Health care is available for illness, injury, first aid, and routine health checks. Health screening tests, physical exams for sports and academic programs, gynecological exams, as well as consultations and referrals, are provided. Flu and other immunizations are also given; however, there are charges for these injections.

Office visits are free. Students do not need to have health insurance to use the Center's services.

Student records are kept strictly confidential. Information cannot be released to anyone without the written consent of the student. Certain public health diseases, however, must be reported to the Department of Health as required by law.

YSU MERCY (WICK) PRIMARY CARE- STUDENT HEALTH CENTER FOR ON-LINE STUDENTS

Health Center Fee Payment

- Go to this webpage (https://epay.ysu.edu/C21820_ustores/web/store_main.jsp?STOREID=78&SINGLESTORE=true&clearPreview=true) to make payment

For more information, visit Student Health Clinic (<https://ysu.edu/wick-primary-care-ysu/>).

HOUSING

On-campus housing is available for students year-round. The academic year contract covers room, board, and basic meal plan costs for both fall and spring semesters, as well as University breaks during both semesters (not including the break between semesters). Students may also apply separately for on-campus housing for summer terms. Charges are billed each semester. All payment dates and cancellation fees are outlined in the housing contract, which is included in full in the housing application and on the housing website. Please note that there is a housing application fee, as well as a housing prepayment, which will reserve the student a space. Students who are living off-campus may also choose to buy a meal plan at the Kilcawley Information Desk in Kilcawley Center.

IDENTIFICATION CARD REPLACEMENT CHARGE

A nonrefundable charge is made for replacement of an ID card.

INTERNATIONAL STUDENT ACTIVITIES FEE

The International Programs Office (IPO) arranges social and cultural activities of cross-cultural nature. IPO may charge a nominal fee in order to defray the cost of such activities.

INTERNATIONAL STUDENT STORAGE FEE

The International Programs Office (IPO) arranges for international students to have access to secure storage for their belongings over the summer break. International students who wish to store their belongings are assessed this fee per box.

INTERNATIONAL STUDENT TRANSPORTATION FEE

The International Programs Office (IPO) arranges transportation at the end of each semester to the airport. Students who wish to reserve a space on the airport shuttle are assessed this fee. The intent of this fee is to defray the costs associated with providing transportation services.

PAYMENT PLAN ENROLLMENT FEE

A nonrefundable fee is charged for enrollment in the payment plan. All tuition and fees are due in full by the payment due date unless the student enrolls in the payment plan.

PC REMEDIATION SERVICE FEE

Fee assessed for removal of all spyware and viruses from the PC and for installing the most current updates to applications and the operating system to help reduce the risk of future attacks. The first two PC remediation services are provided free of charge to current YSU students; the fee only applies to remediation performed beyond the first two free services.

PHYSICAL EDUCATION ACTIVITY CHARGE

Certain activity courses (e.g. bowling, skiing, ice skating, scuba diving) are available only upon the payment of a charge sufficient to cover the cost of the facility or transportation. These charges are set by the operator of the facility, are paid by the student to that operator (not to the University), and are in addition to any other applicable fee.

PLACEMENT & SUPERVISION FEE FOR OVERSEAS STUDENT TEACHING

Through the Consortium for Overseas Student Teaching (COST), teacher candidates are placed in public and private institutions in various locations around the world where English is the language of instruction. YSU students who student teach overseas through COST will be charged a placement and supervision fee. The fee is established by COST and the entire amount is paid to them for the administration of the program. The fee amount varies and may be higher in some overseas sites.

RETURNED CHECK, ACH (ELECTRONIC CHECK), OR CREDIT CARD FEE

A charge is levied on anyone whose check, ACH, or credit card payment is returned unpaid by the bank. Failure to pay billing of return check, ACH, and/or credit card payment within six days; and/or a second check, ACH, or credit card payment return will result in the University not accepting this type of payment at any of its collection points and may subject the student to financial suspension for the term.

STUDENT LOCKER RENTAL

A limited number of lockers are available in various buildings for the convenience of commuting students. Locker payments and assignments are made in Kilcawley Center at Guest Services.

TECHNOLOGY LOANER EQUIPMENT FEE

A non-refundable fee that covers the cleaning, updates and maintenance of the YSU loaner devices.

TRANSCRIPT OF CREDITS CHARGE

There is a charge for normal transcript processing requests as well as rush or overnight express requests issued by the Office of Records.

Fines

LIBRARY FINES

Fines are assessed for failure to return books on time as stipulated or for the unauthorized removal of a reserved book. Willful damage or defacement of library materials or other property is a violation of state law and is punished as such.

PARKING VIOLATION FINE

Parking without a permit, parking in unauthorized areas and other offenses as identified in the *Parking Regulations* brochure will result in the issuance of a citation against the vehicle and its owner, or against the student responsible for the vehicle (e.g., a student driving a parent's car). Payment of a fine removes the citation. In certain cases, vehicles may be towed. See the regulations (<https://ysu.edu/parking-services/rules-regulations/>) for detailed information.

Penguin Tuition Promise Rates

Student Fees and Charges

Effective Fall 2024

TUITION

INSTRUCTIONAL FEE

**Undergraduate Penguin
Promise Tuition - FY
2025 Cohort 7**

1 to 11 credits	\$355.20	per credit hour
12 to 18 credits	\$4,262.40	per semester
Over 18 credits	\$355.20	per credit hour

**Undergraduate Penguin
Promise Tuition - FY
2024 Cohort 6**

1 to 11 credits	\$344.85	per credit hour
12 to 18 credits	\$4,138.20	per semester
Over 18 credits	\$344.85	per credit

**Undergraduate Penguin
Promise Tuition - FY
2023 Cohort 5**

1 to 11 credits	\$334.81	per credit hour
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12 to 18 credits	\$4,017.72	per semester
Over 18 credits	\$334.81	per credit

**Undergraduate Penguin
Promise Tuition - FY
2022 Cohort 4**

1 to 11 credits	\$320.09	per credit hour
12 to 18 credits	\$3,841.08	per semester
Over 18 credits	\$320.09	per credit hour

**Undergraduate Penguin
Promise Tuition - FY
2021 Cohort 3**

1 to 11 credits	\$308.37	per credit hour
12 to 18 credits	\$3,700.44	per semester
Over 18 credits	\$308.37	per credit hour

**Undergraduate Penguin
Promise Tuition - FY
2020 Cohort 2**

1 to 11 credits	\$296.22	per credit hour
12 to 18 credits	\$3,554.64	per semester
Over 18 credits	\$296.22	per credit hour

**Undergraduate Penguin
Promise Tuition - FY
2019 Cohort 1**

1 to 11 credits	\$286.20	per credit hour
12 to 18 credits	\$3,434.40	per semester
Over 18 credits	\$286.20	per credit hour

**Undergraduate Online
Programs** (not eligible for
payment plan enrollment)

RN-BSN	\$275.00	per credit hour
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Penguin Promise Tuition guarantee - resident undergraduate tuition & fees for all Associate degree programs

INSTRUCTIONAL FEE

**Undergraduate Penguin
Promise Tuition - FY
2025 Cohort 1**

1 to 11 credits	\$201.80	per credit hour
12-18 credits	\$2,421.60	per semester
over 18 credits	\$201.80	per credit hour

GENERAL FEE

Note: Does not apply to Online Programs

**Undergraduate Penguin
Promise Tuition - FY
2025 Cohort 7**

1 to 11 credits	\$104.99	per credit hour
12 to 18 credits	\$1,259.88	per semester
Over 18 credits	\$104.99	per credit hour

**Undergraduate Penguin
Promise Tuition - FY
2024 Cohort 6**

1 to 11 credits	\$101.93	per credit hour
12 to 18 credits	\$1,223.16	per semester
Over 18 credits	\$101.93	per credit

**Undergraduate Penguin
Promise Tuition - FY
2023 Cohort 5**

1 to 11 credits	\$98.96	per credit hour
12 to 18 credits	\$1,187.52	per semester
Over 18 credits	\$98.96	per credit hour

**Undergraduate Penguin
Promise Tuition - FY
2022 Cohort 4**

1 to 11 credits	\$94.61	per credit hour
12 to 18 credits	\$1,135.32	per semester
Over 18 credits	\$94.61	per credit hour

**Undergraduate Penguin
Promise Tuition - FY
2021 Cohort 3**

1 to 11 credits	\$91.15	per credit hour
12 to 18 credits	\$1,093.80	per semester
Over 18 credits	\$91.15	per credit hour

**Undergraduate Penguin
Promise Tuition - FY
2020 Cohort 2**

1 to 11 credits	\$87.56	per credit hour
12 to 18 credits	\$1,050.72	per semester
Over 18 credits	\$87.56	per credit hour

**Undergraduate Penguin
Promise Tuition - FY
2019 Cohort 1**

1 to 11 credits	\$84.60	per credit hour
12 to 18 credits	\$1,015.19	per semester
Over 18 credits	\$84.60	per credit hour

**Penguin Promise Tuition guarantee - resident undergraduate tuition
& fees for All Associate degree programs
General Fee**
**Undergraduate Penguin
Promise Tuition - FY
2025 Cohort 1**

1-11 credits	\$63.20	per credit hour
12-18 credits	\$758.40	per semester
Over 18 credits	\$63.20	per credit hour

AFFORDABLE TUITION ADVANTAGE non-resident SURCHARGE

Those students who are not legal residents of Ohio must pay a surcharge in addition to tuition.

Note: Does not apply to Accelerated Online Programs.

1 to 11 credits	\$15.00	per credit hour
12 to 18 credits	\$180.00	per semester
Over 18 credits	\$15.00	per credit hour

NON-Resident SURCHARGE

Note: Applies to Accelerated Online Programs only.

1 to 11 credits	\$5.00	per credit hour
12 to 18 credits	\$60.00	per semester
Over 18 credits	\$5.00	per credit hour

COLLEGE FEES

Note: Does not apply to Online Associate Programs.

**BEEGHLY COLLEGE OF LIBERAL ARTS, SOCIAL SCIENCES, AND EDUCATION
(ALL UNDERGRADUATES)**

1 to 11 credits	\$12.50	per credit hour
12 to 18 credits	\$150.00	per semester
Over 18 credits	\$12.50	per credit hour

BITONTE COLLEGE OF HEALTH & HUMAN SERVICES (JUNIOR AND ABOVE)

1 to 11 credits	\$20.50	per credit hour
12 to 18 credits	\$246.00	per semester
Over 18 credits	\$20.50	per credit hour

COLLEGE OF CREATIVE ARTS & COMMUNICATIONS (ALL UNDERGRADUATES)

1 to 11 credits	\$9.00	per credit hour
12 to 18 credits	\$108.00	per semester
Over 18 credits	\$9.00	per credit hour

**COLLEGE OF SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS
(JUNIOR AND ABOVE)**

1 to 11 credits	\$25.00	per credit hour
12 to 18 credits	\$300.00	per semester
Over 18 credits	\$25.00	per credit hour

**WILLIAMSON COLLEGE OF BUSINESS ADMINISTRATION (ALL
UNDERGRADUATES)**

1 to 11 credits	\$20.00	per credit hour
12 to 18 credits	\$240.00	per semester
Over 18 credits	\$20.00	per credit hour

COLLEGE CREDIT PLUS INSTRUCTIONAL FEE

(High School Students Participating in State of Ohio College Credit Plus Program)

Note: General and Informational Services Fees are waived.

In high school instruction by high school teacher	\$41.64	per credit hour
In high school instruction by YSU faculty	\$65.50	per credit hour
Online instruction by YSU faculty	\$131.00	per credit hour

HOUSING CHARGES

Note: Weller House and Courtyard Apartments are not included in the Penguin Tuition Promise Guarantee

Housing Charges

Room & Board (per academic year) F2025 Cohort	\$10,920.00
Room & Board (per academic year) F2024 Cohort	\$10,384.00
Room & Board (per academic year) F2023 Cohort	\$10,016.00
Room & Board (per academic year) F2022 Cohort	\$9,775.00
Room & Board (per academic year) F2021 Cohort	\$9,700.00
Room & Board (per academic year) F2020 Cohort	\$9,700.00
Room & Board (per academic year) Continuing Students	\$9,400.00

Residence Hall Application Fee (academic year and/or summer)	\$35.00
Residence Hall Pre-Payment	\$250.00
Single Room Upcharge (per semester)	\$1,250.00
Weller House	
One-bedroom apartment (academic year, room only)	\$6,750.00/AY or \$750.00/month (summer)
Two-bedroom apartment (academic year, room only)	\$7,650.00/AY or \$850.00/month (summer)
Three-bedroom apartment (academic year, room only)	\$8,550.00/AY or \$950.00/month (summer)
Graduate Shared Apartment Rate (academic year, room only)	\$5,850.00/AY or \$650/month (summer)
*Multi-bedroom apartments are available only to students (U/G or Grad) with a child(ren). Single-bedroom apartments available for Graduate student reservation.	
*Academic year contract (charge per AY = 9 months (4 months in Fall and 5 months in Spring). Opportunity to extend into summer for 3 months at the monthly charge.	
Expanded Housing Rate (over-occupied rooms)	\$4,850.00
Student Housing Outside of Contract Period	
Nightly room rate (per day, no meals)	\$30.00
Flat fee room rate for winter break (no meals)	\$250.00
Cancellation Fee	
Before May 13 (academic year) or December 16 (spring only)	\$0.00
After May 13 (academic year) or December 16 (spring only)	\$250.00
Summer	
Summer Room and Board (meals included)	\$2,416.00 per 7-week term
Weller House (prorated for current tenants, monthly, no meals)	See monthly Weller rates above
Summer Event Rates	
Rooms with community bathrooms (Lyden, Cafaro, Kilcawley)	\$40.00 per night, per room
Rooms with private or semi-private bathrooms (Cafaro, Wick)	\$60.00 per night, per room
Linens (for rent, per set)	\$25.00
Bed adjustment fee (per bed)	\$10.00
Additional staffing (for groups with minors, or at request by group)	\$120.00 per night/desk
Late check-in or check-out fee (price per hour beyond pre-arranged check-in or check-out time)	\$50.00 per hour
University Courtyard rates (Per month)	
*Inclusive of \$50 introductory meal plan (\$25 Pete's /\$25 Flex)	
1 bed/1 bath	\$895.00 per month
2 bed/2 bath	\$765.00 per month
4 bed/2 bath	\$670.00 per month
Courtyard Pre-Payment (must be paid before apartment bedroom selection/assignment and is ultimately deducted from bill).	\$250.00

Annual 12-Month Lease Rates

1 bed/1 bath room	\$10,740.00
2 bed/2 bath room	\$9,180.00
4 bed/2 bath room	\$8,040.00

Short-Term Housing Rates

Weekly housing cost (Wick House)	\$250.00
Monthly housing cost (Wick House)	\$900.00

Meal Plan Options

50-Block (50 meals declining balance + \$125 Flex)	\$610.00
30-Block (30 meals declining balance + \$150 Flex)	\$470.00
Sampler Plan (5 meals + \$100 flex + 10 cups Dunkin' coffee)	\$155.00

*Must participate in meal plan if staying longer than one week

International Meal Plan Requirement

Applies to any first year undergraduate international student arriving for orientation or any new international student living in university residence halls.

Meal plan funds may be used during the orientation process and carry-over for use in the academic year.

Spring Fee (includes \$75 Pete's Points and \$25 Flex Points)	\$100.00
Fall Fee (includes \$70 Pete's Points and \$70 Flex Points)	\$140.00

VOLUNTARY BOARD PLAN (STUDENTS NOT IN UNIVERSITY HOUSING) PLEASE GO TO Y Card Portal (<https://ycard.ysu.edu>) OR CALL GUEST SERVICES AT EXT. 3516.

*Room and board amount shown here is based on Bronze-level meal plan selections. Rates are for Kilcawley, Wick, Lyden, and Cafaro houses.

**Effective FY18, Weller House converted to graduate and family housing, and rates charged per apartment instead of per bed.

SPECIAL-PURPOSE FEES

ACT Test Fee	\$65.00
Art Usage Fee	\$29.00 per course
Bachelor of Arts in Telecommunications Program Fee	\$35.00 per course
Bachelor of Science in Engineering Program Fee	\$50.00 per student, per semester
Career Service Fee - Level 1 - Freshman and Sophomore	\$1.75 per credit hour
Career Service Fee - Level 2 - Junior and Senior	\$2.75 per credit hour
College Level Examination Program Test Fee (CLEP)	\$25.00
College over 60 Registration fee	\$5.00
Course Book, eBook, and instructional supplies	Variable
Course Fees	
Level 1	\$35.00 per course
Level 2	\$50.00 per course
Level 3	\$65.00 per course
Level 4	\$300.00 per course
Level 7	\$20.00 per course
Level 8	\$85.00 per course

Level 9	\$25.00 per course
Level 10	\$200.00 per course
Level 11 (cooperative charge)	\$350.00 per course
Level 12	\$300.00 per course
Level 13	\$100.00 per course
Credit by Examination ¹	\$20.00 per credit hour
Deferred Payment fee (employer paid only)	\$50.00
Equipment Materials & Damage Replacement Fee	Replacement value
Federal Background Check	\$28.00
Graduate Accelerated Program Fee (per course)	\$50.00
Graduation Fee	\$65.00
Graduation Fee Late Application (after 3rd wk. of term)	\$38.50
Health Center Fee	\$34.00 per semester
Honors College Fee	\$25.00
Installment Payment Plan Enrollment Fee	\$50.00 per semester maximum
Internal Revenue Service/1098T penalty for incorrect name/SSN match	\$100.00
Intramural Sports	
Individual - Single sport	\$5.00
Individual - Multi sport bulk rate	\$12.00
International Student Activities Fee	Variable
International Student Health Insurance	pass-thru charge, set by Ins. Carrier-Variable
International Student Program Fee (not assessed to online and distance learning programs)	\$75.00 per semester
International Student Storage Fee	\$5.00
International Student Transportation Fee	\$40.00
Late Payment Fee	\$50.00 per month
MAT Test	\$90.00
NCAA Permissible Expenses	Variable
Ohio Attorney General Payment/Collection Fee	Variable
Parking - see below	
Peace Officer Training Academy Fee	\$300.00 per semester
Performance Music Fee	\$75.00 per credit
Placement & Supervision for Overseas Student Teaching	Variable
Proficiency Examination ²	\$45.00 per course
Student Locker Rental	\$25.00 per year
Student Success	\$35.00
Study Abroad Fee - Faculty Led	Variable - based on actual travel costs
Study Abroad Fee - Individual	\$75.00
Transportation Fee, Fall & Spring Terms (Required 6 plus credit hours listed on campus courses)	\$115.00 per semester
Transportation Fee, Summer Term (Required for 6 plus credit hours listed on campus courses)	\$58.00 per semester
Undergraduate Application Fee - Domestic	\$45.00
Undergraduate Application Fee - International	\$75.00

Web-Based Course Fee - does not apply to Online Associate Programs \$100.00 per course

¹ Credit awarded for courses based upon the successful completion of a test administered by an academic department at YSU. The course title appears on the transcript but no grade is listed.

² A course or courses may be waived based on the performance on an examination. No academic credit is given and the course is not listed in the transcript.

SERVICE CHARGES

Check Replacement Fee	\$25.00
Child Preschool Laboratory Fee	\$150.00 per semester
Computer-Based Placement Re-Test	\$20.00 per test
Credit Card Convenience Fee - Domestic (student accounts only)	2.95% minimum of \$3.00
Credit Card Convenience Fee - International (student accounts only)	4.25% minimum of \$3.00
Duplicate Diploma Fee	\$40.00
Finger Printing Fee	\$37.00 per occurrence
Human Performance and Exercise Science Activity	Variable to cover cost in that course
PC Data Recovery Service Fee	\$100.00 per occurrence
PC Remediation Service Fee (if 3 or more occurrences per academic year)	\$75.00
Photo I.D. Replacement Charge	\$25.00
Reading Tutoring Fee	\$38.00 per semester
Returned Check or Credit Card Charge	\$30.00
Rich Autism Center Pre-School Programs	\$125.00 per week
Student Conduct - Other Violations	up to \$750.00
Student Health Insurance	Go To: https://ysu.edu/wick-primary-care-ysu (https://ysu.edu/wick-primary-care-ysu/)
Technology Loaner Equipment Fee	\$50.00 per semester
Transcript Fee	\$6.00
Transcript Rush Fee (same day processing, US mail or in person)	\$12.00
Transcript Rush Fee (overnight express)	\$35.00

PARKING

Control Card Replacement	\$5.00
Parking per day without permit	\$5.00
Parking per week without permit	\$18.00
Parking Permit (commuter) – Students, Fall & Spring - Optional	\$45.00
Parking Permit (overnight) – Students, Fall & Spring - Optional	\$90.00
Parking Violations/Fines:	
Class 1 – Minor violations	
1st offense	\$25.00
2nd offense	\$30.00
3rd offense	\$35.00
Class 2 – Major violations	\$100.00
Class 3 – Legal violations	\$250.00

For more information, consult Parking Rules and Regulations (<https://ysu.edu/parking-services/rules-regulations/>).

MAGG LIBRARY & CURRICULUM RESOURCE CENTER FINES & FEES

Overdue charges and loan periods differ by type of materials:

Library Material Replacement Fee	Market Value
Library Study Carrel Rental	\$25.00
OhioLink Material Replacement Fee	\$110.00
Overdue Closed Reserve Material Daily Rental (per day)	\$0.55
Overdue Closed Reserve Material Hourly Rental (per hour)	\$0.55
Overdue InterLibrary Material (per day)	\$0.55
Overdue Maag/Depository Material (per day)	\$0.10
Overdue OhioLINK Material (per day)	\$0.50
Replacement Processing Fee	\$10.00
SearchOhio (OhioLINK partner)	\$0.50
Overdue fine (per day)	
SearchOhio (OhioLINK partner)	\$25.00
Material Replacement Fee	

For further Circulation policy details, visit MAAG Circulation Policy (<http://maag.ysu.edu/>).

THE UNIVERSITY RESERVES THE RIGHT TO CHANGE ANY FEE WITHOUT NOTICE. PLEASE CHECK CAMPUS ANNOUNCEMENTS AND REVIEW CAMPUS WEBSITES FOR FEE CHANGES OR UPDATES. YOUR MYYSU EMAIL ACCOUNT IS THE FORMAL MEANS OF COMMUNICATION.

Non-Tuition Promise

Tuition and fees are assessed based upon the number of credit hours of enrollment, residency, course, and/or program. The Board of Trustees of Youngstown State University has pledged to make every effort to keep the required fees as low as is consistent with providing quality education. It is intended that fees not be adjusted more often than annually and that fee changes be announced in the spring or early summer. The Board of Trustees does, however, reserve the right to change any fee, charge, or fine without notice if conditions warrant.

Students should refer to Penguin Tuition Promise (p. 70) if they will be a new first-year, transfer, or re-admitted degree-seeking undergraduate after Spring 2018.

Non-Tuition Promise Description of Fees

The Board of Trustees of Youngstown State University has pledged to make every effort to keep the required fees as low as is consistent with providing quality education. It is intended that fees not be adjusted more often than annually and that fee changes be announced in the spring or early summer. The Board of Trustees does, however, reserve the right to change any fee, charge, or fine without notice if conditions warrant.

Fees

INSTRUCTIONAL FEE

This fee is assessed to all non-tuition promise students each term. This fee supplements the state subsidy and is a source of revenue for the University's educational and general fund.

GENERAL FEE

This fee covers costs associated with non-instructional services, including but not limited to the student union, intercollegiate athletics, campus recreation,

performing artists and lecture programs, student organizations, student government and student counseling services.

INFORMATION SERVICES FEE

This fee is applied on a per-credit basis to provide information technology infrastructure and services across campus, including the new Student Information Systems, wireless connectivity, classroom technology, and a continuous strengthening and securing of the computing and networking environment. It provides support for technology enhancements and initiatives contained within the IT Master Plan, supporting the vision to keep pace with an evolving, interactive, student-centered and collaborative electronic learning environment.

NON-RESIDENT SURCHARGE

Those students who are not legal residents of Ohio must pay a surcharge in addition to tuition.

AUDITED COURSES

Students may audit courses (i.e., register to take a course without receiving credit). The fee for auditing a course is the same as if the course were taken for credit.

COLLEGE FEE

This fee is designed to recognize the differential cost of instruction among colleges. Examples of use include research instrumentation, enhanced teaching equipment, specialized software, specialized information resources (databases), maintenance and repair of capital equipment, technical and laboratory personnel support, and lab and instructional space upgrades.

COURSE BOOK AND SUPPLY FEE

This fee represents the cost for electronic materials such as eBooks that are used in designated course(s). This fee is nonrefundable after the 100% tuition refund period and cannot be appealed.

COURSE FEES

This fee is designed to partially offset expenses associated with courses that make use of supplies, equipment or personnel support beyond that associated with typical lecture courses. Examples include chemical supplies, engineering equipment, computers, software, and lab monitors. In addition, the Student Success Course Fee is designed to partially offset expenses associated with Campus Sexual Violence Elimination (SaVe) Act training, Financial Aid materials and training sessions with Financial Aid, Content and programming for a common intellectual experience including speakers and campus-wide events, Other materials, handouts, and software related to common elements of first year experience courses.

CREDIT BY EXAMINATION FEE

A fee is charged for each course for an individual examination provided by an academic department to determine whether a student can be given academic credit for their knowledge of the course material. The fee must be paid before the test can be taken. This fee is charged on a per-credit basis.

DISTANCE EDUCATION LEARNING FEES

This fee is to offset the cost of technology and support needed to support online courses and programs.

GRADUATE ACCELERATED PROGRAM FEE

This fee is assessed to all undergraduate students taking graduate level courses that are part of an approved accelerated/dual-credit degree program. The fee is assessed to each course approved for the accelerated/dual-credit degree program for which a student registers. This fee is for administrative costs associated with these programs such as individualized application, registration, and tracking of course credits.

GRADUATION FEE

This nonrefundable fee is assessed when students apply to graduate to cover costs associated with graduation. If a student defers graduation and has paid the fee, the payment remains valid for the two academic terms following the term of application. Should a student graduate with more than one degree at a time, the fee will only be charged once.

HONORS COLLEGE FEE

This fee supports student learning objectives within the five pillars of the Honors College. Some of the programs and activities supported by this fee are the Honors College Retreat, Academic Journal, student research, student presentations, annual showcase, and volunteer and community service projects. Additionally, the fee serves as a source to staff programs and equip buildings with technology to foster and support educational development and student success.

INTERNATIONAL STUDENT CREDENTIAL EVALUATION FEE

The International Programs Office (IPO) is responsible for evaluating credentials from applicants earned at foreign high schools and universities. This fee supports the evaluation of those credentials including professional development of staff in this area. Each graduate applicant who submits credentials to be evaluated by IPO staff will be assessed this fee.

INTERNATIONAL STUDENT HEALTH INSURANCE FEE

Per YSU policy, all international students who attend YSU on an F-1 or J-1 visa and who are not sponsored by a government-related organization, are required to purchase health insurance. International students will be assessed this fee on their student account. YSU transfers the fee to the insurance company to provide health insurance for the individual student. The rates are set by the insurer; therefore the fee is variable and may change from year-to-year.

INTERNATIONAL STUDENT PROGRAM FEE

The International Programs Office (IPO) is responsible for providing pre-admission advising and a wide array of student services unique to the international student population. This fee will support expenses related to pre-admission advising including technology support, travel, mailing and related expenses and international student services including providing appropriate academic advising to applicants, supporting immigration advising, supporting staff professional development related to immigration regulations and admission, and providing a range of general student support services including orientation, airport pickup and international activities. Each international student who is classified as either an undergraduate or graduate student will be assessed this fee with the exception of online and distance learning programs.

LATE APPLICATION FOR GRADUATION

Application for graduation must be submitted within the first three weeks of the term. Applications submitted after this date will be assessed a nonrefundable late fee.

LATE PAYMENT FEES

Payment of a bill received after the due date results in assessment of a late payment fee. All fees and charges billed must be paid in full. Partial payments will result in assessment of a late fee. Payment plan participants who do not pay their scheduled payment amount by the due date are also subject to assessment of a late payment fee.

NCAA PERMISSIBLE EXPENSES

This fee is for approved NCAA expenses such as meals incidental to participation, approved housing costs and fees, missed appointment charges, and other NCAA approved costs or charges.

PARKING FEE (OPTIONAL)

This fee is optional each term for non-tuition promise students registered for less than six credit hours in courses designated as on-campus. This fee is charged upon request of the parking permit via Penguin Portal – and will appear on students' accounts as a "parking fee." The "optional" fee and parking permit will also allow the student to have unlimited access to shuttle service. Students requesting the parking permit after the 14th day of the term will not have the permit issued or shuttle services made available until payment of the fee. The fee supports the operating and maintenance costs of campus parking facilities, roadways and sidewalks, as well as student shuttle service. The fee does not guarantee an available space in any particular lot. Some facilities are restricted (e.g. for students only, for faculty and staff only, or resident hall residents only). The current Driving and Parking Regulations pamphlet and parking lot map should be consulted. The fee is refundable only if the student returns the permit access card, validation sticker, and has less than six credit hours in courses designated as on-campus within five days of either the withdrawal date or the last date of the 100% tuition refund period, whichever is earlier. This fee is nonrefundable after the 100% tuition refund period and cannot be appealed.

A daily fee is charged anyone without a permit who wishes to park in facilities designated for cash business.

PERFORMANCE MUSIC FEE

This fee offsets the cost of maintaining the programs and facilities of the Dana School of Music including the purchase and repair of equipment, rental of performance venues, recording and archiving of Dana events, and other expenses. The performance fee helps us provide the best possible experience for our students and follow standards set by the National Association of Schools of Music. This program fee is charged in addition to regular tuition. It is assessed students taking music lessons and is applied on a per-credit basis.

PROFICIENCY EXAMINATION FEE

A fee is charged for an examination provided by an academic department to determine a student's proficiency for some reason other than assignment of academic credit. If academic credit is to be awarded, the credit by examination fee applies and not this fee.

STUDIO ART FEE

This fee enables the Department of Art to strategically plan for essential equipment upgrades and investment in new technologies that drive development and implementation of innovative curriculum including the purpose of large and costly equipment and digital technologies. As new processes and directions emerge in contemporary art, the Department of Art must introduce new and innovative instructional art making options into the curriculum to remain enrollment competitive with regional and national peer institutions.

TESTING FEES

The Comprehensive Testing Center supervises a variety of special tests used for admission to college, graduate, or professional schools. The fees are established by the agencies responsible for the tests. Students are advised to contact the Testing Center for information and to make reservations.

TRANSPORTATION FEE

This fee is charged to all non-tuition promise students each term registered for six or more credit hours in courses designated as on-campus. This fee will allow students to receive a parking permit (at no additional charge). Students must request the permit via Penguin Portal; the permit will give them unlimited access to shuttle service and admission into designated parking areas. The transportation fee supports the operating and maintenance costs of campus parking facilities, roadways and sidewalks, as well as student shuttle service. The fee does not guarantee an available space in any particular lot. Some facilities are restricted (e.g. for students only, for faculty and staff only, or resident hall residents only). The current Driving and Parking Regulations pamphlet and parking lot map should be consulted. The transportation fee

is refundable only if the student has less than six credit hours (in courses designated as on-campus courses) by the last day of the 100% tuition refund period AND they return the permit access card and validation sticker within five days of either the withdrawal date or the last date of the 100% tuition refund period-whichever is earlier. The transportation fee is nonrefundable after the 100% tuition refund period and cannot be appealed.

Service Charges

COMPUTER-BASED PLACEMENT RE-TEST FEE

A nonrefundable fee is charged each time a computer-based placement test is retaken.

DATA RECOVERY SERVICE FEE

Fee assessed to recover data and/or transfer data that was successfully recovered onto a media device provided by the students (i.e. flash drive, hard drive, or DVD). No fee assessed unless some or all of the data is recovered. Note: If it is necessary to remove the hard drive from the PC in order to recover data, the IT Service Desk will NOT be able to perform the service, and no fee will be charged to the student.

HEALTH CENTER FEE

Mercy Health Wick Primary Care at YSU is located on the corner of Wick and Lincoln Avenue. The Center provides health care to all currently enrolled YSU students-both resident and commuter students. These services are provided because of the Health Center Fee that is paid by all students taking a minimum of one on campus class each semester. The mandatory fee provides revenue to Mercy Health System to give student access to their Primary Care Facility. Students enrolled in an online program and taking classes strictly online, will have the opportunity to purchase access to the student health center per semester. The fee is \$34 per semester. The center will be staffed by a full-time primary care physician and advanced proactive provider. It will also provide the following services below:

Full Service Primary Care Practice

- Establish and develop continuity of care
- Address acute issues
- Continuation of allergy shots
- Walk-In Care location for non-scheduled visits
- Wellness and Preventative Care
- Lab draw site

Mental Health Services

- Mental health, behavioral health, and addiction issues addressed
- Two half-days per week
- Psychiatrist

Health care is available for illness, injury, first aid, and routine health checks. Health screening tests, physical exams for sports and academic programs, gynecological exams, as well as consultations and referrals, are provided. Flu and other immunizations are also given; however, there are charges for these injections.

Office visits are free. Students do not need to have health insurance to use the Center's services.

Student records are kept strictly confidential. Information cannot be released to anyone without the written consent of the student. Certain public health diseases, however, must be reported to the Department of Health as required by law.

YSU MERCY (WICK) PRIMARY CARE- STUDENT HEALTH CENTER FOR ON-LINE STUDENTS

Health Center Fee Payment

- Go to this webpage (https://epay.ysu.edu/C21820_ustores/web/store_main.jsp?STOREID=78&SINGLESTORE=true&clearPreview=true) to make payment

For more information, visit Student Health Clinic (<https://ysu.edu/wick-primary-care-ysu/>).

HOUSING

On-campus housing is available for students year-round. The academic year contract covers room, board, and basic meal plan costs for both fall and spring semesters, as well as University breaks during both semesters (not including the break between semesters). Students may also apply separately for on-campus housing for summer terms. Charges are billed each semester. All payment dates and cancellation fees are outlined in the housing contract, which is included in full in the housing application and on the housing website. Please note that there is a housing application fee, as well as a housing prepayment, which will reserve the student a space. Students who are living off-campus may also choose to buy a meal plan at the Kilcawley Information Desk in Kilcawley Center.

IDENTIFICATION CARD REPLACEMENT CHARGE

A nonrefundable charge is made for replacement of an ID card.

INTERNATIONAL STUDENT ACTIVITIES FEE

The International Programs Office (IPO) arranges social and cultural activities of cross-cultural nature. IPO may charge a nominal fee in order to defray the cost of such activities.

INTERNATIONAL STUDENT STORAGE FEE

The International Programs Office (IPO) arranges for international students to have access to secure storage for their belongings over the summer break. International students who wish to store their belongings are assessed this fee per box.

INTERNATIONAL STUDENT TRANSPORTATION FEE

The International Programs Office (IPO) arranges transportation at the end of each semester to the airport. Students who wish to reserve a space on the airport shuttle are assessed this fee. The intent of this fee is to defray the costs associated with providing transportation services.

PAYMENT PLAN ENROLLMENT FEE

A nonrefundable fee is charged for enrollment in the payment plan. All tuition and fees are due in full by the payment due date unless the student enrolls in the payment plan.

PC REMEDIATION SERVICE FEE

Fee assessed for removal of all spyware and viruses from the PC and for installing the most current updates to applications and the operating system to help reduce the risk of future attacks. The first two PC remediation services are provided free of charge to current YSU students; the fee only applies to remediation performed beyond the first two free services.

PLACEMENT & SUPERVISION FEE FOR OVERSEAS STUDENT TEACHING

Through the Consortium for Overseas Student Teaching (COST), teacher candidates are placed in public and private institutions in various locations around the world where English is the language of instruction. YSU students who student teach overseas through COST will be charged a placement and supervision fee. The fee is established by COST and the entire amount is paid to them for the administration of the program. The fee amount varies and may be higher in some overseas sites.

PHYSICAL EDUCATION ACTIVITY CHARGE

Certain activity courses (e.g. bowling, skiing, ice skating, scuba diving) are available only upon the payment of a charge sufficient to cover the cost of

the facility or transportation. These charges are set by the operator of the facility, are paid by the student to that operator (not to the University), and are in addition to any other applicable fee.

RETURNED CHECK, ACH (ELECTRONIC CHECK), OR CREDIT CARD FEE

A charge is levied on anyone whose check, ACH, or credit card payment is returned unpaid by the bank. Failure to pay billing of return check, ACH, and/or credit card payment within six days; and/or a second check, ACH, or credit card payment return will result in the University not accepting this type of payment at any of its collection points and may subject the student to financial suspension for the term.

STUDENT LOCKER RENTAL

A limited number of lockers are available in various buildings for the convenience of commuting students. Locker payments and assignments are made in Kilcawley Center at the Penguin Xing.

TECHNOLOGY LOANER EQUIPMENT FEE

A nonrefundable fee that covers the cleaning, updates and maintenance of the YSU loaner devices.

TRANSCRIPT OF CREDITS CHARGE

There is a charge for normal transcript processing requests as well as rush or overnight express requests issued by the Office of Records. Transcripts will not be issued for anyone with outstanding debts owed to the University.

Fines

LIBRARY FINES

Fines are assessed for failure to return books on time as stipulated or for the unauthorized removal of a reserved book. Willful damage or defacement of library materials or other property is a violation of state law and is punished as such.

PARKING VIOLATION FINE

Parking without a permit, parking in unauthorized areas, and other offenses as identified in the *Parking Regulations* brochure will result in the issuance of a citation against the vehicle and its owner, or against the student responsible for the vehicle (e.g., a student driving a parent's car). Payment of a fine removes the citation. In certain cases, vehicles may be towed. See the regulations (<https://ysu.edu/parking-services/rules-regulations/>) for detailed information.

Non-Tuition Promise Rates Student Fees and Charges

Effective Fall 2024

(Instructional Fee, General Fee, and Information Services fees are required of all Non-Tuition Promise undergraduate students except where noted)

TUITION

INSTRUCTIONAL FEE

Undergraduate Non-Tuition Promise

1 to 11 credits	\$292.26	per credit hour
12 to 18 credits	\$3,507.12	per semester
Over 18 credits	\$292.26	per credit hour

Undergraduate Online

Programs (not eligible for payment plan enrollment)

RN-BSN	\$275.00	per credit hour
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GENERAL FEE

Note: General fee does not apply to distance learning and online programs.

1 to 11 credits	\$61.67	per credit hour
12 to 18 credits	\$740.04	per semester
Over 18 credits	\$61.67	per credit hour

INFORMATION SERVICES FEE

Note: Does not apply to Online Programs.

1 to 11 credits	\$10.82	per credit hour
12 to 18 credits	\$129.84	per semester
Over 18 credits	\$10.82	per credit hour

AFFORDABLE TUITION ADVANTAGE NON-RESIDENT SURCHARGE

Those students who are not legal residents of Ohio must pay a surcharge in addition to tuition.

Note: Does not apply to Accelerated Online Programs.

1 to 11 credits	\$15.00	per credit hour
12 to 18 credits	\$180.00	per semester
Over 18 credits	\$15.00	per credit hour

NON-Resident SURCHARGE

Note: Applies to Accelerated Online Programs only.

1 to 11 credits	\$5.00	per credit hour
12 to 18 credits	\$60.00	per semester
Over 18 credits	\$5.00	per credit hour

COLLEGE FEES

Note: Does not apply to Online Associate Programs.

BEEGHLY COLLEGE OF LIBERAL ARTS, SOCIAL SCIENCES, AND EDUCATION (ALL UNDERGRADUATES)

1 to 11 credits	\$12.50	per credit hour
12 to 18 credits	\$150.00	per semester
Over 18 credits	\$12.50	per credit hour

BITONTE COLLEGE OF HEALTH & HUMAN SERVICES (JUNIOR AND ABOVE)

1 to 11 credits	\$20.50	per credit hour
12 to 18 credits	\$246.00	per semester
Over 18 credits	\$20.50	per credit hour

COLLEGE OF CREATIVE ARTS & COMMUNICATIONS (ALL UNDERGRADUATES)

1 to 11 credits	\$9.00	per credit hour
12 to 18 credits	\$108.00	per semester
Over 18 credits	\$9.00	per credit hour

COLLEGE OF SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS (JUNIOR AND ABOVE)

1 to 11 credits	\$25.00	per credit hour
12 to 18 credits	\$300.00	per semester
Over 18 credits	\$25.00	per credit hour

WILLIAMSON COLLEGE OF BUSINESS ADMINISTRATION (ALL UNDERGRADUATES)

1 to 11 credits	\$20.00	per credit hour
12 to 18 credits	\$240.00	per semester
Over 18 credits	\$20.00	per credit hour

COLLEGE CREDIT PLUS INSTRUCTIONAL FEE

(High School Students Participating in State of Ohio College Credit Plus Program)

Note: General and Informational Services Fees are waived.

In high school instruction by high school teacher	\$41.64	per credit hour
In high school instruction by YSU faculty	\$65.50	per credit hour
Online instruction by YSU faculty	\$131.00	per credit hour

HOUSING CHARGES

Note: Weller House and Courtyard Apartments are not included in the Penguin Tuition Promise Guarantee

Housing Charges

Room and Board (per academic year)	\$9,400.00 (Payable as follows: \$4,700.00 fall semester, and \$4,700.00 spring semester)
Residence Hall Application Fee (academic year and/or summer)	\$35.00
Residence Hall Pre-payment	\$250.00
Single Room Upcharge	\$1,250.00 per semester
Weller House	
One-bedroom apartment (academic year, room only)	\$6,750.00/AY or \$750.00/month (summer)
Two-bedroom apartment (academic year, room only)	\$7,650.00/AY or \$850.00/month (summer)
Three-bedroom apartment (academic year, room only)	\$8,550.00/AY or \$950.00/month (summer)
Graduate Shared Apartment	\$5,850.00/AY or \$650.00/month (summer)

*Multi-bedroom apartments are available only to students (U/G or Grad) with a child(ren). Single-bedroom apartments available for Graduate student reservation.

*Academic year contract (charge per AY = 9 months (4 months in Fall and 5 months in Spring). Opportunity to extend into summer for 3 months at the monthly charge.

Expanded Housing Rate (over-occupied rooms)	\$4,850.00
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Student Housing Outside of Contract Period

Nightly room rate (per day, no meals)	\$30.00
Flat fee room rate for winter break (no meals)	\$250.00

Cancellation Fee

Before May 13 (academic year) or December 16 (spring only)	\$0.00
After May 13 (academic year) or December 16 (spring only)	\$250.00

Summer

Summer Room and Board (meals included)	\$2,416.00 per 7-week term
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Weller House (prorated for current tenants, monthly, no meals)	See monthly Weller rates above
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Summer Event Housing Rates

Rooms with community bathrooms (Lyden, Cafaro, Kilcawley)	\$40.00
Rooms with private or semi-private bathrooms (Cafaro, Wick)	\$60.00

Linens (for rent, per set)	\$25.00
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Bed adjustment fee (per bed)	\$10.00
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Additional staffing (per night, all groups with minors, or as requested)	\$120.00 per night/desk
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Late check-in or check-out fee (per hour)	\$50.00
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Voluntary Board Plan	(students not in University housing) go to https://ycard.ysu.edu/
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Courtyard Apartments (room only, per person) *Inclusive of introductory meal plan (\$25 Pete's/\$25 Fleb)

1 bed/1 bath	\$895.00 per month
2 bed/2 bath	\$765.00 per month
4 bed/2 bath	\$670.00 per month

Courtyards Pre-Payment (must be paid before apartment bedroom selection/assignment occurs and is ultimately deducted from bill) \$250.00

Annual 12-Month Lease Rates

1 bed/1 bath room	\$10,740.00
2 bed/2 bath room	\$9,180.00
4 bed/2 bath room	\$8,040.00

Short-Term Housing Rates

Room Options

Weekly housing cost (Wick House)	\$250.00
Monthly housing cost (Wick House)	\$900.00

Meal Plan Options

50-Block (50 meals declining balance + \$125 Flex)	\$610.00
30-Block (30 meals declining balance + \$150 Flex)	\$470.00
Sampler Plan (5 meals + \$100 flex + 10 cups Dunkin' coffee)	\$155.00

*Must participate in meal plan if staying longer than one week

International Meal Plan Requirement

Applies to any first year undergraduate international student arriving for orientation or any new international student living in university residence halls.

Meal plan funds may be used during the orientation process and carry-over for use in the academic year.

Spring Fee (includes \$75 Pete's Points and \$25 Flex Points)	\$100.00
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Fall Fee (includes \$70 Pete's Points and \$70 Flex Points)	\$140.00
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VOLUNTARY BOARD PLAN (STUDENTS NOT IN UNIVERSITY HOUSING) PLEASE GO TO Y Card Portal (<https://ycard.yzu.edu>) OR CALL GUEST SERVICES AT EXT. 3516.

*Room and board amount shown here is based on Bronze-level meal plan selections. Rates are for Kilcawley, Wick, Lyden, and Cafaro houses.

**Effective FY18, Weller House converted to graduate and family housing, and rates charged per apartment instead of per bed.

SPECIAL-PURPOSE FEES

ACT Test Fee	\$65.00
Art Usage Fee	\$29.00 per course
Bachelor of Arts in Telecommunications Program Fee	\$35.00 per course
Bachelor of Science in Engineering Program Fee	\$50.00 per student, per semester
Career Service Fee - Level 1 - Freshman and Sophomore	\$1.75 per credit hour
Career Service Fee - Level 2 - Junior and Senior	\$2.75 per credit hour
College Level Examination Program Test Fee (CLEP)	\$25.00
College Credit Plus per credit (rates set by State of Ohio and subject to change)	
In high school instruction by high school teacher	\$41.64
Online instruction by YSU faculty	\$65.50
On-campus instruction by YSU faculty	\$131.00
College over 60 Registration fee	\$5.00
Course Book, eBook, and instructional supplies	Variable
Course Fees	
Level 1	\$35.00 per course
Level 2	\$50.00 per course
Level 3	\$65.00 per course
Level 4	\$300.00 per course
Level 7	\$20.00 per course
Level 8	\$85.00 per course
Level 9	\$25.00 per course
Level 10	\$200.00 per course
Level 11 (cooperative charge)	\$350.00 per course
Level 12	\$300.00 per course
Level 13	\$100.00 per course
Credit by Examination ¹	\$20.00 per credit hour
Deferred Payment fee (employer paid only)	\$50.00
Equipment, Materials & Damage Replacement Fee	Replacement value
Federal Background Check	\$28.00
Graduate Accelerated Program Fee (per course)	\$50.00
Graduation Fee	\$65.00
Graduation Fee Late Application (after 3rd wk. of term)	\$38.50
Health Center Fee	\$34.00 per semester
Honors College Fee	\$25.00
Installment Payment Plan Enrollment Fee	\$50.00 per semester maximum
Internal Revenue Service/1098T penalty for incorrect name/SSN match	\$100.00

Intramural Sports	
Individual - Single sport	\$5.00
Individual - Multi sport bulk rate	\$12.00
International Student Activities Fee	Variable
International Student Health Insurance	pass-thru charge, set by Ins. Carrier-Variable
International Student Program Fee	\$75.00 per semester
International Student Storage Fee	\$5.00
International Student Transportation Fee	\$40.00
Late Payment Fee	\$50.00 per month
MAT Test	\$90.00
NCAA Permissible Expenses	Variable
Ohio Attorney General Payment/Collection Fee	Variable
Parking - see below	
Peace Officer Training Academy Fee	\$300.00 per semester
Performance Music Fee	\$75.00 per credit
Placement & Supervision for Overseas Student Teaching	Variable
Proficiency Examination ²	\$45.00 per course
Student Locker Rental	\$25.00 per year
Student Success	\$35.00
Study Abroad Fee - Faculty Led	Variable - based on actual travel costs
Study Abroad Fee - Individual	\$75.00
Transportation Fee, Fall & Spring Terms (Required 6 plus credit hours listed on campus courses)	\$115.00 per semester
Transportation Fee, Summer Term (Required for 6 plus credit hours listed on campus courses)	\$58.00 per semester
Undergraduate Application Fee - Domestic	\$45.00
Undergraduate Application Fee - International	\$75.00
Web-Based Course Fee	\$100.00 per course
Youngstown Early College (per credit hour) ³	\$130.54

¹ Credit awarded for courses based upon the successful completion of a test administered by an academic department at YSU. The course title appears on the transcript but no grade is listed.

² A course or courses may be waived based on the performance on an examination. No academic credit is given and the course is not listed in the transcript.

³ YEC tuition adjusted at the same rate as entering Penguin Promise cohort tuition. Amount here reflects the maximum adjustment permitted by H.B. 33

SERVICE CHARGES

Check Replacement Fee	\$25.00
Child Preschool Laboratory Fee	\$150.00 per semester
Computer-Based Placement Re-Test	\$20.00 per test
Credit Card Convenience Fee - Domestic (student accounts only)	2.95% minimum of \$3.00
Credit Card Convenience Fee - International (student accounts only)	4.25% minimum of \$3.00
Duplicate Diploma Fee	\$40.00
Finger Printing Fee	\$37.00 per occurrence
Human Performance and Exercise Science Activity	Variable to cover cost in that course

PC Data Recovery Service Fee	\$100.00 per occurrence
PC Remediation Service Fee (if 3 or more occurrences per academic year)	\$75.00
Photo I.D. Replacement Charge	\$25.00
Reading Tutoring Fee	\$38.00 per semester
Returned Check or Credit Card Charge	\$30.00
Rich Autism Center Pre-School Programs	\$125.00 per week
Student Conduct - Other Violations	up to \$750.00
Student Health Insurance	Go To: https://ysu.edu/wick-primary-care-ysu (https://ysu.edu/wick-primary-care-ysu/)
Technology Loaner Equipment Fee	\$50.00 per semester
Transcript Fee	\$6.00
Transcript Rush Fee (same day processing, US mail or in person)	\$12.00
Transcript Rush Fee (overnight express)	\$35.00

PARKING

Parking & Transportation Fees

Transportation Fees, Non-Penguin Promise Undergrad. Students, per semester:	
Fall & Spring terms, mandatory for students enrolled in 6 or more credits	\$115.00
Fall & Spring terms, optional permit for students enrolled in less than 6 credits	\$115.00
Summer term, mandatory for students enrolled in 6 or more credits	\$58.00
Summer term, optional permit for students enrolled in less than 6 credits	\$58.00
Parking Permit Fees, Penguin Promise/Graduate/Doctoral/Accelerated Online Students:	
Optional commuter permit, per semester	\$45.00
Optional overnight permit, per semester	\$90.00
Parking Permit Fees, Other Miscellaneous:	
Employees, per semester	\$160.00
Retirees with Emeritus status	\$160.00
Contract employees, per semester, Fall & Spring	\$160.00
Contract employees, Summer term	\$103.00
Control Card Replacement	\$5.00
Visitors, Daily/Special Event (per day)	\$5.00
Visitors, Weekly/Special Event (per week)	\$18.00
Parking Violations/Fines	
Class 1 – Minor violations	
1st offense	\$25.00
2nd offense	\$30.00
3rd offense	\$35.00
Class 2 – Major violations	\$100.00
Class 3 – Legal violations	\$250.00

For more information go to Parking Rules and Regulations (<https://ysu.edu/parking-services/rules-regulations/>).

MAGG LIBRARY & CURRICULUM RESOURCE CENTER FINES & FEES

Overdue charges and loan periods differ by type of materials:

Library Material Replacement Fee	Market Value
Library Study Carrel Rental	\$25.00
OhioLink Material Replacement Fee	\$110.00
Overdue Closed Reserve Material Daily Rental (per day)	\$0.55
Overdue Closed Reserve Material Hourly Rental (per hour)	\$0.55
Overdue InterLibrary Material (per day)	\$0.05
Overdue Maag/Depository Material (per day)	\$0.10
Overdue OhioLINK Material (per day)	\$0.50
Replacement Processing Fee	\$10.00
SearchOhio (OhioLINK partner)	\$0.50
Overdue fine (per day)	
SearchOhio (OhioLINK partner)	\$25.00
Material Replacement Fee	

For further Circulation policy details, visit MAAG Circulation Policy (<http://maag.ysu.edu/>).

THE UNIVERSITY RESERVES THE RIGHT TO CHANGE ANY FEE WITHOUT NOTICE. PLEASE CHECK CAMPUS ANNOUNCEMENTS AND REVIEW CAMPUS WEBSITES FOR FEE CHANGES OR UPDATES. YOUR MYYSU EMAIL ADDRESS IS THE FORMAL MEANS OF COMMUNICATION.

Reduction/Refund of Fee Charges Upon Withdrawal

To withdraw from a single course or from all courses (complete withdrawal), it is necessary to access the registration functions online via the Penguin Portal – Registration. It is the student's responsibility to confirm that the withdrawal was correctly processed and the course(s) is/are deleted. Nonattendance of class, or notification to the instructor or department, does not constitute official withdrawal.

If a student is permitted to withdraw from the University or if a student reduces their academic load, a refund of the tuition charge, and the nonresident tuition surcharge, where applicable, shall be made in conformity with the following schedule for regularly scheduled courses:

Length of Course	100% Refund	No Reduction of Charges
More than 8 weeks	Through 14th day of term	15th day of term and later
8 weeks or less	Through 7th day of term	8th day of term and later

Note: Because access to change of registration is available online 24/7, every day of the week is counted (including weekends and holidays) when calculating tuition refunds.

If the student withdraws after the prescribed time limits (as indicated above), all tuition and other applicable fees and charges are forfeited. If fees were paid by scholarship, loan, or grant-in-aid, the appropriate credit is issued to the fund from which the initial payment was made.

If a student withdraws from a study abroad field course within the applicable add/drop period for that term, the student will be refunded the tuition portion of the course per the schedule above. However, the University is not able to guarantee, and does NOT guarantee, that any portion of the program fee for that course will be removed or refunded if the student withdraws from the program for any reason either during or after the close of the add/drop period. If the University has already paid or encumbered funds on the student's

behalf at the time of withdrawal, the student is obligated to pay the amount encumbered or paid by the University.

Title IV financial aid funds are awarded to a student under the assumption that the student will attend school for the entire period for which the assistance was awarded. If a student completely withdraws on or before the 60% point in time of the period of enrollment, calculated using calendar days, a portion of the federal aid awarded (Federal Pell, SEOG, Direct Loans, and PLUS Loans – but not Federal Work Study) may need to be returned according to the provisions of the Higher Education Amendments of 1998. This recalculation may result in the student's owing a balance to Youngstown State University and/or the federal Department of Education.

Any withdrawal, or reduction in academic hours after the schedule outlined above will not be entitled to a reduction of charges and/or refund unless an Application for Involuntary Withdrawal is submitted and approved by the Fees and Charges Appeal Board. All decisions made by this board are final and binding.

University Resources

University Housing

Whether you are an out-of-town or local student, living on campus is a fun and exciting part of the college experience! YSU owns and operates four residence halls, a smaller graduate and family housing community, as well as the University Courtyards: our upper-class campus community. Within this housing portfolio, there is an option to meet the needs of any student, while all options support the development of life-long friendships and academic success, and strengthen student connection to the YSU community.

There are a few primary features that distinctly set the University-managed housing options apart from other housing options:

- The supportive network our staffing structure provides students to flourish independently during their transition to college life
- Fully furnished residence halls and apartment options, located conveniently on campus
- Exclusive access to fun, social programs designed to foster friendships within the residential communities
- We bill directly to the student account, which means that students' financial aid packages are directly applied, students can take advantage of the University payment plan, and there's no third party to worry about paying monthly rent to
- We honor the Penguin Tuition Promise with our housing rates- your rate is "locked in" from your first year on for each of the housing options
- Our team includes University maintenance staff members who are able to ensure quick resolution of any maintenance issues daily
- Contracted janitorial groups that clean common areas and community bathrooms twice daily

More information about our options, rates, contract, amenities, and meal plans can be found on our website: housing.ysu.edu

THE RESIDENCE HALLS

The halls provide a more structured living environment for the initial transition out of the family home and into college life. Our team of full-time live-in professional staff, Graduate Assistants, and Resident Assistants work together to provide round-the-clock guidance for our communities to develop around the values of diversity and inclusion, wellness, and academics. Staff have regular conversations with residents regarding their overall goals for the semester, consistently help residents navigate campus and academic culture and plan a variety of events to help residents feel safe and included in the residential and YSU community.

There are clear procedures and expectations in place addressing community issues including noise, safety, guests, and security. Buildings feature security

cameras in public areas, 24-hour staffed desks, and locking exterior doors that require specific access cards for all residents. Sharing bathrooms, lounge space, and corridors with a group means you can't help but make friends quickly. Being on campus also means that classes, the library, the student center, and the wellness center are all within easy walking distance.

Once a student has been accepted to YSU, they can submit a housing application at housingapp.ysu.edu (<https://ysu.edu/housing-and-residence-life/residence-hall-application/>) Students make a one-time, non-refundable \$35.00 application fee, to access the application. At the conclusion of the application, students are asked to sign their contract and make a \$250 prepayment. This prepayment will be added as a credit to a student's bill at the beginning of fall semester. Please note, a \$250 housing prepayment is not required as part of the summer application process. As part of the application, students can self-select their building, room, and roommate, based on the application timeline.

About our halls

- **Kilcawley House**, located on University Plaza, is a traditional residence hall conveniently connected to the student union and just steps away from the academic buildings.
- **Lyden House**, located on Madison Avenue, is one of the larger, traditional-style residence halls, located in close proximity to the dining hall.
- **Cafaro House**, is the designated Honors College residential community. The hall is predominately suite-style in layout and features a satellite Honors office inside. Honors coursework is also taught inside this community that sits alongside the dining hall and the Lyden House community.
- **Wick House** located on Wick Avenue, is a small historic home that was converted into a residence hall. This community proudly houses the Cliffe College Living Learning Community.
- **Weller House** also located on Wick Avenue, is a small building with 16 efficiency apartments that are home to the graduate and family housing population.

UNIVERSITY COURTYARD APARTMENTS

Ready for more independence in your campus housing journey?

The University Courtyard Apartment community offers upper-class students an off-campus lifestyle with all the benefits of on-campus living. Located conveniently on the edge of campus, this upper-class apartment community is just steps away from academic buildings, dining options and the student union! The varying apartment styles, including 1, 2 and 4-bedroom apartment floorplans, allow students to get a taste of apartment living accompanied with the safety, community and social aspect you would find in any other campus residence hall.

Each apartment is equipped with an upgraded appliance package that includes a stainless-steel full-size refrigerator, stove, microwave and dishwasher. The rent is all-inclusive, which means the residents pay one amount for everything including all utilities, Wi-Fi, and high-speed internet access.

Students who choose to live at the University Courtyards will sign a year-long lease, which typically runs from mid-August to late July. The University Courtyard Apartment community is a home for upper-class students who love to be social and get involved in the YSU community.

CHRISTMAN DINING COMMONS

Christman Dining Commons, commonly referred to as "Christman," is located adjacent to both Lyden House and Cafaro House. Seating 300 people at a time, the staff can serve up to 600 people per meal period. Most days, Christman hosts three traditional mealtimes (breakfast, lunch, and dinner), while on some nights they also feature a "late-night" option.

Christman offers a wide variety of menu options to campus residents, from self-serve cold foods, beverages, and snack selections to staff-served grille

specialties and hot entrees. Students can build their own stir-fry daily, while those with food allergies or dietary restrictions can work directly with the chef on meals that meet their needs.

Students living in Kilcawley, Lyden, Cafaro, and Wick Houses are all required to have a meal plan, which is included in their room and board charges. Each meal plan consists of three types of funds: meal swipes for use at Christman, Flex Dollars for use at any other campus dining location, and Pete's Points to be used at any other campus dining location, as well as some off-campus dining locations with whom we partner.

Commuter students, those living in nearby apartments, staff, and faculty are also welcome to purchase meal plans, visit Christman Dining Common, or visit any of the other many campus dining options. Daily meal rates, menu options, and more can be found on our website (<https://www.dineoncampus.com/ysu/>).

Parking Services

Motorists' Assistance Program

Parking Services offers on-campus help with jump starts and lockouts to anyone with a valid YSU parking permit. The MAP will also lend out lug wrenches, jack stands, and gas cans. To contact the MAP program and shuttle service, call (330) 941-3051 or stop at any staffed parking booth.

Accessible Parking

All students who wish to utilize YSU handicap parking must bring their valid state handicap registration to Parking Services in order to receive a handicap sticker. Once the sticker is applied to your permit, you may utilize all handicap parking on campus.

If a handicap permit registered to someone other than the YSU parking permit holder is used in conjunction with the YSU parking permit, it is invalid for parking in handicap spaces on campus.

Student Services

BARNES & NOBLE, YSU'S OFFICIAL BOOKSTORE

The YSU Bookstore, a Barnes & Noble College Bookstore, carries textbooks and supplies for all YSU courses, YSU spirit apparel, computer and electronic accessories, convenience foods, and so much more. The Bookstore's Barnes & Noble Café is a great place to relax with Starbucks coffee drinks, pastries, sandwiches, and more. Visit us in-person or online for everything a YSU student needs for success.

The Bookstore is located at 300 Fifth Ave.

For more information, visit the Bookstore website (<https://ysu.bnccollege.com/>).

CAREER EXPLORATION AND DEVELOPMENT

OCED provides individualized career and exploratory advising for YSU students and alumni. Exploratory Advisors will help students identify required general education coursework while exploring majors, careers, and opportunities to get involved at YSU. Career development Coordinators will guide students through building resumes, preparing for interviews, and building effective job search strategies.

OCED is located in Jones Hall 2002

For more information, visit the OCED website (<https://ysu.edu/office-career-exploration-development/>).

CHILDCARE

Wee Care Day Care and Learning Centre is the official day care/preschool facility for YSU—providing safe, high-quality, and convenient care. The YSU facility is open from 5:00am to 7:00pm to accommodate flexible schedules for students. Fees are reasonable and based only on the hours that a family uses. All YSU Faculty, Staff, Students, and Active Alumni are eligible for a discounted rate at all Wee Care Day Care and Learning Centre locations in Youngstown, Howland, YSU Campus, Boardman and Canfield (coming soon). Partnership discounts are available on a sliding scale, based on income.

Wee Care Day Care is located in Fedor Hall at 644 Elm Street.

For more information and to register your child, please visit the Wee Care Day Care website (<https://www.weecareohio.com/partners.html>).

CHRISTMAN DINING COMMONS

Christman Dining Commons is YSU's main dining hall for residents of on-campus housing— but also open to all faculty, staff, and students. Although resident meal plans have options for other dining venues on campus, this full service, all-you-care-to-eat, cafeteria-style restaurant serves a wide variety of foods such as homestyle cooking, a salad bar, pizza, burgers, and specialty items that vary day to day and week to week. Healthy foods and special selections for those with food sensitivities are available.

Christman Dining Commons is located at 220 Custer Ave., between Lyden and Cafaro Houses, North side of campus

For more information, visit the Christman Dining Commons website (<https://ysu.edu/kilcawley-center/dining-and-campus/>).

COMPREHENSIVE TESTING CENTER

The Testing Center is a frontline office that is part of the Division of Student Success. YSU's placement testing program is administered through this office. Additional testing services provided are administrations of national admission and certification examination, including the ACT and SAT, the Miller Analogies Test (MAT) and the GRE Subject Test. The Testing Center partners with private exam companies to offer exams such as the Pearson teacher licensure exams, the Praxis exam series, and other exams that serve our students and the larger community.

The Comprehensive Testing Center is located in Maag Library 154

For more information, visit the Testing Center website (<https://ysu.edu/testing-center/>).

DEAN OF STUDENTS

In support of YSU's commitment to "place students at its center," the Office of the Dean of Students is dedicated to ensuring that individuals have a centralized point of contact to discuss extenuating situations and concerns, specifically those related to mental and physical health, hospitalizations, food and housing insecurities, challenging family situations, issues with faculty or staff members, or any other barriers that may impede their success, all while maintaining campus safety and fostering a culture of civility, character, and respect.

Additionally, the YSU CARE (Concern-Assessment-Referral-Education) Team, managed by the Dean of Students, addresses issues of a serious nature that may pose a threat to the safety of a student or the overall campus community. We accept and encourage referrals from students, their families, faculty, staff, and the surrounding community, with the goal of providing advocacy, guidance, and assistance.

All members of the YSU community have a responsibility to report any situation that could possibly result in harm to self or others. You may submit a referral to the CARE Team via the Penguin of Concern Referral Form (<https://cm.maxient.com/reportingform.php>).

YoungstownStateUniv&layout_id=4). **IMPORTANT:** This form should NOT be used to report crisis situations in which a person poses an active or immediate risk of harm. In these situations, the YSU Police Department (<https://ysu.edu/ysu-police/>) should be contacted immediately at (330) 941-3527 (or 911 from a campus phone).

The Office of the Dean of Students is located in DeBartolo Hall Suite 301

For more information, visit the Office of the Dean of Students website (<https://ysu.edu/dean-of-students/>).

DEPARTMENT OF CAMPUS RECREATION ANDREWS STUDENT RECREATION AND WELLNESS CENTER

The Department of Campus Recreation provides creative and innovative, instructed or self-led wellness, and recreational programming to meet the diverse needs of our students and the YSU community. YSU's Student Rec Center is a state-of-the-art facility that offers a 53' rock wall, 160 pieces of strength and conditioning equipment, a 1/8-mile track, 4 basketball/volleyball courts, an elevated challenge ropes course, and more.

There are programs of interest to every student including Group Fitness, Club Sports, fitness and wellness programs, Intramural Sports, and Adventure Rec programs. Visit the website to find out about these and many other programs available to every student.

The Andrews Student Recreation and Wellness Center is located off of Armed Forces Blvd. and is connected to Kilcawley Center and across from Beeghly Center.

For more information, visit the Campus Recreation website (<https://ysu.edu/campus-recreation/>).

GREEK LIFE

The Greek Community at Youngstown State University is full of tradition, brotherhood/sisterhood, and pride. From participating in Homecoming and Welcome Week events, to playing Intramural Sports, fraternities and sororities know how to show school spirit at YSU. Our members hold leadership positions in numerous student organizations, carry out some of the top philanthropy efforts at the University, and are proudly represented at athletic events. We are confident you can find a home in one of our organizations and ensure a true Penguin Experience.

The Greek Life office is located in the Student Activities Office, Kilcawley Center West

For more information, visit the Greek Life website (<https://ysu.edu/greek-life/>).

HONORARY ORGANIZATIONS

Honorary organizations related to academic fields and departments recognize outstanding achievement by University students. Many of these organizations are local chapters of national honor societies, which provide national recognition and local scholarships.

For more information on honorary organizations in your area of academic concentration, contact the faculty department chairperson of that area, or the Student Activities Office (<https://ysu.edu/student-activities/>), Kilcawley Center West.

INFORMATION TECHNOLOGY SERVICES

YSU's Information Technology Services (ITS) mission is to enable students, faculty, and staff to create a technology-integrated approach to education, scholarship, and service.

ITS is located in Meshel Hall Room 437

For more information, visit the ITS website (<https://ysu.edu/information-technology-services/>).

INTERCOLLEGIATE ATHLETICS

Intercollegiate athletics are conducted at Youngstown State University to meet the needs and interests of the entire student body as spectators or participants in healthful amateur sports. YSU's 21 sport programs compete at the Division I level of the National Collegiate Athletic Association (NCAA).

Intercollegiate athletics is located in Stambaugh Stadium.

For more information, visit the Athletics website (<https://www.ysusports.com/>).

At YSU, academic success is the top priority for Penguin student-athletes. Athletic Academic Services is an academic resource for YSU student-athletes that provides student-centered services for academic success, holistic development, and career readiness.

Athletic Academic Services are located in Stambaugh Stadium as well as the lower level of Beeghly Center.

For more information, visit the Athletics Academic Services website (<https://ysusports.com/sports/2023/5/8/information-academics.aspx>).

INTERNATIONAL PROGRAMS OFFICE

The International Programs Office (IPO) coordinates undergraduate international admissions and recruitment, direct exchanges and study abroad programs (from one semester to an academic year in length), provides international student and faculty services including immigration services, and operates the English Language Institute (ELI).

The IPO main office is located in Jones Hall, Room 1034

For more information, visit the IPO website (<http://www.ysu.edu/ipo/>).

KILCAWLEY CENTER

Kilcawley Center is YSU's student union, sometimes known as the "living room of campus," with places to eat, study, gather with friends, and relax. It is also the home of many YSU services including Student Activities, Student Government, Accessibility Services, YSU IT Service Desk, and more. The building also houses a number of large and small meeting rooms for your organization's meetings or catered events.

Many programs for students take place in Kilcawley Center, including the annual Organizations Fair, Penguin Nights (late-night entertainment), crafting events, trivia nights, and many more. Keep an eye on the events calendar (<https://ysu.edu/event-calendar/>) to see what is happening!

For more information, visit the Kilcawley Center website (<https://ysu.edu/kilcawley-center/>).

MAAG LIBRARY

The William F. Maag, Jr. Library opened at its current location in 1976. Maag Library provides access to millions of books, peripherals, and online resources including databases, media, e-books, government documents, and a digital repository available to all YSU students, faculty, and staff. It offers specialized resources for academic research and educational purposes through its local collections, OhioLINK, and Interlibrary Loan (ILL). Librarians offer research and instruction assistance for all students and faculty, as well as expertise in subject areas such as Education, English, Health Sciences, Nursing, Business, Economics, Finance, Criminal Justice, Technology, etc. Maag Library also has an educational library: The Curriculum Resource Center (CRC, Beeghly Hall), the University Archives and Special Collections (Maag Library, 5th floor), and the Rose Melnick Medical Museum (Cushwa Hall). Additionally, Maag Library manages the Records Retention program for the University and is responsible for preserving YSU's history. The Maag Library

main building provides welcoming and diverse spaces on all floors including a lab equipped with computers and printers, study spaces for group and silent studying, individual study rooms, group study rooms, galleries, meeting spaces, podcast rooms, a family study room, and a lactation room. White boards, dry erase markers, anatomical models, games, phone/PC chargers, calculators, umbrellas, cameras, tripods, and many other peripherals are available for checkout. The Testing Center, Writing Center, and the English Language Institute are housed in the Maag building. Maag Library is open 7 days a week during the Fall and Spring semesters and 6 days a week during the Summer, providing extended hours for Fall and Spring final examinations.

For more information, visit the Maag Library website (<https://maag.ysu.edu/>).

MATHEMATICS ACHIEVEMENT CENTER

The Mathematics Achievement Center (MAC) is an academic support service integrated within the Department of Mathematics and Statistics. Its mission is to offer YSU students a comfortable supportive environment to facilitate the strengthening of their fundamental mathematical skills. Through collaboration with the campus community, the MAC strives to continually expand tutoring and support services to meet the needs of students and enhance their overall learning experience. This mission is accomplished through services such as peer tutoring and the provision of resource materials for independent study.

The main service, peer tutoring, is provided to YSU students either currently enrolled or preparing to enroll in mathematics and statistics courses ranging from Introductory Statistics, Quantitative Reasoning, and College Algebra through Calculus. The MAC operates on a walk-in basis during its regular business hours. The staff of the MAC consists of a coordinator, graduate teaching assistants, undergraduate tutors, student office assistants, and other student personnel.

MAC is located in J.J. and Janet Carfaro Hall Room 408

For more information, visit the MAC website (<https://ysu.edu/mathematics-achievement-center/>) or email mac@ysu.edu

MERCY HEALTH WICK PRIMARY CARE AT YSU

This on-campus center provides health care to all currently enrolled YSU students—both resident and commuter. These services are provided because of the Health Center Fee that is paid by all students taking a minimum of one on-campus class each semester. Students enrolled in an online program and taking classes strictly online will have the opportunity to purchase access to the Student Health Center for \$34 per semester. The mandatory fee provides revenue to Mercy Health System to give students access to their Primary Care Facility. Students do not need to have health insurance to use the services that are provided under the YSU agreement.

The center provides preventative and acute care, both by appointment and walk-in service. The center is staffed by primary care physicians and Advanced Care Practitioners. This full-service clinic provides health care for illness, injury, first aid, and routine health checks. Health screening tests, physical exams for sports and academic programs, gynecological exams, as well as consultations are also provided. Flu and other immunizations are also given; however, there are charges for these injections. Mental health, behavioral health, and addiction services are available when covered by insurance. Some services may incur additional charges such as labs, urinalysis, MMR and Varicella vaccines.

Mercy Health Primary Care is located on the corner of Wick Ave. and Lincoln Ave.

For more information, visit the Wick Primary Care website (<https://ysu.edu/wick-primary-care-ysu/>).

PENGUIN PRODUCTIONS

Penguin Productions is a student programming board under the Department of Student Experience that brings entertainment to YSU students and the

Youngstown community. Penguin Productions produces yearly music festivals such as Fall Fire Fest and Federal Frenzy.

Penguin Productions is located in Kilcawley Center West within the Student Government Suite.

For more information, visit the Penguin Productions website (<https://ysu.edu/student-activities/penguin-productions/>).

REGISTRAR

The Office of the Registrar, a department within the Division of Institutional Effectiveness, provides quality service to YSU students within all areas related to enrollment by supporting the systems and policies of the learning environment and safeguarding the integrity of the university's records and regulations. The office is comprised of three main areas: Records, Registration, and the Penguin Service Center.

The Office of the Registrar, Records Services, and the Penguin Service Center are all located on the second floor of Meshel Hall

For more information, visit the Office of the Registrar website (<https://ysu.edu/registrars-office/>) or call 330-941-6000.

RESCH ACADEMIC SUCCESS CENTER

Resch Academic Success Center (RASC) offers academic support for all students. Our services include one-on-one academic coaching, tutoring in over 200 courses, and Accessibility Services.

RASC is located in Kilcawley Center West

For more information, visit the RASC website (<https://ysu.edu/academic-success-center/>).

STUDENT COUNSELING SERVICES

Student Counseling Services provides free, confidential, counseling for currently enrolled YSU students, as well as after-hours crisis counseling, outreach, consultation, and referrals to services in the greater community.

Student Counseling Services is located in DeBartolo Hall Suite 319

For more information, visit the Counseling Services website (<https://ysu.edu/student-counseling-services/>).

STUDENT GOVERNMENT ASSOCIATION

YSU's student body is represented by the Student Government Association (SGA), which operates under constitutional powers granted by the University. SGA's legislative branch is composed of representatives from the five undergraduate colleges and the School of Graduate Studies and Research, in proportion to the enrollment of each.* SGA also coordinates the involvement of student senators on YSU's Academic Senate. All meetings of Student Government are open to the student body.

*There are also appointed representatives for Freshmen, Transfer Students, International, Students, and Veterans.

Student Government recommends students to serve on joint faculty-student committees, and allocates funding for student organization events and travel. They hold elections in the spring. SGA also recruits nominees for the two student positions of the University Board of Trustees.

The Student Government Suite is located in Kilcawley Center West

For more information, visit the SGA website (<http://sga.ysu.edu/>).

STUDENT MEDIA

The University supports multiple student media outlets. Students can showcase their talents through *The Jambar*, a weekly newspaper; *Rookery Radio*, an online radio station; and several television shows including, *Jambar in 10*, *Jambar Sports Extra* and *Jambar Newsmagazine*.

Student media is student run. Policies and procedures concerning student publications are prepared, reviewed, and applied by the Student Media Committee.

Located in the Student Activities Office in Kilcawley Center

STUDENT ORGANIZATIONS

There are over 180 student organizations ranging from academic and social awareness to cultural organizations, Greek Life, and Student Government. Students are invited to take the first step and discover something that engages their interests. Students can also create their own, brand new student organization! A complete searchable listing of registered student organizations at YSU is available on the Campus Groups web page.

Located in the Student Activities Office, Kilcawley West

VETERANS AFFAIRS

The Veterans Resource Center on campus houses the Office of Veterans Affairs which assists student veterans, currently serving military members, and their dependents with VA, DOD, and State education benefits for which they might qualify. The office also provides an array of additional services to aid the success of military-connected students while attending the university.

These students should consider the Veterans Resource Center their first point of contact for anything military/veteran related as it pertains to their experience on campus.

The Veterans Resource Center is located at 633 Wick Ave.

For more information, visit the Office of Veterans Affairs website (<https://ysu.edu/veterans-affairs/>).

THE WRITING CENTER

The Writing Center (WC) offers in-person or online appointments and walk-in consultations for individualized instruction on writing to help all students become more independent, confident, and successful writers.

The Writing Center is located in Maag Library 171

For more information, visit the WC website (<https://ysu.edu/writing-center/>).

THE LANGUAGE LEARNING RESOURCE CENTER

The LLRC provides in-person or online tutoring for the world languages taught at YSU.

The Language Learning Resource Center is located in Maag Library, rooms 161-162

For more information, visit the WC website (<https://ysu.mywconline.com/>).

YSU ANNUAL AWARDS

The University has established a series of awards to recognize excellence and to encourage participation in campus life. The awards are presented annually at the Student Activities Awards Banquet in the spring. Each year students, faculty, and staff are invited to nominate outstanding individuals and organizations for these prestigious awards. Selections will be made by a committee composed of students, faculty, and staff. Details regarding this program and the different awards listed below may be obtained from the Student Activities Office.

BERNADINE MARINELLI MEMORIAL SCHOLARSHIP

The Bernadine Marinelli Memorial Scholarship is awarded to an outstanding student supervisor in the Division of Student Experience in memory of an exceptional educator and student advocate. Ms. Marinelli, the first female high school principal in the Youngstown City School District, was a dynamic person who helped many students to reach their potential.

CARDINAL NEWMAN SERVICE AWARD

The Cardinal Newman Award is given to a graduating senior who, through service to the Newman Center, Catholic Penguins, the Youngstown State University as a whole, and to the wider community, has embodied Cardinal Newman's motto, thus allowing their own feats to be spoken to others in service and in recognition of the responsibility we each have to care for our neighbor.

CONSTELLATION AWARD-OUTSTANDING UNIVERSITY-WIDE PROGRAMS

This award recognizes an outstanding University-wide event sponsored by a registered YSU student organization. The program must be distinguished by its inclusion of the University community and the program's contribution to the quality of student life.

DECRANE-HOUSER AWARD

Scholarship for a student who has been active at the Newman Center. It is in honor of Arthur DeCrane, who was the first Catholic campus minister for Youngstown College and also for the late Judge William Houser, who was active in the Newman Center while going to school here. Judge Houser's family donated a large sum of money to make this scholarship available upon his death.

ERIN DRISCOLL EMPOWERMENT AWARD

The Erin E. Driscoll Empowerment Award, established during the 2022-2023 academic year by the Student Government Association, is in honor of Ms. Erin Driscoll. This award is bestowed upon a YSU Student Organization Advisor, previous or current, who has proven to be an instrumental factor in the success of their organization and members they are advising. The individual must have displayed the qualities that Erin Driscoll encompassed; specifically, their pivotal role, dedication, and constant enthusiasm to empower students to reach their fullest potential as leaders.

EMERGING LEADER PROGRAM

The Emerging Leader Program provides sophomore students with an opportunity to develop and refine the knowledge and skills essential to leadership. Students who complete the program receive designation on their official University transcript, cords for their academic regalia, and a YSU Leadership medallion pin.

GILLESPIE-PAINTER AWARD

To recognize outstanding achievement in support of the Division of Student Affairs at YSU beyond the scope of assigned duties. All members of the Division of Student Affairs are eligible for this award.

THE JOHN J. GOCALA SERVICE AWARD

The John J. Gocala Service Award was established by the Student Government Association during the 2008-09 academic year to recognize the commitment and contributions of John J. Gocala during his tenure as YSU Police Chief.

The intent of the award is to recognize one individual within the university community who has gone above and continues to go above and beyond the call of duty to serve the first-class reputation and traditions of Youngstown State University.

The individual must truly work to preserve the best interests of the YSU campus and community.

KOCINSKI AWARD

The Kocinski Award is given in honor of Marilyn Kocinski, who taught dance at YSU in the Department of Human Performance and Exercise Science from 1960 to 1983.

Her family was responsible for instituting the award in the late 1990s in her memory. The award is presented to a senior student who has played a significant role as a student leader in the YSU Dance Ensemble and who demonstrates academic integrity as well as artistry and creativity in the field of dance.

LIBRA AWARD-OUTSTANDING ADVISOR

The Libra Award is presented to the outstanding faculty/staff advisor of a registered student organization. The award is designed to recognize the contributions and commitment to furthering student leadership development made by advisors.

DR. MARTIN T. "MARTY" MANNING AWARD

The Martin T. "Marty" Manning Award, established during the 2010-2011 academic year by the Student Government Association, is in honor of the late Dr. Martin T. "Marty" Manning. The award is in recognition of the superior student mentoring of Dr. Manning.

The award is given to a full- or part-time student, administrator, faculty or staff member, or alumnus/a who has exemplified the student-mentoring capacity that Dr. Manning so consistently displayed throughout his Youngstown State University career.

DR. CHARLES A. MCBRIARTY AWARD

This award was established by Student Government during the 1992-93 school year to recognize and remember the commitment and contributions to students and student services by Dr. Charles McBriarty during his tenure as Vice President for Student Affairs. Its intent is to recognize individuals within the university community who have a reputation for being exceptionally

student-oriented and who possess the traits, ethics, and friendly style exhibited by Dr. McBriarty.

EDNA K. MCDONALD CULTURAL AWARENESS AWARD

Award to recognize an outstanding individual who has made a lasting contribution to encourage and increase awareness of cultural diversity at Youngstown State University. All faculty, staff, students, and members of the extended YSU community are eligible for the award.

THE HARRY M. MESHEL LEGACY AWARD

The Harry M. Meshel Legacy Award, established during the 2017-2018 academic year by the Student Government Association, is in honor of the late Mr. Harry M. Meshel. An influential political figure, Mr. Meshel made immense contributions to the valley that simply cannot be measured. This award is in recognition of the values of: public service, civics, education, culture, and dedication to one's hometown, each of which he brilliantly possessed.

This award is bestowed upon a Youngstown State University student, who may or may not be a member of the Student Government Association. The individual must have displayed the qualities Mr. Meshel encompassed, specifically the commitment to public service for the Greater Youngstown Community.

MENTOR OF THE YEAR

This award honors the faculty or staff mentor who has contributed the most during the past year to the development of a YSU student.

MULTICULTURAL LEADERSHIP AWARD

The Multicultural Leadership Award recognizes up to two minority students who have achieved academic success and demonstrated effective leadership in promoting cultural awareness to the campus and community.

NOVA AWARD-OUTSTANDING NEW STUDENT ORGANIZATION

Recognizes a newly registered student organization exhibiting initiative in organizational development and strong potential to contribute to the quality of life as a recognized student organization at Youngstown State University.

ORION AWARD-OUTSTANDING STUDENT ORGANIZATION

The Orion Award recognizes an exceptional student organization for its outstanding leadership and service to the University community during the current academic year.

PRESIDENT CYNTHIA E. ANDERSON LIFETIME ACHIEVEMENT AWARD

Awarded to a full-time student who has exhibited an extended commitment and dedication to serving the student body through various positions on Student Government.

SIRIUS AWARD-STUDENT EMPLOYEE OF THE YEAR

This award recognizes student employees who have made outstanding contributions to their employers and demonstrated skills and commitment above and beyond expectations.

SMITH-MURPHY AWARD

The award shall be given to one full-time faculty member each year. The recipient shall possess the qualities of Lester Smith and Gratia Murphy and display a genuine concern for the well-being and success of the students he or she teaches.

REBECCA BANKS SPIRIT AWARD

Given by Student Government to a member of the campus or Youngstown metropolitan community who has displayed the same level of enthusiasm for the work of YSU Student Government or campus community as Rebecca over the past academic year.

STUDENT SERVICE AWARD

To recognize an outstanding individual who has demonstrated exceptional commitment to the students of YSU. All faculty, staff (excluding all members within the Division of Student Affairs), and members of the University community are eligible for this award.

GINA TENNEY MEMORIAL SCHOLARSHIP

Gina Tenney was one of YSU's best and most dedicated students. Before her tragic death in 1985, Gina had been actively involved in campus life and had achieved excellent academic standing. She served in Student Government and was a student assistant in the Student Services Office. She was also active in the University Theater Department. In honor of Gina's memory, the Gina Tenney Memorial Scholarship Fund was established in January of 1986 by the YSU Student Government.

YSU PIN

Begun 70 years ago, in 1948, the YSU pin recognizes up to five graduating seniors who have achieved academic success and demonstrated outstanding leadership, motivation, and creativity in University and community activities.

THE LUKE N. ZACCARO AWARD

The Luke Zaccaro Award is given to a YSU student who may be a member of Student Government. The individual should have done something exceptional for the university, Student Government, or fellow students during the course of the current year.

OTHER AWARDS AND PRIZES

YSU LEADERSHIP SCHOLARSHIP

The YSU Leadership Scholarship recognizes outstanding students for their contribution to and leadership in campus activities. Each year up to seven students are awarded \$600 for Fall tuition and fees.

GREEK CAMPUS LIFE, INTERFRATARNITY COUNCIL AND PANHELLENIC COUNCIL AWARDS:

The annual awards program is designed to recognize outstanding chapters and individuals of the Youngstown State University Greek community and their growth over the previous year. Judging of the awards focuses on a few major areas including: how the chapter grew, membership development, building bonds of brotherhood/sisterhood, how their actions/events are connected to their chapter's creed/mission/values, the actual events, statistics, proper grammar/spelling, and clarity.

For more information, visit the Student Activities (<https://ysu.edu/student-activities/annual-student-awards-banquet/>) website (<https://ysu.edu/student-activities/annual-student-awards-banquet/>).

Colleges & Programs

Academic Initiatives

Community Engagement

Overview

Empowering knowledge to serve the community.

The **Office of Community Engagement (OCE)** is dedicated to the collaboration and creation of community partnerships to positively impact the region. OCE serves as the centralized coordinating structure to enhance communication, connect organizations with the appropriate campus resources to advance collaboration requests, and collect all of the community-based experiences from students, faculty, and staff. Additionally, the OCE works with organizations to secure external funds to support meeting community needs and the people they serve.

Assistance to Community Partners

The YSU Office of Community Engagement values its partnerships between community organizations and YSU students, faculty, and staff.

To support Youngstown State University's mission and core values, goals of the Office of Community Engagement include:

- Working with community partners to identify needs in the community and strategies for addressing such needs
- Tracking the community impact of our students, faculty and staff via YSU PenguinPulse (<http://ysu.givepulse.com>), our community engagement platform
- Incorporating community engagement and experiential learning into the YSU curriculum
- Connecting students with community partners to promote mutual benefit.

Community-engaged Learning Courses

The characteristics of a CE course include engagement, reciprocity, reflection, and public dissemination. *Engagement* addresses a public good through a

collaboration between faculty and community partners, students' service has community impact, and the academic content aligns with the community engagement learning experience. Generally, the engagement constitutes at least 20 hours. *Reflection* is the mechanism for students to link their service to course content. Systematic and consistent reflection about the experience supports student learning. *Reciprocity* involves the community partner in the role as a co-educator with the faculty to promote mutual benefit for the student, organization, and community. *Public dissemination* occurs when the engagement is presented to the partner/public and promotes public dialogue and a continuous feedback loop.

Community-engaged learning may take place in general education, discipline or problem-based courses, capstone, internships, independent studies, as well as community-based action research. Courses with the "CE" are officially designated as community-engaged learning courses which meet all of the criteria. Students may also receive CE credit through a contract honors option. The benefits for students, who take advantage of these experiential learning opportunities with our community partners, are many.

Community-engaged Learning Courses Approved for CE Designation.

ART 3748C CE Special Topics Studio Art 3 s.h.

Study in one of the many areas of the visual process that focuses on specific content or technical methods.

Prereq.: ART 1503 or consent of instructor.

BUS 3720C CE Nonprofit Leadership 3 s.h.

The roles of nonprofit organizations in meeting human needs through philanthropy and focus on mission. Understanding of board development, fundraising, management, programming, and careers in nonprofit organizations.

Prereq.: ENGL 1551, junior standing, 2.5 GPA.

BUS 3740C CE Nonprofit Community Service 1 s.h.

Interactive environment where students complete projects with nonprofit organizations. Students participate in site visits, professional development events, a regional case study exercise, and planning fundraising, recruitment, and community service events.

Prereq.: ENGL 1551, Junior standing, AND 2.5 GPA.

BUS 4840C CE Nonprofit Leadership Intern 3 s.h.

Students work in a nonprofit organization for 225 hours to achieve goals agreed upon by the student and organization.

Prereq.: junior standing; 2.5 GPA, special approval required of Director - Center for Nonprofit Leadership.

Coreq.: BUS 4841.

BUS 4841C CE Nonprofit Leadership Seminar 1 s.h.

Open to all students with an internship in a nonprofit organization. The course must be taken in conjunction with the internship required of the Nonprofit Leadership Minor.

Prereq.: junior standing, 2.5 GPA, special approval required of Director - Center for Nonprofit Leadership.

Coreq.: BUS 4840.

CMST 3754C CE Argumentation and Advocacy 3 s.h.

Developing critical thinking through systematic evaluation of critical thinking theories, principles, and practices of argumentation. This course will discuss critical thinking occurring in reading, writing, listening, and spoken discourse.

Prereq.: CMST 1545.

CRJS 4807C CE Criminal Justice Internship 3-12 s.h.

Field experiences in an appropriate criminal justice agency under the direction of qualified and experienced professionals. Grading is CR/NC. May be repeated for a maximum of 12 semester hours.

Prereq.: Junior standing or higher and permission of the Chair; CRJS 2601 or CRJS 2602 or CRJS 2603.

HIST 3748C CE History of Ohio. 3 s.h.

The important events and movements that have shaped Ohio history in the social, economic, religious and political areas.

HIST 3774C CE Global Environmental History: Topics and Methods 3 s.h.

The historical development and diversity of ideas and actions regarding the interaction of human societies and the natural environment. From 1492 to the present, with particular emphasis on the nineteenth and twentieth centuries. Economic growth and resource depletion. Emergence and development of conservation, environmentalism, ecology. Ideas, events, and institutions. Historiography and methods of environmental history.

HIST 6940C CE Oral History 3 s.h.

Instruction in methods of taking, processing, and utilizing oral depositions relating to history. The course includes assignments in the field. May be repeated once.

HONR 2601C CE Honors Seminar 1-2 s.h.

An interdisciplinary seminar series dealing with topics appropriate to students in the Honors Program. The subjects include, but are not limited to, creativity, the organization and function of the university, the total human being, critical thinking, current events, etc.

Prereq.: Eligibility for the Honors Program.

MGT 4844C CE Strategic Human Resource Management 3 s.h.

Capstone course of the human resource (HR) major and should be taken in students' last semester. Purpose is to integrate knowledge within HR and across disciplines in developing and implementing HR strategy. Special focus will be given to developing the proficiencies necessary to serve as an HR consultant, especially in quantifying the impact of HR practices.

Prereq.: 2.5 GPA, OR special approval.

Prereq. or Coreq.: MGT 4810.

MPH 6905C CE Health Services Administration in Public Health 3 s.h.

Management principles, including personnel administration, budgeting, financing, and continuous quality improvement as pertains to public health. Planning and evaluation principles, grant writing, public health economics, public health policy, and data sources.

Prereq.: Graduate standing, permission of course director required for non-MPH students.

MUED 5841C CE Music Workshop 1-3 s.h.

For students and teachers in service; topics may vary from year to year. Specific topics are announced each time the workshop is offered. May be repeated with different topic.

MUEN 0004C CE University Chorus 1 s.h.

An entry-level ensemble designed for music majors and non-music students alike. Students are placed within the ensemble after an informal hearing with the conductor. Each singer must be devoted to producing their highest quality of performance through both individual study, and group rehearsals, of the music being prepared. Study, rehearsals (tutti, individual, and sectional), memorization and performances in public comprise the course of study.

NURS 3710C CE Nursing in the Community 5 s.h.

Nursing in the community including families in health and illness needs; culturally competent health care; teaching and learning aspects; psychosocial concepts, spirituality, and home health concepts and skills. To be taken concurrently with NURS 3710L.

Prereq.: NURS 2645/L.

NURS 4832C CE Nursing Care of Children and Families 5 s.h.

Family-centered nursing concentrating on health promotion/illness and prevention and acute/chronic health care needs of the developing child and family. Three hours lecture and six hours clinical experience in a variety of settings per week.

Prereq.: NURS 3741/L.

Coreq.: 4832L.

NURS 4842C CE Mental Health Nursing 5 s.h.

This course provides mental health theories and strategies as the foundation in the management of individuals, families, and groups experiencing acute and chronic mental illness. Emphasis on the promotion of optimal level functioning and mental wellness. Three hours lecture, six hours clinical experience in a variety of settings per week.

Prereq.: NURS 3743/3743L; Entry-level BSN senior status.

PHYT 8923C CE Community Applications 3 s.h.

Community-based project that encompasses the aspects of advocacy, collaboration, social responsibility, consultation and leadership, marketing/PR, and fiscal management.

NURS 4853C CE Nursing Transitions 4 s.h.

Analysis, synthesis, and evaluation of care delivered by the healthcare team with emphasis on development of leadership and research roles. Two hours lecture and eight hours clinical experience with a preceptor in a variety of settings per week.

Prereq.: NURS 3743, NURS 3743L.

Coreq.: NURS 4840, NURS 4840L, or NURS 4842, NURS 4842L.

Contracting a Course for Community-engaged Learning Designation

Courses other than those which are approved as a community-engaged learning (NURS 3710C) or remedial may be considered for community-engaged learning experiences on a limited basis. The faculty assigned to the course and community partner, who serve as co-educators, work collaboratively to design the additional learning experience that meets the need of the community partner. Once the proposal is designed, the student/faculty submit to the Associate Provost for Strategy & Engagement for approval.

The contract CE option does not involve more credit hours for a course, but rather credit of a different kind. Proposals should include how the student will engage, reflect, reciprocate, and disseminate publicly. Proposals must be fully developed and approved prior to students engaging in the project. Applications are available on the Office of Community Engagement website.

Completion status is reported by faculty via a completion form. A notation will be placed on the student transcript to indicate community-engaged learning completed for the course.

Community Engagement Reporting

YSU PenguinPulse (<http://ysu.givepulse.com>) is the university platform for tracking all forms of community engagement and connecting individuals with opportunities within the community. This includes engagement through courses, as well as outside-of-the-classroom experiences. Through YSU PenguinPulse, students can:

- Identify and inspire opportunities to engage with community partners from around the globe that support student academic, career, research, and personal learning
- Track and reflect on their impact and development from engagement
- Create an experiential accounting of all community engagement efforts valuable for curating personal statements, resumes, and interview preparation

General Education Requirements

OVERVIEW

Catalog of Entry

Students may follow the General Education Requirements outlined in either:

1. The *Undergraduate Academic Catalog* in effect at the time of their initial enrollment, or
2. Any subsequent catalog of their choice.

Grades

Unless otherwise stated in a course description, a student must earn a grade of **D** or better to receive general education credit for a course. In some cases, programs will require a grade of **C** or better for general education courses such as when a general education course is also part of the major. In addition, certain general education courses serve as prerequisites for higher-level courses. Those higher-level courses may require a grade of **C** or better in

the prerequisite course general education course. In both cases, a course completed with a **D** will still count toward a student's general education requirements, but the student will need to retake the course and earn a **C** or better to meet the program or prerequisite requirements. Students should check with their advisor and the course catalog to determine the requirements.

Goals

Building on YSU's University-Wide Learning Outcomes, the General Education program has four specific goals:

- Students will demonstrate the ability to write and speak effectively, reason quantitatively, and think critically so they are prepared to perform appropriately in their professions upon graduation.
- Students will demonstrate understanding of the basic facts, principles, theories, and methods of science. Students will demonstrate the interdependence of science and technology and the influence of science and technology on society.
- Students will interpret significant writings and works of art, with a focus on aesthetics, historical responses, and the nature of the human condition.
- Students will demonstrate understanding of the development, diversity, and complexity of human behavior, institutions, and culture.

Learning Outcomes

To assist students in achieving the goals above, the courses included in the General Education program incorporate some combination of the learning outcomes. The outcomes as they relate to the goals for the various types of General Education courses are listed below:

Core Competencies Learning Outcomes:

GOAL: Students will demonstrate the ability to write and speak effectively, reason quantitatively, and think critically so they are prepared to perform appropriately in their professions upon graduation.

- Students will demonstrate the ability to write and speak effectively, develop sound arguments, and derive justified conclusions.
- Students will demonstrate the ability to reason using quantitative data, and students will demonstrate use of mathematical methods and concepts in both abstract and concrete contexts.
- Students will demonstrate the ability to reason critically and identify credible sources.

Knowledge Domain Learning Outcomes:

COMMUNICATION

GOAL : Students will demonstrate proficiency in delivering effective oral communication in public presentations, groups, and interpersonal settings, critically evaluating communication, and refining oral communication skills through feedback and practice.

- Students will deliver coherent oral presentations that inform, persuade, and engage audiences.
- Students will critically evaluate communications for substance, bias, and intended effect.
- Students will apply feedback from group and interpersonal interactions to improve their oral communication skills.
- Students will demonstrate adaptability in their oral communication strategies for various contexts and audiences.

NATURAL SCIENCES

GOAL: Students will demonstrate understanding of the basic facts, principles, theories, and methods of science. Students will demonstrate the interdependence of science and technology and the influence of science and technology on society.

- Students will successfully perform an experiment to test a hypothesis including the collection and analysis of data.
- Students will demonstrate the knowledge and application of scientific principles.

- Students will use and interpret formulas, graphs, and tables.
- Students will demonstrate understanding of the interactions of science, technology and society.

ARTS AND HUMANITIES

GOAL: Students will interpret significant writings and works of art, with a focus on aesthetics, historical responses, and the nature of the human condition.

- Students will analyze and evaluate the elements and the personal and societal impact of multiple types of literary and artistic expressions.
- Students will demonstrate awareness of ethical or cultural values in shaping the human experience.

SOCIAL and behavioral SCIENCES

GOAL: Students will demonstrate understanding of the development, diversity, and complexity of human behavior, institutions, and culture.

- Students will demonstrate understanding of the contexts and development of human cultures and institutions.
- Students will demonstrate understanding of individual and social behavior.
- Students will demonstrate an understanding of methodologies used in the social sciences.

Baccalaureate Degree General Education Requirements

A. Core Competencies (p. 94)

ENGLISH COMPOSITION

To learn the skills of effective writing, students will:

- Take two courses:
 - ENGL 1550 Writing 1 or ENGL 1549 Writing 1 with Support– the standard introductory writing course
 - ENGL 1551 Writing 2– a course in which students investigate a thematic topic (students with ACT scores at or above 28 will only need to take ENGL 1551 Writing 2)
- Gather evidence from the library, Internet, or other appropriate sources
- Write a research paper using a computer

MATHEMATICS

Students must take at least one approved course that teaches mathematical and statistical skills. A student may satisfy this requirement by passing an approved course or by passing a higher-level mathematics course.

B. Knowledge Domains: *Communication, Arts and Humanities (p. 95), Natural Sciences (p. 94), and Social Sciences (p. 96),*

To become more well-rounded members of the community, students are required to take a total of nine courses from the knowledge domains. The coursework gives students exposure to fields of study outside their majors. Three of those nine courses are considered “elective” courses. Electives must be distributed among two or more domains. Students are encouraged to complete a Communication domain course, CMST 1545 or CMST 2620 as an elective course. Completion of a Communication domain course is required for some programs.

Students are required to take:

COURSE	TITLE	S.H.
Select two courses from each of the following domains as well as three elective courses:		
Arts and Humanities (6s.h.)		
Natural Sciences (7s.h., at least one of the courses must include a laboratory component)		
Social and Behavioral Sciences (6 s.h.)		
Electives (9 s.h.)		

recommended elective: CMST 1545 or CMST 2620

electives may be selected from domains

Baccalaureate Degree General Education Requirements Summary

Core Competencies

Writing 2 courses

Mathematics 1 course

Knowledge Domains

Arts and Humanities 2 courses

Natural Sciences 2 courses (1 must include a lab)

Social and Behavioral Sciences 2 courses

Communication (required or elective course; check with your advisor)

Electives 3 courses (recommended elective: CMST 1545 or CMST 2620)

total* *12 courses

Associate Degree General Education Requirements

The general education requirements vary by degree; the requirements for each associate degree are listed in the appropriate college section. All associate degrees require the completion of a minimum of five courses.

Applied Associate Degrees

COURSE	TITLE	S.H.
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3

Mathematics (no more than one course)

Select two courses from the following domains:

Communication

Natural Sciences

Arts and Humanities

Social and Behavioral Sciences

Students in Applied Associates Degree Programs must take a minimum of five general-education courses, including Writing I and Writing II, one course in mathematics, two courses representing two of the following domains: natural science, arts and humanities, and social science. To ensure transferability of an Associates Degree within the State of Ohio, students should take only Ohio Transfer 36 (OT36) Approved Courses in arts and humanities and social science.

Academic Associates Degrees at YSU

Students in the Associates of Arts Program must fulfill the same General Education requirements as required for Baccalaureate Programs (with exception of the capstone.) To ensure transferability of an Associates Degree within the State of Ohio, students should only take Ohio Transfer 36 (OT36) Approved Courses.

General Education and Transfer Students

Transfer students with a bachelor's degree

Students with a bachelor's degree from a regionally accredited institution in the United States or from an approved international institution (as determined by the International Programs Office) seeking an additional baccalaureate degree do not have to complete the YSU general education requirements.

Students will need to take general education courses required for their major. Refer to the program curriculum in the catalog for specific requirements.

Transfer students without a bachelor's degree

All transfer students without a bachelor's degree from a regionally accredited institution in the United States must complete the general education requirements. Students should consult with an academic advisor to discuss the coursework they need to complete the YSU general education requirements. See the Transfer Credit (p. 40) section of this catalog for additional information.

Core Competencies

ENGLISH COMPOSITION

Bachelor's degree seeking students must complete the following two courses:

COURSE	TITLE	S.H.
ENGL 1549	Writing 1 with Support	4
ENGL 1550	Writing 1 ¹	3
or ENGL 1550H	Honors Writing 1	
ENGL 1551	Writing 2 (Students with ACT scores at or above 28 will only need to take ENGL 1551) ¹	3
or ENGL 1551H	Honors Writing 2	

MATHEMATICS

Bachelor's degree seeking students must complete one of the following courses:

COURSE	TITLE	S.H.
MATH 1510	College Algebra ¹	4
MATH 1510C	College Algebra with Co-requisite Support	6
MATH 1511	Trigonometry	3
MATH 1511C	Trigonometry with Co-requisite Support	4
MATH 1513	Algebra and Transcendental Function ¹	5
MATH 1552	Applied Business Calculus ¹	4
MATH 1570	Applied Calculus 1 ¹	4
MATH 1571	Calculus 1 ¹	4
MATH 1572	Calculus 2 ¹	4
MATH 1581	Calculus for the Health Sciences 1	4
MATH 1581H	Honors Calculus for the Health Sciences 1	4
MATH 1582	Calculus for the Health Sciences 2	4
MATH 1585H	Honors Accelerated Calculus 1	5
MATH 2623	Quantitative Reasoning	3
MATH 2623C	Quantitative Reasoning with Co-Requisite Support	5
MATH 2661	Mathematics for Elementary Teachers 1	4
MATH 2661C	Mathematics for Elementary Teachers I with Co-Requisite Support	6
MATH 2662	Mathematics for Elementary Teachers 2	4
MATH 2665	Foundations of Middle School Mathematics 2	4
MATH 2670	Applied Calculus 2	5
MATH 2686H	Honors Accelerated Calculus 2	5
STAT 2601	Introductory Statistics ¹	3
STAT 2625	Statistical Literacy and Critical Reasoning ¹	4
STAT 2625C	Statistical Literacy and Critical Reasoning with Co-Requisite Support	6
PHIL 2619	Introduction to Logic	3

¹ Courses are part of the Ohio Transfer 36 and are guaranteed to transfer to any of Ohio's public institutions of higher education as a subject area general education credit. Ohio's Department of Higher Education maintains an up-to-date list of OT36 approved courses through the OT36 reporting system (https://analytics.das.ohio.gov/t/HigherEdPUB/views/OhioTransfer36Approvals/Dashboard2/?%3Adisplay_count=n&%3Aembed=y&%3AisGuestRedirectFromVizportal=y&%3Aorigin=viz_share_link&%3AshowAppBanner=false&%3AshowVizHome=n).

Communication

If not required by a specific program, it is recommended that bachelor's degree seeking students choose one of the following as a general education elective course:

COURSE	TITLE	S.H.
CMST 1545	Communication Foundations ¹	3
CMST 2620	Science Communication	3

¹ Courses are part of the Ohio Transfer 36 and are guaranteed to transfer to any of Ohio's public institutions of higher education as a subject area general education credit. Ohio's Department of Higher Education maintains an up-to-date list of OT36 approved courses through the OT36 reporting system (https://analytics.das.ohio.gov/t/HigherEdPUB/views/OhioTransfer36Approvals/Dashboard2/?%3Adisplay_count=n&%3Aembed=y&%3AisGuestRedirectFromVizportal=y&%3Aorigin=viz_share_link&%3AshowAppBanner=false&%3AshowVizHome=n).

Natural Sciences

Bachelor's degree seeking students must complete two of the following (one must include a lab):

Natural Science Courses without a lab

COURSE	TITLE	S.H.
ASTR 1504	Descriptive Astronomy ¹	3
BIOL 1505	Biology and the Modern World ¹	3
BIOL 1551	Anatomy and Physiology 1 ^{1,3}	3
CHEM 1500	Chemistry in Modern Living ¹	3
CHEM 1520	Allied Health Chemistry for Online Programs	3
ENST 1500	Introduction to Environmental Science ¹	3
FSCI 1510	Survey of Forensic Science	3
GEOG 1503	Physical Geography ¹	3
GEOG 2630	Weather ¹	3
GEOL 1504	The Dynamic Earth	3
GEOL 2602	Introduction to Oceanography ¹	3
PHYS 1500	Conceptual Physics ¹	3
PHYS 1501	Fundamentals of Physics 1 ^{1,3}	4
PHYS 1502	Fundamentals of Physics 2 ^{1,3}	3
PHYS 2607	Physical Science for Middle and Secondary Education ³	4
PHYS 2608	Sound	3
PHYS 2610	General Physics 1 ^{1,3}	4
PHYS 2611	General Physics 2 ^{1,3}	4

Natural Science Courses with a lab

Labs must be taken with the associated course in order to count for Natural Science Lab credit.

COURSE	TITLE	S.H.
ASTR 1504 & 1504L	Descriptive Astronomy and Astronomy Laboratory ¹	4
BIOL 1505 & 1505L	Biology and the Modern World and Biology and the Modern World Laboratory ²	4
BIOL 1545 & 1545L	Allied Health Anatomy and Physiology and Allied Health Anatomy and Physiology Laboratory ^{2,3}	5
BIOL 1551 & 1551L	Anatomy and Physiology 1 and Anatomy and Physiology 1 Laboratory ^{2,3}	4
BIOL 1552 & 1552L	Anatomy and Physiology 2 and Anatomy and Physiology 2 Laboratory ^{2,3}	4
BIOL 2601 & 2601L	General Biology 1: Molecules and Cells and General Biology I: Molecules and Cells Laboratory ^{2,3}	4
BIOL 2602 & 2602L	General Biology 2: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory ^{2,3}	4
BIOL 2602H & BIOL 2602L	Honors General Biology 2: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory ³	4
CHEM 1500 & 1500L	Chemistry in Modern Living and Chemistry in Modern Living Laboratory ²	4
CHEM 1510 & 1510L	Chemistry for the Allied Health Sciences and Chemistry for the Allied Health Sciences Laboratory	4
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory ^{2,3}	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory ^{2,3}	4
ENST 1500 & 1500L	Introduction to Environmental Science and Introduction to Environmental Science Lab ²	4
GEOG 1503 & 1503L	Physical Geography and Physical Geography Laboratory ¹	4
GEOG 2630 & 2630L	Weather and Weather Lab ¹	4
GEOL 1500	Environmental Geology	4
GEOL 1503	Rock Studio: Understanding Geology Through Lapidary Experiences	4
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
GEOL 2611	Geology for Engineers ^{2,3}	3
PHYS 1500 & 1500L	Conceptual Physics and Conceptual Physics Laboratory ¹	4
PHYS 1501 & 1501L	Fundamentals of Physics 1 and Fundamentals of Physics Laboratory 1 ³	5
PHYS 1502 & 1502L	Fundamentals of Physics 2 and Fundamentals of Physics Laboratory 2 ^{1,3}	4
PHYS 2610 & 2610L	General Physics 1 and General Physics Laboratory 1 ^{1,3}	5
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2 ^{1,3}	5

¹ Courses are part of the Ohio Transfer 36 and are guaranteed to transfer to any of Ohio's public institutions of higher education as a subject area general education credit. Ohio's Department of Higher Education maintains an up-to-date list of OT36 approved courses through the [OT36 reporting system \(https://analytics.das.ohio.gov/t/HigherEdPUB/views/OhioTransfer36Approvals/Dashboard2/?\)](https://analytics.das.ohio.gov/t/HigherEdPUB/views/OhioTransfer36Approvals/Dashboard2/?)

[%3Adisplay_count=n&%3Aembed=y&%3AisGuestRedirectFromVizportal=y&%3Aorigin=viz_share_link&%3AshowAppBanner=false&%3AshowVizHome=n\).](#)

² Lecture component of the course is OTM approved, however, the lab component is not OTM approved.

³ Courses are designed for science, engineering, and health science majors. Students should consult their advisor before selecting them.

Arts and Humanities

Bachelor's degree seeking students must complete two of the following:

COURSE	TITLE	S.H.
AFST 2601	Introduction to Africana Studies ² ¹	3
ART 1541	Survey of Art History ¹	3
ART 1542	Global Art since 1400 ¹	3
ART 1543	Survey of Art History: Gods and Monsters-Religion, Myth, and the Supernatural	3
ART 1544	Survey of Art History: Body, Gender, and Self	3
ART 1545	Survey of Art History: Power, Propaganda, and the Public Realm	3
ART 2648	Experience Art: Social and Behavioral Perspectives	3
DNCE 2698	Survey of Dance ¹	3
ENGL 1590	Introduction to Literature	3
ENGL 2610	World Literature ¹	3
ENGL 2615	Science Fiction and Fantasy Literature	3
ENGL 2617	Women in Literature ¹	3
ENGL 2618	American Literature and Diversity ¹	3
ENGL 2620	African Literature	3
ENGL 2630	LGBTQIA Literature	3
ENGL 2631	Mythology in Literature ¹	3
ENGL 2665	Introduction to Film Study ¹	3
FNLG 2610	Foreign Film ²	3
HIST 1500	Discovering World History ¹	3
HIST 1501	Discovering American History ¹	3
HIST 1511	World Civilization to 1500 ¹	3
HIST 1512	World Civilization from 1500 ¹	3
HIST 2600	Introduction to Jewish Studies	3
HIST 2605	Turning Points in United States History 1 ¹	3
HIST 2606	Turning Points in United States History 2 ¹	3
JOUR 2603	Media Ethics and Social Responsibilities ¹	3
JOUR 2605	Journalism as Literature	3
MUHL 2616	Survey of Jazz ¹	3
MUHL 2617	Film Music ¹	3
MUHL 2618	Rock n' Roll to Rock	3
MUHL 2619	Music of Non-Western Societies	3
MUHL 2620	Music and the African-American Experience	3
MUHL 2621	Music Literature and Appreciation	3
MUHL 2622	Popular Music in America	3
MUHL 2624	Survey of Hip Hop	3
MUHL 3772	Music History and Literature 2	3
MUHL 3773	Music History and Literature 3	3
MUHL 3774	Music History and Literature 4	3
PHIL 1560	Introduction to Philosophy	3
PHIL 1561	Technology and Human Values	3
PHIL 1565	Critical Thinking	3
PHIL 2610	Global Ethics	3
PHIL 2625	Introduction to Professional Ethics	3
PHIL 2626	Engineering Ethics	3

PHIL 2627	Law and Criminal Justice Ethics	3	POL 2640	Contemporary World Governments ¹	3
PHIL 2628	Business Ethics	3	POL 2660	International Relations	3
PHIL 2635	Ethics of War and Peace	3	PSYC 1560	General Psychology ¹	3
PHIL 3711	General Ethics	3	PSYC 2600	Social Psychology	3
REL 2601	Introduction to World Religions	3	PSYC 2607	Psychology of Intimate Relationships	3
REL 2605	Myth, Symbol, and Ritual ¹	3	PSYC 2655	Child Development	3
REL 2610	Global Ethics	3	PSYC 3758	Lifespan Development	3
REL 2617	Introduction to Asian Religions	3	PSYC 2692	Human Sexuality	3
REL 2621	Religion and Moral Issues ¹	3	SOC 1500	Introduction to Sociology ¹	3
THTR 1512	Survey of Broadway: The American Musical ¹	3	SOC 2601	Social Problems ¹	3
THTR 1560	Introduction to Theatre ¹	3	SOC 2650	Human Trafficking	3
THTR 1590	History of Motion Pictures ¹	3	WMST 2601	Introduction to Women's Studies ¹	3
THTR 2690	The Art of Motion Pictures ¹	3			

¹ Courses are part of the Ohio Transfer 36 and are guaranteed to transfer to any of Ohio's public institutions of higher education as a subject area general education credit. Ohio's Department of Higher Education maintains an up-to-date list of OT36 approved courses through the OT36 reporting system (https://analytics.das.ohio.gov/t/HigherEdPUB/views/OhioTransfer36Approvals/Dashboard2/?%3Adisplay_count=n&%3Aembed=y&%3AisGuestRedirectFromVizportal=y&%3Aorigin=viz_share_link&%3AshowAppBanner=false&%3AshowVizHome=n).

² Only one of the following courses will count as an Arts and Humanities Domain or General Education Elective course: PHIL 2625, PHIL 2626, PHIL 2627, PHIL 2628.

Social Sciences

Bachelor's degree seeking students must complete two of the following:

COURSE	TITLE	S.H.
AFST 2600	Introduction to Africana Studies ¹	3
ANTH 1500	Introduction to Anthropology ¹	3
ANTH 1503	The Rise and Fall of Civilizations	3
CMST 2600	Communication Theory	3
CMST 2610	Intercultural Communication	3
CRJS 1500	Introduction to Criminal Justice	3
ONLY ONE OF THE FOLLOWING		
ECON 1501	Economics in Action ^{1,2}	
ECON 1503	Rich and Poor: Diversity and Disparity in the United States Workplace ¹	3
ECON 1505	Personal Financial Literacy	3
ECON 2610	Principles 1: Microeconomics ^{1,2}	
ECON 2630	Principles 2: Macroeconomics ¹	3
ENGL 2651	Introduction to Language ²	3
FNLG 2660	Women in the Ancient World	3
FNUT 1551	Normal Nutrition	3
GEOG 2611	Geospatial Foundations	3
GEOG 2626	World Geography ¹	3
GEOG 2640	Human Geography ¹	3
GERO 3703	Aging and Society ²	3
MCOM 1595	Media Literacy and Culture ¹	3
MGT 2604	Legal and Social Responsibilities of Business	3
PHLT 1513	Introduction to Environmental Health and Safety	3
PHLT 1531	Fundamentals of Public Health	3
PHLT 1568	Healthy Lifestyles	3
PHLT 2692	Human Sexuality	3
POL 1550	Introduction to Political Science ¹	3
POL 1560	American Government ¹	3

¹ Courses are part of the Ohio Transfer 36 and are guaranteed to transfer to any of Ohio's public institutions of higher education as a subject area general education credit. Ohio's Department of Higher Education maintains an up-to-date list of OT36 approved courses through the OT36 reporting system (https://analytics.das.ohio.gov/t/HigherEdPUB/views/OhioTransfer36Approvals/Dashboard2/?%3Adisplay_count=n&%3Aembed=y&%3AisGuestRedirectFromVizportal=y&%3Aorigin=viz_share_link&%3AshowAppBanner=false&%3AshowVizHome=n).

² Only one of the following courses may count as a Social Science Domain or General Education Elective course: ECON 1501, ECON 2610.

Reciprocal Responsibilities for Undergraduate Students and Instructors

Endorsed by YSU Academic Senate April 5, 2023

The Reciprocal Responsibilities for Undergraduate Students and Instructors document (<https://ysu.edu/sites/default/files/users/atkaufman/2023.4.05%20Reciprocal%20Responsibilities%20for%20Undergraduate%20Instructors%20and%20Students%2028002%29.pdf>) was democratically developed with representatives of the Student Government Association, Senate Academic Standards Committee, and Senate Teaching and Learning Committee. The intent is to, through a student-faculty partnership, create a set of foundational/floor/baseline classroom management behaviors that align with the OEA contract.* It is expected that best practices in teaching be addressed through the TEACH principles. Classroom practices for instructors and students pertains to all undergraduate students and instructors. Instructors include full-time instructors, part-time instructors, graduate teaching assistants, and virtual assistants.

*Students and faculty commit to uphold this agreement to maintain a constructive teaching and learning environment. Students and faculty who feel these principles are not being upheld should consult their rights within the classroom environment.

Contact for Questions/Concerns

Office: Office of Academic Affairs

Location: Tod Hall, Room 222

Website: <https://ysu.edu/provost> (<https://ysu.edu/provost/>)

University-Wide Learning Outcomes (UWLOs)

YSU University Wide Learning Outcomes

A university education prepares you for more than a career; it prepares you for a life of learning in an ever-changing world. Against the backdrop of the many

contributions and experiences of different identities, including but not limited to ethnic, racial, gender, sexual orientation, disability, and cultural differences, YSU's learning outcomes prepare graduates to engage with diverse people, ideas, and settings.

1. YSU graduates are critical, creative, and integrative thinkers who incorporate a range of interdisciplinary knowledge.

1.1.Ethical reasoning: YSU graduates recognize that choosing one solution to a problem over another always entails making a value judgement that is often moral.

1.2.Quantitative and scientific reasoning: YSU graduates make use of logical, mathematical, statistical, and scientific concepts and data to help ground solutions to real world problems.

1.3.Disciplinary and interdisciplinary knowledge: YSU graduates recognize that problems arise within a specific context, which requires an understanding of the historical, cultural, psychological, and sociological factors that need to be taken into consideration.

1.4.Information literacy: YSU graduates show awareness of diverse sources of information, evaluate that information for accuracy and relevance, and they use these sources to find information that is outside of their discipline specific knowledge.

1.5.Creative thinking: YSU graduates apply presentational knowledge, associated with artistic, creative, or intuitive understanding to develop questions, examine problems from different perspectives, and pose potential solutions within their chosen fields.

2. YSU graduates will recognize the impacts of different dimensions of health which include: physical health, emotional well-being, social support, economic stability, environmental quality, educational opportunity, and health-care accessibility.

2.1.Physical health: YSU graduates show awareness of the importance of physical activity, nutrition, and sleep.

2.2.Emotional well-being: YSU graduates identify how emotions, thoughts and feelings interact with stressors and influence relationships and health.

2.3.Social support: YSU graduates understand that relationships and interpersonal interactions develop a sense of connection, belonging, and support with others.

2.4.Economic stability: YSU graduates examine how economic stability impacts overall health.

2.5.Environmental quality: YSU graduates understand that the built environment one lives in will have a major impact on health.

2.6.Educational opportunity and health care accessibility: YSU graduates will recognize how access to educational resources and high-quality health care services affects health.

3. YSU graduates are global communicators who curate and disseminate discipline-specific knowledge through appropriate channels, spoken and written, for audiences in a variety of modalities.

3.1.Graduates communicate ethically and responsibly as global citizens and professionals, able to engage with complex, interdependent global systems and legacies, while meeting responsibilities to their community, discipline, and profession based on communication perspectives and associated norms.

3.2.Graduates are informed, open-minded, and responsible people who are attentive to diversity across the spectrum of differences, identifying perceptual differences in relational and intercultural communication for effective outcomes while applying effective conflict management strategies.

3.3.Graduates craft effective spoken presentations and messages in various formats and styles for a variety of audiences, groups and organizations, effectively monitoring, analyzing, and adjusting their own communication behaviors.

3.4.Graduates demonstrate proficiency in the use of written English, including proper spelling, grammar, and punctuation, in formal writing including correct use of designated styles, and construct appropriate written messages for a variety of contexts.

3.5.Graduates identify message design strategies, influences of biases and economic forces on mediated content, and perceptual differences in meaning formations to determine which modality and medium best serves their personal, professional and public needs.

4. YSU graduates connect scholarly research, academic inquiry, and/or artistic expression to actions that inspire a civically engaged mindset and contribute to society through service to their community.

4.1.Graduates develop knowledge about community needs through community-based service, scholarly research, academic inquiry, and/or artistic expression.

4.2.Graduates build discipline specific, real-world, relational, and/or cultural awareness skills through service with the community.

4.3.Graduates demonstrate understanding of the value of lifelong civic engagement and how utilizing their knowledge, skills, and values can make a difference in the community.

4.4.Graduates participate in activities of personal and public concern that are both individually life enriching and socially beneficial to the community.

4.5.Graduates recognize the contributions that have been made by members of diverse cultural, racial, ethnic, and gender groups, persons with disabilities, and other historically marginalized people within their own communities and across the world.

(Final Draft: 2022-08-25)

The Beeghly College of Liberal Arts, Social Sciences, and Education

Charles Howell, Dean

The College grants three bachelor's degrees:

- Bachelor of Arts (BA)
- Bachelor of General Studies (BGS)
- Bachelor of Science in Education (BSED)

Additionally, an Associate of Arts (AA) degree is offered and an Associate of Applied Science (AAS) in Early Childhood Associate/Pre-Kindergarten.

Mission

The Beeghly College of Liberal Arts, Social Sciences, and Education (BCLASSE) prepares students for productive and rewarding lives by developing critical and creative thinking, sound judgment, and effective communication skills. We strive to help students become well-rounded members of society who value learning and to prepare them for careers and for advanced graduate and professional study.

BCLASSE affirms that the liberal arts and social sciences are the historical heart of the university and remain so today because of their focus on the essential concerns of humanity, among which are justice, art and beauty, knowledge of the world and civilization, reason, and the ability to transmit these to future generations.

BCLASSE affirms its commitment to teaching, hiring, and research that acknowledges and contributes to rich diversities of ethnicity, culture, gender, sexuality, religion, class, and race. It promotes the study of local, national, and global perspectives.

BCLASSE prepares students for professional and civic life by cultivating adaptability, critical thinking, and clear expression. We strive to graduate ethical and engaged students for a society that requires thoughtful teachers, professionals, workers, thinkers, writers, and speakers.

BCLASSE actively supports its faculty and students in the production and dissemination of new knowledge with the full commitment of its resources.

Academic Departments

- Department of English and World Languages
- Department of Humanities and Social Sciences
- Department of Psychological Sciences and Counseling
- Department of Teacher Education and Leadership Studies

Academic Programs

- Africana Studies
- American Studies
- Global Education
- Islamic Studies
- Judaic and Holocaust Studies
- Peace and Conflict Studies
- Women's and Gender Studies
- Working-Class Studies

Programs For the BA Degree

- Anthropology
- English
- Geography
- History
- Philosophy
- Political Science
- Professional and Technical Writing
- Psychology
- Sociology
- Spanish

Programs For the BGS Degree

- General Studies

Programs For the BSED Degree

- Primary/Primary Intervention Specialist (Grades PK – 5)
- Middle Childhood Education (Grades 4 – 9)
- Adolescent Young Adult (Grades 7-12)
 - Integrated Language Arts
 - Integrated Mathematics
 - Integrated Science
 - Integrated Social Studies
- Multi-Age License (Grades PK – 12)
 - Spanish Education

- Intervention Specialist (Grades K-12)
 - Mild/Moderate Disabilities

Programs For the AAS Degree

- Early Childhood Associate/Pre-Kindergarten

Endorsements

- Early Childhood Generalist (Grades 4-5)
- Reading (Grades K-12) – Graduate Level Only
- TESOL (Grades K-12)

Minors

Minors are available in all program areas with many programs offering multiple and/or interdisciplinary minors. Students wishing to pursue a minor should consult the list of official minors and seek advisement in the department that houses the minor. Minors consist of at least eighteen (18) semester hours, and one-third of the hours must be upper-division. Minors are not required for students enrolled in a Teacher Education program. In approved interdisciplinary minors, courses from the student's major discipline can be counted in the minor provided that the same courses are not counted toward the major.

Certificates

Certificate programs are offered in historic preservation, applied gerontology, geospatial science and technology, and comparative international studies.

ICP Program

Students whose needs are not met by existing conventional programs may wish to investigate and apply for the Individualized Curriculum Program (see Special Academic Programs).

Accreditation

Youngstown State University teacher education programs are accredited by the Ohio Department of Education and the Council for the Accreditation of Educator Preparation (CAEP). These programs are subject to the sections of the Ohio law and regulations governing teacher education and licensure. The Beeghly College of Liberal Arts, Social Sciences, and Education serves as the recommending agent for all Youngstown State University graduates who wish to qualify for state of Ohio licensure as well as for licensure in other states.

Degree Requirements

Degree Requirements

Requirements for completion of a baccalaureate degree (BA, BGS, BSED) within the Beeghly College of Liberal Arts, Social Sciences, and Education include all University requirements detailed in the Academic Policies and Procedures section of the Undergraduate Catalog (i.e., requirements regarding total General Education Requirements, university credits, course levels, majors, and minors, grade point average, residency and degree applications). Specific requirements for each major in the Beeghly College of Liberal Arts, Social Sciences, and Education are listed by department.

College Foreign Language Requirement for Bachelor's Degree

All candidates for the BA degree are required to demonstrate proficiency at the 2600 level (two semesters) in any foreign language. Students with a foreign language background may desire to take the foreign language placement test in order to place into the second semester (2600) or beyond (which will satisfy the foreign language requirement). It may be possible to satisfy the foreign language requirement through appropriate college transfer coursework and credit by exam.

Courses of Instruction and Curricula

In the following department sections, the course requirements for the various majors are given, but other requirements are not repeated from the list above.

Course descriptions can be found in a separate section of the Undergraduate Catalog.

For more information, visit the Beeghly College of Liberal Arts, Social Sciences, and Education (<https://ysu.edu/academics/beeghly-college-liberal-arts-social-sciences-education/>).

Majors in Teacher Education

The Department of Teacher Education and Leadership Studies offers teaching licenses in the following areas:

- **Primary/Primary Intervention Specialist Education** (Pre-kindergarten through grade five). The successful candidate will teach children who are typically developing, at-risk, gifted, or who have mild/moderate educational needs in the P-5 classroom. This classroom can be a general education, full inclusion, or special education classroom, or a resource room.
- **Middle Childhood Education** - (Grades four through nine). The successful candidate will teach learners in at least two of four curriculum concentration areas named on the teaching license including:
 - Language Arts
 - Mathematics
 - Science
 - Social Studies
- **Adolescent Education** - (Grades seven through twelve). The successful candidate will teach learners in one of the following curriculum areas named on the teaching license including:
 - Integrated Sciences Education
 - Integrated Language Arts Education
 - Integrated Mathematics Education
 - Integrated Social Studies Education
- **Multi-age Education** - (Pre-kindergarten through grade twelve). The successful candidate will teach learners in one of the following curriculum areas named on the teaching license including:
 - Spanish Education (See Department of English and World Languages for more information)
 - Music Education (See Department of Music for more information)
 - Visual Arts Education (See Department of Art for more information)
- **Special Education** - (Intervention specialist, kindergarten through grade twelve). For teaching learners with Mild/Moderate Disabilities.

Requirements for Admission to Teacher Education Licensure Programs

Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the teacher education programs or candidacy for a teaching license. *Formal admission to teacher education is required before students are allowed to enroll in junior and senior level courses in their major.*

After candidates have completed a minimum of 50 semester hours and fulfilled all other admission requirements, they must submit an application for admission to the teacher education program (Upper Division). The application for Upper Division must be completed and submitted by:

- September 1st to register for Upper Division courses for Spring;
- February 1st to register for Upper Division courses for Summer and Fall.

Students who submit an application after the deadline are NOT guaranteed acceptance in time to register for Upper Division courses.

Each completed application will be reviewed and approved by the Upper Division Admission and Retention Committee. If all requirements are met,

student will be allowed to register for Upper Division courses the following semester.

Admission to the Teacher Education Program (upper division) is obtained upon satisfactory completion of the following requirements:

- Minimum completion of 50 semester hours
- Minimum 2.75 overall GPA
- ENGL 1550 Writing 1 and ENGL 1551 Writing 2 "B" average or better OR ENGL 2601 Intermediate Writing for Teachers "B" or better
- EDFN 1501 Introduction to Education, CMST 1545 Communication Foundations, SPED 2630 Individuals with Exceptionalities in Society and a content course (see curriculum sheet for content area course) "B" average or above
- Completion of Good Moral Character Statement
- Current BCI/FBI check (taken within the last year)
- Writing Assessment

Candidates for degrees outside of the Department of Teacher Education and Leadership Studies (Music and Art) are enrolled in the college awarding the particular degree, however these students must meet the above requirements and be admitted to upper division in Department of Teacher Education and Leadership Studies (TELS) in order to enter the junior and senior level courses leading to a teaching license.

Students should meet the requirements for admission to teacher education by the end of their sophomore year. Later qualification does not justify waiving any course prerequisites or planned sequences, and usually results in prolonging the period of study beyond the usual four years.

Graduation and/or Licensure Evaluation

A Request for Graduation and/or Licensure Evaluation form should be completed and submitted in Banner one year prior to student teaching and/or application for licensure. This form generates a program evaluation to assure that the student meets graduation and/or licensure requirements.

Requirements for Student Teaching

Application for a student teaching must be filed with the Education Advisement Office, Beeghly Hall Room 2101 during the preceding semester in which student teaching is to be completed. Teacher candidates must register for 10 hours of student teaching and two hours for the student teaching seminar in their licensure area. Students anticipating more than one teaching license should seek advisement in Beeghly Hall Room 2101. To qualify for a student teaching assignment, the student must have satisfied the following requirements:

1. BCLASSE Upper Division Status
2. A minimum overall G.P.A. of a 2.75
3. Completion of the program prerequisites
4. An average of 2.67 in the major/teaching area and professional education courses (each computed separately with no grade less than a C)
5. A passing score on the Ohio Assessment for Educators (OAE) tests and/or the equivalent as required by the Ohio Department of Education
6. Completion of a criminal background check

No additional courses may be taken with student teaching. The Administrator of Student Field Experiences must be notified in writing prior to a student's attempt to register for course(s) outside of student teaching. Student teachers are required to complete, submit for national scoring, and pass the edTPA, Teacher Performance Assessment. The Department of TELS requires the passage of the edTPA with a minimum score of 39 (34 for Foreign Language) as one of the requirements for licensure. Student teaching may deviate from the University calendar depending on the academic calendar of the assigned school.

Requirements for Licensure

Initial Licensure

The Dean of BCLASSE has the authority to recommend to the Ohio State Board of Education, and other licensure agencies, those Youngstown State University graduates who qualify for licensure in any teacher education program offered by the University. Students earning degrees through other colleges must complete all requirements of the teacher education program in order to be licensed. All candidates for any teaching license must meet the requirements for program admission in TELS, but the degree earned may be conferred by any of the University colleges in accordance with the specific requirements for the degree desired.

However an overall undergraduate grade point average of 2.75 and 2.67 in the major field(s) and professional-education courses must have been earned if the student is to be recommended for licensure by Youngstown State University, irrespective of the type of degree received. **In addition, each candidate for licensure must pass the State of Ohio prescribed licensing examination(s) Ohio Assessments for Educators, ACTFL (foreign language) and the Teacher Performance Assessment (edTPA) prior to receiving YSU's recommendation for licensure.**

For more information regarding additional fields, or endorsements, consult the academic advisors in Beeghly Hall Room 2101.

Post-Baccalaureate Licensure

Post-baccalaureate students desiring Youngstown State University's recommendation for licensure in Ohio and any other state must be admitted to the University. Post-baccalaureate students are advised in the undergraduate student advisement office (Beeghly Hall Room 2101) and are advised in the same manner as undergraduate students. They must meet the standard set of requirements for admission and upper-division status in BCLASSE. They must satisfy the teaching field, and professional education requirements comparable to the undergraduate program. Post-baccalaureate students may use approved, documented program equivalency to satisfy appropriate parts of the licensure program.

Licensure in a Second Teaching Field

Post-baccalaureate and undergraduate students seeking licensure in a second teaching field will need to satisfy the approved academic program as stated in the catalog under the section "Teaching Fields." The same quality point requirements apply to second teaching fields as those for initial licensure. A passing score on the specialty exam of the State of Ohio for the second teaching field is required prior to YSU's recommendation for the second teaching field.

Advisement

All prospective teachers are advised by the academic advisors in Beeghly Hall. Secondary students, middle childhood students, and multi-age students are also advised in the department in which their major or areas of concentration are located. To be eligible for licensure, candidates for education degrees must satisfy the catalog requirements in effect on the date of admission to upper division.

Title II, Higher Education Act

The United States Department of Education maintains data on pass rates on licensure exams for all institutions of Higher Education. The most recent data on the pass rate for Youngstown State University and other Ohio institutions is available on the Department of Education (<https://title2.ed.gov/Public/Home.aspx>) website. Please click here for the Institutional Report on the Quality of Teacher Preparation, Title II, Higher Education Act.

Curricula and Courses of Instruction

Each curriculum leads to an Ohio resident educator license. Minimum requirements for teachers' licenses are determined by the Ohio Department of

Education; if those requirements change, they become effective immediately at Youngstown State University. State department minimal requirements may be, and usually are, exceeded by University requirements.

Disclaimer: Educator Licensure tests and qualifying scores listed in the ODE charts and on the ODE website are subject to change by the Ohio State Board of Education.

For more information, visit The Beeghly Co (<http://www.ysu.edu/academics/beeghly-college-education/>) College of Liberal Arts, Social Sciences and Education.

Department of Teacher Education and Leadership Studies

Dr. M. Kathleen L. Cripe, Chairperson
Office: BCOE 1101
Office Phone: (330) 941-3251

Academic Operations Specialist II: Niki Cole (necole@ysu.edu)

Mission

The mission of the Department of Teacher Education and Leadership Studies is to prepare teachers and administrators who provide quality instruction and leadership in an environment designed to meet the needs of diverse learners, and to assist them in developing 21st century skills.

Programs

Primary/Primary Intervention Specialist Education Grades P-5

- For teaching children who are typically developing, at-risk, gifted, and who have mild/moderate educational needs in the general education classroom.
- For teaching children with physical, cognitive, behavioral or communication delays. Primary intervention specialists can work inside a P-5 classroom, provide individual services to children within their homes, work with regionally based programs, medical providers or private education companies.

Middle Childhood Education (MCE) Grades 4-9

- For teaching learners in at least two of four curriculum concentration areas named on the teaching license. Students choose two areas from the following four: Language Arts Education, Mathematics Education, Science Education, and Social Studies Education

Adolescent/Young Adult Education (AYA) Grades 7-12

- For teaching learners in a curriculum area named on the teaching license. Students may choose from: Integrated Sciences Education, Integrated Language Arts Education, Integrated Mathematics Education, or Integrated Social Studies Education

Intervention Specialist Grades K-12

- For teaching learners with mild/moderate disabilities, grades K-12

Multi-Age Education (MULT) Grades PK-12

- For teaching in a curriculum area named on the teaching license. Students may choose from: Music Education, Visual Arts Education (please refer to The Cliffe College of Creative Arts (p. 222) for these program areas), Italian Education and Spanish Education

Early Childhood Associate Pre-K

- For teaching children in the pre-K classroom. Curriculum includes early childhood development, classroom management and building parent/professional relations. This program leads towards licensure to teach in daycare and preschool programs.

Endorsements (Endorsements may be added to a teaching license)

- Early Childhood Generalist Endorsement Grades 4-5
- Middle Childhood Generalist Endorsement (Language Arts, Mathematics, Science)
- Teaching English to Speakers of Other Languages (TESOL) Endorsement

Minors

- Education Minor: Students majoring in a program other than Education may select an Education minor. Please contact a Education Academic Advisor for more information.

Reading and Study Skills

The Department offers undergraduate Reading and Study Skills courses for students who are interested in improving reading and skills.

Course List

- | | |
|--|------------------|
| • RSS 1510A Advanced College Success Skills | 3 semester hours |
| • RSS 1510B Basic College Success Skills | 3 semester hours |
| • RSS 1510C STEM Advanced College Success Skills | 4 semester hours |

Accreditation

Youngstown State University Teacher Education programs are accredited by the Council for the Accreditation of Educator Preparation (CAEP) for Initial and Advance Programs through 2024. Youngstown State University Teacher Education licensure and endorsement programs are fully approved by the Ohio Department of Higher Education (ODHE). Additional information regarding current accreditation status and CAEP Annual Reporting Measures can be found at Education Accreditation (<https://ysu.edu/academics/beeghly-college-liberal-arts-social-sciences-education/education-accreditation/#measure8>).

Chair

M. Kathleen L. Cripe, Ph.D., Professor, Chair

Professor

Jane Beese, Ed.D., Professor

Jeffrey M. Buchanan, Ph.D., Professor

Lauren Cummins, Ed.D., Professor

Charles Howell, Ph.D., Professor

Charles Jeffords, Ed.D., Assistant Professor

Daniel Keown, Ph.D., Associate Professor

Karen H. Larwin, Ph.D., Professor

Marcia Matanin, Ph.D., Professor

Nathan Myers, Ph.D., Associate Professor

Patrick O'Leary, Ph.D., Associate Professor

Anita C. O'Mellan, Ph.D., Professor

Crystal L. Ratican, Ph.D., Associate Professor

Patrick T. Spearman, Ph.D., Associate Professor

Mandy Wallace, D.Ed., Assistant Professor

Lecturer

Breanna Beaver, Ph.D., Lecturer

Courtney Cruz, M.S., Senior Lecturer

Daniel Wakefield, M.S., Lecturer

Majors

- Early Childhood Associate Pre-K (p. 166)
- Associate of Arts in Teacher Education (p. 165)
- Minor in Education (p. 168)
- Primary/Primary Intervention Specialist (p. 134)
- Middle Childhood Education, (4-9) (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-liberal-arts-social-sciences-education/department-teacher-education-middle-childhood-4-9/>)
- Middle Childhood Education, (4-9), Math/LA (p. 136)
- Middle Childhood Education, (4-9), Science/LA (p. 146)
- Middle Childhood Education, (4-9), SS/LA (p. 150)
- Middle Childhood Education, (4-9), Math/Science (p. 143)
- Middle Childhood Education, (4-9) Math/SS (p. 139)
- Middle Childhood Education, (4-9), Science/SS (p. 154)
- Adolescent/Young Adult Education (7-12) (p. 111)
- Integrated Language Arts (7-12) - Adolescent License (p. 112)
- Integrated Mathematics (7-12) - Adolescent License (p. 115)
- Integrated Sciences (7-12) - Adolescent License, Biology Concentration (p. 118)
- Integrated Sciences (7-12) - Adolescent License, Chemistry Concentration (p. 121)
- Integrated Sciences (7-12) - Adolescent License, Physics Concentration (p. 127)
- Integrated Sciences (7-12) - Adolescent License, Earth/Space Science Concentration (p. 124)
- Integrated Social Studies (7-12) - Adolescent License (p. 131)
- Spanish (P-12) - Multi-Age License (p. 157)

Early Childhood Education

ECE 3713 Teaching of Mathematics: Early Years 3 s.h.

Using NCTM/NAEYC/NCATE and Ohio Model guidelines as the framework, focus on identifying and modeling developmentally appropriate strategies used for problem solving, communicating, and reasoning in early childhood mathematics. Learning to use mathematical connections to stimulate diverse students' development of math concepts and skills and create learning environment combining mathematics pedagogy/methodology in an early grades classroom.

Prereq.: TELS Upper Division Status and approval of chair.

Coreq.: ECE 3715, ECE 3780, and ECE 4814.

ECE 3715 Teaching Science: Early Years 3 s.h.

Using NSTA/NCATE and Ohio Model guidelines as the framework, focus on establishing and maintaining learning environments that provide diverse students with a holistic, interdisciplinary understanding of science. Topics include teaching for meaningful science understanding, planning and providing an effective and supportive learning environment, planning and implementing curriculum and lessons appropriate for children in their early years, selection and use of instructional aids and resources, assessment, and professional development. Experiences that promote the use of science processes and problem-solving skills for life-long learning. Field experience combining science pedagogy/methodology in an early childhood setting.

Prereq.: TELS Upper Division Status and approval of chair.

Coreq.: ECE 3713, ECE 3780, and ECE 4814.

ECE 3780 Social Studies for Young Children 3 s.h.

Methods of teaching social studies to young learners (PreK-3) including exploration of a variety of effective teaching and assessment behaviors related to diverse learner needs. Use of key concepts, application of tools of social studies to foster social development and encourage independent problem solving, investigate the use of technology, create instructional resources; collaboratively plan, teach, and evaluate lessons in inclusive instructional settings; keep a reflective learning log.

Prereq.: TELS Upper Division Status and approval of chair.

Coreq.: ECE 3713, ECE 3715, and ECE 4814.

ECE 3790 Assessing Learning in Early Childhood Education P3 3 s.h.

This course examines the theoretical foundations and developmentally appropriate assessment strategies in a P-3 classroom. Candidates will explore a variety of informal, formal, formative and summative classroom assessment strategies and critically investigate standardized assessments used in the current national and state movements toward accountability and “high-stakes” assessment. This course is a required part of the TEC experience to provide candidates with an authentic classroom assessment experience.

Prereq.: ECE 3760.

ECE 4814 Language Arts Methods in the Early Years (Ages 3-8) 3 s.h.

Teaching oral and written communication through consideration of listening, speaking, reading, viewing, and related skill areas in the elementary school.

Prereq.: TELS Upper Division Status and approval of chair.

Coreq.: ECE 3713, ECE 3715, and ECE 3780.

ECE 4841 Supervised Student Teaching: Early Childhood 1-10 s.h.

Sixteen week supervised clinical teaching experience in licensure area. Provides candidate with opportunities to apply knowledge and skills, and display dispositions needed to effectively teach in diverse classrooms. Grading is CR/NC.

Prereq.: TELS Upper Division Status with a minimum overall GPA of 2.75, passing scores on OAE tests prior to the start of the student teaching semester, criminal background check, and successful completion of respective preclinical experience, with minimum content GPA of 2.67 and professional education GPA of 2.67.

Coreq.: ECE 4842 and/or ECIS 4842.

Gen Ed: Capstone.

ECE 4842 Student Teaching Seminar in Early Childhood Education 2 s.h.

Student Teaching seminar provides an opportunity to study relevant topics related to teaching and learning, application of professional and ethical practice and OSTP standards, research and theory, knowledge of learners, and reflection on practice. Completion of edTPA is required. CR/NC.

Prereq.: TELS Upper-Division Status; Admission to Student Teaching in Early Childhood Education or Early Childhood/Early Childhood Intervention Specialist.

Coreq.: ECE 4841 and/or ECIS 4841.

Early Childhood Intervention Specialist

ECIS 2600 Educating the Whole Child 3 s.h.

This course is designed to provide teacher candidates with the knowledge and skills needed to educate the whole child. A balanced approach is studied which includes a strong foundation in core subjects in addition to the whole child tenets of: healthy, safe, engaged, supported, and challenged.

ECIS 2629 Best Practices in ECIS 3 s.h.

This course provides teacher candidates with a research-based inquiry into early childhood education and promotes the acquisition of knowledge, skills, and dispositions in candidates that will facilitate best practices within the field. Field Hours Required.

Coreq.: TCED 1509.

ECIS 3700 Integrated Strategies in ECE/ECIS Inclusive Environments 4 s.h.

This course examines developmentally appropriate teaching practices in a PK-3 inclusive classroom. Candidates will explore the concepts of differentiation, integration, universal design, IEPs and classroom designs, along with schedules that support learning for all students. Field Hours Required.

Prereq.: TELS Upper Division Status, ECIS 2629, SPED 3715.

Coreq.: CHFM 3733L.

ECIS 3790 Assessing Learning in Early Childhood Education PK3 3 s.h.

This course examines the theoretical foundations and developmentally appropriate assessment strategies in a PK-3 classroom. Candidates will explore a variety of informal, formal, formative and summative classroom assessment strategies and critically investigate standardized assessments used in the current national and state movements toward accountability and “high-stakes” assessment. This course is a required part of the preclinical experience to provide candidates with an authentic classroom assessment experience. Field hours required.

Prereq.: TELS Upper-Division Status.

ECIS 4801 Teaching of Language Arts and Social Studies: The Early Years 4 s.h.

Candidates focus on identifying and modeling developmentally appropriate strategies used for problem solving, communicating, and reasoning in early childhood language arts and social studies. Candidates create effective learning environments using content-specific pedagogy to make connections to stimulate students’ development of language arts and social studies concepts and skills in a diverse PK-3 classroom. Field Hours Required.

Prereq.: TELS Upper-Division Status, ECIS 3700, TERG 3703, MATH 2652.

Coreq.: ECIS 4802, ECIS 3790.

ECIS 4802 Teaching of Mathematics and Science: The Early Years 4 s.h.

Candidates focus on identifying and modeling developmentally appropriate strategies used for problem solving, communicating, and reasoning in early childhood math and science. Candidates create effective learning environments using content-specific pedagogy to make connections to stimulate students’ development of math and science concepts and skills in a diverse PK-3 classroom. Field hours required.

Prereq.: TELS Upper-Division Status, ECIS 3700, TERG 3703, MATH 2652.

Coreq.: ECIS 4801, ECIS 3790.

ECIS 4841 Supervised Student Teaching: ECE/ECIS 1-10 s.h.

Sixteen week supervised clinical teaching experience in licensure area. Provides candidate with opportunities to apply knowledge and skills, and display dispositions needed to effectively teach in diverse classrooms. CR/NC.

Prereq.: TELS Upper Division Status with a minimum overall GPA 2.75, passing scores on OAE tests prior to the start of the student teaching semester, criminal background check, and successful completion of preclinical experience with minimum content of GPA 2.67, and professional education GPA of 2.67.

Coreq.: ECIS 4842, ECE 4841.

ECIS 4842 Student Teaching Seminar in ECE/ECIS 2 s.h.

Student teaching seminar provides an opportunity to study relevant topics related to teaching and learning, application of professional and ethical practice and OSTP standards, research and theory, knowledge of learners, and reflection on practice. Completion of the edTPA is required. CR/NC.

Prereq.: TELS Upper Division Status; Admission to Student Teaching in Early Childhood/Early Childhood Intervention Specialist Program.

Coreq.: ECE 4841, ECIS 4841.

Early and Middle Childhood Education

EMCE 5801 Early Childhood Generalist Science 2 s.h.

By exploring science teaching practices and technologies for grades 4-5, the candidates will review teaching methods of science, master the content stated in the Ohio Academic Learning Standards, find and design science programs and lessons, incorporate the national and state standards in teaching science, and strengthen the assessment methods for the science classroom instruction.

EMCE 5802 Early Childhood Generalist Math 2 s.h.

By exploring math teaching practices and technologies for grades 4-5, the candidates will review instruction and assessment methods of mathematics, and master the content stated in the Ohio 2017 Learning Standards for Mathematics, and the Common Core Standards for Mathematics.

EMCE 5803 Early Childhood Generalist Language Arts 2 s.h.

Candidates will learn language arts content and teaching methods, design integrated lessons, incorporate state and national standards, and utilize assessment methods for grades 4-5.

EMCE 5804 Early Childhood Generalist the Arts, Health and Fitness 1 s.h.

Knowledge and application of the Arts, Health, and Fitness related to teaching practice for grades 4-5. Candidates will review content and methods of teaching the Arts, Health, and Fitness content as stated in the Ohio Academic Content Standards. Instruction on pedagogical strategies to include these content areas in the 4-5 curriculum.

EMCE 5805 Early Childhood Generalist Social Studies 2 s.h.

Candidates will learn social studies content, teaching methods, design integrated lessons, incorporate state and national standards, and utilize assessment methods for grades 4-5.

Educational Foundations

EDFN 1501 Introduction to Education 3 s.h.

Historical, political, legal, cultural and ethical perspectives on the work and roles of teachers and schooling. Issues confronting educators, voters, parents and children. Observe the organization and governance of school districts. Field hours required.

EDFN 3708 Education and Society 3 s.h.

School as a dynamic social institution. An analysis of how schools interact with diverse communities and with social, political, and cultural institutions and traditions. Field hours required.

Prereq.: Fifty semester hours.

EDFN 3710 Educational Assessment 3 s.h.

Critical review of types, purposes, procedures, uses, and limitations of assessment strategies and techniques including authentic assessment, value-added assessment, and alternate assessment. Standardized testing and implications for current practice.

Prereq.: Upper Division.

Health Education Physical Education

HEPE 1567 Performance and Analysis of Invasion Games 3 s.h.

Analysis, performance, content and strategy development, teaching, and assessing of invasion games (basketball, football, soccer, team handball, rugby, ultimate frisbee, field hockey, floor hockey, and lacrosse). Two hour lecture, two hour lab.

HEPE 1574 Performance and Analysis of Target and Fielding Games 3 s.h.

Analysis, performance, content and strategy development, teaching, and assessing of target and field games (golf, bowling, softball, cricket and other lifetime activities). Two hour lecture, two hour lab.

HEPE 1575 Performance and Analysis of Net and Wall Games 2 s.h.

Performance and Analysis of performing and strategies for teaching/coaching and assessing net/wall games (badminton, pickleball, tennis, racketball, volleyball and other net/wall games. One hour lecture, two hours lab.

HEPE 1579 Rhythmic Movement for Children 1 s.h.

Content and teaching strategies related to rhythmic movement for children grades PreK-4. Rhythmic movement skills and concepts explored to provide successful dance experiences for children. One hour lecture, one hour lab.

Prereq.: Physical education major.

HEPE 2610 Introduction to Outdoor Pursuits 3 s.h.

Introduction to outdoor education including participation in initiatives, cooperative, orienteering, hiking, high and low ropes, and water based outdoor pursuits. Focus on activities to challenge by choice. One hour lecture, two hour lab.

HEPE 2624 Physical Education for Children in Early Childhood Settings 3 s.h.

Principles, methods, materials, and organization of activities for preschool-grade 3 children. Active participation, approximately 15-20 hours field work in area preschools/schools.

Prereq.: 30 hours.

HEPE 2628 Movement for Early Childhood 3 s.h.

Movement education approach to teaching fundamental movement patterns, educational dance, gymnastics, games, and creative activities for grades PreK-3. Two hours lecture, two hours lab. 20 hours field experience required.

Prereq.: Physical Education major.

HEPE 2650 Ethics in Sport and Coaching 2 s.h.

An introduction to ethics in sport, exploring ethical issues in relation to coaching K-12 student athletes. Skills related to exploring ethical dilemmas and ethical decision making. Discussion of District, State and National policies related to ethics.

HEPE 2672 Mechanical Principles of Movement 3 s.h.

Knowledge and methods of mechanical concepts as they relate and apply to the structure and function of human movement. Muscular structure and function in relation to physical movement, analysis of fundamental human movements. Includes the physical characteristics of the human body and applicable principles of mechanical physics. Two hours lecture. Two hours lab.

Prereq.: BIOL 1552, BIOL 1552L or BIOL 1545, BIOL 1545L.

HEPE 2689 Scientific Basis of Fitness 3 s.h.

Introduction to components of fitness and their physiological basis. Role of exercise and physical activity in the life of the P-12 learner. Application of training principles and participation in a variety of fitness activities. Introduction to physical fitness assessment. Two hour lecture, two hour lab.

Prereq.: Physical Education major and PHLT 1568.

HEPE 3702 Health Education Theory and Methods 4 s.h.

Theory, curriculum and methods for teaching health education in P-12 classroom. Provides both content and pedagogical knowledge. 3 hour lecture and 2 hour lab. 20 hours of field experience required. Concurrent with: HEPE 3767.

Prereq.: PHLT 1568.

HEPE 3715 Teaching of Middle School Health Education 3 s.h.

Curriculum, methods and materials for teaching middle school health education. Two hour lecture, Two hour lab. 60 field hours required.

Prereq.: HEPE 3702, BIOL 1545 and TELS Upper Division Status.

HEPE 3716 Teaching of High School Health Education 3 s.h.

Curriculum, methods and materials for teaching high school health education. Two hour lecture and two hour lab. 60 field hours required.

Prereq.: HEPE 3702, BIOL 1545 and TELS Upper Division Status.

HEPE 3740 Coaching the Young Athlete 3 s.h.

This course will address the pedagogy and practice of coaching sports with emphasis on youth sport development. The course will include coaching techniques, responsibilities, interaction with students and parents, injury prevention and sport psychology utilizing discussion, case method study, and practical application. The intent of the course is to help the student develop a coaching philosophy to positively affect youth sport development.

Prereq.: HEPE 2689.

HEPE 3750 Organization and Management of Sport Programs and Events 2 s.h.

The purpose of the course is to provide students with an understanding of the responsibilities of administrators and coaches involved in K-12 athletics. Content will focus on sport team scheduling, athletic facility requirements, fundraising, budgeting, event planning, career networking/advancement, coaching acquisition and termination, and increasing sport programs of an athletic program. Students will be introduced to the requirements of set policies by the school district, athletic conferences, state athletic associations, state and federal law and the National Collegiate Athletic Association (NCAA).
Prereq.: Junior standing.

HEPE 3766 Principles and Analysis of Motor Development 3 s.h.

Application of a lifespan motor development approach to critically analyzing movement patterns. Emphasis on motor development including biomechanical aspects of movement, and on teaching applications. Two hours lecture, two hours lab. 8 hours field experience required.
Prereq.: BIOL 1545 and BIOL 1545L.

HEPE 3767 Pedagogy in P-12 Health Education and Physical Education 3 s.h.

Effective teaching practices and development of skills including classroom management, lesson planning, and selection of appropriate methods of instruction. Peer teaching and reflection. Two hours lecture, two hours lab. 20 hours of field experience required.
Prereq.: 20 s.h. in major and HEPE 3766.

HEPE 3768 Advocacy and Best Practices in Health and Physical Education 2 s.h.

Emphasizes the advocacy role of the health and physical educator. Includes use of research and best practices documents to advocate for the inclusion of health and physical education for all P-12 learners. One hour lecture, two hour lab.
Prereq.: 20 s.h. in Physical Education major or Health Education major and HEPE 3767.

HEPE 3780 Methods of Teaching Dance 3 s.h.

Movement skills and music concepts will be explored through rhythmic movement for all P-12 grade student learners. Rhythm and movement fundamentals and forms: creative expression, exploration, folk, square, contra, line, social and aerobic. Teacher candidates will learn how develop, plan, teach and assess dance for all student learners. Two hour lecture, two hour lab.
Prereq.: HEPE 3767.

HEPE 4808 Standards Based Assessment in Health and Physical Education 3 s.h.

Theory, purposes, procedures, and uses of standards-based assessment for teaching P-12 health and physical education settings including cognitive, motor, and affective domains. Limitations of traditional assessment. Practical experience in designing assessments, collecting and analyzing data. Three hours lecture.
Prereq.: Physical Education or Health Education major and admission to TELS Upper Division Status.

HEPE 4851 Cultural Aspects of Physical Education and Sport 3 s.h.

Survey of major historical, psychosocial developments, and philosophical issues in physical education and sport from ancient times to the present.
Prereq.: Junior standing.

HEPE 4852 Psychosocial Aspects of Physical Education and Sport 2 s.h.

Survey of major psychosocial principles, developments and concerns as they relate to the participant in physical activity and sport.
Prereq.: 20 s.h. in major.

HEPE 4860 Internship for Coaching Education 3 s.h.

The internship will consist of 180-220 field hours. The field experience will be in a youth sport and/or P-12 youth sport program. Examination of issues related to the coaching early childhood, middle childhood, special education, or adolescents/young adults program.
Prereq.: HEPE 3740, HEPE 3750, and HEPE 3767.

HEPE 4876 Teaching of Elementary Physical Education 3 s.h.

Curriculum, methods and materials for teaching elementary physical education. Critical task includes completion of a learning segment in area schools. Two hours lecture, two hours lab. 60 hours field experience required.
Prereq.: HEPE 3767 and TELS Upper Division Status.

HEPE 4878 Teaching of Middle/Secondary Physical Education 3 s.h.

Curriculum, methods and materials for teaching secondary physical education. Critical task includes completion of a learning segment in area schools. Two hours lecture, two hours lab. 60 hours field experience.
Prereq.: HEPE 3767 and TELS Upper Division Status.

HEPE 4889 Selected Topics in Health and Physical Education 2 s.h.

In depth study of special topics in Health and/or Physical Education. Topics to be determined. Two hour lecture. 30 hours field experience required.
 Concurrent with: HEPE 3702.
Prereq.: HEPE 3768.

HEPE 4895 Introduction to Adapted Physical Education 4 s.h.

Introduction to developmentally appropriate, inclusive physical education for P-12 learners. Emphasis on acquiring a basic understanding of planning, delivering, and assessing appropriate inclusive physical education experiences for all children. Approximately 20 hours of field work. Three hour lecture, two hour lab.
Prereq.: HEPE 3766.

HEPE 4899 Physiological Effects of Exercise on Children and Adolescents 3 s.h.

Examining the body's response to physical activity in relation to the P-12 learner. Study of how physical activity influences the body's systems. Primary focus is application in a physical education setting.
Prereq.: HEPE 3766.

Reading & Study Skills

RSS 1510A Advanced College Success Skills 3 s.h.

A course designed to develop students' skills essential for college studying. The primary focus is improving the comprehension and retention of college textbooks. Major topics include reading rate flexibility, vocabulary growth, learning style preferences, and critical reading skills. Students meet for classroom instruction, computer-aided instruction, and small group tutoring sessions to discuss and practice strategies. Open to students based on Composition and Reading Placement Test (CRPT). Grading is A, B, C, NC. Does not count toward a degree.

RSS 1510B Basic College Success Skills 3 s.h.

A course designed to acquaint and assist students in their transition to studying at the college level. Course content stresses development of skills in word recognition, vocabulary, and reading to find main ideas, supporting evidence and conclusions in college textbooks. Students meet for classroom instruction and small group tutoring sessions to discuss and practice various thinking, listening, and reading strategies to improve college performance. Open to students based on Composition and Reading Placement Test (CRPT). Grading is A, B, C, NC. Does not count toward a degree.

RSS 1510C STEM Advanced College Success Skills 4 s.h.

Develops study skills in STEM disciplines by improving comprehension and retention of textbook and lecture materials. Covers reading rate flexibility, vocabulary growth, learning style preferences, critical reading, and problem solving. Uses classroom instruction, computer-aided instruction, and small-group tutoring sessions to apply strategies, including STEM-based lecture applications. Grading: A, B, C, N/C. Does not count toward a degree.
Prereq.: ENGL 1540 and RSS 1510A.

RSS 1570 Approaches to Professional Assessments 2 s.h.

A course designed to assist students in preparation for graduate and professional-level standardized tests. Students will critically analyze the basic components of such tests. Emphasis will be placed on test requirements, test formats, guidelines for answering and scoring, and test-taking strategies.

RSS 1571 Approaches to Professional Assessments/Applications 1 s.h.

A course designed to prepare students for graduate and professional-level standardized tests. In study groups, students will critically analyze the basic components of the test for which they are preparing, including requirements, test formats, guideline for answering and scoring, and test-taking strategies, in conjunction with effective pedagogical procedures.

Secondary Education

SED 3706 Principles of Teaching Adolescents 3 s.h.

Classroom management, Instructional strategies, and technology integration for diverse learners in the high school classroom. Cross-disciplinary curriculum exploration. Reflection and analysis of peer and classroom teaching experience. Field hours required.

Prereq.: TELS Upper Division Status.

Coreq.: TERG 3711.

SED 4800C Science Methods for Adolescent and Young Adult Learners 3 s.h.

Using NSTA/NCATE and Ohio content standards, candidates establish and maintain learning environments that provide diverse students with a holistic, interdisciplinary understanding of science. Background for teaching science, instructional strategies, classroom management, planning instruction, assessment, professional development, integration of content with inquiry emphasized. Field hours required.

Prereq.: TELS Upper Division Status, SED 3706, TEMC 3707, 24 s.h. science.

Coreq.: EDFN 3710.

SED 4800E English Methods for Adolescent and Young Adult Learners 3 s.h.

Exploring and demonstrating reflective teaching methods for adolescent learning of English: planning instruction, execution of teaching/learning activities, representations of English concepts, authentic assessment, English communication, purposeful use of instructional technology, classroom management for effective teaching. Field hours required.

Prereq.: TELS Upper Division Status, SED 3706.

Coreq.: EDFN 3710.

SED 4800M Mathematics Methods for Adolescent and Young Adult Learners 3 s.h.

Exploring and demonstrating reflective teaching methods for adolescent learning of mathematics: planning instruction, execution of teaching/learning activities, multiple representations of mathematical concepts, problem-solving strategies, authentic assessment, manipulative materials, mathematical communication, purposeful use of instructional technology, classroom management for effective teaching. Field hours required.

Prereq.: TELS Upper Division Status and SED 3706.

Coreq.: EDFN 3710.

SED 4800S Social Studies Methods for Adolescent and Young Adult Learners 3 s.h.

Theory and practice in learning how to plan, execute, and evaluate social studies lessons that are empowering, interesting, and reflective. Topics include: creating thematic unit plans; interpreting academic standards; writing instructional objectives; creating authentic learning activities; authentic assessment; classroom management and democratic discipline. Field hours required.

Prereq.: TELS Upper Division Status and SED 3706.

Coreq.: EDFN 3710.

SED 4827 Supervised Student Teaching: Language (K-12) 1-10 s.h.

Sixteen week supervised clinical teaching experience in licensure area. Provides candidate with opportunities to apply knowledge and skills, and display dispositions needed to effectively teach in diverse classrooms. CR/NC.

Prereq.: TELS Upper Division Status with a minimum overall GPA of 2.75, passing scores on OAE tests prior to the start of the student teaching semester, criminal background check, and successful completion of respective preclinical experience, with minimum content GPA of 2.67 and professional education GPA of 2.67.

Gen Ed: Capstone.

SED 4842 Supervised Student Teaching: High School 1-10 s.h.

Sixteen week supervised student clinical teaching experience in licensure area. Provides candidate with opportunities to apply knowledge and skills, and display dispositions needed to effectively teach in diverse classrooms. CR/NC.

Prereq.: TELS Upper Division Status with a minimum overall GPA of 2.75, passing scores on OAE tests prior to the start of the student teaching semester (to include ACTFL for foreign language majors), criminal background check, and successful completion of respective preclinical experience with minimum content GPA of 2.67 and professional education GPA of 2.67.

Gen Ed: Capstone.

SED 4842A Student Teaching Seminar for Secondary Education 2 s.h.

Student Teaching seminar provides an opportunity to study relevant topics related to teaching and learning, application of professional and ethical practice and OSTP standards, research and theory, knowledge of learners, and reflection on practice. Completion of edTPA is required. CR/NC.

Prereq.: TELS Upper Division Status; Admission to Student Teaching in AYA licensure program.

Coreq.: SED 4827, SED 4842, SED 4843, SED 4844, SED 4845, SED 4846 or 4850.

SED 4843 Supervised Student Teaching: Art (K-12) 1-10 s.h.

Sixteen week supervised clinical teaching experience in licensure area. Provides candidate with opportunities to apply knowledge and skills, and display dispositions needed to effectively teach in diverse classrooms. CR/NC.

Prereq.: TELS Upper Division Status with a minimum overall GPA of 2.75, passing scores on OAE tests prior to the start of the student teaching semester, criminal background check, and successful completion of respective preclinical experience, with minimum content GPA of 2.67 and professional education GPA of 2.67.

Coreq.: SED 4842A.

Gen Ed: Capstone.

SED 4844 Supervised Student Teaching: Music (K-12) 1-10 s.h.

Sixteen week supervised clinical teaching experience in licensure area. Provides candidate with opportunities to apply knowledge and skills, and display dispositions needed to effectively teach in diverse classrooms. Grading is CR/NC.

Prereq.: TELS Upper Division Status with a minimum overall GPA of 2.75, passing scores on OAE tests prior to the start of the student teaching semester, criminal background check, and successful completion of respective preclinical experience, with minimum content GPA of 2.67 and professional education GPA of 2.67.

Coreq.: SED 4842A.

Gen Ed: Capstone.

SED 4845 Supervised Student Teaching: Health (K-12) 1-10 s.h.

Sixteen weeks supervised clinical teaching experience in licensure area. Provides candidate with opportunities to apply knowledge and skills, and display dispositions needed to effectively teach in diverse classrooms. Grading is CR/NC.

Prereq.: TELS Upper Division Status with a minimum overall GPA of 2.75, passing scores on OAE tests prior to the start of the student teaching semester, criminal background check, and successful completion of respective preclinical experience, with minimum content GPA of 2.67 and professional education GPA of 2.67.

Coreq.: SED 4842A.

Gen Ed: Capstone.

SED 4846 Supervised Student Teaching: Physical Education (K-12) 1-10 s.h.

Sixteen week supervised clinical teaching experience in licensure area. Provides candidate with opportunities to apply knowledge and skills, and display dispositions needed to effectively teach in diverse classrooms. Grading is CR/NC.

Prereq.: TELS Upper Division Status with a minimum overall GPA of 2.75, passing scores on OAE tests prior to the start of the student teaching semester, criminal background check, and successful completion of respective preclinical experience, with minimum content GPA of 2.67 and professional education GPA of 2.67.

Coreq.: SED 4842A.

Gen Ed: Capstone.

SED 4850 Supervised Student Teaching: Career/Technical 1-10 s.h.

Full-time 16 week student teaching in grades 4-adult supervised by University faculty and experienced career/technical practitioners licensed in the teaching subject of the candidate. Grading is CR/NC.

Prereq.: TELS Upper Division Status, passing scores on PRAXIS II content and PLT test, criminal background check, and completion of adolescent/young adult or career/technical program excluding student teaching and student teaching seminar.

Coreq.: SED 4842A.

SED 7042 Professional Development for Classroom Teacher Educators 2 s.h.

A restricted professional development course for classroom teacher educators invited to supervise the instructional program of student teachers and field experience students. The course concentrates on developing analytical observation, conferencing, evaluation, and supervision skills based on scientific knowledge and theoretical constructs.

Prereq.: Invitation from YSU and endorsement from home school district to serve as a classroom teacher educator.

Cross-Listed: EMCE 7042.

Special Education

SPED 2630 Individuals with Exceptionalities in Society 3 s.h.

Characteristics, adjustment problems, special needs with emphasis on educational solutions, co-teaching, and inclusionary practices. The laws and implementation; placement, programming, due process, resources recommended for accommodation of exceptional learners in diverse settings. Field hours required.

Coreq.: SPED 2630L.

SPED 2630L Individuals with Exceptionalities in Society Laboratory Experience 0 s.h.

Laboratory experience for creating effective classroom environments for learners with special needs. Integrating the use technology to positively impact learning. Exercises designed to assist the student in better understanding the needs of all learners. **Coreq:** SPED 2630.

SPED 3715 Characteristics and Needs of Children and Youth with Mild/Moderate Disabilities 3 s.h.

Description and classification of students with mild/moderate disabilities and the impact on academic, social and emotional development. Relationship to the contributions of diverse disciplines to theory and practice. A developmental approach to motor, perceptual, cognitive, language and social-emotional functioning within inclusive educational settings. Use of Universal Design for Learning as a framework for accessible and varied learning opportunities for individuals with exceptionalities. Field hours required.

Prereq.: SPED 2630.

SPED 4828 Education for Children and Youth with Emotional Behavior Needs 4 s.h.

Instruction, curriculum and program development for youth who are identified with emotional disturbance and as a result are often in conflict with educational and social systems. Field hours required.

Prereq.: TELS Upper Division Status.

SPED 4835 Classroom Management for Exceptional Children and Youth 4 s.h.

Development, implementation and evaluation of behavior management plans and strategies for students with exceptionalities in the classroom environment. Behavior management techniques to facilitate learning, self-management, and the development of social skills. Communicating effective management programs to parents, caregivers, teachers, and stakeholders. Field hours required.

Prereq.: TELS Upper Division Status.

SPED 4836 Educational Teaching Strategies for Students with Exceptionalities: K -12 Moderate to Severe 4 s.h.

Field application of principles of all content areas and organization, and implementation of cross-curricular content areas across grades K -12 for students with moderate to severe disabilities. This course is part of eight-week intensive pre-clinical field work.

Prereq.: Admission to BCLASSE upper division status; SPED 2630, SPED 2630L, SPED 4867.

Coreq.: SPED 4837, SPED 4838, SPED 4860.

SPED 4837 Behavior and Classroom Management for Students with Exceptionalities: K-12 Moderate to Severe 4 s.h.

This course is designed to increase the candidate's effectiveness as an educator by providing the candidate with an understanding of the theoretical framework for and practical applications of behavior and classroom management for exceptional children. Candidates will develop a working knowledge of the developmental theories of behavior and legal issues of classroom management as well as functional behavior assessment/analysis, and development, implementation and evaluation of individual and classroom-wide positive behavior intervention support plans for students with exceptionalities in the K-12 classroom environment.

Prereq.: Admission to BCLASSE upper division status; SPED 2630, SPED 2630L, SPED 4867.

Coreq.: SPED 4836, SPED 4838, SPED 4860.

SPED 4838 Collaboration & IEP Writing for Students w/Exceptionalities: K -12 Moderate to Severe 4 s.h.

This course is designed to develop knowledge, skills and abilities related to collaboration, teamwork and writing an Individual Educational Plan (IEP). It provides pre-service teacher candidates with the information and skills necessary to collaborate and consult with other school professionals, families, and support agencies regarding the design and implementation of educational programs for students with moderate to severe disabilities in grades K-12. This course is part of an eight-week intensive pre-clinical field experience.

Prereq.: Admission to BCLASSE upper division status; SPED 2630, SPED 2630L, SPED 4867.

Coreq.: SPED 4836, SPED 4837, SPED 4860.

SPED 4849 Supervised Student Teaching: Mild Moderate/Disabilities 1-10 s.h.

Sixteen week supervised clinical teaching experience in licensure area. Provides candidate with opportunities to apply knowledge and skills, and display dispositions needed to effectively teach in diverse classrooms. CR/NC.

Prereq.: TELS Upper Division Status with a minimum overall GPA of 2.75, passing scores on OAE tests prior to the start of the student teaching semester, criminal background check, and successful completion of respective preclinical experience, with minimum content GPA of 2.67 and professional education GPA 2.67.

Coreq.: SPED 4869.

Gen Ed: Capstone.

SPED 4851 Transition Planning, Social Skill Development and Health-Related Issues 3 s.h.

Emphasis on lifelong career orientation and the development and implementation of a K-12 prevocational/vocational curriculum. Effective teaching of interpersonal communication and social skills. Classroom climate, self-esteem, health-related issues. Integration of practical experiences in the classroom, home, and community. Field hours required.

Prereq.: TELS Upper Division Status.

SPED 4852 Prog Development Instructional Strategies for Learners with Moderate to Intensive Except Learn Needs 3 s.h.

This course is designed to expand technical terminology and applied practices for candidates working towards licensure for students with moderate to intensive exceptional learning needs. Candidates will create individualized objectives, apply evidence-based practices, and report progress. Field hours required.

Prereq.: TELS Upper-Division Status and SPED 4834.

SPED 4853 Diagnosis and Intervention in Mathematics for Special Education 3 s.h.

Principles, practices, materials, and aids for teaching mathematics in special education, including diagnosis and evaluative procedures, individualized instructional techniques. Field hours required.

Prereq.: TELS Upper Division Status.

SPED 4854 Cross-Curricular Interventions 4 s.h.

Field application of principles of reading in the content areas, organization and implementation of cross-curricular content areas across grade levels. Includes management of special education/inclusionary classrooms. Field hours required.

Prereq.: TELS Upper Division Status, SPED 4828, SPED 4834, or SPED 4868.

SPED 4858 Educational Teaching Strategies for Students with Exceptionalities: Grades 6-12 4 s.h.

Field application of principles of reading in the content areas and organization, and implementation of cross-curricular content areas across grades 6 - 12.

This course is part of an eight-week intensive pre-clinical field experience.

Admission to BCLASSE upper division status required.

Prereq.: SPED 2630, SPED 4867.

Coreq.: SPED 4859, SPED 4860, TCED 4800L.

SPED 4859 Behavior and Classroom Management for Students with Exceptionalities, 6-12 4 s.h.

This course is designed to increase the candidate's effectiveness as an educator by providing the candidate with an understanding of the theoretical framework for and practical applications of behavior and classroom management for exceptional children. Candidates will develop a working knowledge of the developmental theories of behavior and legal issues of classroom management as well as functional behavior assessment/analysis, and development, implementation and evaluation of individual and classroom-wide positive behavior intervention support plans for students with exceptionalities in the 6-12 classroom environment. Admission to BCLASSE upper division status required.

Prereq.: SPED 2630, SPED 4867.

Coreq.: SPED 4858, SPED 4860; TCED 4800L.

SPED 4860 Transition, Collaboration & IEP Writing for Students w/ Exceptionalities: 6-12 4 s.h.

This course is designed to develop knowledge, skills and abilities related to collaboration, teamwork and writing an Individual Educational Plan (IEP). It provides pre-service teacher candidates with the information and skills necessary to collaborate and consult with other school professionals, families, and support agencies regarding the design and implementation of educational programs for students with disabilities in grades 6 - 12. This course is part of an eight-week intensive pre-clinical field experience.

Prereq.: Admission to BCLASSE upper division status; SPED 2630, SPED 2630L, SPED 4867.

Coreq.: SPED 4858, SPED 4859, SPED 4836, SPED 4837, SPED 4838.

SPED 4864 Service Coordination, Collaboration, and Consultation for Students with Special Needs 3 s.h.

Methods and strategies for the cooperation and involvement of related services professionals, parents, and children in the coordination of comprehensive educational and service plans. Collaboration, communication skills and sensitivity to individual and cultural differences are stressed. Field hours required.

Prereq.: TELS Upper Division Status.

SPED 4866 Assessment and Referral of Exceptional Children and Youth for the Intervention Specialist 3 s.h.

Development of skills in referral and assessment techniques in the areas of mild/moderate and moderate/intensive disabilities. Informal and formal methods including observation, authentic assessments, standardized measures, interviewing. Referral, initial and subsequent evaluation, annual review concerns.

Prereq.: TELS Upper Division Status.

SPED 4867 Intervention and Remediation of Receptive/Expressive Language Dysfunction 3 s.h.

Theory and practice of intervention and remediation of basic cognitive processes especially in the areas of receptive and expressive language and cognitive skills for the intervention specialist. Field hours required.

Prereq.: TELS Upper Division Status.

SPED 4868 Mild/Moderate Disabilities Practicum 4 s.h.

Diagnostic procedures used to develop a comprehensive assessment of a child's current functioning. Individualized education program/case study developed and partially implemented. Field hours required.

Prereq.: TELS Upper Division Status, SPED 4866 and SPED 4867.

SPED 4869 Student Teaching Seminar for Special Education 2 s.h.

Student Teaching seminar provides an opportunity to study relevant topics related to teaching and learning, application of professional and ethical practice and OSTP standards, research and theory, knowledge of learners, and reflection on practice. Completion of edTPA is required. CR/NC.

Prereq.: TELS Upper Division Status; Admission to Student Teaching in Special Education.

Coreq.: SPED 4839 and/or SPED 4849.

SPED 6900 Issues, Trends & Ethical, Legal and Professional Guidelines in Special Education 3 s.h.

This course is designed to provide the candidate with an exploratory study of the issues, trends, as well as the ethical, legal and professional guidelines in special education. Candidates will become familiar with legal policies and procedures as well as practice ethical guidelines as related to students with exceptionalities. Candidates will understand how to advocate for improved outcomes for learners with exceptionalities and their families as well as design and implement professional learning activities to increase their own practices.

SPED 6906 Understanding and Addressing the Characteristics and Behaviors of Learners with Exceptional Needs 3 s.h.

This course is designed to provide the candidate with the knowledge and understanding of how individuals with exceptionalities grow and develop in an inclusive learning environment. Candidates will understand how multiple influences, including diversity, families, communities and individual differences shape an individual with an exceptionality's development and learning. The candidate will then use this knowledge to develop high-quality learning experiences based on strengths and needs.

SPED 6914 Positive Behavior Supports/Intervention Strategies to Support Social-Emotional Needs of All Learners 3 s.h.

This course is designed to address the social-emotional and behavioral needs of children with mild to intensive needs, including those needing intensive support due to disability or trauma. It provides education candidates with effective routines and procedures consistent with the science of Applied Behavior Analysis (ABA) to create a safe, caring, respectful and productive learning environment as well as a range of preventive and responsive practices. Candidates will apply specific tools grounded in the principles of ABA with ethical strategies being of particular focus. Candidate skills will be grounded in the ability to plan, implement and evaluate behavioral interventions and social skills programs within any special education service delivery model.

SPED 6916 IEP Planning and Accommodations for Learners with Exceptional Needs 3 s.h.

This course is designed to provide the candidate with an exploratory study of the IEP process. Candidates will understand how to write an IEP as well as collaborate with families and fellow staff members regarding learners with exceptionalities on this process.

SPED 6917 Effective Instruction for Learners with Exceptional Needs 3 s.h.

This course is designed to provide the candidate with the knowledge about individuals with an exceptionality development and assessment data to inform decisions about effective instruction. Candidates will understand how to use explicit and systematic instructional strategies including active student engagement and motivation, differentiated instruction, flexible and small groups, specialized individualized instruction, self-regulated learning and meta-cognition strategies. The candidate will then use this knowledge to plan and guide instruction to meet the rigorous content goals for each individual with an exceptionality's academic and social-behavioral needs.

SPED 6928 Transition to Adult Life 3 s.h.

This course is designed to provide candidates with best practices of the professional collaboration process to include specific models and strategies to improve the transition from school to adult life, including career readiness, community, and domestic skills for students with mild to intensive learning needs. Candidates will develop a team training model and evaluate evidence-based practices regarding the transition process for students. Individual strengths and characteristics will be considered to facilitate social, vocational, and daily living skills for all learners. Successful completion of field related assessment project is required.

SPED 6929 Assessment of Exceptional Learners 3 s.h.

This course focuses on the educational assessment process for exceptional learners. Topics include state and federal regulations, data collection techniques, formative and summative assessment, and test interpretation. Importance of instructional alignment between objectives, assessment, and instructional strategies.

SPED 6931 Field-based Practicum with Exceptional Learners in Grades K-6 3 s.h.

Practicum experience, with mild/moderate exceptional learners within grades K-6, in which the candidate acquires and demonstrates the knowledge, skills, and dispositions to design and implement data guided standards-based instruction with differentiated methods, assessments that promote learner growth including effective feedback, and collaboratively work with teacher(s), parents/guardians, and related service professional(s) to implement instruction to meet learners' diverse needs. Field hours required. **Prereq.:** SPED 6900, SPED 6906, SPED 6914, SPED 6916, SPED 6917, SPED 6928, SPED 6929.

SPED 6932 Field-based Practicum on Inclusive Practices with Exceptional Learners in Grades 7-12 3 s.h.

Practicum experience, with mild/moderate exceptional learners in an inclusion classroom within grades 7-12, in which the candidate acquires and demonstrates the knowledge, skills, and dispositions to design and implement data guided standards-based instruction with differentiated methods, assessments that promote learner growth through effective feedback, and collaboratively work with teacher(s), parents/guardians, and related service professional(s) to implement instruction and identify transition services to meet learners' diverse needs. Field hours required.

SPED 6933 Field-based Practicum with Moderate/Intensive Exceptional Learners in Grades K-6 3 s.h.

Practicum experience, with moderate/intensive exceptional learners within grades K-6, in which the candidate acquires and demonstrates the knowledge, skills, and dispositions to design and implement data guided standards-based instruction with differentiated methods, assessments that promote learner growth including effective feedback, and collaboratively work with teacher(s), parents/guardians, and related service professional(s) to implement instruction to meet learners' diverse needs. Field hours required.

SPED 6934 Field-based Practicum with Moderate/Intensive Exceptional Learners in Grades 7-12 3 s.h.

Practicum experience, with moderate/intensive exceptional learners within grades 7-12, in which the candidate acquires and demonstrates the knowledge, skills, and dispositions to design and implement data guided standards-based instruction with differentiated methods, assessments that promote learner growth including effective feedback, and collaboratively work with teacher(s), parents/guardians, and related service professional(s) to implement instruction to meet learners' diverse needs. Field hours required.

Teacher Education Middle Childhood

TEMC 3702 Teaching & Learning in Middle Schools 3 s.h.

Physical, social, emotional, intellectual, and moral development within social and cultural contexts to uncover implications for developmentally and culturally responsive curriculum and instruction.

Prereq.: TELS Upper Division Status.

TEMC 3703 Thematic Instruction and Assessment Methods in Social Studies 3 s.h.

Investigation and application of principles from history, geography, civics, economics, and related fields to create appropriate learning experiences for early adolescents. Exploration of middle grade level group and individual assessment, thematic, problem-solving instructional approaches, and reflective evaluation of learning in a field-based setting.

Prereq.: TEMC 3702, TELS Upper Division Status, and approval of chairperson.

Coreq.: TEMC 4801 and one of TEMC 3704, TEMC 3705, or TEMC 3706.

TEMC 3704 Teaching Mathematics in the Middle School 3 s.h.

Focus on identifying and modeling strategies used for problem solving, communicating, and reasoning in mathematics. Learning to use mathematical connections to stimulate diverse students' development of math concepts and skills and creating learning environments in which students feel free to take risks. Field experience combining mathematics pedagogy/methodology in a middle grade classroom.

Prereq.: TEMC 3702, TELS Upper Division Status and approval of chairperson.

Coreq.: TEMC 4801 and one of TEMC 3703, TEMC 3705, or TEMC 3706.

TEMC 3705 The Teaching of Science in the Middle School 3 s.h.

Using NSTA/NCATE and Ohio Model guidelines as a framework, students focus on establishing and maintaining learning environments that provide diverse students with a holistic, interdisciplinary understanding of science. Topics include goals formation, planning instruction, instructional strategies, resource selection, assessment procedures. Promotion of the use of science processes and problem-solving skills for life-long learning, the integration of science/technology/society. Field experience combining science pedagogy/methodology in a middle grades classroom.

Prereq.: TEMC 3702, 12 s.h. science, TELS Upper Division Status, and approval of chairperson.

Coreq.: TEMC 4801 and one of TEMC 3703, TEMC 3704, or TEMC 3706.

TEMC 3706 Teaching Language Arts in the Middle School 3 s.h.

Integrated strategies for enabling diverse students to participate successfully in the activities of a literate society through listening, viewing, and communicating orally and in writing. Emphasis on integration of the language arts, higher order thinking skills, flexibility in applying the language arts in meaningful contexts across the curriculum.

Prereq.: TEMC 3702, TELS Upper Division Status, and approval of chairperson.

Coreq.: TEMC 4801 and one of TEMC 3703, TEMC 3704, or TEMC 3705.

TEMC 3707 Science/Technology/Society 3 s.h.

In-depth exploration of science/technology/society connections. A subject matter-problem-solving-learning environment triad provides opportunities for study of real-life, personal, and societal science and technology problems. Field experience in which students assess STS problems, devise solutions, apply and evaluate knowledge for community improvement.

Prereq.: TELS Upper Division Status, 12 s.h. science.

TEMC 4801 The Middle School Learning Community 3 s.h.

History, philosophy, and concepts of middle level education, including interdisciplinary instruction, collaborative teams, cooperative learning, classroom management, teacher-based advisory programs, flexible scheduling, cross-age grouping, departmentalized/core curriculum, adapting curriculum to the needs of culturally diverse populations, and working with families, resource persons, and community groups.

Prereq.: TEMC 3702, TELS Upper Division Status, and approval of chairperson.

Coreq.: Two of TEMC 3703, TEMC 3704, TEMC 3705, or TEMC 3706.

TEMC 4801C CE The Middle School Learning Community 3 s.h.

History, philosophy, and concepts of middle level education, including interdisciplinary instruction, collaborative teams, cooperative learning, classroom management, teacher-based advisory programs, flexible scheduling, cross-age grouping, departmentalized/core curriculum, adapting curriculum to the needs of culturally diverse populations, and working with families, resource persons, and community groups.

Prereq.: TEMC 3702, BCCE upper-division status, and approval of chairperson.

Coreq.: Two of TEMC 3703, TEMC 3704, TEMC 3705, or TEMC 3706.

TEMC 4802 Student Teaching: Middle Childhood 1-10 s.h.

Sixteen week supervised clinical teaching experience in licensure area.

Provides candidate with opportunities to apply knowledge and skills, and display dispositions needed to effectively teach in diverse classrooms. CR/NC.

Prereq.: TELS Upper Division Status with a minimum overall GPA of 2.75, passing scores on OAE tests prior to the start of the student teaching semester, criminal background check, and successful completion of respective preclinical experience, with minimum content GPA of 2.67 and professional education GPA of 2.67.

Coreq.: TEMC 4803.

Gen Ed: Capstone.

TEMC 4803 Student Teaching Seminar for Middle Childhood Education 2 s.h.

Student Teaching seminar provides an opportunity to study relevant topics related to teaching and learning, application of professional and ethical practice and OSTP standards, research and theory, knowledge of learners, and reflection on practice. Completion of edTPA is required. CR/NC.

Prereq.: TELS Upper Division Status; Admission to Student Teaching in Middle Childhood Education.

Coreq.: TEMC 4802.

TEMC 4804 Middle Level Instructional Design and Student Outcomes 3 s.h.

Presents teacher candidates with skills in predicting, understanding, and controlling the fundamental principles of learning. Classroom assessment, test administration, construction, scaling, norming, reliability, validity, and interpretation of individual and group tests will be covered. Attention will be paid to how these impact instruction and assessment in middle grades. To be taken concurrently with TEMC 4801.

Prereq.: TEMC 3702, TELS Upper Division Status, approval of chair.

Teacher Education Reading

TERG 2601 Reading Application in Content Area Early Years 3 s.h.

Study of Ohio's Learning Standards for English Language Arts, comprehension skills, word attack skills, pre-reading strategies, and writing development as they relate to early years reading in the content area. The role of early childhood language development and literature in the early childhood content-area classroom. Field hours required.

Prereq.: 20 semester hours completed.

TERG 2605 Reading Foundational Skills Across Content Areas Pre-K – 12 3 s.h.

A study of the development of Ohio Academic Content Area Standards, comprehension skills, work attack skills, pre-reading strategies, study skills, and writing development as they relate to reading in the content area. The role of oral language and content literature in the early, middle, secondary, multi-age, and special education content area classroom is included. Foundational skills aligned to the scientifically based foundation in the cognitive, socio-cultural, linguistic, and motivational influences on literacy and language development are provided. Topics in the course include understanding foundational literacy skills, strategies for building rich background knowledge, relating lessons to research and best practices, and identifying how to address individualized literacy needs across content areas.

Prereq.: Education major.

TERG 2610 Reading Application in Content Areas Middle Years 3 s.h.

Study of Ohio's Learning Standards for English Language Arts, comprehension skills, word attack skills, pre-reading strategies, and writing development as they relate to middle years, multi-age and special education reading in the content area. The role of literature in the content-area classroom. Field hours required.

Prereq.: 20 semester hours completed.

TERG 3700 Phonological Awareness and Phonics 3 s.h.

Phonics subject matter, instructional strategies and applications, and planning for intensive, phonic-based word analysis in the early and middle stages of literacy acquisition. Field hours required.

Prereq.: TERG 2605 with a minimum grade of "C" or TERG 2601 with a minimum grade of "C" or TERG 2610 with a minimum grade of "C", or TERG 3710 with a minimum grade of C.

TERG 3700C CE Phonological Awareness and Phonics 3 s.h.

Phonics subject matter, instructional strategies and applications, and planning for intensive, phonic-based word analysis in the early and middle stages of literacy acquisition. Field hours required.

Prereq.: TERG 2605.

TERG 3701 Phonics in Reading Instruction 3 s.h.

Phonics subject matter, instructional strategies and applications, and planning for intensive, phonic-based word analysis in the early and middle stages of literacy acquisition. Field hours required.

Prereq.: TERG 2601 or TERG 2610.

TERG 3702 Developmental Reading Instruction 3 s.h.

The principles of teaching developmental reading in the elementary school.

Theories and related models of reading, various approaches to teaching reading and creative, integrative literature strategies to meet the needs of diverse learners. Field hours required.

Prereq.: TERG 2601 or TERG 2610.

TERG 3703 Assessment and Instruction in Reading 3 s.h.

Application and interpretation of selected formal and informal assessment tools. Strategies for ensuring diverse students' growth in reading and the related language arts through ongoing assessment. Field hours required.

Prereq.: TERG 2601 or TERG 2610 and TERG 3701 and TERG 3702 and admission to TELS Upper Division Status.

TERG 3711 Reading Application in Content Areas, Secondary Years 3 s.h.

Study of Ohio's Learning Standards for English Language Arts, comprehension skills, word attack skills, study skills, pre-reading strategies, and writing development as they relate to content area reading in secondary years. The role of literature in the content-area classroom. Field hours required.

Prereq.: 50 semester hours completed.

TERG 3720 Developmental Reading Instruction: Vocabulary, Comprehension, and Writing 3 s.h.

The principles of teaching developmental reading in the elementary and middle grades with emphasis on vocabulary, comprehension, and writing instruction.

Evidence-based strategies to meet the diverse learning needs of all students are practiced. Field hours required.

Prereq.: TERG 2605 with a minimum grade of C or TERG 2601 with a minimum grade of C or TERG 2610 with a minimum grade of C, or TERG 3710 with a minimum grade of C; AND TERG 3700.

TERG 3720C CE Developmental Reading Instruction: Vocabulary, Comprehension, and Writing 3 s.h.

The principles of teaching developmental reading in the elementary and middle grades with emphasis on vocabulary, comprehension, and writing instruction.

Evidence-based strategies to meet the diverse learning needs of all students are practiced. Field hours required.

Prereq.: TERG 2605.

TERG 3730 Reading Assessment, Instruction, and Intervention 3 s.h.

Administration and interpretation of selected formal and informal assessment measures. Strategies for ensuring diverse students' growth in literacy through ongoing assessment and progress monitoring. Field hours required.

Prereq.: TERG 2605 with minimum grade of C, or TERG 2601 with a minimum grade of C, or TERG 2610 with a minimum grade of C, or TERG 3710 with a minimum grade of C; and TERG 3700 with minimum grade of C, or TERG 3701 with a minimum grade of C; and TERG 3720 with a minimum grade of C, or TERG 3702 with a minimum grade of C; and BCOE upper-division status.

TERG 3730C CE Reading Assessment, Instruction, and Intervention 3 s.h.

Administration and interpretation of selected formal and informal assessment measures. Strategies for ensuring diverse students' growth in literacy through ongoing assessment and progress monitoring. Field hours required.

Prereq.: TERG 2605; TERG 3700; TERG 3720.

TERG 6922 Organizing and Managing Diverse Literacy Environments 3 s.h.

An examination of the physical and social contexts of diverse literacy environments that integrate foundational knowledge, cultural and linguistic backgrounds, use of research-based instructional practices, curriculum materials, and assessment-based decision-making.

TERG 6923 Literacy and Phonics Instruction 3 s.h.

An investigation of the philosophy, principles, and practices of reading (including phonemic and phonetic developments) and language arts instruction. An examination and application of formal and informal assessment procedures as well as an investigation of the language learning needs of diverse populations.

TERG 6924 Content Literacy 3 s.h.

An investigational of research-based philosophies, principles, and best practice for applying content-specific concepts, vocabulary, and engagements while using the language arts and study skills in ensure comprehending.

TERG 6926 Reading and Language Arts Assessment 3 s.h.

An examination and application of formal and informal assessment procedures in reading and language arts including the use of background information and discrete data. Data analysis, interpretation, and translations to instruction are applied.

TERG 6927 Practicum: Coaching for Effective Literacy Instruction 3 s.h.

An application of literacy coach practices in assessment-based decision-making, research-based instruction, and preparation and delivery of high-quality professional development using techniques for working with individual teachers in a coaching context and groups of teachers in whole-group PD settings.

TERG 6928 Practicum: Case Study in Reading and Language Arts 3 s.h.

Application of previous course content involving supervised formal and informal assessment of school-age pupils, developing an individualized reading plan, selecting appropriate instructional practices and materials, maintaining tutoring logs, developing a student portfolio, evaluating results of instruction, and writing a case study report.

Prereq.: TERG 6926.

Teacher Education, Department of

TCED 1509 Orientation to On-Line Learning 1 s.h.

This course provides an introduction and orientation to on-line learning, while acquainting students with the platform of BB9, distance education technologies, YSU and TELS. CR/NC.

Coreq.: DE ECE 2629.

TCED 2600 Becoming an Education Professional 1 s.h.

The purpose of this course is to explore professionalism and ethics as they are related to the teaching profession: displaying professionalism, making responsible and ethical decisions, developing a professional identity, becoming a member of a learning community, and investigating contemporary ethical issues in education. Collegiality, professional behavior, use of social media, interpersonal communication skills, cultural bias, respect/rapport with students and families, will be discussed; ethical and professional dilemmas will be introduced.

TCED 2601 Diversity and Equity in the Classroom 1 s.h.

This course will examine various facets of preparing to teach in a diverse, 21st century classroom. Course participants will actively engage in understanding theories, research, case studies, and reflective practices that will assist them in developing a firm understanding about culture and its influences on teaching and learning.

Prereq.: Education major.

Coreq.: TCED 2600.

TCED 2650 LGBTQ Issues in History and Popular Culture 3 s.h.

Explores the historical and present day representation of LGBT issues and individuals and their portrayal in popular culture.

Cross-Listed: WMST 2650.

Gen Ed: Domestic Diversity, Social and Personal Awareness.

TCED 4800L Laboratory Experience for Teaching All Learners 0 s.h.

Laboratory Experience for creating effective classroom environments that are developmentally appropriate, engaging, and integrate the use of technology to positively impact learning. Peer and clinical teaching designed to meet needs of all learners.

Coreq.: ECIS 4801 or ECIS 4802 or ECE 3713 or ECE 3715 or ECE 3780 or ECE 4814 or TEMC 3703 or TEMC 3704 or TEMC 3705 or TEMC 3706 or SED 4800C or SED 4800E or SED 4800M or SED 4800S or SPED 4854 or SPED 5835 or SPED 5864 or SPED 5851 or SPED 5868.

TCED 4830 Undergraduate Capstone Course for Education Majors 3 s.h.

Senior Seminar which substitutes for student teaching. This course requires a career/field component and research project. Placement is negotiated by the student with approval from course instructor.

Prereq.: Education major and junior standing.

Gen Ed: Capstone.

TCED 5888 Topical Seminar 1-3 s.h.

Examination of issues related to the teaching of early childhood education, middle childhood education, special education, multi-age education, family and consumer vocational education, or adolescent/young adult education not covered in depth of other courses.

Prereq.: Admission to upper-division status in COE or admission to the School of Graduate Studies.

TCED 5888N Topical Seminar Learning Abroad 1-3 s.h.

Examination of issues related to the teaching of early childhood education, middle childhood education, special education, multi-age education, family and consumer vocational education, or adolescent/young adult education not covered in depth of other courses. 1-3 s.h.

Prereq.: Admission to upper-division status in COE or admission to the School of Graduate Studies.

TCED 5888P Topical Seminar Science Solar Cookers 1-3 s.h.

Examination of issues related to the teaching of early childhood education, middle childhood education, special education, multi-age education, family and consumer vocational education, or adolescent/young adult education not covered in depth of other courses.

Prereq.: Admission to upper-division status in COE or admission to the School of Graduate Studies.

Learning Outcomes

The learning outcomes for the Department of Teacher Education are to prepare 21st century classroom-ready teacher-candidates with the knowledge, skills, and dispositions to:

- Know and understand the content for which they have instructional responsibility
- Plan and deliver instruction that impacts the learning of all PK-12 students
- Use varied assessments to inform instruction
- Establish and maintain learning environments that ensure learning for all PK-12 students
- Collaborate and communicate with all stakeholders
- Accept the responsibility for professional growth, performance, and involvement as an individual and as a member or a learning community

- Expect that all teacher candidates will learn while modeling respect for PK-12 students' diverse cultures

Adolescent Young Adult Education, 7-12

Dr. Katie Cripe, Program Coordinator

Overview

In cooperation with various discipline departments in the University, the Department of Teacher Education and Leadership Studies offers a four-year adolescent/young adult license approved by the Ohio Department of Education. The Adolescent/Young Adult (Grades 7-12), Bachelor of Science in Education degree requires a minimum of 121 semester hours of course work (each content area requires a specific number of semester hours) including a semester of student teaching. Please refer to the four-year plan for additional information. This teaching license requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

Employment Opportunities

Graduates of the Adolescent/Young Adult Program will be qualified to teach in the 7-12 classroom. Additional opportunities may be available in the private sector to tutor students. It is recommended that students in this major consider adding the Teaching English to Speakers of Other Languages (TESOL) endorsement to increase marketability. Graduates wanting to teach College Credit Plus courses should consider a Master of Science in Education Content Area Concentration degree.

Professional Dispositions:

In addition to the above learning outcomes, teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

Field Experiences and Student Teaching

Students complete over 120 hours of pre-clinical experiences in addition to student teaching. Field experiences are included in the following courses and offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3711 Reading Application in Content Areas, Secondary Years

Preclinical Field Experiences:

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Adolescent/Young Adult preclinical experience is scheduled during the fall semester. Applications for the preclinical experience must be submitted (1) one year in advance to BCOE Room 2101, by September 1 for the preclinical experience. Contact the Beeghly College of Education, academic advisors for minimum preclinical prerequisites.

- EDFN 3710 Educational Assessment
- SED 3706 Principles of Teaching Adolescents

And

- SED 4800C Science Methods for Adolescent and Young Adult Learners

Or

- SED 4800E English Methods for Adolescent and Young Adult Learners

Or

- SED 4800M Mathematics Methods for Adolescent and Young Adult Learners

Or

- SED 4800S Social Studies Methods for Adolescent and Young Adult Learners

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 37 during this experience.

- SED 4842 Supervised Student Teaching: High School
- SED 4842A Student Teaching Seminar for Secondary Education

Advisement

Advisement is provided by the education advisors in Beeghly Hall. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a preclinical experience.

Required Assessments

The Ohio Assessments for Educators (OAE) assess the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new licence area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

003 Assessment of Professional Knowledge Adolescence to Young Adult (7-12) (All AYA Teacher Candidates)

020 English Language Arts (for teacher candidates with ELA concentration)

027 Mathematics (for teacher candidates with Math concentration)

024 Integrated Science (for teacher candidates with Science concentration)

025 Integrated Social Studies (for teacher candidates with Social Studies concentration)

Endorsements

The following endorsements are available to individuals holding this teaching license and may increase marketability: K-12 TESOL Endorsement, K-12 Reading Endorsement.

Bachelor of Science in Education in Integrated Language Arts (7-12) - Adolescent License

Program Coordinator

Dr. M. Kathleen L. Cripe, Chairperson and Program Coordinator

OVERVIEW

- In cooperation with various academic disciplines in the University, the Department of Teacher Education and Leadership Studies offers a four-year AYA Education Program (grades 7-12), Integrated Language Arts, approved by the Ohio Department of Education. The Integrated Language Arts license, Bachelor of Science in Education Degree requires a minimum of 127 semester hours of coursework including a semester of student teaching. Please refer to the four-year plan for additional information. This teaching license requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

EMPLOYMENT OPPORTUNITIES

Graduates of the Adolescent/Young Adult Program will be qualified to teach in the 7-12 classroom. Additional opportunities may be available in the private sector to tutor students. It is recommended that students in this major consider adding the Teaching English to Speakers of Other Languages (TESOL) endorsement to increase marketability.

Professional Dispositions

Teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

FIELD EXPERIENCES AND STUDENT TEACHING

Students complete over 120 hours of pre-clinical experiences, and additional field experiences, which are included in the following courses that offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3711 Reading Application in Content Areas, Secondary Years
- SED 3706 Principles of Teaching Adolescents

Preclinical Field Experiences

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Adolescent/Young Adult preclinical experience is scheduled during the fall semester. Applications for the preclinical experience must be submitted (1) one year in advance on TaskStream, by September 1st for the preclinical experience. Contact the Education Academic Advisors for minimum preclinical prerequisites.

- EDFN 3710 Educational Assessment
- SED 4800E English Methods for Adolescent and Young Adult Learners

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 39 during this experience.

- SED 4842 Supervised Student Teaching: High School
- SED 4842A Student Teaching Seminar for Secondary Education

ADVISEMENT

Advisement is provided by the Academic Advisors in Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a preclinical experience.

REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assess the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new license area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

020 English Language Arts (for teacher candidates with ELA concentration)

ENDORSEMENTS

The following endorsements are available to individuals holding this teaching license and may increase marketability: K-12 TESOL Endorsement, K-12 Reading Endorsement.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or SS 1500	Strong Start Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Mathematics Requirement		3
MATH 2623	Quantitative Reasoning	3
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model. Courses listed for Knowledge Domains below are required in this program.		
Arts and Humanities (6 s.h.)		
These 6 s.h. may be met in the major if appropriate courses in the major are selected.		
Natural Sciences (2 courses, 1 with lab) (6-7 s.h.)		7
PSYC 1560	General Psychology	3
Social Science elective (or 3 s.h. requirement may be met by courses in major)		
Social and Personal Awareness (6 s.h. total needed)		3
Major Requirements		
ENGL 2631	Mythology in Literature (AH)	3
ENGL 2651	Introduction to Language	3
ENGL 3700	Literary Study	3
ENGL 3705	Young Adult Literature	3
ENGL 3710	British Literature 1	3

ENGL 3711	British Literature 2	3
ENGL 3712	American Literature 1	3
ENGL 3713	American Literature 2	3
ENGL 3741	Advanced Writing for Teachers ^{1,2}	3
ENGL 4881	Shakespeare and His World	3
JOUR 3725	News Reporting	3
JOUR 4821	Advising Student Media	3
Select one of the following American Literature courses:		3
ENGL 3770	American Literature in Historical Perspective	
ENGL 3780	American Genres	
ENGL 4862	Themes in American Literature	
ENGL 4864	American Literary Conversations	
ENGL 4871	The Black Experience in American Literature	
Select one of the following World/Multicultural Literature courses:		3
ENGL 2610	World Literature (AH/SPA)	
ENGL 2617	Women in Literature (AH/SPA)	
ENGL 2618	American Literature and Diversity (AH/SPA)	
ENGL 2620	African Literature	
ENGL 3732	Images of Women	
ENGL 3738	Selected Topics in World Literature	
ENGL 3790	Selected Topics in Multicultural Studies	
Select one of the following Language/Linguistics courses:		3
ENGL 3750	Language and Culture	
ENGL 3757	Development of the English Language	
ENGL 4850	Sociolinguistics	
ENGL 4851	Language Acquisition	
ENGL 4855	Advanced Linguistics	
ENGL 4858	English Grammar	
Select one of the following Media Literacy courses:		3
TCOM 1595		
THTR 1590	History of Motion Pictures (AH)	
ENGL 2665	Introduction to Film Study (AH)	
ENGL 3743	Introduction to Public, Professional and Technical Writing	
Select one of the following Upper Division British Literature courses:		3
ENGL 4830	Major Figures in British Literature	
ENGL 4831	British Genres, Circles, and Movements	
ENGL 4860	The Medieval World	
ENGL 4882	The English Renaissance	
ENGL 4886	Restoration and Eighteenth Century British Literature	
ENGL 4887	The Romantic Period	
ENGL 4892	Nineteenth Century British Literature Studies	
ENGL 4895	Early Twentieth Century British Studies	
ENGL 4896	British Literature from World War II to the Present	
Select one of the following Advanced English Studies courses:		3
ENGL 3706	Introduction to Literary Theory	
ENGL 4890	Senior Seminar	
Take two of the following Oral Communication courses:		6
CMST 2655	Communication in Groups and Organizations	
CMST 2656	Interpersonal Communication	
Professional Education Curriculum		
TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1
PSYC 3709	Psychology of Education	3
EDFN 1501	Introduction to Education	3
SPED 2630	Individuals with Exceptionalities in Society ¹	3

SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
TERG 3711	Reading Application in Content Areas, Secondary Years ^{1,2}	3
EDFN 3708	Education and Society	3
SED 3706	Principles of Teaching Adolescents ²	3
Preclinical Curriculum		
TCED 4800L	Laboratory Experience for Teaching All Learners	0
SED 4800E	English Methods for Adolescent and Young Adult Learners ²	3
EDFN 3710	Educational Assessment	3
Student Teaching Curriculum		
SED 4842	Supervised Student Teaching: High School ²	10
SED 4842A	Student Teaching Seminar for Secondary Education ²	2
TCED 5888E	Seminar edTPA Review	1
Total Semester Hours		128-130

- ¹ Prerequisites for Preclinical Curriculum
² Upper Division course

General Information

- It is highly recommended that all teacher candidates meet with an academic advisor every semester.
- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the TELS Teacher Education Programs or candidacy for a teaching license.
- A grade of "C" or better is required in all courses. Some courses cannot be taken CR/NC. Check with an Advisor. Professional education and preclinical courses may only be repeated **one** time.

Upper Division

- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in TELS.**
- Upper division requirements:
 - ____ Completion of 50 SH
 - ____ Minimum 2.75 overall GPA
 - ____ "B" average or better (A-C, B-B) for: ENGL 1550 and ENGL 1551.
 - If failure to meet "B" average above must also complete:
 - ____ ENGL 2601 grade of "B" or better.
 - **If you receive a "C" or below you will need to retake the course.**
 - ____ "B" average or better (B-B-B, A-B-C) across the following:

____ EDFN 1501 ____ CMST 1545
 ____ SPED 2630 ____ ENGL 3700

- After completing a minimum of 50 SH, submit the following:
 - Upper Division application (Portal)
 - Good Moral Character Statement
 - Copy of BCI & FBI clearances
 - Writing prompt (Blackboard)
- Deadlines for submission for upper division status (**late applications may not be accepted**):
 - **September 1**—to register for Upper Division Courses for Spring
 - **February 1**—to register for Upper Division courses for Summer & Fall

Admission to Preclinical and Evaluation for Graduation

- Request must be submitted to TaskStream **one year prior to the intended preclinical semester no later than:**
- **September 1**—for Fall preclinical (**Late applications may not be accepted**)

- **February 1**—for Spring preclinical (**Late applications may not be accepted**)
- Content GPA (2.67 minimum), Professional GPA (2.67 minimum), Overall GPA (2.75 minimum).

Student Teaching

- Student teaching application must be submitted following instructions found on the portal.
- **Late applications will likely result in a delay to student teaching by one semester. Application and forms are due to the Office of Student Field Experience:**
 - September 1—to Student Teach the following Spring Semester
 - February 1—to Student Teach the following Fall Semester
- **Prerequisites:**
 - BCOE Upper Division status
 - Overall 2.75 GPA
 - Minimum of 2.67 GPA in subject area curriculum and 2.67 in professional education courses with no grade less than a “C”
 - Passage of OAE test(s) and ACTFL tests for foreign language

Completing a Bachelor of Science in Education with Licensure

- **Successful completion of student teaching (endorsed) with CPAST average score of 2 with no zeros**
- **Minimum score of 39 on edTPA, with the exception of a 34 for Foreign Language**

Completing a Bachelor of Science in Education without Licensure

- A teacher candidate may choose to graduate without licensure. Teacher candidates who wish to graduate without licensure must take TCED 4830 (3 SH) capstone course in place of student teaching.

Year 1

Fall		S.H.
YSU 1500 or HONR 1500 or SS 1500	Success Seminar or Intro to Honors or Strong Start Success Seminar	1-2
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
PSYC 1560	General Psychology	3
ENGL 2631	Mythology in Literature	3
TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1
EDFN 1501	Introduction to Education	3
Semester Hours		15-17
Spring		
ENGL 1551	Writing 2	3
MATH 2623	Quantitative Reasoning	3
SPED 2630	Individuals with Exceptionalities in Society	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
Natural Science/Lab GER		4
ENGL World Multiculture Literature Elective		3
Semester Hours		16

Year 2

Fall		
ENGL 2651	Introduction to Language (satisfies an SPA elective requirement)	3
CMST 1545	Communication Foundations	3
ENGL 3705	Young Adult Literature	3

ENGL 3700	Literary Study	3
Media Literacy Elective		3
Semester Hours		15

Spring

ENGL 3710	British Literature 1	3
ENGL 3712	American Literature 1	3
PSYC 3709	Psychology of Education	3
Social and Personal Awareness GER		3
Oral Communications Elective		3
JOUR 3725	News Reporting	3
Semester Hours		18

Year 3

Fall

ENGL 3711	British Literature 2	3
ENGL 3713	American Literature 2	3
Social and Personal Awareness GER		3
Upper Division British Literature Elective		3
Language /Linguistics Elective		3
Oral Communication Elective		3
Semester Hours		18

Spring

SED 3706	Principles of Teaching Adolescents	3
EDFN 3708	Education and Society	3
ENGL 3741	Advanced Writing for Teachers	3
JOUR 4821	Advising Student Media	3
TERG 3711	Reading Application in Content Areas, Secondary Years	3
Natural Science GER		3
Semester Hours		18

Year 4

Fall

SED 4800E	English Methods for Adolescent and Young Adult Learners ³	3
TCED 4800L	Laboratory Experience for Teaching All Learners	0
EDFN 3710	Educational Assessment	3
ENGL 4881	Shakespeare and His World	3
American Literature Elective		3
Advanced English Studies Elective		3
Semester Hours		15

Spring

SED 4842	Supervised Student Teaching: High School	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
TCED 5888E	Seminar edTPA Review	1
Semester Hours		13
Total Semester Hours		128-130

Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.
- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.
- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

Bachelor of Science in Education in Integrated Mathematics (7-12) - Adolescent License

Program Coordinator

Dr. M. Kathleen L. Cripe, Chairperson and Program Coordinator

OVERVIEW

In cooperation with various academic disciplines in the University, the Department of Teacher Education and Leadership Studies offers a four-year AYA Education Program (grades 7-12), Integrated Mathematics, approved by the Ohio Department of Education. The Integrated Mathematics license, Bachelor of Science in Education Degree requires a minimum of 121 semester hours of coursework including a semester of student teaching. Please refer to the four-year plan for additional information. This teaching license requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

EMPLOYMENT OPPORTUNITIES

Graduates of the Adolescent/Young Adult Program will be qualified to teach in the 7-12 classroom. Additional opportunities may be available in the private sector to tutor students.

Professional Dispositions

Teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

FIELD EXPERIENCES AND STUDENT TEACHING

Students complete over 120 hours of pre-clinical experiences in ad Field experiences are included in the following courses and offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society

- TERG 3711 Reading Application in Content Areas, Secondary Years
- SED 3706 Principles of Teaching Adolescents

Preclinical Field Experiences

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Adolescent/Young Adult preclinical experience is scheduled during the fall semester. Applications for the preclinical experience must be submitted (1) one year in advance on TaskStream by September 1st for the preclinical experience. Contact the Education Academic Advisors for minimum preclinical prerequisites.

- EDFN 3710 Educational Assessment
- SED 4800M Mathematics Methods for Adolescent and Young Adult Learners

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 39 during this experience.

- SED 4842 Supervised Student Teaching: High School
- SED 4842A Student Teaching Seminar for Secondary Education

ADVISEMENT

Advisement is provided by the academic advisors in Beeghly Hall. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a preclinical experience.

REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assess the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new license area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

027 Mathematics (for teacher candidates with Math concentration)

ENDORSEMENTS

The following endorsements are available to individuals holding this teaching license and may increase marketability: K-12 TESOL Endorsement, K-12 Reading Endorsement.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics Requirement		
MATH 1571	Calculus 1	4
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model. Some majors prescribe specific GE courses. If a course has been added to the domains, it is required.		
Arts and Humanities (6 s.h.)		6

Natural Sciences (2 courses, 1 with lab) (6-7 s.h.)	7
Social Science (6 s.h.)	
PSYC 1560 General Psychology	3
Social Science (1 Course)	3
General Education Electives (9 s.h.)	
CMST 1545 Communication Foundations	3
General Education Electives	6
Subject Area Curriculum	
MATH 1572 Calculus 2	4
MATH 2673 Calculus 3	4
MATH 3715 Discrete Mathematics	3
MATH 3720 Linear Algebra and Matrix Theory	3
MATH 3721 Abstract Algebra 1	4
STAT 3743 Probability and Statistics	4
MATH 3750 History of Mathematics	3
MATH 3751 Real Analysis 1	4
MATH 4830 Foundations of Geometry	3
MATH 4896 Senior Undergraduate Research Project	2
MATH 4832 Euclidean Transformations	3
CSIS 2610 Programming and Problem-Solving	3
CSIS 2610L Programming and Problem-Solving Lab	1
Select one of the following MATH electives:	3
MATH 3702 Problem Solving Techniques for Secondary Mathematics	
MATH 3705 Differential Equations	
MATH 4822 Abstract Algebra 2	
MATH 5828 Number Theory	
MATH 5835 Introduction to Combinatorics and Graph Theory	
MATH 5845 Operations Research	
MATH 5895 Selected Topics in Mathematics	
Professional Education Curriculum	
TCED 2600 Becoming an Education Professional	1
TCED 2601 Diversity and Equity in the Classroom	1
PSYC 3709 Psychology of Education	3
EDFN 1501 Introduction to Education	3
SPED 2630 Individuals with Exceptionalities in Society ¹	3
SPED 2630L Individuals with Exceptionalities in Society Laboratory Experience	0
SED 3706 Principles of Teaching Adolescents ²	3
TERG 3711 Reading Application in Content Areas, Secondary Years ²	3
EDFN 3708 Education and Society	3
Preclinical Curriculum	
TCED 4800L Laboratory Experience for Teaching All Learners	0
SED 4800M Mathematics Methods for Adolescent and Young Adult Learners ²	3
EDFN 3710 Educational Assessment	3
Student Teaching Curriculum	
SED 4842 Supervised Student Teaching: High School ²	10
SED 4842A Student Teaching Seminar for Secondary Education ²	2
TCED 5888E Seminar edTPA Review	1
Total Semester Hours	122-124

¹ Prerequisites for Preclinical Curriculum² Upper division course

General Information

- It is **highly recommended that all teacher candidates meet with an academic advisor every semester.**
- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the TELS Teacher Education Programs or candidacy for a teaching license.
- A grade of "C" or better is required in all courses. Some courses cannot be taken CR/NC. Check with an Advisor. Professional education and preclinical courses may only be repeated **one** time.

Upper Division

- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in TELS.**
- Upper division requirements:
 - ____ Completion of 50 SH
 - ____ Minimum 2.75 overall GPA
 - ____ "B" average or better (A-C, B-B) for: ENGL 1550 and ENGL 1551.
 - If failure to meet "B" average above must also complete:
 - ____ ENGL 2601 grade of "B" or better.
 - **If you receive a "C" or below you will need to retake the course.**
 - ____ "B" average or better (B-B-B, A-B-C) across the following:

____ EDFN 1501 ____ CMST 1545

____ SPED 2630 ____ MATH 3715

- After completing a minimum of 50 SH, submit the following:
 - Upper Division application (Portal)
 - Good Moral Character Statement
 - Copy of BCI & FBI clearances
 - Writing prompt (Blackboard)
- Deadlines for submission for upper division status (**late applications may not be accepted**):
 - **September 1**—to register for Upper Division Courses for Spring
 - **February 1**—to register for Upper Division courses for Summer & Fall

Admission to Preclinical and Evaluation for Graduation

- Request must be submitted to TaskStream **one year prior to the intended preclinical semester no later than:**
- **September 1**—for Fall preclinical (**Late applications may not be accepted**)
- **February 1**—for Spring preclinical (**Late applications may not be accepted**)
- Content GPA (2.67 minimum), Professional GPA (2.67 minimum), Overall GPA (2.75 minimum).

Student Teaching

- Student teaching application must be submitted following instructions found on the portal.
- **Late applications will likely result in a delay to student teaching by one semester. Application and forms are due to the Office of Student Field Experience:**
 - September 1—to Student Teach the following Spring Semester
 - February 1—to Student Teach the following Fall Semester
- **Prerequisites:**
 - BCOE Upper Division status
 - Overall 2.75 GPA
 - Minimum of 2.67 GPA in subject area curriculum and 2.67 in professional education courses with no grade less than a "C"
 - Passage of OAE test(s) and ACTFL tests for foreign language

Completing a Bachelor of Science in Education with Licensure

- Successful completion of student teaching (endorsed) with CPAST average score of 2 with no zeros
- Minimum score of 39 on edTPA, with the exception of a 34 for Foreign Language

Completing a Bachelor of Science in Education without Licensure

- A teacher candidate may choose to graduate without licensure. Teacher candidates who wish to graduate without licensure must take TCED 4830 (3 SH) capstone course in place of student teaching.

Year 1

Fall		S.H.
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
MATH 1571	Calculus 1	4
PSYC 1560	General Psychology	3
EDFN 1501	Introduction to Education	3
TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1
Semester Hours		16-18

Spring

ENGL 1551	Writing 2	3
MATH 1572	Calculus 2	4
SPED 2630	Individuals with Exceptionalities in Society	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
Arts and Humanities GER		6
GER Elective		3
Semester Hours		19

Year 2

Fall		
MATH 2673	Calculus 3	4
MATH 3715	Discrete Mathematics	3
CMST 1545	Communication Foundations	3
Social Science GER		6
Semester Hours		16

Spring

MATH 3720	Linear Algebra and Matrix Theory	3
MATH 4830	Foundations of Geometry	3
STAT 3743	Probability and Statistics	4
CSIS 2610	Programming and Problem-Solving	3
CSIS 2610L	Programming and Problem-Solving Lab	1
PSYC 3709	Psychology of Education	3
Semester Hours		17

Year 3

Fall		
MATH 3750	History of Mathematics	3
MATH 3721	Abstract Algebra 1	4
MATH Elective		3
Gen Ed Elective		3
Semester Hours		13

Spring

EDFN 3708	Education and Society	3
SED 3706	Principles of Teaching Adolescents	3
TERG 3711	Reading Application in Content Areas, Secondary Years	3
Natural Science/Lab GER		4
Semester Hours		13

Year 4

Fall		
EDFN 3710	Educational Assessment	3
MATH 4896	Senior Undergraduate Research Project	2
TCED 4800L	Laboratory Experience for Teaching All Learners	0
SED 4800M	Mathematics Methods for Adolescent and Young Adult Learners	3
MATH 3751	Real Analysis 1	4
MATH 4832	Euclidean Transformations	3
Semester Hours		15

Spring

SED 4842	Supervised Student Teaching: High School	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
TCED 5888E	Seminar edTPA Review	1
Semester Hours		13
Total Semester Hours		122-124

Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.
- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.
- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

Bachelor of Science in Education in Integrated Sciences (7-12) - Adolescent License, Biology Concentration

Program Coordinator

Dr. M. Kathleen L. Cripe, Chairperson and Program Coordinator

OVERVIEW

In cooperation with various academic disciplines in the University, the Department of Teacher Education and Leadership Studies offers a four-year AYA Education Program (grades 7-12), Integrated Sciences/Biology Concentration, approved by the Ohio Department of Education. The AYA Integrated Sciences License, Grades 7-12 (Biology) as the primary concentration), Bachelor of Science in Education degree requires a minimum of 148-151 semester hours of course work. The Integrated Science license qualifies the license holder to teach all areas of science (Biology, Chemistry, Earth/Space, and Physics). This teaching field requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

EMPLOYMENT OPPORTUNITIES

Graduates of the Adolescent/Young Adult Program will be qualified to teach in the 7-12 classroom. Additional opportunities may be available in the private sector to tutor students.

Professional Dispositions

Teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

FIELD EXPERIENCES AND STUDENT TEACHING

Students complete a number of field experiences to support the learning of content and best practices of teaching. Field experiences offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3711 Reading Application in Content Areas, Secondary Years
- SED 3706 Principles of Teaching Adolescents

Preclinical Field Experience

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Adolescent/Young Adult preclinical experience is scheduled during the fall semester. **Applications for the preclinical experience must be submitted on TaskStream one year in advance by September 1st.**

- EDFN 3710 Educational Assessment
- SED 4800C Science Methods for Adolescent and Young Adult Learners

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 39 during this experience.

- SED 4842 Supervised Student Teaching: High School
- SED 4842A Student Teaching Seminar for Secondary Education

ADVISEMENT

Advisement is provided by the Academic Advisors in the Beeghly Hall. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a preclinical experience.

REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assesses the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new license area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

024 Integrated Science (for teacher candidates with Science concentration)

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or SS 1500	Strong Start Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
MATH 1571	Calculus 1	4
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model. Some majors prescribe specific GE courses. If a course has been added to the domains, it is required.		
Arts and Humanities		6
Natural Sciences (2 courses, 1 lab)		7
This requirement met by courses in major		
Social Science		6
Social Science GER		
PSYC 1560	General Psychology	
Social and Personal Awareness		6
Subject Area Curriculum		
MATH 1572	Calculus 2	4
Biology Concentration		
Both of the following:		
BIOL 2601 & 2601L	General Biology 1: Molecules and Cells and General Biology I: Molecules and Cells Laboratory	4
BIOL 2602 & 2602L	General Biology 2: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
Select 14 s.h. from the following BIOL electives:		14
BIOL 3741 & 3741L	Animal Diversity and Animal Diversity Laboratory	
BIOL 3702 & 3702L	Microbiology and Microbiology Laboratory	
BIOL 3721	Genetics	

BIOL 3762 & 3762L	Field Botany and Field Botany Laboratory	
BIOL 3759	Evolution	
BIOL 4890 & 4890L	Molecular Genetics and Molecular Genetics Laboratory	
BIOL 3730 & 3730L	Human Physiology and Human Physiology Laboratory	
If primary science concentration is Biology, then take the following:		
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
PHYS 2608	Sound	3
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics Laboratory 1	1
PHYS 2611	General Physics 2	4
PHYS 2611L	General Physics laboratory 2	1
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
GEOL 2602	Introduction to Oceanography	3
GEOG 2630	Weather	3
ASTR 1504	Descriptive Astronomy	3
Select one of the following CHEM electives:		
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4
CHEM 3785	Biochemistry 1	3
Select a minimum of 3 s.h. from the following PHYS electives:		
PHYS 3703	Classical Mechanics and Dynamics	4
PHYS 3705	Thermodynamics and Classical Statistical Dynamics	3
PHYS 3705L	Thermodynamics and Classical Statistical Mechanics Laboratory	1
PHYS 3704	Modern Physics	4
PHYS 3704L	Modern Physics Laboratory	1
PHYS 3722		3
PHYS 3722L		1
PHYS 4805	Undergraduate Physics Research	3
PHYS 2607	Physical Science for Middle and Secondary Education	4
Select one of the following E/SS electives:		
ENST 2600	Foundations of Environmental Science	3
GEOG 3703	Human Impacts on the Environment	3
GEOG 3730	Global Climates	3
GEOL 3720	Field Investigations in Geology	1-4
Professional Education Curriculum		
TCED 1500		3
PSYC 3709	Psychology of Education	3
EDFN 1501	Introduction to Education	3
SPED 2630	Individuals with Exceptionalities in Society ¹	3
EDFN 3708	Education and Society	3
SED 3706	Principles of Teaching Adolescents ²	3
TERG 3711	Reading Application in Content Areas, Secondary Years	3
TEMC 3707	Science/Technology/Society	3
Preclinical Curriculum		
EDFN 3710	Educational Assessment	3

SED 4800C	Science Methods for Adolescent and Young Adult Learners ²	3
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Student Teaching Curriculum		
SED 4842	Supervised Student Teaching: High School ²	10
SED 4842A	Student Teaching Seminar for Secondary Education ²	2
Minimum Total Hours Required for the Degree: 148-151 s.h.		

¹ Prerequisites for preclinical curriculum.

² Upper division course.

General Information

- It is **highly recommended that all teacher candidates meet with an academic advisor every semester.**
- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the TELS Teacher Education Programs or candidacy for a teaching license.
- A grade of "C" or better is required in all courses. Some courses cannot be taken CR/NC. Check with an Advisor. Professional education and preclinical courses may only be repeated **one** time.

Upper Division

- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in TELS.**
- Upper division requirements:
 - ____ Completion of 50 SH
 - ____ Minimum 2.75 overall GPA
 - ____ "B" average or better (A-C, B-B) for: ENGL 1550 and ENGL 1551.
 - If failure to meet "B" average above must also complete:
 - ____ ENGL 2601 grade of "B" or better.
 - **If you receive a "C" or below you will need to retake the course.**
 - ____ "B" average or better (B-B-B, A-B-C) across the following:

____ EDFN 1501 ____ CMST 1545

____ SPED 2630 ____ GEOL 1505, BIOL 2602, CHEM 1516, PHYS 2610

- After completing a minimum of 50 SH, submit the following:
 - Upper Division application (Portal)
 - Good Moral Character Statement
 - Copy of BCI & FBI clearances
 - Writing prompt (Blackboard)
- Deadlines for submission for upper division status (**late applications may not be accepted**):
 - **September 1**—to register for Upper Division Courses for Spring
 - **February 1**—to register for Upper Division courses for Summer & Fall

Admission to Preclinical and Evaluation for Graduation

- Request must be submitted to TaskStream **one year prior to the intended preclinical semester no later than:**
- **September 1**—for Fall preclinical (**Late applications may not be accepted**)
- **February 1**—for Spring preclinical (**Late applications may not be accepted**)
- Content GPA (2.67 minimum), Professional GPA (2.67 minimum), Overall GPA (2.75 minimum).

Student Teaching

- Student teaching application must be submitted following instructions found on the portal.
- **Late applications will likely result in a delay to student teaching by one semester. Application and forms are due to the Office of Student Field Experience:**

- September 1—to Student Teach the following Spring Semester
- February 1—to Student Teach the following Fall Semester
- **Prerequisites:**
 - BCOE Upper Division status
 - Overall 2.75 GPA
 - Minimum of 2.67 GPA in subject area curriculum and 2.67 in professional education courses with no grade less than a “C”
 - Passage of OAE test(s) and ACTFL tests for foreign language

Completing a Bachelor of Science in Education with Licensure

- **Successful completion of student teaching (endorsed) with CPAST average score of 2 with no zeros**
- **Minimum score of 39 on edTPA, with the exception of a 34 for Foreign Language**

Completing a Bachelor of Science in Education without Licensure

- A teacher candidate may choose to graduate without licensure. Teacher candidates who wish to graduate without licensure must take TCED 4830 (3 SH) capstone course in place of student teaching.

Year 1

Fall		S.H.
YSU 1500	Success Seminar	1
ENGL 1550	Writing 1	3
MATH 1571	Calculus 1	4
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
BIOL 2601 & 2601L	General Biology 1: Molecules and Cells and General Biology I: Molecules and Cells Laboratory	4
TCED 1500		3
Semester Hours		19

Spring

ENGL 1551	Writing 2	3
MATH 1572	Calculus 2	4
EDFN 1501	Introduction to Education	3
BIOL 2602 & 2602L	General Biology 2: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
PSYC 1560	General Psychology	3
Semester Hours		21

Year 2

Fall		
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics Laboratory 1	1
CMST 1545	Communication Foundations	3
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
Biology Elective		4
SPED 2630	Individuals with Exceptionalities in Society	3
Semester Hours		19

Spring

PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2	5
ASTR 1504	Descriptive Astronomy	3
PSYC 3709	Psychology of Education	3

Arts and Humanities GER	3
Biology Elective	4
Earth/Space Science Elective	3
Semester Hours	21

Year 3

Fall		
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
GEOG 2630	Weather	3
GEOL 2602	Introduction to Oceanography	3
Social and Personal Awareness GER		3
Biology Elective		3
Physics Elective		3-4
Semester Hours		19-20

Spring

SED 3706	Principles of Teaching Adolescents	3
EDFN 3708	Education and Society	3
TERG 3711	Reading Application in Content Areas, Secondary Years	3
PHYS 2608	Sound	3
TEMC 3707	Science/Technology/Society	3
Social and Personal Awareness GER		3
Social Science GER		3
Semester Hours		21

Year 4

Fall		
EDFN 3710	Educational Assessment	3
SED 4800C	Science Methods for Adolescent and Young Adult Learners	3
Arts and Humanities GER		3
Chemistry Elective		3-5
Biology Elective		5
Semester Hours		17-19

Spring

SED 4842	Supervised Student Teaching: High School	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
Semester Hours		12
Total Semester Hours		149-152

Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.

- Teachers create learning environments that promote high levels of learning and achievement for all students.
- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.
- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

Bachelor of Science in Education in Integrated Sciences (7-12) - Adolescent License, Chemistry Concentration

Program Coordinator

Dr. M. Kathleen L. Cripe, Chairperson and Program Coordinator

OVERVIEW

In cooperation with various academic disciplines in the University, the Department of Teacher Education and Leadership Studies offers a four-year AYA Education Program (grades 7-12), Integrated Sciences/Chemistry Concentration, approved by the Ohio Department of Education. The AYA Integrated Sciences License, Grades 7-12 (Chemistry as the primary concentration), Bachelor of Science in Education degree requires a minimum of 146-149 semester hours of course work. The Integrated Science license qualifies the license holder to teach all areas of science (Biology, Chemistry, Earth/Space, and Physics). This teaching license requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

EMPLOYMENT OPPORTUNITIES

Graduates of the Adolescent/Young Adult Program will be qualified to teach in the 7-12 classroom. Additional opportunities may be available in the private sector to tutor students.

Professional Dispositions

Teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

FIELD EXPERIENCES AND STUDENT TEACHING

Students complete a number of field experiences to support the learning of content and best practices of teaching. Field experiences offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3711 Reading Application in Content Areas, Secondary Years
- SED 3706 Principles of Teaching Adolescents

Preclinical Field Experience

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Adolescent/Young Adult preclinical experience is scheduled during the fall semester. **Applications for the preclinical experience must be submitted on TaskStream one year in advance by September 1st.**

- EDFN 3710 Educational Assessment
- SED 4800C Science Methods for Adolescent and Young Adult Learners

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 39 during this experience.

- SED 4842 Supervised Student Teaching: High School
- SED 4842A Student Teaching Seminar for Secondary Education

ADVISEMENT

Advisement is provided by the Academic Advisors in Beeghly Hall. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a preclinical experience.

REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assesses the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new license area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

024 Integrated Science (for teacher candidates with Science concentration)

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or SS 1500	Strong Start Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Mathematics requirement		
MATH 1571	Calculus 1	4
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model. Some majors prescribe specific GE courses. If a course has been added to the domains, it is required.		
Arts and Humanities (6 s.h.)		6
Natural Sciences (2 courses, 1 with lab) (7 s.h.)		
The required 7 s.h. are met with courses in major.		
Social Science (6 s.h.)		
PSYC 1560	General Psychology	3
Social Science elective		3
Social and Personal Awareness (6 s.h.)		6
Subject Area Curriculum		
MATH 1572	Calculus 2	4
Chemistry Concentration		
All of the following:		

CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4	PSYC 3709	Psychology of Education	3
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4	SPED 2630	Individuals with Exceptionalities in Society ¹	3
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5	SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4	SED 3706	Principles of Teaching Adolescents ²	3
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4	EDFN 3708	Education and Society	3
CHEM Elective (select any 3000 or 4000 level course)		3	TERG 3711	Reading Application in Content Areas, Secondary Years ²	3
Take all the following for Chemistry concentration:			TEMC 3707	Science/Technology/Society ^{1,2}	3
BIOL 2601 & 2601L	General Biology 1: Molecules and Cells and General Biology I: Molecules and Cells Laboratory	4	Preclinical Curriculum		
BIOL 2602 & 2602L	General Biology 2: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4	TCED 4800L	Laboratory Experience for Teaching All Learners	0
PHYS 2608	Sound	3	SED 4800C	Science Methods for Adolescent and Young Adult Learners ²	3
PHYS 2610	General Physics 1	4	EDFN 3710	Educational Assessment	3
PHYS 2610L	General Physics Laboratory 1	1	Student Teaching Curriculum		
PHYS 2611	General Physics 2	4	SED 4842	Supervised Student Teaching: High School ²	10
PHYS 2611L	General Physics laboratory 2	1	SED 4842A	Student Teaching Seminar for Secondary Education ²	2
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4	TCED 5888E	Seminar edTPA Review	1
GEOL 2602	Introduction to Oceanography	3	Total Semester Hours		
GEOG 2630	Weather	3			
GEOG 2630L	Weather Lab	1			
ASTR 1504	Descriptive Astronomy	3			
Select 5 s.h. from the following BIOL electives:		5			
BIOL 3741 & 3741L	Animal Diversity and Animal Diversity Laboratory				
BIOL 3702 & 3702L	Microbiology and Microbiology Laboratory				
BIOL 3721	Genetics				
BIOL 3762 & 3762L	Field Botany and Field Botany Laboratory				
BIOL 3759	Evolution				
BIOL 4890	Molecular Genetics				
BIOL 4890L	Molecular Genetics Laboratory				
BIOL 3730	Human Physiology				
BIOL 3730L	Human Physiology Laboratory				
Select a minimum of 3 s.h. from the following PHYS electives:		3			
PHYS 3703	Classical Mechanics and Dynamics				
PHYS 3705	Thermodynamics and Classical Statistical Dynamics				
PHYS 3705L	Thermodynamics and Classical Statistical Mechanics Laboratory				
PHYS 3704	Modern Physics				
PHYS 3704L	Modern Physics Laboratory				
PHYS 4805	Undergraduate Physics Research				
PHYS 2607	Physical Science for Middle and Secondary Education				
Select one of the following E/SS electives:		3-4			
ENST 2600	Foundations of Environmental Science				
GEOG 3703	Human Impacts on the Environment				
GEOG 3730	Global Climates				
GEOL 3720	Field Investigations in Geology				
Professional Education Curriculum					
TCED 2600	Becoming an Education Professional	1			
TCED 2601	Diversity and Equity in the Classroom	1			
EDFN 1501	Introduction to Education	3			

¹ Prerequisites for preclinical curriculum.² Upper division course.

General Information

- It is highly recommended that all teacher candidates meet with an academic advisor every semester.
- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the TELS Teacher Education Programs or candidacy for a teaching license.
- A grade of "C" or better is required in all courses. Some courses cannot be taken CR/NC. Check with an Advisor. Professional education and preclinical courses may only be repeated **one** time.

Upper Division

- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in TELS.**
- Upper division requirements:
 - ____ Completion of 50 SH
 - ____ Minimum 2.75 overall GPA
 - ____ "B" average or better (A-C, B-B) for: ENGL 1550 and ENGL 1551.
 - If failure to meet "B" average above must also complete:
 - ____ ENGL 2601 grade of "B" or better.
 - **If you receive a "C" or below you will need to retake the course.**
 - ____ "B" average or better (B-B-B, A-B-C) across the following:

____ EDFN 1501 ____ CMST 1545

____ SPED 2630 ____ GEOL 1505, BIOL 2602, CHEM 1516, PHYS 2610

- After completing a minimum of 50 SH, submit the following:
 - Upper Division application (Portal)
 - Good Moral Character Statement
 - Copy of BCI & FBI clearances
 - Writing prompt (Blackboard)
- Deadlines for submission for upper division status (**late applications may not be accepted**):
 - **September 1**—to register for Upper Division Courses for Spring
 - **February 1**—to register for Upper Division courses for Summer & Fall

Admission to Preclinical and Evaluation for Graduation

- Request must be submitted to TaskStream **one year prior to the intended preclinical semester no later than:**
- September 1**—for Fall preclinical (**Late applications may not be accepted**)
- February 1**—for Spring preclinical (**Late applications may not be accepted**)
- Content GPA (2.67 minimum), Professional GPA (2.67 minimum), Overall GPA (2.75 minimum).

Student Teaching

- Student teaching application must be submitted following instructions found on the portal.
- Late applications will likely result in a delay to student teaching by one semester. Application and forms are due to the Office of Student Field Experience:**
 - September 1—to Student Teach the following Spring Semester
 - February 1—to Student Teach the following Fall Semester
- Prerequisites:**
 - BCOE Upper Division status
 - Overall 2.75 GPA
 - Minimum of 2.67 GPA in subject area curriculum and 2.67 in professional education courses with no grade less than a “C”
 - Passage of OAE test(s) and ACTFL tests for foreign language

Completing a Bachelor of Science in Education with Licensure

- Successful completion of student teaching (endorsed) with CPAST average score of 2 with no zeros
- Minimum score of 39 on edTPA, with the exception of a 34 for Foreign Language

Completing a Bachelor of Science in Education without Licensure

- A teacher candidate may choose to graduate without licensure. Teacher candidates who wish to graduate without licensure must take TCED 4830 (3 SH) capstone course in place of student teaching.

Year 1

Fall		S.H.
YSU 1500	Success Seminar	1
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
MATH 1571	Calculus 1	4
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
BIOL 2601 & 2601L	General Biology 1: Molecules and Cells and General Biology I: Molecules and Cells Laboratory	4
TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1
Semester Hours		18-19

Spring

ENGL 1551	Writing 2	3
MATH 1572	Calculus 2	4
EDFN 1501	Introduction to Education	3
BIOL 2602 & 2602L	General Biology 2: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4

PSYC 1560	General Psychology	3
Semester Hours		21

Year 2

Fall

CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
PHYS 2610 & 2610L	General Physics 1 and General Physics Laboratory 1	5
CMST 1545	Communication Foundations	3
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
SPED 2630	Individuals with Exceptionalities in Society	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
Semester Hours		19

Spring

CHEM 3720	Organic Chemistry 2	3
CHEM 3720L	Organic Chemistry 2 Laboratory	1
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2	5
ASTR 1504	Descriptive Astronomy	3
PSYC 3709	Psychology of Education	3
Arts and Humanities GER		3
Earth/Space Elective		3
Semester Hours		21

Year 3

Fall

CHEM 2604	Quantitative Analysis	5
GEOL 2602	Introduction to Oceanography	3
GEOG 2630	Weather	3
GEOG 2630L	Weather Lab	1
Social and Personal Awareness GER		3
Physics Elective		3-4
Semester Hours		18-19

Spring

EDFN 3708	Education and Society	3
SED 3706	Principles of Teaching Adolescents	3
TERG 3711	Reading Application in Content Areas, Secondary Years	3
PHYS 2608	Sound	3
TEMC 3707	Science/Technology/Society	3
Social Science GER		3
Social and Personal Awareness Elective		3
Semester Hours		21

Year 4

Fall

EDFN 3710	Educational Assessment	3
TCED 4800L	Laboratory Experience for Teaching All Learners	0
SED 4800C	Science Methods for Adolescent and Young Adult Learners	3
Arts and Humanities GER		3
Chemistry Elective		4-5
Biology Elective		5
Semester Hours		18-19

Spring

SED 4842	Supervised Student Teaching: High School	10
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SED 4842A	Student Teaching Seminar for Secondary Education	2
TCED 5888E	Seminar edTPA Review	1
Semester Hours		13
Total Semester Hours		149-152

Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.
- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.
- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

Bachelor Science in Education in Integrated Sciences (7-12) - Adolescent License, Earth/Space Science Concentration

Program Coordinator

Dr. M. Kathleen L. Cripe, Chairperson and Program Coordinator

OVERVIEW

In cooperation with various academic disciplines in the University, the Department of Teacher Education and Leadership Studies offers a four-year AYA Education Program (grades 7-12), Integrated Sciences/Earth-Space Concentration, approved by the Ohio Department of Education. The AYA Integrated Sciences License, Grades 7-12 (Earth/Space as the primary concentration), Bachelor of Science in Education degree requires a minimum of 147-150 semester hours of course work. The Integrated Science license qualifies the license holder to teach all areas of science (Biology, Chemistry, Earth/Space, and Physics). This teaching field also requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

EMPLOYMENT OPPORTUNITIES

Graduates of the Adolescent/Young Adult Program will be qualified to teach in the 7-12 classroom. Additional opportunities may be available in the private sector to tutor students.

Professional Dispositions

Teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

FIELD EXPERIENCES AND STUDENT TEACHING

Students complete a number of field experiences to support the learning of content and best practices of teaching. Field experiences offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3711 Reading Application in Content Areas, Secondary Years
- SED 3706 Principles of Teaching Adolescents

Preclinical Field Experience

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Adolescent/Young Adult preclinical experience is scheduled during the fall semester. **Applications for the preclinical experience must be submitted on TaskStream one year in advance by September 1st.**

- EDFN 3710 Educational Assessment
- SED 4800C Science Methods for Adolescent and Young Adult Learners

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 39 during this experience.

- SED 4842 Supervised Student Teaching: High School
- SED 4842A Student Teaching Seminar for Secondary Education

ADVISEMENT

Advisement is provided by the Academic Advisors in Beeghly Hall. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a preclinical experience.

REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assesses the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new license area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

024 Integrated Science (for teacher candidates with Science concentration)

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT - STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2

or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics Requirement		
MATH 1571	Calculus 1	4
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model. Some majors prescribe specific GE courses. If a course has been added to the domains, it is required.		
Arts and Humanities (6 s.h.)		6
Natural Sciences (2 courses, 1 with lab) (6-7 s.h.)		
This requirement met by courses in major		
Social Science (6 s.h.)		
PSYC 1560	General Psychology	3
Social Science elective		3
General Education Electives (9 s.h.)		
CMST 1545	Communication Foundations	3
The remaining 6 s.h. are met in the major.		
Subject Area Curriculum		
MATH 1572	Calculus 2	4
Earth/Space Science Concentration		
All of the following:		
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
GEOL 2605	Historical Geology	4
GEOL 2602	Introduction to Oceanography	3
GEOG 2630	Weather	3
ASTR 1504	Descriptive Astronomy	3
ASTR 2609	Moon and Planets	3
One of the following E/SS electives:		3
GEOL 3720	Field Investigations in Geology	
ENST 2600	Foundations of Environmental Science	
One of the following E/SS Electives:		3
GEOG 3703	Human Impacts on the Environment	
GEOG 3730	Global Climates	
GEOG 3737	Soils and Land Use	
If primary science concentration is Earth/Space Science, then take the following:		
BIOL 2601 & 2601L	General Biology 1: Molecules and Cells and General Biology I: Molecules and Cells Laboratory	4
BIOL 2602 & 2602L	General Biology 2: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
PHYS 2608	Sound	3
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics Laboratory 1	1
PHYS 2611	General Physics 2	4
PHYS 2611L	General Physics laboratory 2	1
Select 5 s.h. from the following BIOL electives:		5

BIOL 3741 & 3741L	Animal Diversity and Animal Diversity Laboratory	
BIOL 3702 & 3702L	Microbiology and Microbiology Laboratory	
BIOL 3721	Genetics	
BIOL 3762 & 3762L	Field Botany and Field Botany Laboratory	
BIOL 3759	Evolution	
BIOL 4890	Molecular Genetics	
BIOL 4890L	Molecular Genetics Laboratory	
BIOL 3730	Human Physiology	
BIOL 3730L	Human Physiology Laboratory	
Select one of the following CHEM electives:		3-5
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	
CHEM 3785	Biochemistry 1	
Select a minimum of 3 s.h from the following PHYS electives:		3-4
PHYS 3703	Classical Mechanics and Dynamics	
PHYS 3705	Thermodynamics and Classical Statistical Dynamics	
PHYS 3705L	Thermodynamics and Classical Statistical Mechanics Laboratory	
PHYS 3704	Modern Physics	
PHYS 3704L	Modern Physics Laboratory	
PHYS 4805	Undergraduate Physics Research	
PHYS 2607	Physical Science for Middle and Secondary Education	
Professional Education Curriculum		
EDFN 1501	Introduction to Education	3
TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society ¹	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
SED 3706	Principles of Teaching Adolescents ²	3
EDFN 3708	Education and Society	3
TERG 3711	Reading Application in Content Areas, Secondary Years ²	3
TEMC 3707	Science/Technology/Society ^{1,2}	3
Preclinical Curriculum		
EDFN 3710	Educational Assessment	3
SED 4800C	Science Methods for Adolescent and Young Adult Learners ²	3
TCED 4800L	Laboratory Experience for Teaching All Learners	0
Student Teaching Curriculum		
SED 4842	Supervised Student Teaching: High School ²	10
SED 4842A	Student Teaching Seminar for Secondary Education ²	2
TCED 5888E	Seminar edTPA Review	1-3
Total Semester Hours		142-149

¹ Prerequisites for preclinical curriculum.

² Upper division course.

General Information

- It is highly recommended that all teacher candidates meet with an academic advisor every semester.

- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the TELS Teacher Education Programs or candidacy for a teaching license.
- A grade of "C" or better is required in all courses. Some courses cannot be taken CR/NC. Check with an Advisor. Professional education and preclinical courses may only be repeated **one** time.

Upper Division

- Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in TELS.**
- Upper division requirements:
 - ____ Completion of 50 SH
 - ____ Minimum 2.75 overall GPA
 - ____ "B" average or better (A-C, B-B) for: ENGL 1550 and ENGL 1551.
 - If failure to meet "B" average above must also complete:
 - ____ ENGL 2601 grade of "B" or better.
 - If you receive a "C" or below you will need to retake the course.**
 - ____ "B" average or better (B-B-B, A-B-C) across the following:

____ EDFN 1501 ____ CMST 1545

____ SPED 2630 ____ GEOL 1505, BIOL 2602, CHEM 1516, PHYS 2610

- After completing a minimum of 50 SH, submit the following:
 - Upper Division application (Portal)
 - Good Moral Character Statement
 - Copy of BCI & FBI clearances
 - Writing prompt (Blackboard)
- Deadlines for submission for upper division status (**late applications may not be accepted**):
 - September 1**—to register for Upper Division Courses for Spring
 - February 1**—to register for Upper Division courses for Summer & Fall

Admission to Preclinical and Evaluation for Graduation

- Request must be submitted to TaskStream **one year prior to the intended preclinical semester no later than:**
- September 1**—for Fall preclinical (**Late applications may not be accepted**)
- February 1**—for Spring preclinical (**Late applications may not be accepted**)
- Content GPA (2.67 minimum), Professional GPA (2.67 minimum), Overall GPA (2.75 minimum).

Student Teaching

- Student teaching application must be submitted following instructions found on the portal.
- Late applications will likely result in a delay to student teaching by one semester. Application and forms are due to the Office of Student Field Experience:**
 - September 1—to Student Teach the following Spring Semester
 - February 1—to Student Teach the following Fall Semester
- Prerequisites:**
 - BCOE Upper Division status
 - Overall 2.75 GPA
 - Minimum of 2.67 GPA in subject area curriculum and 2.67 in professional education courses with no grade less than a "C"
 - Passage of OAE test(s) and ACTFL tests for foreign language

Completing a Bachelor of Science in Education with Licensure

- Successful completion of student teaching (endorsed) with CPAST average score of 2 with no zeros

- Minimum score of 39 on edTPA, with the exception of a 34 for Foreign Language**

Completing a Bachelor of Science in Education without Licensure

- A teacher candidate may choose to graduate without licensure. Teacher candidates who wish to graduate without licensure must take TCED 4830 (3 SH) capstone course in place of student teaching.

Year 1

Fall		S.H.
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
MATH 1571	Calculus 1	4
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
BIOL 2601 & 2601L	General Biology 1: Molecules and Cells and General Biology I: Molecules and Cells Laboratory	4
GEOL 2605	Historical Geology	4
TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1
Semester Hours		22-24

Spring

ENGL 1551	Writing 2	3
MATH 1572	Calculus 2	4
EDFN 1501	Introduction to Education	3
BIOL 2602 & 2602L	General Biology 2: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
PSYC 1560	General Psychology	3
Semester Hours		21

Year 2

Fall		
CMST 1545	Communication Foundations	3
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics Laboratory 1	1
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
SPED 2630	Individuals with Exceptionalities in Society	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
Semester Hours		19

Spring

PSYC 3709	Psychology of Education	3
ASTR 1504	Descriptive Astronomy	3
PHYS 2611	General Physics 2	4
PHYS 2611L	General Physics laboratory 2	1
Arts and Humanities GER		3
Earth/Space Science Elective		3
Biology Elective		5
Semester Hours		22

Year 3**Fall**

ASTR 2609	Moon and Planets	3
GEOL 2602	Introduction to Oceanography	3
GEOG 2630	Weather	3
Physics Elective		3-4
Earth/Space Science Elective		3

Semester Hours 15-16

Spring

SED 3706	Principles of Teaching Adolescents	3
EDFN 3708	Education and Society	3
TERG 3711	Reading Application in Content Areas, Secondary Years	3
PHYS 2608	Sound	3
TEMC 3707	Science/Technology/Society	3

Semester Hours 15

Year 4**Fall**

EDFN 3710	Educational Assessment	3
SED 4800C	Science Methods for Adolescent and Young Adult Learners	3
TCED 4800L	Laboratory Experience for Teaching All Learners	0

Social Science GER 3

Arts and Humanities GER 3

Chemistry Elective 3-5

Semester Hours 15-17

Spring

SED 4842	Supervised Student Teaching: High School	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
TCED 5888E	Seminar edTPA Review	1-3

Semester Hours 13-15

Total Semester Hours 142-149

Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.
- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.
- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning.

Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

Bachelor of Science in Education in Integrated Sciences (7-12) - Adolescent License, Physics Concentration

Program Coordinator

Dr. M. Kathleen L. Cripe, Chairperson and Program Coordinator

OVERVIEW

In cooperation with various academic disciplines in the University, the Department of Teacher Education and Leadership Studies offers a four-year AYA Education Program (grades 7-12), Integrated Sciences/Physics Concentration, approved by the Ohio Department of Education. The AYA Integrated Sciences License, Grades 7-12 (Physics as the primary concentration), Bachelor of Science in Education degree requires a minimum of 144-147 semester hours of course work. The Integrated Science license qualifies the license holder to teach all areas of science (Biology, Chemistry, Earth/Space, and Physics). This teaching field requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

EMPLOYMENT OPPORTUNITIES

Graduates of the Adolescent/Young Adult Program will be qualified to teach in the 7-12 classroom. Additional opportunities may be available in the private sector to tutor students.

Professional Dispositions

Teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

FIELD EXPERIENCES AND STUDENT TEACHING

Students complete a number of field experiences to support the learning of content and best practices of teaching. Field experiences offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3711 Reading Application in Content Areas, Secondary Years
- SED 3706 Principles of Teaching Adolescents

Preclinical Field Experience

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Adolescent/Young Adult preclinical experience is scheduled during the fall semester. **Applications for the preclinical experience must be submitted on TaskStream one year in advance by September 1st.**

- EDFN 3710 Educational Assessment
- SED 4800C Science Methods for Adolescent and Young Adult Learners

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 39 during this experience.

- SED 4842 Supervised Student Teaching: High School
- SED 4842A Student Teaching Seminar for Secondary Education

ADVISEMENT

Advisement is provided by the academic advisors in Beeghly Hall. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a preclinical experience.

REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assesses the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new license area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

024 Integrated Science (for teacher candidates with Science concentration)

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or SS 1500	Strong Start Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Mathematics Requirement		
MATH 1571	Calculus 1	4
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model. Some majors prescribe specific GE courses. If a course has been added to the domains, it is required.		
Arts and Humanities (6 s.h.)		6
Natural Sciences (2 courses, 1 with lab) (7 s.h.)		
The required 7 s.h are met with courses in major.		
Social Science (6 s.h.)		
PSYC 1560	General Psychology	3
Social Science elective		3
Social and Personal Awareness (6 s.h.)		6
Subject Area Curriculum		
MATH 1572	Calculus 2	4
Physics Concentration		
All of the following:		
PHYS 2608	Sound	3
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics Laboratory 1	1
PHYS 2611	General Physics 2	4
PHYS 2611L	General Physics laboratory 2	1
Select 11 s.h. from the following:		11

PHYS 3703	Classical Mechanics and Dynamics	
PHYS 3705	Thermodynamics and Classical Statistical Dynamics	
PHYS 3705L	Thermodynamics and Classical Statistical Mechanics Laboratory	
PHYS 3704	Modern Physics	
PHYS 3704L	Modern Physics Laboratory	
PHYS 4805	Undergraduate Physics Research	
PHYS 2607	Physical Science for Middle and Secondary Education	
Take all the following for Physics concentration:		
BIOL 2601 & 2601L	General Biology 1: Molecules and Cells and General Biology I: Molecules and Cells Laboratory	4
BIOL 2602 & 2602L	General Biology 2: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
GEOL 2602	Introduction to Oceanography	3
GEOG 2630	Weather	3
GEOG 2630L	Weather Lab	1
ASTR 1504	Descriptive Astronomy	3
Select 5 s.h. from the following BIOL electives:		5
BIOL 3741	Animal Diversity	
BIOL 3702	Microbiology	
BIOL 3721	Genetics	
BIOL 3762	Field Botany	
BIOL 3759	Evolution	
BIOL 4890	Molecular Genetics	
BIOL 4890L	Molecular Genetics Laboratory	
BIOL 3730	Human Physiology	
Select one of the following CHEM electives: 3-5		3-5
CHEM 2604	Quantitative Analysis	
CHEM 3720	Organic Chemistry 2	
CHEM 3720L	Organic Chemistry 2 Laboratory	
CHEM 3785	Biochemistry 1	
Select one of the following E/SS electives:		3-4
ENST 2600	Foundations of Environmental Science	
GEOG 3703	Human Impacts on the Environment	
GEOG 3730	Global Climates	
GEOL 3720	Field Investigations in Geology	
Professional Education Curriculum		
TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1
EDFN 1501	Introduction to Education	3
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society ¹	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
SED 3706	Principles of Teaching Adolescents ²	3
EDFN 3708	Education and Society	3
TERG 3711	Reading Application in Content Areas, Secondary Years ²	3
TEMC 3707	Science/Technology/Society ^{1,2}	3

Preclinical Curriculum

EDFN 3710	Educational Assessment	3
TCED 4800L	Laboratory Experience for Teaching All Learners	0
SED 4800C	Science Methods for Adolescent and Young Adult Learners ²	3

Student Teaching Curriculum

SED 4842	Supervised Student Teaching: High School ²	10
SED 4842A	Student Teaching Seminar for Secondary Education ²	2
TCED 5888E	Seminar edTPA Review	1

Total Semester Hours 147-152

¹ Prerequisites for preclinical curriculum.

² Upper division course.

General Information

- It is highly recommended that all teacher candidates meet with an academic advisor every semester.
- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the TELS Teacher Education Programs or candidacy for a teaching license.
- A grade of "C" or better is required in all courses. Some courses cannot be taken CR/NC. Check with an Advisor. Professional education and preclinical courses may only be repeated **one** time.

Upper Division

- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in TELS.**
- Upper division requirements:
 - ____ Completion of 50 SH
 - ____ Minimum 2.75 overall GPA
 - ____ "B" average or better (A-C, B-B) for: ENGL 1550 and ENGL 1551.
 - If failure to meet "B" average above must also complete:
 - ____ ENGL 2601 grade of "B" or better.
 - **If you receive a "C" or below you will need to retake the course.**
 - ____ "B" average or better (B-B-B, A-B-C) across the following:

____ EDFN 1501 ____ CMST 1545

____ SPED 2630 ____ GEOL 1505, BIOL 2602, CHEM 1516, PHYS 2610

- After completing a minimum of 50 SH, submit the following:
 - Upper Division application (Portal)
 - Good Moral Character Statement
 - Copy of BCI & FBI clearances
 - Writing prompt (Blackboard)
- Deadlines for submission for upper division status (**late applications may not be accepted**):
 - **September 1**—to register for Upper Division Courses for Spring
 - **February 1**—to register for Upper Division courses for Summer & Fall

Admission to Preclinical and Evaluation for Graduation

- Request must be submitted to TaskStream **one year prior to the intended preclinical semester no later than:**
- **September 1**—for Fall preclinical (**Late applications may not be accepted**)
- **February 1**—for Spring preclinical (**Late applications may not be accepted**)
- Content GPA (2.67 minimum), Professional GPA (2.67 minimum), Overall GPA (2.75 minimum).

Student Teaching

- Student teaching application must be submitted following instructions found on the portal.
- **Late applications will likely result in a delay to student teaching by one semester. Application and forms are due to the Office of Student Field Experience:**
 - September 1—to Student Teach the following Spring Semester
 - February 1—to Student Teach the following Fall Semester
- **Prerequisites:**
 - BCOE Upper Division status
 - Overall 2.75 GPA
 - Minimum of 2.67 GPA in subject area curriculum and 2.67 in professional education courses with no grade less than a "C"
 - Passage of OAE test(s) and ACTFL tests for foreign language

Completing a Bachelor of Science in Education with Licensure

- **Successful completion of student teaching (endorsed) with CPAST average score of 2 with no zeros**
- **Minimum score of 39 on edTPA, with the exception of a 34 for Foreign Language**

Completing a Bachelor of Science in Education without Licensure

- A teacher candidate may choose to graduate without licensure. Teacher candidates who wish to graduate without licensure must take TCED 4830 (3 SH) capstone course in place of student teaching.

Year 1

Fall		S.H.
YSU 1500	Success Seminar	1
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
MATH 1571	Calculus 1	4
TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
BIOL 2601 & 2601L	General Biology 1: Molecules and Cells and General Biology I: Molecules and Cells Laboratory	4

Semester Hours 18-19

Spring		
ENGL 1551	Writing 2	3
MATH 1572	Calculus 2	4
EDFN 1501	Introduction to Education	3
BIOL 2602 & 2602L	General Biology 2: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics Laboratory 1	1

Semester Hours 19

Year 2

Fall		
CMST 1545	Communication Foundations	3
PSYC 1560	General Psychology	3
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2	5

SPED 2630	Individuals with Exceptionalities in Society	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
Semester Hours		18
Spring		
PSYC 3709	Psychology of Education	3
ASTR 1504	Descriptive Astronomy	3
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
Arts and Humanities GER		3
Earth/Space Elective		3
Physics Elective		4
Semester Hours		20
Year 3		
Fall		
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
GEOG 2630	Weather	3
GEOG 2630L	Weather Lab	1
GEOL 2602	Introduction to Oceanography	3
Social and Personal Awareness GER		3
Biology Elective		5
Physics Elective		3-4
Semester Hours		22-23
Spring		
SED 3706	Principles of Teaching Adolescents	3
EDFN 3708	Education and Society	3
TERG 3711	Reading Application in Content Areas, Secondary Years	3
TEMC 3707	Science/Technology/Society	3
PHYS 2608	Sound	3
Social Science GER		3
Social and Personal Awareness GER		3
Semester Hours		21
Year 4		
Fall		
EDFN 3710	Educational Assessment	3
TCED 4800L	Laboratory Experience for Teaching All Learners	0
SED 4800C	Science Methods for Adolescent and Young Adult Learners	3
Arts and Humanities GER		3
Chemistry Elective		4-5
Physics Elective		3
Semester Hours		16-17
Spring		
SED 4842	Supervised Student Teaching: High School	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
TCED 5888E	Seminar edTPA Review	1
Semester Hours		13
Total Semester Hours		147-150
Year 1		
Fall		
YSU 1500	Success Seminar	1
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4

MATH 1571	Calculus 1	4
TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
BIOL 2601 & 2601L	General Biology 1: Molecules and Cells and General Biology I: Molecules and Cells Laboratory	4
Semester Hours		18-19
Spring		
ENGL 1551	Writing 2	3
MATH 1572	Calculus 2	4
EDFN 1501	Introduction to Education	3
BIOL 2602 & 2602L	General Biology 2: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics Laboratory 1	1
Semester Hours		19
Year 2		
Fall		
CMST 1545	Communication Foundations	3
PSYC 1560	General Psychology	3
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2	5
SPED 2630	Individuals with Exceptionalities in Society	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
Semester Hours		18
Spring		
PSYC 3709	Psychology of Education	3
ASTR 1504	Descriptive Astronomy	3
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
Arts and Humanities GER		3
Earth/Space Elective		3
Physics Elective		4
Semester Hours		20
Year 3		
Fall		
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
GEOG 2630	Weather	3
GEOG 2630L	Weather Lab	1
GEOL 2602	Introduction to Oceanography	3
Social and Personal Awareness GER		3
Biology Elective		5
Physics Elective		3-4
Semester Hours		22-23
Spring		
SED 3706	Principles of Teaching Adolescents	3
EDFN 3708	Education and Society	3
TERG 3711	Reading Application in Content Areas, Secondary Years	3
TEMC 3707	Science/Technology/Society	3
PHYS 2608	Sound	3

Social Science GER	3
Social and Personal Awareness GER	3
Semester Hours	21
Year 4	
Fall	
EDFN 3710 Educational Assessment	3
TCED 4800L Laboratory Experience for Teaching All Learners	0
SED 4800C Science Methods for Adolescent and Young Adult Learners	3
Arts and Humanities GER	3
Chemistry Elective	4-5
Physics Elective	3
Semester Hours	16-17
Spring	
SED 4842 Supervised Student Teaching: High School	10
SED 4842A Student Teaching Seminar for Secondary Education	2
TCED 5888E Seminar edTPA Review	1
Semester Hours	13
Total Semester Hours	147-150

to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3711 Reading Application in Content Areas, Secondary Years
- SED 3706 Principles of Teaching Adolescents

Preclinical Field Experiences

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Adolescent/Young Adult preclinical experience is scheduled during the fall semester. Applications for the preclinical experience must be submitted onto TaskStream (1) one year in advance by September 1st for the preclinical experience. Contact the Beeghly Hall Academic Advisors for minimum preclinical prerequisites.

- EDFN 3710 Educational Assessment
- SED 4800S Social Studies Methods for Adolescent and Young Adult Learners

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 39 during this experience.

- SED 4842 Supervised Student Teaching: High School
- SED 4842A Student Teaching Seminar for Secondary Education

Bachelor of Science in Education in Integrated Social Studies (7-12) - Adolescent License

Program Coordinator

Dr. M. Kathleen L. Cripe, Chairperson and Program Coordinator

OVERVIEW

In cooperation with various academic disciplines in the University, the Department of Teacher Education offers a four-year AYA Education Program (grades 7-12), Integrated Social Studies, approved by the Ohio Department of Education. The AYA Integrated Social Studies License, Grades 7-12, Bachelor of Science in Education degree requires a minimum of 122 semester hours of course work. This teaching field also requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

EMPLOYMENT OPPORTUNITIES

Graduates of the Adolescent/Young Adult Program will be qualified to teach in the 7-12 classroom. Additional opportunities may be available in the private sector to tutor students. Graduates wanting to teach College Credit Plus courses should consider a Master of Science in Education Content Area Concentration degree.

Professional Dispositions

Teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

FIELD EXPERIENCES AND STUDENT TEACHING

- Students complete over 120 hours of pre-clinical experiences. Field experiences are included in the following courses and offer opportunities

ADVISEMENT

Advisement is provided by the Academic Advisors in Beeghly Hall. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a preclinical experience.

REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assess the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new license area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

025 Integrated Social Studies (for teacher candidates with Social Studies concentration)

ENDORSEMENTS

The following endorsements are available to individuals holding this teaching license and may increase marketability: K-12 TESOL Endorsement, K-12 Reading Endorsement.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	

ENGL 1551	Writing 2	3
Mathematics Requirement	Any MATH Gen. Ed.	3
Arts and Humanities (6 s.h.) Met with HIST in major		
Natural Sciences (2 courses, 1 with lab) (7 s.h.)		
Met with GEOG NS courses in the major		
Social Science (6 s.h.)		
Met with any SS courses in the major (POL 1560, PSYC 1560, SOC 1500, or ANTH 1500, ECON 2610)		
CMST 1545	Communication Foundations	3
The remaining 6 s.h. are met with courses in the major.		
Subject Area Curriculum		
ANTH 1500	Introduction to Anthropology	3
ECON 2610	Principles 1: Microeconomics	3
ECON 2631	Introductory Macroeconomics for Education Majors	3
GEOG 1503	Physical Geography	3
GEOG 2630	Weather	3
GEOG 2630L	Weather Lab	1
GEOG 2626	World Geography	3
GEOG 2640	Human Geography	3
HIST 1501	Discovering American History	3
HIST 1511	World Civilization to 1500	3
HIST 1512	World Civilization from 1500	3
HIST 3702	Early America	3
HIST 4870	Senior Research Seminar	3
HIST 4870	Senior Research Seminar	3
HIST 3703	Nineteenth Century America	3
HIST 3712	United States in Crisis: 1900-1945	3
HIST 3748	History of Ohio	3
HIST 3764	Modern Europe, 1715 to the Present	3
HIST 3795	The World since 1945	3
POL 1560	American Government	3
POL 2640	Contemporary World Governments	3
PSYC 1560	General Psychology	3
SOC 1500	Introduction to Sociology	3
Professional Education Curriculum		
TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1
EDFN 1501	Introduction to Education	3
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society ¹	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
TERG 3711	Reading Application in Content Areas, Secondary Years ²	3
SED 3706	Principles of Teaching Adolescents ²	3
EDFN 3708	Education and Society	3
Preclinical Curriculum		
EDFN 3710	Educational Assessment	3
TCED 4800L	Laboratory Experience for Teaching All Learners	0
SED 4800S	Social Studies Methods for Adolescent and Young Adult Learners ²	3
Student Teaching Curriculum		
SED 4842	Supervised Student Teaching: High School ²	10
SED 4842A	Student Teaching Seminar for Secondary Education ²	2
TCED 5888E	Seminar edTPA Review	1

Elective to reach 120	1-2
Total Semester Hours	120-123

- ¹ Prerequisite for preclinical curriculum
² Upper division course.

General Information

- It is highly recommended that all teacher candidates meet with an academic advisor every semester.
- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the TELS Teacher Education Programs or candidacy for a teaching license.
- A grade of "C" or better is required in all courses. Some courses cannot be taken CR/NC. Check with an Advisor. Professional education and preclinical courses may only be repeated **one** time.

Upper Division

- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in TELS.**
- Upper division requirements:
 - ____ Completion of 50 SH
 - ____ Minimum 2.75 overall GPA
 - ____ "B" average or better (A-C, B-B) for: ENGL 1550 and ENGL 1551.
 - If failure to meet "B" average above must also complete:
 - ____ ENGL 2601 grade of "B" or better.
 - **If you receive a "C" or below you will need to retake the course.**
 - ____ "B" average or better (B-B-B, A-B-C) across the following:

____ EDFN 1501 ____ CMST 1545

____ SPED 2630 ____ HIST 2605 or HIST 2606

- After completing a minimum of 50 SH, submit the following:
 - Upper Division application (Portal)
 - Good Moral Character Statement
 - Copy of BCI & FBI clearances
 - Writing prompt (Blackboard)
- Deadlines for submission for upper division status (**late applications may not be accepted**):
 - **September 1**—to register for Upper Division Courses for Spring
 - **February 1**—to register for Upper Division courses for Summer & Fall

Admission to Preclinical and Evaluation for Graduation

- Request must be submitted to TaskStream **one year prior to the intended preclinical semester no later than:**
- **September 1**—for Fall preclinical (**Late applications may not be accepted**)
- **February 1**—for Spring preclinical (**Late applications may not be accepted**)
- Content GPA (2.67 minimum), Professional GPA (2.67 minimum), Overall GPA (2.75 minimum).

Student Teaching

- Student teaching application must be submitted following instructions found on the portal.
- **Late applications will likely result in a delay to student teaching by one semester. Application and forms are due to the Office of Student Field Experience:**
 - September 1—to Student Teach the following Spring Semester
 - February 1—to Student Teach the following Fall Semester
- **Prerequisites:**
 - BCOE Upper Division status
 - Overall 2.75 GPA

- Minimum of 2.67 GPA in subject area curriculum and 2.67 in professional education courses with no grade less than a "C"
- Passage of OAE test(s) and ACTFL tests for foreign language

Completing a Bachelor of Science in Education with Licensure

- Successful completion of student teaching (endorsed) with CPAST average score of 2 with no zeros
- Minimum score of 39 on edTPA, with the exception of a 34 for Foreign Language

Completing a Bachelor of Science in Education without Licensure

- A teacher candidate may choose to graduate without licensure. Teacher candidates who wish to graduate without licensure must take TCED 4830 (3 SH) capstone course in place of student teaching.

Year 1

Fall		S.H.
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
POL 1560	American Government (counts as Social Science Elective)	3
EDFN 1501	Introduction to Education	3
TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1
HIST 1501	Discovering American History	3
Semester Hours		15-17
Spring		
ENGL 1551	Writing 2	3
SPED 2630	Individuals with Exceptionalities in Society	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
PSYC 1560	General Psychology	3
HIST 1511	World Civilization to 1500	3
GEOG 2626	World Geography	3
Semester Hours		15

Year 2

Fall		
POL 2640	Contemporary World Governments	3
HIST 1512	World Civilization from 1500	3
ECON 2610	Principles 1: Microeconomics	3
HIST 2605	Turning Points in United States History 1	3
GEOG 2640	Human Geography	3
CMST 1545	Communication Foundations	3
Semester Hours		18
Spring		
HIST 2606	Turning Points in United States History 2	3
PSYC 3709	Psychology of Education	3
ECON 2631	Introductory Macroeconomics for Education Majors	3
HIST 3764	Modern Europe, 1715 to the Present	3
HIST 3703	Nineteenth Century America	3
Semester Hours		15

Year 3

Fall		
HIST 3712	United States in Crisis: 1900-1945	3
HIST 3702	Early America	3
GEOG 1503	Physical Geography	3
SOC 1500	Introduction to Sociology	3
HIST 3748	History of Ohio	3
Semester Hours		15
Spring		
SED 3706	Principles of Teaching Adolescents	3
TERG 3711	Reading Application in Content Areas, Secondary Years	3
HIST 3795	The World since 1945	3
GEOG 2630	Weather	3
GEOG 2630L	Weather Lab	1
ANTH 1500	Introduction to Anthropology	3
Semester Hours		16

Year 4

Fall		
EDFN 3708	Education and Society	3
EDFN 3710	Educational Assessment	3
TCED 4800L	Laboratory Experience for Teaching All Learners	0
SED 4800S	Social Studies Methods for Adolescent and Young Adult Learners	3
HIST 4870	Senior Research Seminar	3
Elective		1-2
Semester Hours		13-14
Spring		
SED 4842	Supervised Student Teaching: High School	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
TCED 5888E	Seminar edTPA Review	1
Semester Hours		13
Total Semester Hours		120-123

Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.
- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.
- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning.

Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

Bachelor of Science in Education in Primary/Primary Intervention Specialist Education (P-5)

Program Coordinator

Dr. Crystal Ratican, Program Coordinator
Beeghly Hall 2422
(330) 941-3245
clratican@ysu.edu

Overview

The Department of Teacher Education and Leadership Studies offers a four-year Primary/Primary Intervention Specialist Program approved by the Ohio Department of Higher Education. The Primary/Primary Intervention Specialist (P-5) Bachelor of Science in Education degree requires a minimum of 123 semester hours of course work. This program requires the passage of multiple Ohio Assessment for Educator exams to become eligible to student teach. Contact the Department of Teacher Education and Leadership Studies or the Advisement Office for additional information.

Employment Opportunities

Graduates of the new Primary/Primary IS dual license will be able to work in the following areas: in schools as the classroom teacher of record, inclusion classroom teacher of record, or P-5 special education classroom of record.

Graduates will also be trained to work with children who are currently learning the English language. Other employment opportunities include: working with regional Educational Service Providers, providing individual services to children within their homes, working with regionally based programs, medical providers, or private education companies.

Field Experiences and Student Teaching

Students complete over 300 hours of pre-clinical experiences in addition to student teaching. Field experiences are included in the following courses and offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- ELIS 2601 Development, Learning and the Arts
- ELIS 3700 Building Pro-Social Learning Environments P-5
- HEPE 2624 Physical Education for Children in Early Childhood Settings
- SPED 2630 Individuals with Exceptionalities in Society
- TCED 2600 Becoming an Education Professional
- TERG 2601 Reading Application in Content Area Early Years
- TERG 3701 Phonics in Reading Instruction
- TERG 3702 Developmental Reading Instruction
- TERG 3703 Assessment and Instruction in Reading

Preclinical Field Experiences

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Early Childhood preclinical experience is scheduled during the fall and spring semesters. Applications for the preclinical experience must be submitted (1) one year in advance on TaskStream, by September 1st for fall preclinical, and February 1st for spring

preclinical. Contact the Education Academic Advisors for minimum preclinical prerequisites.

- ELIS 3701 Teaching Language Arts through Life Studies in the P-2 Classroom
- ELIS 3702 Teaching Math and Science in Grades P-2 T
- ELIS 3703 Assessing Learning in P-2 Classrooms
- ELIS 3704 Differentiating for Learning in the P-2 Classroom
- ELIS 4800 Teaching Language Arts in Grades 3-5
- ELIS 4801 Teaching Social Studies in Grades 3-5
- ELIS 4802 Teaching Math and Science in Grades 3-5
- ELIS 4803 Modern Classroom Assessment
- ELIS 4804 Differentiating for Learning in the 3-5 Classroom

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 39 during this experience.

- ELIS 4841 Supervised Student Teaching Primary/Primary Intervention Specialist
- ELIS 4842 Student Teaching Seminar Primary/Primary Intervention Specialist

Advisement

Advisement is provided by the academic advisors in Beeghly Hall. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all early childhood majors must complete a preclinical experience.

REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assess the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new license area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching:

- 018 & 019 Elementary Subtest I&II
- 090 Foundations of Reading
- 013 Early Childhood Special Education

Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.
- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

COURSE	TITLE	S.H.
First Year Requirement-Student Success		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
MATH 2661	Mathematics for Elementary Teachers 1	4
Arts & Humanities (AH)		
ART 2648	Experience Art: Social and Behavioral Perspectives	3
MUHL 2621	Music Literature and Appreciation	3
or MUHL 2622	Popular Music in America	
Social Science (SS)		
PSYC 1560	General Psychology	3
PSYC 3758	Lifespan Development (Required GER Elective)	3
General Education Electives (9 s.h.)		
CMST 1545	Communication Foundations	3
ENGL 2651	Introduction to Language	3
HIST 2606	Turning Points in United States History 2	3
MAJOR SPECIFIC COURSES		
Select two of the following courses and one lab required for Primary content (3SH+3 SH+ 1SH=7 SH)		7
ASTR 1504	Descriptive Astronomy	
ASTR 1504L	Astronomy Laboratory	
BIOL 1505	Biology and the Modern World	
BIOL 1505L	Biology and the Modern World Laboratory	
ENST 1500	Introduction to Environmental Science	
ENST 1500L	Introduction to Environmental Science Lab	
GEOG 2630	Weather	
GEOG 2630L	Weather Lab	
Subject Area Curriculum		
TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1
ELIS 2601	Development, Learning and the Arts	3
ELIS 3700	Building Pro-Social Learning Environments P-5	3
ENGL 3703	Literature for Young Children	3
HEPE 2624	Physical Education for Children in Early Childhood Settings	3
MATH 2661	Mathematics for Elementary Teachers 1	4
Professional Education Curriculum		
EDFN 1501	Introduction to Education	3
EDFN 3708	Education and Society	3
ELIS 3701	Teaching Language Arts through Life Studies in the P-2 Classroom	3
ELIS 3702	Teaching Math and Science in Grades P-2	4
ELIS 3703	Assessing Learning in P-2 Classrooms	2
ELIS 3704	Differentiating for Learning in the P-2 Classroom	3
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0

TERG 2605	Reading Foundational Skills Across Content Areas Pre-K – 12	3
TERG 3700	Phonological Awareness and Phonics	3
TERG 3720	Developmental Reading Instruction: Vocabulary, Comprehension, and Writing	3
TERG 3730	Reading Assessment, Instruction, and Intervention	3
Preclinical Curriculum		
TCED 4800L	Laboratory Experience for Teaching All Learners	0
ELIS 4800	Teaching Language Arts in Grades 3-5	3
ELIS 4801	Teaching Social Studies in Grades 3-5	3
ELIS 4802	Teaching Math and Science in Grades 3-5	4
ELIS 4803	Modern Classroom Assessment	3
ELIS 4804	Differentiating for Learning in the 3-5 Classroom	3
Student Teaching Curriculum		
ELIS 4841	Supervised Student Teaching Primary/Primary Intervention Specialist	10
ELIS 4842	Student Teaching Seminar in Primary/Primary Intervention Specialists Education	2
TCED 5888E	Seminar edTPA Review	1
ELIS 2680	Special Education Process/Application: Designing Education Programs within an Ecological Framework	3
ELIS 2600	Introduction to the Sciences	3
ELIS 2600L	Introduction the Sciences Lab	1
Total Semester Hours		129-131
Year 1		
Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
EDFN 1501	Introduction to Education	3
MATH 2661	Mathematics for Elementary Teachers 1	4
PSYC 1560	General Psychology	3
CMST 1545	Communication Foundations	3
Semester Hours		17-19
Spring		
ART 2648	Experience Art: Social and Behavioral Perspectives	3
TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1
ENGL 1551	Writing 2	3
MATH 2662	Mathematics for Elementary Teachers 2	4
TERG 2605	Reading Foundational Skills Across Content Areas Pre-K – 12	3
ELIS 2680	Special Education Process/Application: Designing Education Programs within an Ecological Framework	3
Semester Hours		18
Year 2		
Fall		
ENGL 2651	Introduction to Language	3
ENGL 3703	Literature for Young Children	3
SPED 2630	Individuals with Exceptionalities in Society	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
TERG 3700	Phonological Awareness and Phonics	3

Natural Science elective		3
Semester Hours		15
Spring		
ELIS 2601	Development, Learning and the Arts	3
HIST 2606	Turning Points in United States History 2	3
MUHL 2621	Music Literature and Appreciation	3
OR MUHL 2622		
TERG 3720	Developmental Reading Instruction: Vocabulary, Comprehension, and Writing	3
Natural Science Gen Ed		3
Natural Science Lab		1
ELIS 2600	Introduction to the Sciences	3
ELIS 2600L	Introduction the Sciences Lab	1
Semester Hours		20
Year 3		
Fall		
EDFN 3708	Education and Society	3
ELIS 3700	Building Pro-Social Learning Environments P-5	3
HEPE 2624	Physical Education for Children in Early Childhood Settings	3
PSYC 3709	Psychology of Education	3
TERG 3730	Reading Assessment, Instruction, and Intervention	3
Semester Hours		15
Spring		
ELIS 3701	Teaching Language Arts through Life Studies in the P-2 Classroom	3
ELIS 3702	Teaching Math and Science in Grades P-2	4
ELIS 3703	Assessing Learning in P-2 Classrooms	2
ELIS 3704	Differentiating for Learning in the P-2 Classroom	3
Social Science Gen Ed		3
Semester Hours		15
Year 4		
Fall		
ELIS 4800	Teaching Language Arts in Grades 3-5	3
TCED 4800L	Laboratory Experience for Teaching All Learners	0
ELIS 4801	Teaching Social Studies in Grades 3-5	3
ELIS 4802	Teaching Math and Science in Grades 3-5	4
ELIS 4803	Modern Classroom Assessment	3
ELIS 4804	Differentiating for Learning in the 3-5 Classroom	3
Semester Hours		16
Spring		
ELIS 4841	Supervised Student Teaching Primary/Primary Intervention Specialist	10
ELIS 4842	Student Teaching Seminar in Primary/Primary Intervention Specialists Education	2
TCED 5888E	Seminar edTPA Review	1
Semester Hours		13
Total Semester Hours		129-131

Bachelor of Science in Education in Middle Childhood Education (4-9), Mathematics-Language Arts Concentration

Program Coordinator

Dr. M. Kathleen L. Cripe, Chairperson and Program Coordinator

OVERVIEW

In cooperation with various discipline departments in the University, the Department of Teacher Education and Leadership Studies offers a four-year middle childhood license approved by the Ohio Department of Education. The Middle Childhood License (Grades 4-9), Bachelor of Science in Education degree requires a minimum of 127 semester hours of course work (each concentration area requires a specific number of semester hours) including a semester of student teaching. Please refer to the four year plan for additional information. This teaching license requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

EMPLOYMENT OPPORTUNITIES

Graduates of the Middle Childhood Program Math and Language Arts Concentration will be qualified to teach in the grades 4-9 Math and Language Arts classroom. Additional opportunities may be available in the private sector to tutor students. It is recommended that students in this major consider adding the Middle Childhood Generalist Endorsement to increase marketability.

Professional Dispositions

Teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

FIELD EXPERIENCES AND STUDENT TEACHING

Students complete a number of field experiences to support the learning of content and best practices of teaching. Field experiences offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3701 Phonics in Reading Instruction
- TERG 3702 Developmental Reading Instruction
- TERG 3703 Assessment and Instruction in Reading
- TERG 2610 Reading Application in Content Areas Middle Years
- TEMC 3702 Teaching & Learning in Middle Schools

Preclinical Field Experiences

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Middle Childhood preclinical experience is scheduled

during the fall semester. Applications for the preclinical experience must be submitted on TaskStream one year in advance by September 1st.

- TEMC 4804 Middle Level Instructional Design and Student Outcomes
- TEMC 4801 The Middle School Learning Community
- TEMC 3704 Teaching Mathematics in the Middle School
- TEMC 3706 Teaching Language Arts in the Middle School

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 39 during this experience.

- TEMC 4803 Student Teaching Seminar for Middle Childhood Education
- TEMC 4802 Student Teaching: Middle Childhood

ADVISEMENT

Advisement is provided by the Academic Advisors in Education.

Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all middle childhood majors must complete a preclinical experience.

REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assesses the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new license area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

028 Middle Grades English Language Arts (for those with English Language Arts concentration)

030 Middle Grades Mathematics (for those with Mathematics concentration)

090 Foundations of Reading

ENDORSEMENTS

The following endorsements are available to individuals holding this teaching license and may increase marketability: K-12 TESOL Endorsement, K-12 Reading Endorsement, Middle Childhood Generalist Endorsement (enables teaching in content areas not included in current course of study).

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
Core Competencies		
ENGL 1550	Writing 1 (requires a B average)	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2 (requires a B average)	3
Mathematics Requirement		
MATH 2665	Foundations of Middle School Mathematics 2 (In the major)	
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model. Courses listed for GER's below are required in this program. See page 2 for other General Education recommendations.		
Arts and Humanities (3 s.h.) met in Language Arts concentration		3
Natural Sciences (2 courses, 1 lab)		7
Social Science		

PSYC 1560	General Psychology	3
Social Science GER (3 s.h.) met in language arts concentration		3
General Education Electives (9 s.h.)		
CMST 1545	Communication Foundations	3
The remaining 6 s.h. are met in the major.		
Major Requirements		
Mathematics Concentration		
MATH 1564	Foundations of Middle School Mathematics 1	4
MATH 2665	Foundations of Middle School Mathematics 2	4
MATH 3767	Algebra/Geometry for Middle School Teachers 1	4
MATH 3768	Algebra/Geometry for Middle School Teachers 2	4
MATH 4869	Functions, Calculus, and Applications for Middle School Teachers	3
MATH 4870	Mathematics Concepts for Middle School Teachers	3
STAT 2601	Introductory Statistics	3
Language Arts Concentration		
CMST 2656	Interpersonal Communication	3
ENGL 2610	World Literature (AH)	3
ENGL 2618	American Literature and Diversity (AH)	3
ENGL 2651	Introduction to Language (SS)	3
ENGL 3700	Literary Study	3
ENGL 3704	Literature for Middle School Readers	3
ENGL 3730	Teaching Language Arts	3
ENGL 3739	Writing for Middle School Teachers	3
Professional Education Curriculum		
TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1
EDFN 1501	Introduction to Education	3
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society ¹	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
EDFN 3708	Education and Society	3
TEMC 3702	Teaching & Learning in Middle Schools ^{1,2}	3
Reading Course Requirements		
TERG 2605	Reading Foundational Skills Across Content Areas Pre-K – 12	3
TERG 3700	Phonological Awareness and Phonics	3
TERG 3720	Developmental Reading Instruction: Vocabulary, Comprehension, and Writing	3
TERG 3730	Reading Assessment, Instruction, and Intervention	3
Preclinical Curriculum		
TCED 4800L	Laboratory Experience for Teaching All Learners	0
TEMC 4801	The Middle School Learning Community ²	3
TEMC 4804	Middle Level Instructional Design and Student Outcomes ²	3
TEMC 3704	Teaching Mathematics in the Middle School ²	3
TEMC 3706	Teaching Language Arts in the Middle School ²	3
Student Teaching Curriculum		
TEMC 4802	Student Teaching: Middle Childhood ²	10
TEMC 4803	Student Teaching Seminar for Middle Childhood Education ²	2
TCED 5888E	Seminar edTPA Review	1
TCED 4830	Undergraduate Capstone Course for Education Majors (Option for students to graduate without a license)	
Total Semester Hours		129-131

¹ Prerequisites for preclinical curriculum.

² Upper division course.

General Information

- It is highly recommended that all teacher candidates meet with an academic advisor every semester.
- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the TELS Teacher Education Programs or candidacy for a teaching license.
- A grade of “C” or better is required in all courses. Some courses cannot be taken CR/NC. Check with an Advisor. Professional education and preclinical courses may only be repeated **one** time.

Upper Division

- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in TELS.**
- Upper division requirements:
 - ____ Completion of 50 SH
 - ____ Minimum 2.75 overall GPA
 - ____ “B” average or better (A-C, B-B) for: ENGL 1550 and ENGL 1551.
 - If failure to meet “B” average above must also complete:
 - ____ ENGL 2601 grade of “B” or better.
 - **If you receive a “C” or below you will need to retake the course.**
 - ____ “B” average or better (B-B-B, A-B-C) across the following:

____ EDFN 1501 ____ CMST 1545

____ SPED 2630 ____ MATH 1564 or ENGL 2651

- After completing a minimum of 50 SH, submit the following:
 - Upper Division application (Portal)
 - Good Moral Character Statement
 - Copy of BCI & FBI clearances
 - Writing prompt (Blackboard)
- Deadlines for submission for upper division status (**late applications may not be accepted**):
 - **September 1**—to register for Upper Division Courses for Spring
 - **February 1**—to register for Upper Division courses for Summer & Fall

Admission to Preclinical and Evaluation for Graduation

- Request must be submitted to TaskStream **one year prior to the intended preclinical semester no later than:**
- **September 1**—for Fall preclinical (**Late applications may not be accepted**)
- **February 1**—for Spring preclinical (**Late applications may not be accepted**)
- Content GPA (2.67 minimum), Professional GPA (2.67 minimum), Overall GPA (2.75 minimum).

Student Teaching

- Student teaching application must be submitted following instructions found on the portal.
- **Late applications will likely result in a delay to student teaching by one semester. Application and forms are due to the Office of Student Field Experience:**
 - September 1—to Student Teach the following Spring Semester
 - February 1—to Student Teach the following Fall Semester
- **Prerequisites:**
 - BCOE Upper Division status
 - Overall 2.75 GPA
 - Minimum of 2.67 GPA in subject area curriculum and 2.67 in professional education courses with no grade less than a “C”
 - Passage of OAE test(s) and ACTFL tests for foreign language

Completing a Bachelor of Science in Education with Licensure

- **Successful completion of student teaching (endorsed) with CCAST average score of 2 with no zeros**
- **Minimum score of 39 on edTPA, with the exception of a 34 for Foreign Language**

Completing a Bachelor of Science in Education without Licensure

- A teacher candidate may choose to graduate without licensure. Teacher candidates who wish to graduate without licensure must take TCED 4830 (3 SH) capstone course in place of student teaching.

Year 1

Fall		S.H.
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
PSYC 1560	General Psychology	3
ENGL 2618	American Literature and Diversity (counts as AH or SPA Elective)	3
MATH 1564	Foundations of Middle School Mathematics 1	4
TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1

Semester Hours 16-18

Spring

ENGL 1551	Writing 2	3
MATH 2665	Foundations of Middle School Mathematics 2	4
SPED 2630	Individuals with Exceptionalities in Society	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
ENGL 2610	World Literature (counts as AH or SPA Elective)	3
EDFN 1501	Introduction to Education	3

Semester Hours 16

Year 2

Fall		
MATH 3767	Algebra/Geometry for Middle School Teachers 1	4
CMST 1545	Communication Foundations	3
ENGL 2651	Introduction to Language (counts as SPA Elective)	3
TERG 2605	Reading Foundational Skills Across Content Areas Pre-K – 12	3
ENGL 3700	Literary Study	3
Semester Hours		16

Spring

MATH 3768	Algebra/Geometry for Middle School Teachers 2	4
CMST 2656	Interpersonal Communication	3
TERG 3700	Phonological Awareness and Phonics	3
Natural Science GER		3
Social Science GER		3

Semester Hours 16

Year 3**Fall**

MATH 4869	Functions, Calculus, and Applications for Middle School Teachers	3
STAT 2601	Introductory Statistics	3
TERG 3720	Developmental Reading Instruction: Vocabulary, Comprehension, and Writing	3
ENGL 3704	Literature for Middle School Readers	3
PSYC 3709	Psychology of Education	3
Semester Hours		15

Spring

MATH 4870	Mathematics Concepts for Middle School Teachers	3
ENGL 3730	Teaching Language Arts	3
ENGL 3739	Writing for Middle School Teachers	3
TEMC 3702	Teaching & Learning in Middle Schools	3
TERG 3730	Reading Assessment, Instruction, and Intervention	3
Natural Science/Lab GER		4
Semester Hours		19

Year 4**Fall**

TEMC 4801	The Middle School Learning Community	3
TCED 4800L	Laboratory Experience for Teaching All Learners	0
TEMC 3704	Teaching Mathematics in the Middle School	3
TEMC 3706	Teaching Language Arts in the Middle School	3
TEMC 4804	Middle Level Instructional Design and Student Outcomes	3
EDFN 3708	Education and Society	3
Semester Hours		15

Spring

TEMC 4802	Student Teaching: Middle Childhood	10
TEMC 4803	Student Teaching Seminar for Middle Childhood Education	2
TCED 5888E	Seminar edTPA Review	1
STAT 2601	Introductory Statistics	3
Semester Hours		16
Total Semester Hours		129-131

- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.
- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

The learning outcomes for this program, align with the 5 Standards of the Association for Middle Level Education (AMLE):

- Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to young adolescent development and use that knowledge in their practice. They demonstrate their ability to apply this knowledge when making curricular decisions, planning and implementing instruction, participating in middle level programs and practices, and providing healthy and effective learning environments for all young adolescents.
- Middle level teacher candidates understand and use the central concepts, standards, research, and structures of content to plan and implement curriculum that develops all young adolescents' competence in subject matter. They use their knowledge and available resources to design, implement, and evaluate challenging, developmentally responsive curriculum that results in meaningful learning outcomes. Middle level teacher candidates demonstrate their ability to assist all young adolescents in understanding the interdisciplinary nature of knowledge. They design and teach curriculum that is responsive to all young adolescents' local, national, and international histories, language/dialects, and individual identities (e.g., race, ethnicity, culture, age, appearance, ability, sexual orientation, socioeconomic status, family composition).
- Middle level teacher candidates understand the major concepts, principles, theories, and research underlying the philosophical foundations of developmentally responsive middle level programs and schools, and they work successfully within middle level organizational components.
- Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to data-informed instruction and assessment. They employ a variety of developmentally appropriate instructional strategies, information literacy skills, and technologies to meet the learning needs of all young adolescents (e.g., race, ethnicity, culture, age, appearance, ability, sexual orientation, socioeconomic status, family composition).
- Middle level teacher candidates understand their complex roles as teachers of young adolescents. They engage in practices and behaviors that develop their competence as middle level professionals. They are informed advocates for young adolescents and middle level education, and work successfully with colleagues, families, community agencies, and community members. Middle level teacher candidates demonstrate positive dispositions and engage in ethical professional behaviors.

Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.

Bachelor of Science in Education in Middle Childhood Education (4-9), Mathematics-Social Studies Concentration

Program Coordinator

Dr. M. Kathleen L. Cripe, Chairperson and Program Coordinator

OVERVIEW

In cooperation with various academic discipline departments in the University, the Department of Teacher Education and Leadership Studies offers a four-year Middle Childhood Education Program (grades 4-9), Math and Social Studies Concentration, approved by the Ohio Department of Education.

The Middle Childhood, Math and Social Studies License (Grades 4-9), Bachelor of Science in Education degree requires a minimum of 137 semester

hours of course work. This teaching field also requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

EMPLOYMENT OPPORTUNITIES

Graduates of the Middle Childhood Program will be qualified to teach in the grades 4-9 classroom. Additional opportunities may be available in the private sector to tutor students. It is recommended that students in this major consider adding the Middle Childhood Generalist Endorsement to increase marketability.

Professional Dispositions

Teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

FIELD EXPERIENCES AND STUDENT TEACHING

Students complete over 150 hours of preclinical experiences, and additional field experiences, which are included in the following courses and offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3701 Phonics in Reading Instruction
- TERG 3702 Developmental Reading Instruction
- TERG 3703 Assessment and Instruction in Reading
- TERG 2610 Reading Application in Content Areas Middle Years
- TEMC 3702 Teaching & Learning in Middle Schools

Preclinical Field Experiences

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Middle Childhood preclinical experience is scheduled during the fall semester. Applications for the preclinical experience must be submitted (1) one year in advance on TaskStream, by September 1st for the preclinical experience. Contact the Education Academic Advisors for minimum preclinical prerequisites.

- TEMC 4804 Middle Level Instructional Design and Student Outcomes
- TEMC 4801 The Middle School Learning Community
- TEMC 3703 Thematic Instruction and Assessment Methods in Social Studies
- TEMC 3704 Teaching Mathematics in the Middle School

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 39 during this experience.

- TEMC 4803 Student Teaching Seminar for Middle Childhood Education
- TEMC 4802 Student Teaching: Middle Childhood

ADVISEMENT

Advisement is provided by the Academic Advisors in Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a preclinical experience.

REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assess the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new license area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

030 Middle Grades Mathematics (for those with Mathematics concentration)

031 Middle Grades Social Studies (for those with Social Studies concentration)

090 Foundations of Reading

ENDORSEMENTS

The following endorsements are available to individuals holding this teaching license and may increase marketability: K-12 TESOL Endorsement, K-12 Reading Endorsement, Middle Childhood Generalist Endorsement (enables teaching in content areas not included in current course of study).

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1 (requires a B average)	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2 (requires a B average)	3
Mathematics Requirement		4
MATH 2665	Foundations of Middle School Mathematics 2	
Some courses are categorized in more than one Knowledge Domain. Courses can only be used once within the General Education model. Courses listed for Knowledge Domains below are required in this program. See page 2 for other General Education recommendations.		
Arts and Humanities (6 s.h.)		6
Natural Sciences (2 courses, 1 with lab) (7 s.h.)		7
Social Science GER met in major		
PSYC 1560	General Psychology	3
General Education Electives (6 s.h.)		
CMST 1545	Communication Foundations	3
Remaining 6 s.h. are met with courses in the major.		
Major Requirements -Mathematics Concentration		
MATH 1564	Foundations of Middle School Mathematics 1	4
MATH 2665	Foundations of Middle School Mathematics 2	4
MATH 3767	Algebra/Geometry for Middle School Teachers 1	4
MATH 3768	Algebra/Geometry for Middle School Teachers 2	4
MATH 4869	Functions, Calculus, and Applications for Middle School Teachers	3
MATH 4870	Mathematics Concepts for Middle School Teachers	3
STAT 2601	Introductory Statistics	3
Social Studies Concentration		
HIST 1511	World Civilization to 1500 (SS)	3
HIST 1512	World Civilization from 1500 (SS)	3
HIST 2606	Turning Points in United States History 2 (SS)	3

HIST 3748	History of Ohio	3
GEOG 2640	Human Geography (SS)	3
GEOG 3717	Geography of Europe	3
POL 1560	American Government (SS)	3
POL 2640	Contemporary World Governments (SS)	3
ECON 2610	Principles 1: Microeconomics (SS)	3
ECON 2631	Introductory Macroeconomics for Education Majors (SS)	3
ANTH 1500	Introduction to Anthropology (SS)	3
Professional Education Curriculum		
TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1
EDFN 1501	Introduction to Education	3
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society ¹	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
EDFN 3708	Education and Society	3
TEMC 3702	Teaching & Learning in Middle Schools ^{1,2}	3
Reading Course Requirements		
TERG 2605	Reading Foundational Skills Across Content Areas Pre-K – 12	3
TERG 3700	Phonological Awareness and Phonics	3
TERG 3720	Developmental Reading Instruction: Vocabulary, Comprehension, and Writing	3
TERG 3730	Reading Assessment, Instruction, and Intervention	3
Preclinical Curriculum		
TEMC 4801	The Middle School Learning Community ²	3
TCED 4800L	Laboratory Experience for Teaching All Learners	0
TEMC 4804	Middle Level Instructional Design and Student Outcomes ²	3
TEMC 3703	Thematic Instruction and Assessment Methods in Social Studies ²	3
TEMC 3704	Teaching Mathematics in the Middle School ²	3
Student Teaching Curriculum		
TEMC 4802	Student Teaching: Middle Childhood ²	10
TEMC 4803	Student Teaching Seminar for Middle Childhood Education ²	2
TCED 5888E	Seminar edTPA Review	1
Total Semester Hours		142-144

¹ Prerequisites for preclinical curriculum.

² Upper division course.

General Information

- It is highly recommended that all teacher candidates meet with an academic advisor every semester.
- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the TELS Teacher Education Programs or candidacy for a teaching license.
- A grade of "C" or better is required in all courses. Some courses cannot be taken CR/NC. Check with an Advisor. Professional education and preclinical courses may only be repeated **one** time.

Upper Division

- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in TELS.**
- Upper division requirements:

- ____ Completion of 50 SH
- ____ Minimum 2.75 overall GPA
- ____ "B" average or better (A-C, B-B) for: ENGL 1550 and ENGL 1551.
 - If failure to meet "B" average above must also complete:
 - ____ ENGL 2601 grade of "B" or better.
 - **If you receive a "C" or below you will need to retake the course.**
- ____ "B" average or better (B-B-B, A-B-C) across the following:

____ EDFN 1501 ____ CMST 1545

____ SPED 2630 ____ MATH 1564, HIST 2606, or HIST 1511

- After completing a minimum of 50 SH, submit the following:
 - Upper Division application (Portal)
 - Good Moral Character Statement
 - Copy of BCI & FBI clearances
 - Writing prompt (Blackboard)
- Deadlines for submission for upper division status (**late applications may not be accepted**):
 - **September 1**—to register for Upper Division Courses for Spring
 - **February 1**—to register for Upper Division courses for Summer & Fall

Admission to Preclinical and Evaluation for Graduation

- Request must be submitted to TaskStream **one year prior to the intended preclinical semester no later than:**
- **September 1**—for Fall preclinical (**Late applications may not be accepted**)
- **February 1**—for Spring preclinical (**Late applications may not be accepted**)
- Content GPA (2.67 minimum), Professional GPA (2.67 minimum), Overall GPA (2.75 minimum).

Student Teaching

- Student teaching application must be submitted following instructions found on the portal.
- **Late applications will likely result in a delay to student teaching by one semester. Application and forms are due to the Office of Student Field Experience:**
 - September 1—to Student Teach the following Spring Semester
 - February 1—to Student Teach the following Fall Semester
- **Prerequisites:**
 - BCOE Upper Division status
 - Overall 2.75 GPA
 - Minimum of 2.67 GPA in subject area curriculum and 2.67 in professional education courses with no grade less than a "C"
 - Passage of OAE test(s) and ACTFL tests for foreign language

Completing a Bachelor of Science in Education with Licensure

- Successful completion of student teaching (endorsed) with CFAST average score of 2 with no zeros
- Minimum score of 39 on edTPA, with the exception of a 34 for Foreign Language

Completing a Bachelor of Science in Education without Licensure

- A teacher candidate may choose to graduate without licensure. Teacher candidates who wish to graduate without licensure must take TCED 4830 (3 SH) capstone course in place of student teaching.

Year 1			Spring		
Fall			S.H.		
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2	MATH 4870	Mathematics Concepts for Middle School Teachers	3
			TEMC 3702	Teaching & Learning in Middle Schools	3
			TERG 3730	Reading Assessment, Instruction, and Intervention	3
			ECON 2631	Introductory Macroeconomics for Education Majors	3
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4		Natural Science GER	7
MATH 1564	Foundations of Middle School Mathematics 1	4		Arts and Humanities GER	3
POL 1560	American Government	3		Semester Hours	22
TCED 2600	Becoming an Education Professional	1	Year 4		
TCED 2601	Diversity and Equity in the Classroom	1	Fall		
Natural Science/Lab GER		4	TEMC 4801	The Middle School Learning Community	3
	Semester Hours	17-19	TCED 4800L	Laboratory Experience for Teaching All Learners	0
Spring			TEMC 3704	Teaching Mathematics in the Middle School	3
ENGL 1551	Writing 2	3	TEMC 3703	Thematic Instruction and Assessment Methods in Social Studies	3
MATH 2665	Foundations of Middle School Mathematics 2	4	TEMC 4804	Middle Level Instructional Design and Student Outcomes	3
SPED 2630	Individuals with Exceptionalities in Society	3	EDFN 3708	Education and Society	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0		Semester Hours	15
PSYC 1560	General Psychology	3	Spring		
EDFN 1501	Introduction to Education	3	TEMC 4802	Student Teaching: Middle Childhood	10
HIST 1511	World Civilization to 1500	3	TEMC 4803	Student Teaching Seminar for Middle Childhood Education	2
	Semester Hours	19	TCED 5888E	Seminar edTPA Review	1
Year 2				Semester Hours	13
Fall			Total Semester Hours		
MATH 3767	Algebra/Geometry for Middle School Teachers 1	4	142-144		
GEOG 2640	Human Geography	3	Learning Outcomes		
HIST 1512	World Civilization from 1500	3	The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.		
PSYC 3709	Psychology of Education	3	<ul style="list-style-type: none">Teachers understand student learning and development and respect the diversity of the students they teach.Teachers know and understand the content area for which they have instructional responsibility.Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.Teachers plan and deliver effective instruction that advances the learning of each individual student.Teachers create learning environments that promote high levels of learning and achievement for all students.Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.		
CMST 1545	Communication Foundations	3			
TERG 2605	Reading Foundational Skills Across Content Areas Pre-K – 12	3			
	Semester Hours	19			
Spring					
MATH 3768	Algebra/Geometry for Middle School Teachers 2	4			
TERG 3700	Phonological Awareness and Phonics	3			
STAT 2601	Introductory Statistics	3			
GEOG 3717	Geography of Europe	3			
POL 2640	Contemporary World Governments (counts as SS or SPA Elective)	3			
ANTH 1500	Introduction to Anthropology (counts as SS Elective)	3			
	Semester Hours	18			
Year 3					
Fall					
MATH 4869	Functions, Calculus, and Applications for Middle School Teachers	3			
TERG 3720	Developmental Reading Instruction: Vocabulary, Comprehension, and Writing	3			
HIST 2606	Turning Points in United States History 2	3			
ECON 2610	Principles 1: Microeconomics	3			
Arts and Humanities GER		3			
HIST 3748	History of Ohio	3			
	Semester Hours	18			

- Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to young adolescent development and use that knowledge in their practice. They demonstrate their ability to apply this knowledge when making curricular decisions, planning and implementing instruction, participating in middle level programs and practices, and providing healthy and effective learning environments for all young adolescents.
- Middle level teacher candidates understand and use the central concepts, standards, research, and structures of content to plan and implement curriculum that develops all young adolescents' competence in subject matter. They use their knowledge and available resources to design, implement, and evaluate challenging, developmentally responsive curriculum that results in meaningful learning outcomes. Middle level teacher candidates demonstrate their ability to assist all young adolescents in understanding the interdisciplinary nature of knowledge. They design and teach curriculum that is responsive to all young adolescents' local, national, and international histories, language/dialects, and individual identities (e.g., race, ethnicity, culture, age, appearance, ability, sexual orientation, socioeconomic status, family composition).
- Middle level teacher candidates understand the major concepts, principles, theories, and research underlying the philosophical foundations of developmentally responsive middle level programs and schools, and they work successfully within middle level organizational components.
- Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to data-informed instruction and assessment. They employ a variety of developmentally appropriate instructional strategies, information literacy skills, and technologies to meet the learning needs of all young adolescents (e.g., race, ethnicity, culture, age, appearance, ability, sexual orientation, socioeconomic status, family composition).
- Middle level teacher candidates understand their complex roles as teachers of young adolescents. They engage in practices and behaviors that develop their competence as middle level professionals. They are informed advocates for young adolescents and middle level education, and work successfully with colleagues, families, community agencies, and community members. Middle level teacher candidates demonstrate positive dispositions and engage in ethical professional behaviors.

Bachelor of Science in Education in Middle Childhood Education (4-9), Mathematics-Science Concentration

Program Coordinator

Dr. M. Kathleen L. Cripe, Chairperson and Program Coordinator

OVERVIEW

In cooperation with various academic discipline departments in the University, the Department of Teacher Education and Leadership Studies offers a four-year Middle Childhood Education Program (grades 4-9), Math and Science Concentration, approved by the Ohio Department of Education. The Middle Childhood Math and Science License (Grades 4-9), Bachelor of Science in Education degree requires a minimum of 136 semester hours of course work. This teaching field also requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

EMPLOYMENT OPPORTUNITIES

Graduates of the Middle Childhood Program will be qualified to teach Math and Science in the grades 4-9 Math and/or Science classroom. Additional opportunities may be available in the private sector to tutor students. It is recommended that students in this major consider adding the Middle Childhood Generalist Endorsement to increase marketability.

Professional Dispositions

Teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

FIELD EXPERIENCES AND STUDENT TEACHING

Students complete a number of field experiences to support the learning of content and best practices of teaching. Field experiences offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Preclinical Field Experiences

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Middle Childhood preclinical experience is scheduled during the fall semester. Applications for the preclinical experience must be submitted on TaskStream one year in advance by September 1st.

- TEMC 4804 Middle Level Instructional Design and Student Outcomes
- TEMC 4801 The Middle School Learning Community
- TEMC 3704 Teaching Mathematics in the Middle School
- TEMC 3705 The Teaching of Science in the Middle School

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 39 during this experience.

- TEMC 4803 Student Teaching Seminar for Middle Childhood Education
- TEMC 4802 Student Teaching: Middle Childhood

ADVISEMENT

Advisement is provided by the Academic Advisors in Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all middle childhood majors must complete a preclinical experience.

REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assesses the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new license area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

030 Middle Grades Mathematics (for those with Mathematics concentration)

029 Middle Grades Science (for those with Science concentration)

090 Foundations of Reading

ENDORSEMENTS

The following endorsements are available to individuals holding this teaching license and may increase marketability: K-12 TESOL Endorsement, K-12 Reading Endorsement, Middle Childhood Generalist Endorsement (enables teaching in content areas not included in current course of study).

COURSE	TITLE	S.H.			
FIRST YEAR REQUIREMENT -STUDENT SUCCESS			TERG 3720	Developmental Reading Instruction: Vocabulary, Comprehension, and Writing	3
YSU 1500	Success Seminar	1-2	TERG 3730	Reading Assessment, Instruction, and Intervention	3
or YSU 1500S	Youngstown State University Success Seminar		Preclinical Curriculum		
or HONR 1500	Intro to Honors		TEMC 4801	The Middle School Learning Community ²	3
General Education Requirements			TCED 4800L	Laboratory Experience for Teaching All Learners	0
ENGL 1550	Writing 1 (requires a B average)	3-4	TEMC 4804	Middle Level Instructional Design and Student Outcomes ²	3
or ENGL 1549	Writing 1 with Support		TEMC 3704	Teaching Mathematics in the Middle School ²	3
ENGL 1551	Writing 2 (requires a B average)	3	TEMC 3705	The Teaching of Science in the Middle School ²	3
MATH 2665	Foundations of Middle School Mathematics 2 (Counted in major)		Student Teaching Curriculum		
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model. Some majors prescribe specific GE courses. If a course has been added to the domains, it is required.			TEMC 4802	Student Teaching: Middle Childhood ²	10
			TEMC 4803	Student Teaching Seminar for Middle Childhood Education ²	2
Arts and Humanities			TCED 5888E	Seminar edTPA Review	1
6			Total Semester Hours		
Natural Sciences (2 courses, 1 lab) Met with courses in Science concentration			133-135		
PSYC 1560	General Psychology	3	¹ Prerequisites for preclinical curriculum.		
Social Science GER		3	² Upper division course.		
General Education Electives (9 s.h.)			General Information		
CMST 1545	Communication Foundations	3	<ul style="list-style-type: none"> It is highly recommended that all teacher candidates meet with an academic advisor every semester. Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the TELS Teacher Education Programs or candidacy for a teaching license. A grade of "C" or better is required in all courses. Some courses cannot be taken CR/NC. Check with an Advisor. Professional education and preclinical courses may only be repeated one time. 		
The remaining 6 s.h. are met in the major.			Upper Division		
Major Requirements -Mathematics Concentration			<ul style="list-style-type: none"> Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in TELS. Upper division requirements: <ul style="list-style-type: none"> Completion of 50 SH Minimum 2.75 overall GPA "B" average or better (A-C, B-B) for: ENGL 1550 and ENGL 1551. <ul style="list-style-type: none"> If failure to meet "B" average above must also complete: <ul style="list-style-type: none"> ENGL 2601 grade of "B" or better. If you receive a "C" or below you will need to retake the course. "B" average or better (B-B-B, A-B-C) across the following: 		
MATH 1564	Foundations of Middle School Mathematics 1	4	EDFN 1501	CMST 1545	
MATH 2665	Foundations of Middle School Mathematics 2	4	SPED 2630	MATH 1564 or BIOL 1505	
MATH 3767	Algebra/Geometry for Middle School Teachers 1	4	<ul style="list-style-type: none"> After completing a minimum of 50 SH, submit the following: <ul style="list-style-type: none"> Upper Division application (Portal) Good Moral Character Statement Copy of BCI & FBI clearances Writing prompt (Blackboard) Deadlines for submission for upper division status (late applications may not be accepted): <ul style="list-style-type: none"> September 1—to register for Upper Division Courses for Spring February 1—to register for Upper Division courses for Summer & Fall 		
MATH 3768	Algebra/Geometry for Middle School Teachers 2	4	Admission to Preclinical and Evaluation for Graduation		
MATH 4869	Functions, Calculus, and Applications for Middle School Teachers	3	<ul style="list-style-type: none"> Request must be submitted to TaskStream one year prior to the intended preclinical semester no later than: September 1—for Fall preclinical (Late applications may not be accepted) 		
MATH 4870	Mathematics Concepts for Middle School Teachers	3			
STAT 2601	Introductory Statistics	3			
Science Concentration					
BIOL 1505	Biology and the Modern World	3			
CHEM 1500	Chemistry in Modern Living	3			
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4			
GEOL 2605	Historical Geology	4			
PHYS 2607	Physical Science for Middle and Secondary Education	4			
ASTR 1504	Descriptive Astronomy	3			
ENST 2600	Foundations of Environmental Science	3			
ENST 2600L	Foundations of Environmental Science Laboratory	1			
GEOG 2630	Weather	3			
GEOG 2630L	Weather Lab	1			
TEMC 3707	Science/Technology/Society ^{1,2}	3			
Professional Education Curriculum					
EDFN 1501	Introduction to Education	3			
TCED 2600	Becoming an Education Professional	1			
TCED 2601	Diversity and Equity in the Classroom	1			
PSYC 3709	Psychology of Education	3			
SPED 2630	Individuals with Exceptionalities in Society ¹	3			
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0			
EDFN 3708	Education and Society	3			
TEMC 3702	Teaching & Learning in Middle Schools ^{1,2}	3			
Reading Course Requirement					
TERG 2605	Reading Foundational Skills Across Content Areas Pre-K – 12	3			
TERG 3700	Phonological Awareness and Phonics	3			

- **February 1**—for Spring preclinical (**Late applications may not be accepted**)
- Content GPA (2.67 minimum), Professional GPA (2.67 minimum), Overall GPA (2.75 minimum).

Student Teaching

- Student teaching application must be submitted following instructions found on the portal.
- **Late applications will likely result in a delay to student teaching by one semester. Application and forms are due to the Office of Student Field Experience:**
 - September 1—to Student Teach the following Spring Semester
 - February 1—to Student Teach the following Fall Semester
- **Prerequisites:**
 - BCOE Upper Division status
 - Overall 2.75 GPA
 - Minimum of 2.67 GPA in subject area curriculum and 2.67 in professional education courses with no grade less than a “C”
 - Passage of OAE test(s) and ACTFL tests for foreign language

Completing a Bachelor of Science in Education with Licensure

- **Successful completion of student teaching (endorsed) with CPAST average score of 2 with no zeros**
- **Minimum score of 39 on edTPA, with the exception of a 34 for Foreign Language**

Completing a Bachelor of Science in Education without Licensure

- A teacher candidate may choose to graduate without licensure. Teacher candidates who wish to graduate without licensure must take TCED 4830 (3 SH) capstone course in place of student teaching.

Year 1

Fall		S.H.
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
MATH 1564	Foundations of Middle School Mathematics 1	4
PSYC 1560	General Psychology	3
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1
Semester Hours		17-19

Spring

ENGL 1551	Writing 2	3
MATH 2665	Foundations of Middle School Mathematics 2	4
SPED 2630	Individuals with Exceptionalities in Society	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
CHEM 1500	Chemistry in Modern Living	3
EDFN 1501	Introduction to Education	3
BIOL 1505	Biology and the Modern World	3
Semester Hours		19

Year 2

Fall		
MATH 3767	Algebra/Geometry for Middle School Teachers	4

ENST 2600	Foundations of Environmental Science	3
ENST 2600L	Foundations of Environmental Science Laboratory	1
PSYC 3709	Psychology of Education	3
CMST 1545	Communication Foundations	3
TERG 2605	Reading Foundational Skills Across Content Areas Pre-K – 12	3
Semester Hours		17

Spring

MATH 3768	Algebra/Geometry for Middle School Teachers 2	4
PHYS 2607	Physical Science for Middle and Secondary Education	4
GEOG 2630	Weather	3
GEOG 2630L	Weather Lab	1
TERG 3700	Phonological Awareness and Phonics	3
Social Science GER		3
Arts and Humanities GER		3
Semester Hours		21

Year 3

Fall		
MATH 4869	Functions, Calculus, and Applications for Middle School Teachers	3
STAT 2601	Introductory Statistics	3
ASTR 1504	Descriptive Astronomy	3
TERG 3720	Developmental Reading Instruction: Vocabulary, Comprehension, and Writing	3
Arts and Humanities GER		3
Semester Hours		15

Spring

MATH 4870	Mathematics Concepts for Middle School Teachers	3
TEMC 3707	Science/Technology/Society	3
GEOL 2605	Historical Geology	4
TEMC 3702	Teaching & Learning in Middle Schools	3
TERG 3730	Reading Assessment, Instruction, and Intervention	3
Semester Hours		16

Year 4

Fall		
TEMC 4801	The Middle School Learning Community	3
TCED 4800L	Laboratory Experience for Teaching All Learners	0
TEMC 3704	Teaching Mathematics in the Middle School	3
TEMC 3705	The Teaching of Science in the Middle School	3
TEMC 4804	Middle Level Instructional Design and Student Outcomes	3
EDFN 3708	Education and Society	3
Semester Hours		15

Spring

TEMC 4802	Student Teaching: Middle Childhood	10
TEMC 4803	Student Teaching Seminar for Middle Childhood Education	2
TCED 5888E	Seminar edTPA Review	1
Semester Hours		13

Total Semester Hours

133-135

Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.
- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.
- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

The learning outcomes for this program, align with the 5 Standards of the Association for Middle Level Education (AMLE):

- Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to young adolescent development and use that knowledge in their practice. They demonstrate their ability to apply this knowledge when making curricular decisions, planning and implementing instruction, participating in middle level programs and practices, and providing healthy and effective learning environments for all young adolescents.
- Middle level teacher candidates understand and use the central concepts, standards, research, and structures of content to plan and implement curriculum that develops all young adolescents' competence in subject matter. They use their knowledge and available resources to design, implement, and evaluate challenging, developmentally responsive curriculum that results in meaningful learning outcomes. Middle level teacher candidates demonstrate their ability to assist all young adolescents in understanding the interdisciplinary nature of knowledge. They design and teach curriculum that is responsive to all young adolescents' local, national, and international histories, language/dialects, and individual identities (e.g., race, ethnicity, culture, age, appearance, ability, sexual orientation, socioeconomic status, family composition).
- Middle level teacher candidates understand the major concepts, principles, theories, and research underlying the philosophical foundations of developmentally responsive middle level programs and schools, and they work successfully within middle level organizational components.
- Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to data-informed instruction and assessment. They employ a variety of developmentally appropriate instructional strategies, information literacy skills, and technologies to meet the learning needs of all young adolescents (e.g., race, ethnicity, culture, age, appearance, ability, sexual orientation, socioeconomic status, family composition).
- Middle level teacher candidates understand their complex roles as teachers of young adolescents. They engage in practices and behaviors that develop their competence as middle level professionals. They are informed advocates for young adolescents and middle level education, and work successfully with colleagues, families, community agencies,

and community members. Middle level teacher candidates demonstrate positive dispositions and engage in ethical professional behaviors.

Bachelor of Science in Education in Middle Childhood Education (4-9), Language Arts-Science Concentration

Dr. M. Kathleen L. Cripe, Chairperson and Program Coordinator

OVERVIEW

In cooperation with various academic discipline departments in the University, the Department of Teacher Education and Leadership Studies offers a four-year Middle Childhood Education Program (grades 4-9), Science and Language Arts Concentration, approved by the Ohio Department of Education. The Middle Childhood Science and Language Arts License (Grades 4-9), Bachelor of Science in Education degree requires a minimum of 130 semester hours of course work. This teaching field requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

EMPLOYMENT OPPORTUNITIES

Graduates of the Middle Childhood Program will be qualified to teach in the grades 4-9 classroom. Additional opportunities may be available in the private sector to tutor students. It is recommended that students in this major consider adding the Middle Childhood Generalist Endorsement to increase marketability.

Professional Dispositions

In addition to the above learning outcomes, teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

FIELD EXPERIENCES AND STUDENT TEACHING

Students complete a number of field experiences to support the learning of content and best practices of teaching. Field experiences offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3701 Phonics in Reading Instruction
- TERG 3702 Developmental Reading Instruction
- TERG 3703 Assessment and Instruction in Reading
- TERG 2610 Reading Application in Content Areas Middle Years
- TEMC 3702 Teaching & Learning in Middle Schools

Preclinical Field Experiences

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Middle Childhood preclinical experience is scheduled

during the fall semester. Applications for the preclinical experience must be submitted to the Office of Student Field Experience one year in advance by September 1st.

- TEMC 4804 Middle Level Instructional Design and Student Outcomes
- TEMC 4801 The Middle School Learning Community
- TEMC 3705 The Teaching of Science in the Middle School
- TEMC 3706 Teaching Language Arts in the Middle School

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 39 during this experience.

- TEMC 4803 Student Teaching Seminar for Middle Childhood Education
- TEMC 4802 Student Teaching: Middle Childhood

ADVISEMENT

Advisement is provided by the Academic Advisors in the Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all middle childhood majors must complete a preclinical experience.

REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assesses the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new license area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

028 Middle Grades English Language Arts (for those with English Language Arts concentration)

029 Middle Grades Science (for those with Science concentration)

090 Foundations of Reading

ENDORSEMENTS

The following endorsements are available to individuals holding this teaching license and may increase marketability: K-12 TESOL Endorsement, K-12 Reading Endorsement, Middle Childhood Generalist Endorsement (enables teaching in content areas not included in current course of study).

Dr. Kathleen Cripe, Program Coordinator

OVERVIEW

In cooperation with various academic discipline departments in the University, the Department of Teacher Education and Leadership Studies offers a four-year Middle Childhood Education Program (grades 4-9), Science and Language Arts Concentration, approved by the Ohio Department of Education. The Middle Childhood Science and Language Arts License (Grades 4-9), Bachelor of Science in Education degree requires a minimum of 130 semester hours of course work. This teaching field requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

EMPLOYMENT OPPORTUNITIES

Graduates of the Middle Childhood Program will be qualified to teach in the grades 4-9 classroom. Additional opportunities may be available in the private sector to tutor students. It is recommended that students in this major consider adding the Middle Childhood Generalist Endorsement to increase marketability.

Professional Dispositions:

In addition to the above learning outcomes, teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

FIELD EXPERIENCES AND STUDENT TEACHING

Students complete a number of field experiences to support the learning of content and best practices of teaching. Field experiences offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Preclinical Field Experiences

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Middle Childhood preclinical experience is scheduled during the fall semester. Applications for the preclinical experience must be submitted to the Office of Student Field Experience one year in advance (September 1).

- TEMC 3702 Teaching & Learning in Middle Schools
- And
- TEMC 4801 The Middle School Learning Community
- And
- TEMC 3705 The Teaching of Science in the Middle School
- And
- TEMC 3706 Teaching Language Arts in the Middle School

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 37 during this experience.

- TEMC 4803 Student Teaching Seminar for Middle Childhood Education
- And
- TEMC 4802 Student Teaching: Middle Childhood

ADVISEMENT

Advisement is provided by the academic advisors in the Beeghly College of Liberal Arts, Social Sciences, and Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all middle childhood majors must complete a preclinical experience.

REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assesses the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new license area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

002 Assessment of Professional Knowledge (All MCE Candidates)

028 Middle Grades English Language Arts (for those with English Language Arts concentration)

029 Middle Grades Science (for those with Science concentration)

090 Foundations of Reading

ENDORSEMENTS

The following endorsements are available to individuals holding this teaching license and may increase marketability: K-12 TESOL Endorsement, K-12 Reading Endorsement, Middle Childhood Generalist Endorsement (enables teaching in content areas not included in current course of study).

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	

General Education Requirements

ENGL 1550	Writing 1 (requires a B average)	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2 (requires a B average)	3

Mathematics Requirement

One of the following courses may be taken to fulfill Math GER.		3-4
MATH 2623	Quantitative Reasoning	
or MATH 262	Quantitative Reasoning with Co-Requisite Support	

Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model. Courses listed for GER's below are required in this program. See page 2 for other General Education recommendations.

Arts and Humanities	hours met with major courses	
Natural Sciences (2 courses, 1 lab)	Hours met with major courses	
Social Science		

PSYC 1560	General Psychology	3
Social Science GER		3
General Education Electives (9 s.h.)	Hours met with major courses	6
CMST 1545	Communication Foundations	3

The remaining 6 s.h. are met in the major.

Major Requirements

TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1

Language Arts Concentration

CMST 2656	Interpersonal Communication	3
ENGL 2610	World Literature (AH)	3
ENGL 2618	American Literature and Diversity (AH)	3
ENGL 2651	Introduction to Language (SS)	3
ENGL 3700	Literary Study	3
ENGL 3704	Literature for Middle School Readers	3
ENGL 3730	Teaching Language Arts	3
ENGL 3739	Writing for Middle School Teachers	3

Science Concentration

BIOL 1505	Biology and the Modern World (NS)	3
CHEM 1500	Chemistry in Modern Living (NS)	3
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory (NS)	4
GEOL 2605	Historical Geology	4
PHYS 2607	Physical Science for Middle and Secondary Education (NS)	4

ASTR 1504	Descriptive Astronomy (NS)	3
ENST 2600	Foundations of Environmental Science	3
ENST 2600L	Foundations of Environmental Science Laboratory	1
GEOG 2630	Weather	3
GEOG 2630L	Weather Lab	1
TEMC 3707	Science/Technology/Society (upper division status - for science concentration area candidates only) ^{1,2}	3

Professional Education Curriculum

EDFN 1501	Introduction to Education	3
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society ¹	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
EDFN 3708	Education and Society	3
TEMC 3702	Teaching & Learning in Middle Schools ^{1,2}	3

Reading Course Requirements

TERG 2605	Reading Foundational Skills Across Content Areas Pre-K – 12	3
TERG 3700	Phonological Awareness and Phonics	3
TERG 3720	Developmental Reading Instruction: Vocabulary, Comprehension, and Writing	3
TERG 3730	Reading Assessment, Instruction, and Intervention	3

Preclinical Curriculum

TEMC 4801	The Middle School Learning Community ²	3
TCED 4800L	Laboratory Experience for Teaching All Learners	0
TEMC 4804	Middle Level Instructional Design and Student Outcomes ²	3
TEMC 3705	The Teaching of Science in the Middle School ²	3
TEMC 3706	Teaching Language Arts in the Middle School ²	3

Student Teaching Curriculum

TEMC 4802	Student Teaching: Middle Childhood ²	10
TEMC 4803	Student Teaching Seminar for Middle Childhood Education ²	2
TCED 5888E	Seminar edTPA Review	1

Total Semester Hours **135-138**

¹ Prerequisites for preclinical curriculum.

² Upper division course.

General Information

- It is highly recommended that all teacher candidates meet with an academic advisor every semester.
- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the TELS Teacher Education Programs or candidacy for a teaching license.
- A grade of "C" or better is required in all courses. Some courses cannot be taken CR/NC. Check with an Advisor. Professional education and preclinical courses may only be repeated **one** time.

Upper Division

- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in TELS.**
- Upper division requirements:
 - ____ Completion of 50 SH
 - ____ Minimum 2.75 overall GPA
 - ____ "B" average or better (A-C, B-B) for: ENGL 1550 and ENGL 1551.

- If failure to meet “B” average above must also complete:
 - ____ ENGL 2601 grade of “B” or better.
- **If you receive a “C” or below you will need to retake the course.**
- ____ “B” average or better (B-B-B, A-B-C) across the following:

____ EDFN 1501 ____ CMST 1545

____ SPED 2630 ____ BIOL 1505 or ENGL 1551

- After completing a minimum of 50 SH, submit the following:
 - Upper Division application (Portal)
 - Good Moral Character Statement
 - Copy of BCI & FBI clearances
 - Writing prompt (Blackboard)
- Deadlines for submission for upper division status (**late applications may not be accepted**):
 - **September 1**—to register for Upper Division Courses for Spring
 - **February 1**—to register for Upper Division courses for Summer & Fall

Admission to Preclinical and Evaluation for Graduation

- Request must be submitted to TaskStream **one year prior to the intended preclinical semester no later than:**
- **September 1**—for Fall preclinical (**Late applications may not be accepted**)
- **February 1**—for Spring preclinical (**Late applications may not be accepted**)
- Content GPA (2.67 minimum), Professional GPA (2.67 minimum), Overall GPA (2.75 minimum).

Student Teaching

- Student teaching application must be submitted following instructions found on the portal.
- **Late applications will likely result in a delay to student teaching by one semester. Application and forms are due to the Office of Student Field Experience:**
 - September 1—to Student Teach the following Spring Semester
 - February 1—to Student Teach the following Fall Semester
- **Prerequisites:**
 - BCOE Upper Division status
 - Overall 2.75 GPA
 - Minimum of 2.67 GPA in subject area curriculum and 2.67 in professional education courses with no grade less than a “C”
 - Passage of OAE test(s) and ACTFL tests for foreign language

Completing a Bachelor of Science in Education with Licensure

- **Successful completion of student teaching (endorsed) with CPAST average score of 2 with no zeros**
- **Minimum score of 39 on edTPA, with the exception of a 34 for Foreign Language**

Completing a Bachelor of Science in Education without Licensure

- A teacher candidate may choose to graduate without licensure. Teacher candidates who wish to graduate without licensure must take TCED 4830 (3 SH) capstone course in place of student teaching.

Year 1

Fall

YSU 1500 Success Seminar
or YSU 1500S or Youngstown State University Success
or HONR 1500 Seminar
or Intro to Honors

ENGL 1550 Writing 1 3
or ENGL 1549 or Writing 1 with Support

S.H.

1

ENGL 2618	American Literature and Diversity (counts as AH)	3
PSYC 1560	General Psychology	3
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1
ENGL 1551	Writing 2	3

Semester Hours **19**

Spring

ENGL 1551	Writing 2	3
ENGL 2610	World Literature (counts as AH)	3
EDFN 1501	Introduction to Education	3
ENST 2600 & 2600L	Foundations of Environmental Science and Foundations of Environmental Science Laboratory	4
MATH 2623	Quantitative Reasoning	3

Semester Hours **16**

Year 2

Fall

ENGL 2651	Introduction to Language	3
SPED 2630	Individuals with Exceptionalities in Society	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
CMST 1545	Communication Foundations	3
CHEM 1500	Chemistry in Modern Living	3
TERG 2605	Reading Foundational Skills Across Content Areas Pre-K – 12	3

Social Science GER 3

Semester Hours **18**

Spring

ENGL 3700	Literary Study	3
TERG 3700	Phonological Awareness and Phonics	3
ASTR 1504	Descriptive Astronomy	3
PHYS 2607	Physical Science for Middle and Secondary Education	4
GEOL 2605	Historical Geology	4

Semester Hours **17**

Year 3

Fall

ENGL 3704	Literature for Middle School Readers	3
BIOL 1505	Biology and the Modern World	3
CMST 2656	Interpersonal Communication	3
TERG 3720	Developmental Reading Instruction: Vocabulary, Comprehension, and Writing	3

GEOG 2630 Weather 3

GEOG 2630L Weather Lab 1

PSYC 3709 Psychology of Education 3

Semester Hours **19**

Spring

ENGL 3730	Teaching Language Arts	3
ENGL 3739	Writing for Middle School Teachers	3
TEMC 3707	Science/Technology/Society	3
TEMC 3702	Teaching & Learning in Middle Schools	3
TERG 3730	Reading Assessment, Instruction, and Intervention	3

Social and Personal Awareness GER 3

Semester Hours **18**

Year 4**Fall**

TEMC 4801	The Middle School Learning Community	3
TCED 4800L	Laboratory Experience for Teaching All Learners	0
TEMC 3705	The Teaching of Science in the Middle School	3
TEMC 3706	Teaching Language Arts in the Middle School	3
EDFN 3708	Education and Society	3
TEMC 4804	Middle Level Instructional Design and Student Outcomes	3
Semester Hours		15

Spring

TEMC 4802	Student Teaching: Middle Childhood	10
TEMC 4803	Student Teaching Seminar for Middle Childhood Education	2
TCED 5888E	Seminar edTPA Review	1
Semester Hours		13
Total Semester Hours		135

Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.
- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.
- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

The learning outcomes for this program, align with the 5 Standards of the Association for Middle Level Education (AMLE):

- Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to young adolescent development and use that knowledge in their practice. They demonstrate their ability to apply this knowledge when making curricular decisions, planning and implementing instruction, participating in middle level programs and practices, and providing healthy and effective learning environments for all young adolescents.
- Middle level teacher candidates understand and use the central concepts, standards, research, and structures of content to plan and implement curriculum that develops all young adolescents' competence in subject matter. They use their knowledge and available resources to design, implement, and evaluate challenging, developmentally responsive curriculum that results in meaningful learning outcomes. Middle level teacher candidates demonstrate their ability to assist all young

adolescents in understanding the interdisciplinary nature of knowledge.

They design and teach curriculum that is responsive to all young adolescents' local, national, and international histories, language/dialects, and individual identities (e.g., race, ethnicity, culture, age, appearance, ability, sexual orientation, socioeconomic status, family composition).

- Middle level teacher candidates understand the major concepts, principles, theories, and research underlying the philosophical foundations of developmentally responsive middle level programs and schools, and they work successfully within middle level organizational components.
- Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to data-informed instruction and assessment. They employ a variety of developmentally appropriate instructional strategies, information literacy skills, and technologies to meet the learning needs of all young adolescents (e.g., race, ethnicity, culture, age, appearance, ability, sexual orientation, socioeconomic status, family composition).
- Middle level teacher candidates understand their complex roles as teachers of young adolescents. They engage in practices and behaviors that develop their competence as middle level professionals. They are informed advocates for young adolescents and middle level education, and work successfully with colleagues, families, community agencies, and community members. Middle level teacher candidates demonstrate positive dispositions and engage in ethical professional behaviors.

Bachelor of Science in Education in Middle Childhood Education (4-9), Language Arts-Social Studies Concentration

Program Coordinator

Dr. M. Kathleen L. Cripe, Chairperson and Program Coordinator

OVERVIEW

In cooperation with various academic discipline departments in the University, the Department of Teacher Education and Leadership Studies offers a four-year Middle Childhood Education Program (grades 4-9), Social Studies and Language Arts Concentration, approved by the Ohio Department of Education. The Middle Childhood Social Studies and Language Arts License (Grades 4-9), Bachelor of Science in Education degree requires a minimum of 134 semester hours of course work. This teaching field also requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

EMPLOYMENT OPPORTUNITIES

Graduates of the Middle Childhood Program will be qualified to teach in the grades 4-9 classroom. Additional opportunities may be available in the private sector to tutor students. It is recommended that students in this major consider adding the Middle Childhood Generalist Endorsement to increase marketability.

Professional Dispositions

Teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

FIELD EXPERIENCES AND STUDENT TEACHING

Students complete over 150 hours of preclinical experiences, and additional field experiences, which are included in the following courses and offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3701 Phonics in Reading Instruction
- TERG 3702 Developmental Reading Instruction
- TERG 3703 Assessment and Instruction in Reading
- TERG 2610 Reading Application in Content Areas Middle Years
- TEMC 3702 Teaching & Learning in Middle Schools

Preclinical Field Experiences

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Middle Childhood preclinical experience is scheduled during the fall semester. Applications for the preclinical experience must be submitted (1) one year in advance on TaskStream by September 1st for the preclinical experience. Contact the Education Academic Advisors for minimum preclinical prerequisites.

- TEMC 4804 Middle Level Instructional Design and Student Outcomes
- TEMC 4801 The Middle School Learning Community
- TEMC 3703 Thematic Instruction and Assessment Methods in Social Studies
- TEMC 3706 Teaching Language Arts in the Middle School

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 39 during this experience.

- TEMC 4803 Student Teaching Seminar for Middle Childhood Education
- TEMC 4802 Student Teaching: Middle Childhood

ADVISEMENT

Advisement is provided by the Academic Advisors in Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a preclinical experience.

REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assess the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new license area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

028 Middle Grades English Language Arts (for those with English Language Arts concentration)

031 Middle Grades Social Studies (for those with Social Studies concentration)

090 Foundations of Reading

ENDORSEMENTS

The following endorsements are available to individuals holding this teaching license and may increase marketability: K-12 TESOL Endorsement, K-12 Reading Endorsement, Middle Childhood Generalist Endorsement (enables teaching in content areas not included in current course of study).

COURSE	TITLE	S.H.
First Year Requirement-Student Success		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1 (requires a B average)	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2 (requires a B average)	3
Mathematics Requirement		3
One of the following courses may be taken to fulfill Math GER		
MATH 2623	Quantitative Reasoning	
OR:		
MATH 2665	Foundations of Middle School Mathematics 2 ((Mathematics Concentration takes this course)	
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model. Courses listed for Knowledge Domains below are required in this program. See page 2 for other General education recommendations.		
Arts and Humanities (6 s.h.)		
The required 6 s.h. are met with courses in the major.		
Natural Sciences (2 courses, 1 with lab) (7 s.h.)		7
Social Science (6 s.h.)		
PSYC 1560	General Psychology	3
Remaining 3 s.h. are met with courses in the major.		
General Education Electives (9 s.h.)		
CMST 1545	Communication Foundations	3
The remaining 6 s.h. are met with courses in the major.		
Major Requirements Language Arts Concentration		
CMST 2656	Interpersonal Communication	3
ENGL 2610	World Literature (AH)	3
ENGL 2618	American Literature and Diversity (AH)	3
ENGL 2651	Introduction to Language (SS)	3
ENGL 3700	Literary Study	3
ENGL 3704	Literature for Middle School Readers	3
ENGL 3730	Teaching Language Arts	3
ENGL 3739	Writing for Middle School Teachers	3
Social Studies Concentration		
HIST 1511	World Civilization to 1500 (SS)	3
HIST 1512	World Civilization from 1500 (SS)	3
HIST 2606	Turning Points in United States History 2 (SS)	3
HIST 3748	History of Ohio	3
GEOG 2640	Human Geography (SS)	3
GEOG 3717	Geography of Europe	3
POL 1560	American Government (SS)	3
POL 2640	Contemporary World Governments	3
ECON 2610	Principles 1: Microeconomics (SS)	3
ECON 2631	Introductory Macroeconomics for Education Majors (SS)	3
ANTH 1500	Introduction to Anthropology (SS)	3
Professional Education Curriculum		
TCED 2600	Becoming an Education Professional	1

TCED 2601	Diversity and Equity in the Classroom	1
PSYC 3709	Psychology of Education	3
EDFN 1501	Introduction to Education	3
SPED 2630	Individuals with Exceptionalities in Society ¹	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
EDFN 3708	Education and Society	3
TEMC 3702	Teaching & Learning in Middle Schools ^{1,2}	3
Reading Course Requirements		
TERG 2605	Reading Foundational Skills Across Content Areas Pre-K – 12	3
TERG 3700	Phonological Awareness and Phonics	3
TERG 3720	Developmental Reading Instruction: Vocabulary, Comprehension, and Writing	3
TERG 3730	Reading Assessment, Instruction, and Intervention	3
Preclinical Curriculum		
TCED 4800L	Laboratory Experience for Teaching All Learners	0
TEMC 4801	The Middle School Learning Community ²	3
TEMC 4804	Middle Level Instructional Design and Student Outcomes ²	3
TEMC 3703	Thematic Instruction and Assessment Methods in Social Studies ²	3
TEMC 3706	Teaching Language Arts in the Middle School ²	3
Student Teaching Curriculum		
TEMC 4802	Student Teaching: Middle Childhood ²	10
TEMC 4803	Student Teaching Seminar for Middle Childhood Education ²	2
TCED 5888E	Seminar edTPA Review	1
Total Semester Hours		134-136

¹ Prerequisites for preclinical curriculum.

² Upper division course.

General Information

- It is highly recommended that all teacher candidates meet with an academic advisor every semester.
- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the TELS Teacher Education Programs or candidacy for a teaching license.
- A grade of “C” or better is required in all courses. Some courses cannot be taken CR/NC. Check with an Advisor. Professional education and preclinical courses may only be repeated **one** time.

Upper Division

- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in TELS.**
- Upper division requirements:
 - ____ Completion of 50 SH
 - ____ Minimum 2.75 overall GPA
 - ____ “B” average or better (A-C, B-B) for: ENGL 1550 and ENGL 1551.
 - If failure to meet “B” average above must also complete:
 - ____ ENGL 2601 grade of “B” or better.
 - **If you receive a “C” or below you will need to retake the course.**
 - ____ “B” average or better (B-B-B, A-B-C) across the following:

____ EDFN 1501 ____ CMST 1545

____ SPED 2630 ____ ENGL 2651, HIST 2606, or HIST 1511

- After completing a minimum of 50 SH, submit the following:
 - Upper Division application (Portal)
 - Good Moral Character Statement
 - Copy of BCI & FBI clearances
 - Writing prompt (Blackboard)
- Deadlines for submission for upper division status (**late applications may not be accepted**):
 - **September 1**—to register for Upper Division Courses for Spring
 - **February 1**—to register for Upper Division courses for Summer & Fall

Admission to Preclinical and Evaluation for Graduation

- Request must be submitted to TaskStream **one year prior to the intended preclinical semester no later than:**
- **September 1**—for Fall preclinical (**Late applications may not be accepted**)
- **February 1**—for Spring preclinical (**Late applications may not be accepted**)
- Content GPA (2.67 minimum), Professional GPA (2.67 minimum), Overall GPA (2.75 minimum).

Student Teaching

- Student teaching application must be submitted following instructions found on the portal.
- **Late applications will likely result in a delay to student teaching by one semester. Application and forms are due to the Office of Student Field Experience:**
 - September 1—to Student Teach the following Spring Semester
 - February 1—to Student Teach the following Fall Semester
- **Prerequisites:**
 - BCOE Upper Division status
 - Overall 2.75 GPA
 - Minimum of 2.67 GPA in subject area curriculum and 2.67 in professional education courses with no grade less than a “C”
 - Passage of OAE test(s) and ACTFL tests for foreign language

Completing a Bachelor of Science in Education with Licensure

- **Successful completion of student teaching (endorsed) with CPAST average score of 2 with no zeros**
- **Minimum score of 39 on edTPA, with the exception of a 34 for Foreign Language**

Completing a Bachelor of Science in Education without Licensure

- A teacher candidate may choose to graduate without licensure. Teacher candidates who wish to graduate without licensure must take TCED 4830 (3 SH) capstone course in place of student teaching.

Year 1

Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
ENGL 2618	American Literature and Diversity (counts as AH or SPA Elective)	3
POL 1560	American Government (counts as SS Elective)	3
EDFN 1501	Introduction to Education	3
TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1

Natural Science/Lab GER	4
Semester Hours	19-21
Spring	
ENGL 1551	Writing 2 3
ENGL 2610	World Literature (counts as AH or SPA Elective) 3
SPED 2630	Individuals with Exceptionalities in Society 3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience 0
PSYC 1560	General Psychology 3
HIST 1511	World Civilization to 1500 3
MATH 2623	Quantitative Reasoning 3
TERG 2605	Reading Foundational Skills Across Content Areas Pre-K – 12 3
Semester Hours	21
Year 2	
Fall	
ANTH 1500	Introduction to Anthropology 3
HIST 1512	World Civilization from 1500 3
CMST 1545	Communication Foundations 3
ENGL 2651	Introduction to Language 3
ECON 2610	Principles 1: Microeconomics 3
Semester Hours	15
Spring	
ENGL 3700	Literary Study 3
TERG 3700	Phonological Awareness and Phonics 3
CMST 2656	Interpersonal Communication 3
GEOG 2640	Human Geography 3
POL 2640	Contemporary World Governments (counts as SS or SPA Elective) 3
ECON 2631	Introductory Macroeconomics for Education Majors 3
Semester Hours	18
Year 3	
Fall	
ENGL 3704	Literature for Middle School Readers 3
HIST 2606	Turning Points in United States History 2 3
PSYC 3709	Psychology of Education 3
TERG 3720	Developmental Reading Instruction: Vocabulary, Comprehension, and Writing 3
Natural Science GER	3
HIST 3748	History of Ohio 3
Semester Hours	18
Spring	
ENGL 3730	Teaching Language Arts 3
ENGL 3739	Writing for Middle School Teachers 3
GEOG 3717	Geography of Europe 3
TEMC 3702	Teaching & Learning in Middle Schools 3
TERG 3730	Reading Assessment, Instruction, and Intervention 3
Semester Hours	15
Year 4	
Fall	
TEMC 4801	The Middle School Learning Community 3
TCED 4800L	Laboratory Experience for Teaching All Learners 0
TEMC 3703	Thematic Instruction and Assessment Methods in Social Studies 3

TEMC 3706	Teaching Language Arts in the Middle School	3
TEMC 4804	Middle Level Instructional Design and Student Outcomes	3
EDFN 3708	Education and Society	3
Semester Hours		15
Spring		
TEMC 4802	Student Teaching: Middle Childhood	10
TEMC 4803	Student Teaching Seminar for Middle Childhood Education	2
TCED 5888E	Seminar edTPA Review	1
Semester Hours		13
Total Semester Hours		134-136

Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.
- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.
- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

The learning outcomes for this program, align with the 5 Standards of the Association for Middle Level Education (AMLE):

- Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to young adolescent development and use that knowledge in their practice. They demonstrate their ability to apply this knowledge when making curricular decisions, planning and implementing instruction, participating in middle level programs and practices, and providing healthy and effective learning environments for all young adolescents.
- Middle level teacher candidates understand and use the central concepts, standards, research, and structures of content to plan and implement curriculum that develops all young adolescents' competence in subject matter. They use their knowledge and available resources to design, implement, and evaluate challenging, developmentally responsive curriculum that results in meaningful learning outcomes. Middle level teacher candidates demonstrate their ability to assist all young adolescents in understanding the interdisciplinary nature of knowledge. They design and teach curriculum that is responsive to all young adolescents' local, national, and international histories, language/dialects, and individual identities (e.g., race, ethnicity, culture, age, appearance, ability, sexual orientation, socioeconomic status, family composition).
- Middle level teacher candidates understand the major concepts, principles, theories, and research underlying the philosophical foundations of

developmentally responsive middle level programs and schools, and they work successfully within middle level organizational components.

- Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to data-informed instruction and assessment. They employ a variety of developmentally appropriate instructional strategies, information literacy skills, and technologies to meet the learning needs of all young adolescents (e.g., race, ethnicity, culture, age, appearance, ability, sexual orientation, socioeconomic status, family composition).
- Middle level teacher candidates understand their complex roles as teachers of young adolescents. They engage in practices and behaviors that develop their competence as middle level professionals. They are informed advocates for young adolescents and middle level education, and work successfully with colleagues, families, community agencies, and community members. Middle level teacher candidates demonstrate positive dispositions and engage in ethical professional behaviors.

Bachelor of Science in Education in Middle Childhood Education (4-9), Science-Social Studies Concentration

Program Coordinator

Dr. M. Kathleen L. Cripe, Chairperson and Program Coordinator

OVERVIEW

In cooperation with various academic discipline departments in the University, the Department of Teacher Education and Leadership Studies offers a four-year Middle Childhood Education Program (grades 4-9), Science and Social Studies Concentration, approved by the Ohio Department of Education. The Middle Childhood Science and Social Studies License (Grades 4-9), Bachelor of Science in Education degree requires a minimum of 140 semester hours of course work. This teaching field also requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

EMPLOYMENT OPPORTUNITIES

Graduates of the Middle Childhood Program will be qualified to teach in the grades 4-9 classroom. Additional opportunities may be available in the private sector to tutor students. It is recommended that students in this major consider adding the Middle Childhood Generalist Endorsement to increase marketability.

Professional Dispositions

Teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

FIELD EXPERIENCES AND STUDENT TEACHING

Students complete over 150 hours of preclinical experiences, and additional field hours, included in the following courses, which offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3701 Phonics in Reading Instruction
- TERG 3702 Developmental Reading Instruction
- TERG 3703 Assessment and Instruction in Reading
- TERG 2610 Reading Application in Content Areas Middle Years
- TEMC 3702 Teaching & Learning in Middle Schools

Preclinical Field Experiences

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Middle Childhood preclinical experience is scheduled during the fall semester. Applications for the preclinical experience must be submitted (1) one year in advance on TaskStream by September 1st for the preclinical experience. Contact the Education Academic Advisors for minimum preclinical prerequisites.

- TEMC 4804 Middle Level Instructional Design and Student Outcomes
- TEMC 4801 The Middle School Learning Community
- TEMC 3703 Thematic Instruction and Assessment Methods in Social Studies
- TEMC 3705 The Teaching of Science in the Middle School

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 39 during this experience.

- TEMC 4803 Student Teaching Seminar for Middle Childhood Education
- TEMC 4802 Student Teaching: Middle Childhood

ADVISEMENT

Advisement is provided by the Academic Advisors in Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all adolescent/young adult majors must complete a preclinical experience.

REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assess the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new license area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

029 Middle Grades Science (for those with Science concentration)

031 Middle Grades Social Studies (for those with Social Studies concentration)

090 Foundations of Reading

ENDORSEMENTS

The following endorsements are available to individuals holding this teaching license and may increase marketability: K-12 TESOL Endorsement, K-12 Reading Endorsement, Middle Childhood Generalist Endorsement (enables teaching in content areas not included in current course of study).

COURSE	TITLE	S.H.
First Year Requirement-Student Success		
YSU 1500 or YSU 1500S	Success Seminar Youngstown State University Success Seminar	1-2

or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1 (requires a B average)	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2 (requires a B average)	3
Mathematics Requirement		3-4
One of the following courses may be taken to fulfill Mathematics requirement.		
MATH 2623	Quantitative Reasoning	
OR:		
MATH 2665	Foundations of Middle School Mathematics 2 (Mathematics Concentration takes this one)	
Some courses are categorized in more than one Knowledge Domain. Courses can only be used once within the General Education model. Courses listed for Knowledge Domains below are required in this program. See page 2 for other General Education recommendations.		
Arts and Humanities (6 s.h.)		6
Natural Sciences (2 courses, 1 with lab) (7 s.h.)		
The required 7 s.h. are met with courses in the major.		
Social Science (6 s.h.)		
PSYC 1560	General Psychology	3
Social Science elective (required 3 s.h. are met with courses in the major.		
General Education Electives (9 s.h.)		
CMST 1545	Communication Foundations	3
Remaining 6 s.h. are met with courses in the major.		
Major Requirements -Science Concentration		
BIOL 1505	Biology and the Modern World (NS)	3
CHEM 1500	Chemistry in Modern Living (NS)	3
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory (NS)	4
GEOL 2605	Historical Geology	4
PHYS 2607	Physical Science for Middle and Secondary Education (NS)	4
ASTR 1504	Descriptive Astronomy (NS)	3
ENST 2600	Foundations of Environmental Science	3
ENST 2600L	Foundations of Environmental Science Laboratory	1
GEOG 2630	Weather	3
GEOG 2630L	Weather Lab	1
TEMC 3707	Science/Technology/Society ^{1,2}	3
Social Studies Concentration		
HIST 1511	World Civilization to 1500 (SS)	3
HIST 1512	World Civilization from 1500 (SS)	3
HIST 2606	Turning Points in United States History 2 (SS)	3
HIST 3748	History of Ohio	3
GEOG 2640	Human Geography (SS)	3
GEOG 3717	Geography of Europe	3
POL 1560	American Government (SS)	3
POL 2640	Contemporary World Governments (SS)	3
ECON 2610	Principles 1: Microeconomics (SS)	3
ECON 2631	Introductory Macroeconomics for Education Majors (SS)	3
ANTH 1500	Introduction to Anthropology (SS)	3
Professional Education Curriculum		
TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1
EDFN 1501	Introduction to Education	3
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society ¹	3

SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
EDFN 3708	Education and Society	3
TEMC 3702	Teaching & Learning in Middle Schools ^{1,2}	3
Reading Course Requirements		
TERG 2605	Reading Foundational Skills Across Content Areas Pre-K – 12	3
TERG 3700	Phonological Awareness and Phonics	3
TERG 3720	Developmental Reading Instruction: Vocabulary, Comprehension, and Writing	3
TERG 3730	Reading Assessment, Instruction, and Intervention	3
Preclinical Curriculum		
TEMC 4801	The Middle School Learning Community ²	3
TCED 4800L	Laboratory Experience for Teaching All Learners	0
TEMC 4804	Middle Level Instructional Design and Student Outcomes ²	3
TEMC 3703	Thematic Instruction and Assessment Methods in Social Studies ²	3
TEMC 3705	The Teaching of Science in the Middle School ²	3
Student Teaching Curriculum		
TEMC 4802	Student Teaching: Middle Childhood ²	10
TEMC 4803	Student Teaching Seminar for Middle Childhood Education ²	2
TCED 5888E	Seminar edTPA Review	1
Total Hours Required for the Degree: 141-144 s.h.		
Total Semester Hours		141-144

¹ Prerequisites for preclinical curriculum.

² Upper division course.

General Information

- It is highly recommended that all teacher candidates meet with an academic advisor every semester.
- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the TELS Teacher Education Programs or candidacy for a teaching license.
- A grade of “C” or better is required in all courses. Some courses cannot be taken CR/NC. Check with an Advisor. Professional education and preclinical courses may only be repeated **one** time.

Upper Division

- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in TELS.**
- Upper division requirements:
 - ____ Completion of 50 SH
 - ____ Minimum 2.75 overall GPA
 - ____ “B” average or better (A-C, B-B) for: ENGL 1550 and ENGL 1551.
 - If failure to meet “B” average above must also complete:
 - ____ ENGL 2601 grade of “B” or better.
 - **If you receive a “C” or below you will need to retake the course.**
 - ____ “B” average or better (B-B-B, A-B-C) across the following:

____ EDFN 1501 ____ CMST 1545

____ SPED 2630 ____ BIOL 1505, HIST 2606, or HIST 1511

- After completing a minimum of 50 SH, submit the following:
 - Upper Division application (Portal)
 - Good Moral Character Statement

- Copy of BCI & FBI clearances
- Writing prompt (Blackboard)
- Deadlines for submission for upper division status (**late applications may not be accepted**):
 - **September 1**—to register for Upper Division Courses for Spring
 - **February 1**—to register for Upper Division courses for Summer & Fall

Admission to Preclinical and Evaluation for Graduation

- Request must be submitted to TaskStream **one year prior to the intended preclinical semester no later than:**
- **September 1**—for Fall preclinical (**Late applications may not be accepted**)
- **February 1**—for Spring preclinical (**Late applications may not be accepted**)
- Content GPA (2.67 minimum), Professional GPA (2.67 minimum), Overall GPA (2.75 minimum).

Student Teaching

- Student teaching application must be submitted following instructions found on the portal.
- **Late applications will likely result in a delay to student teaching by one semester. Application and forms are due to the Office of Student Field Experience:**
 - September 1—to Student Teach the following Spring Semester
 - February 1—to Student Teach the following Fall Semester
- **Prerequisites:**
 - BCOE Upper Division status
 - Overall 2.75 GPA
 - Minimum of 2.67 GPA in subject area curriculum and 2.67 in professional education courses with no grade less than a "C"
 - Passage of OAE test(s) and ACTFL tests for foreign language

Completing a Bachelor of Science in Education with Licensure

- **Successful completion of student teaching (endorsed) with CPAST average score of 2 with no zeros**
- **Minimum score of 39 on edTPA, with the exception of a 34 for Foreign Language**

Completing a Bachelor of Science in Education without Licensure

- A teacher candidate may choose to graduate without licensure. Teacher candidates who wish to graduate without licensure must take TCED 4830 (3 SH) capstone course in place of student teaching.

Year 1

Fall		S.H.
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
MATH 2623 or MATH 2665	Quantitative Reasoning or Foundations of Middle School Mathematics 2	3-4
POL 1560	American Government (counts as SS or SPA Elective)	3
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
EDFN 1501	Introduction to Education	3
TCED 2600	Becoming an Education Professional	1

TCED 2601	Diversity and Equity in the Classroom	1
Semester Hours		19-22
Spring		
ENGL 1551	Writing 2	3
CHEM 1500	Chemistry in Modern Living	3
SPED 2630	Individuals with Exceptionalities in Society	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
PSYC 1560	General Psychology	3
HIST 1511	World Civilization to 1500	3
BIOL 1505	Biology and the Modern World	3
Semester Hours		18
Year 2		
Fall		
GEOG 2640	Human Geography (counts as SS Elective)	3
HIST 1512	World Civilization from 1500	3
ENST 2600	Foundations of Environmental Science	3
ENST 2600L	Foundations of Environmental Science Laboratory	1
HIST 2606	Turning Points in United States History 2	3
CMST 1545	Communication Foundations	3
TERG 2605	Reading Foundational Skills Across Content Areas Pre-K – 12	3
Semester Hours		19
Spring		
PHYS 2607	Physical Science for Middle and Secondary Education	4
TERG 3700	Phonological Awareness and Phonics	3
ASTR 1504	Descriptive Astronomy	3
GEOG 2630	Weather	3
GEOG 2630L	Weather Lab	1
POL 2640	Contemporary World Governments (counts as SS Elective)	3
GEOG 3717	Geography of Europe	3
Semester Hours		20
Year 3		
Fall		
TERG 3720	Developmental Reading Instruction: Vocabulary, Comprehension, and Writing	3
ANTH 1500	Introduction to Anthropology (counts as SS or SPA Elective)	3
ECON 2610	Principles 1: Microeconomics	3
PSYC 3709	Psychology of Education	3
Arts and Humanities GER		3
HIST 3748	History of Ohio	3
Semester Hours		18
Spring		
ECON 2631	Introductory Macroeconomics for Education Majors	3
TEMC 3707	Science/Technology/Society	3
GEOL 2605	Historical Geology	4
Arts and Humanities GER		3
TEMC 3702	Teaching & Learning in Middle Schools	3
TERG 3730	Reading Assessment, Instruction, and Intervention	3
Semester Hours		19

Year 4**Fall**

TEMC 4801	The Middle School Learning Community	3
TCED 4800L	Laboratory Experience for Teaching All Learners	0
TEMC 3703	Thematic Instruction and Assessment Methods in Social Studies	3
TEMC 3705	The Teaching of Science in the Middle School	3
TEMC 4804	Middle Level Instructional Design and Student Outcomes	3
EDFN 3708	Education and Society	3
Semester Hours		15

Spring

TEMC 4802	Student Teaching: Middle Childhood	10
TEMC 4803	Student Teaching Seminar for Middle Childhood Education	2
TCED 5888E	Seminar edTPA Review	1
Semester Hours		13
Total Semester Hours		141-144

Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.
- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.
- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

The learning outcomes for this program, align with the 5 Standards of the Association for Middle Level Education (AMLE):

- Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to young adolescent development and use that knowledge in their practice. They demonstrate their ability to apply this knowledge when making curricular decisions, planning and implementing instruction, participating in middle level programs and practices, and providing healthy and effective learning environments for all young adolescents.
- Middle level teacher candidates understand and use the central concepts, standards, research, and structures of content to plan and implement curriculum that develops all young adolescents' competence in subject matter. They use their knowledge and available resources to design, implement, and evaluate challenging, developmentally responsive curriculum that results in meaningful learning outcomes. Middle

level teacher candidates demonstrate their ability to assist all young adolescents in understanding the interdisciplinary nature of knowledge.

They design and teach curriculum that is responsive to all young adolescents' local, national, and international histories, language/dialects, and individual identities (e.g., race, ethnicity, culture, age, appearance, ability, sexual orientation, socioeconomic status, family composition).

- Middle level teacher candidates understand the major concepts, principles, theories, and research underlying the philosophical foundations of developmentally responsive middle level programs and schools, and they work successfully within middle level organizational components.
- Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to data-informed instruction and assessment. They employ a variety of developmentally appropriate instructional strategies, information literacy skills, and technologies to meet the learning needs of all young adolescents (e.g., race, ethnicity, culture, age, appearance, ability, sexual orientation, socioeconomic status, family composition).
- Middle level teacher candidates understand their complex roles as teachers of young adolescents. They engage in practices and behaviors that develop their competence as middle level professionals. They are informed advocates for young adolescents and middle level education, and work successfully with colleagues, families, community agencies, and community members. Middle level teacher candidates demonstrate positive dispositions and engage in ethical professional behaviors.

Bachelor of Science in Education in Spanish (PK-12) - Multi-Age License

Multi-Age Education (PK-12) Spanish

Program Coordinator

Dr. Jennifer Behney, Program Coordinator

OVERVIEW

The program in Spanish Education prepares students to become a teacher of foreign language at the high school, middle school, and elementary school levels in the state of Ohio. Graduates are fully licensed to teach Spanish in Ohio (Multi-age PK-12 Licensure) and are fully prepared in their knowledge of the target language, of best practices and standards in general pedagogy, and of specific Second Language Acquisition (SLA) theories and foreign language education techniques. Students enter student teaching in the last semester of study with a level of Advanced Low in both oral and written communication in the target language, as measured by the Oral Proficiency Interview (OPI) and the Writing Proficiency Test (WPT) and as required by the American Council on the Teaching of Foreign Languages (ACTFL).

The Multi-Age Spanish License, Grades PK-12, Bachelor of Science in Education degree requires a minimum of 120 semester hours of course work. This teaching field also requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

Professional Dispositions

Teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

FIELD EXPERIENCES AND STUDENT TEACHING

Students complete a number of field experiences to support the learning of content and best practices in teaching. Field experiences offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3711 Reading Application in Content Areas, Secondary Years
- SED 3706 Principles of Teaching Adolescents

Preclinical Field Experiences

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Spanish Education preclinical experience is scheduled during the fall semester. Applications for the preclinical experience must be submitted on TaskStream one year in advance by September 1st.

- FNLG 4801 Methods of Foreign Language Teaching
- EDFN 3710 Educational Assessment

Student Teaching

- SED 4827 Supervised Student Teaching: Language (K-12)
- SED 4842A Student Teaching Seminar for Secondary Education

Students complete a 16-week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 34 during this experience.

ADVISEMENT

Advisement is provided by the Academic Advisors in Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all Spanish education majors must complete a preclinical experience.

REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assesses the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new license area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

ACTFL Oral Proficiency Interview, Writing Proficiency Test. These exams are administered by Language Testing International/ACTFL.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or SS 1500	Strong Start Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Mathematics Requirement		3
One of the following courses may be taken to fulfill Math GER:		

MATH 2623	Quantitative Reasoning	
or PHIL 2619	Introduction to Logic	
or STAT 2601	Introductory Statistics	
Arts and Humanities		6
Natural Sciences (2 courses 1 lab)		7
Social Science		6
PSYC 1560	General Psychology	
Social Science GER		
Social and Personal Awareness		6
Subject Area Curriculum		
SPAN 2600	(A student who starts with SPAN 2605, may take SPAN 2600 Credit by Examination)	4
SPAN 2605		3
SPAN 3702		3
SPAN 3724	Spanish Phonetics and Phonology	3
SPAN 3735	Advanced Spanish Grammar and Composition	3
SPAN 3736	Introduction to Spanish Linguistics	3
SPAN 3755	Advanced Spanish Conversation	3
SPAN 4880	Spanish Conversation and Composition Capstone	3
FNLG 4899	Professional Development for Teachers	1
ENGL 4851	Language Acquisition	3
Five of the following courses:		15
SPAN 3740	Business Spanish	
SPAN 3758		
SPAN 3762	Culture: Spain	
SPAN 3763	Introduction to Literature: Spain	
SPAN 3766	Culture: Spanish-America	
SPAN 3767	Introduction to Literature: Spanish-America	
Professional Education Curriculum		
TCED 1500		3
SED 3706	Principles of Teaching Adolescents ²	3
EDFN 1501	Introduction to Education	3
SPED 2630	Individuals with Exceptionalities in Society ¹	3
EDFN 3708	Education and Society	3
PSYC 3709	Psychology of Education	3
TERG 3711	Reading Application in Content Areas, Secondary Years ²	3
Preclinical Curriculum		
FNLG 4801	Methods of Foreign Language Teaching	3
EDFN 3710	Educational Assessment	3
Student Teaching Curriculum		
SED 4827	Supervised Student Teaching: Language (K-12) ²	10
SED 4842A	Student Teaching Seminar for Secondary Education ²	2
Total Semester Hours		121-123

¹ Prerequisites for preclinical curriculum
² Upper Division Courses

General Information

- It is highly recommended that all teacher candidates meet with an academic advisor every semester.
- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the TELS Teacher Education Programs or candidacy for a teaching license.
- A grade of “C” or better is required in all courses. Some courses cannot be taken CR/NC. Check with an Advisor. Professional education and preclinical courses may only be repeated **one** time.

Upper Division

- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in TELS.**
- Upper division requirements:
 - ____ Completion of 50 SH
 - ____ Minimum 2.75 overall GPA
 - ____ "B" average or better (A-C, B-B) for: ENGL 1550 and ENGL 1551.
 - If failure to meet "B" average above must also complete:
 - ____ ENGL 2601 grade of "B" or better.
 - **If you receive a "C" or below you will need to retake the course.**
 - ____ "B" average or better (B-B-B, A-B-C) across the following:

____ EDFN 1501 ____ CMST 1545

____ SPED 2630 ____ SPAN 2605

- After completing a minimum of 50 SH, submit the following:
 - Upper Division application (Portal)
 - Good Moral Character Statement
 - Copy of BCI & FBI clearances
 - Writing prompt (Blackboard)
- Deadlines for submission for upper division status (**late applications may not be accepted**):
 - **September 1**—to register for Upper Division Courses for Spring
 - **February 1**—to register for Upper Division courses for Summer & Fall

Admission to Preclinical and Evaluation for Graduation

- Request must be submitted to TaskStream **one year prior to the intended preclinical semester no later than:**
- **September 1**—for Fall preclinical (**Late applications may not be accepted**)
- **February 1**—for Spring preclinical (**Late applications may not be accepted**)
- Content GPA (2.67 minimum), Professional GPA (2.67 minimum), Overall GPA (2.75 minimum).

Student Teaching

- Student teaching application must be submitted following instructions found on the portal.
- **Late applications will likely result in a delay to student teaching by one semester. Application and forms are due to the Office of Student Field Experience:**
 - September 1—to Student Teach the following Spring Semester
 - February 1—to Student Teach the following Fall Semester
- **Prerequisites:**
 - BCOE Upper Division status
 - Overall 2.75 GPA
 - Minimum of 2.67 GPA in subject area curriculum and 2.67 in professional education courses with no grade less than a "C"
 - Passage of OAE test(s) and ACTFL tests for foreign language

Completing a Bachelor of Science in Education with Licensure

- **Successful completion of student teaching (endorsed) with CPAST average score of 2 with no zeros**
- **Minimum score of 39 on edTPA, with the exception of a 34 for Foreign Language**

Completing a Bachelor of Science in Education without Licensure

- A teacher candidate may choose to graduate without licensure. Teacher candidates who wish to graduate without licensure must take TCED 4830 (3 SH) capstone course in place of student teaching.

Year 1

Fall		S.H.
YSU 1500	Success Seminar	1
ENGL 1550 or ENGL 1549	Writing 1 (GER requirement) or Writing 1 with Support	3-4
SPAN 2600		4
MATH 2623	Quantitative Reasoning ((GER requirement))	3
Or:		
PHIL 2619	Introduction to Logic	
Or:		
STAT 2601	Introductory Statistics	
TCED 1500	GER Elective	
Social Science GER		3
Semester Hours		14-15

Spring

SPAN 2605		3
ENGL 1551	Writing 2 (GER requirement)	3
CMST 1545	Communication Foundations (GER requirement)	3
PSYC 1560	General Psychology (Social Science GER)	3
Arts and Humanities GER		3
Semester Hours		15

Year 2

Fall

SPAN 3702		
EDFN 1501	Introduction to Education	3
Natural Sciences + Lab GER		4
Social and Personal Awareness GER		3
Arts and Humanities GER		3
Semester Hours		13

Spring

SPED 2630	Individuals with Exceptionalities in Society	3
Social and Personal Awareness GER		3
Natural Science GER		3
SPAN 37XX ¹		3
SPAN 37XX ¹		3
Semester Hours		15

Year 3

Fall

PSYC 3709	Psychology of Education	3
EDFN 3708	Education and Society	3
ENGL 4851	Language Acquisition	3
SPAN 37XX ¹		3
SPAN 37XX ¹		3
Semester Hours		15

Spring

FNLG 4899	Professional Development for Teachers	1
SED 3706	Principles of Teaching Adolescents	3
TERG 3711	Reading Application in Content Areas, Secondary Years	3
SPAN 37XX ¹		3

SPAN 37XX ¹		3
SPAN 37XX ¹		3
Semester Hours		16
Year 4		
Fall		
SPAN 4880	Spanish Conversation and Composition Capstone	3
FNLG 4801	Methods of Foreign Language Teaching	3
SPAN 37XX ¹		3
EDFN 3710	Educational Assessment	3
SPAN 37XX ¹		3
Semester Hours		15
Spring		
SED 4827	Supervised Student Teaching: Language (K-12)	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
Semester Hours		12
Total Semester Hours		115-116

¹ Each semester, two of the following courses will be offered: SPAN 3724, SPAN 3735, SPAN 3736, SPAN 3755, SPAN 3740, SPAN 3758, SPAN 3762, SPAN 3763, SPAN 3766, SPAN 3767

Notes:

1. Prior to student teaching, students must achieve a level of Advanced Low on the Oral Proficiency Interview and on the Writing Proficiency Test, both administered by the American Council on the Teaching of Foreign Languages.
2. Students who change from the B.S. in Spanish Education to the B.A. in Spanish will need to complete a minor and, in addition to coursework in the Spanish major, will need 20 hours at the 3700 level or higher.

Learning Outcomes

- Cultural Understanding – The student will develop an understanding and appreciation of the history and culture of those areas in which the target language is spoken.
- Reading Comprehension – The student will be able to read and understand a variety of materials written in the target language. These materials may include but are not limited to: novels, plays, poetry, newspaper and magazine articles, and private correspondence (e.g., business communications).
- Listening Comprehension – The student will be able to understand the target language when spoken in a variety of contexts. These contexts may include but are not limited to: conversation with another individual or individuals, formal lectures, song, and film.
- Oral Expression – The student will be able to carry on a conversation and deliver a speech in the target language. The student will achieve a level of Advanced Low on the Oral Proficiency Interview administered by the American Council on the Teaching of Foreign Languages.
- Written Expression – The student will be able to compose in the target language a variety of written documents. These documents may include but are not limited to: formal and casual correspondence, essays, and creative works. The student will achieve a level of Advanced Low on the Writing Proficiency Test administered by the American Council on the Teaching of Foreign Languages.

Bachelor of Science in Education in Special Education: Intervention Specialist (IS K-12)/Integrated Language Arts (ILA 7-12)

Introduction

Candidates of the program are prepared for careers as intervention specialists (IS) and as an integrated language arts (ILA) teacher who provide academic content and enhanced social skills for *all* students including those who are with a disability, reinforcement-based behavioral interventions, inclusion strategies, and assistive technology to individuals with exceptionalities. Each of our degree programs prepares candidates to successfully pass the Ohio licensure exam which will result in the corresponding Intervention Specialist and Adolescent/Young Adult Integrated Language Arts 7-12 Licensures. The YSU student chapter of Council for Exceptional Children (CEC) participates in multiple college, university, and community events to advocate for individuals with exceptional learning needs.

Welcome

Our Special Education (Mild-Moderate Licensure) and Adolescent/Young Adult Integrated Language Arts (7-12 AYA Licensure) program is designed to prepare graduates with the knowledge, skills, and dispositions to best serve in schools and agencies in the area. Our Special Education and Adolescent/Young Adult Integrated Language Arts program seeks to meet the educational and service needs of Northeast Ohio and Western Pennsylvania. Our program is exemplified by the quality and diversity of classroom instruction, field experiences, program options, student, faculty, and graduates in the community. YSU has a long history of producing accomplished graduates who have served the area as Special Education and Adolescent/Young Adult Integrated Language Arts teachers, Intervention Specialists, Special Education and Adolescent/Young Adult Integrated Language Arts Professionals. We have a strong connection with our alumni, program supervisors, schools and agencies, and others who support students with exceptional learning needs in the Youngstown area.

Undergraduate candidates will find a unique educational experience that prepares them for employment and/or advanced study in Special Education and Adolescent/Young Adult Integrated Language Arts. For more information, review our website and contact Special Education faculty with any questions.

Pam Epler, Ph.D.
Program Director/Assistant Professor
2211 Beeghly Hall
Beeghly College of Liberal Arts, Social Sciences, and Education
Department of Teacher Education and Leadership Studies
(330) 941-7230
pleplerbrooks@ysu.edu

For specific questions about the Intervention Specialist (Mild/Moderate) and Adolescent/Young Adult Integrated Language Arts Licensure Option, please contact the program director.

COURSE	TITLE	S.H.
First Year Experience		
General Education Requirement		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3

MATH 2623	Quantitative Reasoning	3
Arts and Humanities		Met by courses in the major
Natural sciences		7
Social Sciences (Met by course in major)		0
PSYC 1560	General Psychology	3
Required GER Elective (9 hrs)		
PSYC 3758	Lifespan Development	3
Any 2 Gen Ed Courses		6
Subject Area Courses		
ENGL 2618	American Literature and Diversity	3
ENGL 2631	Mythology in Literature	3
ENGL 2651	Introduction to Language	3
ENGL 3700	Literary Study	3
ENGL 3705	Young Adult Literature	3
ENGL 3710	British Literature 1	3
ENGL 3711	British Literature 2	3
ENGL 3712	American Literature 1	3
ENGL 3713	American Literature 2	3
ENGL 3741	Advanced Writing for Teachers	3
ENGL 4881	Shakespeare and His World	3
JOUR 4821	Advising Student Media	3
CMST 2655	Communication in Groups	3
CMST 2656	Interpersonal Communication	3
ELIS 4803	Modern Classroom Assessment	3
SPED 4867	Intervention and Remediation of Receptive/Expressive Language Dysfunction	3
Professional Education Courses		
EDFN 1501	Introduction to Education	3
TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1
EDFN 3708	Education and Society	3
PSYC 3709	Psychology of Education	3
EDFN 3710	Educational Assessment	3
SPED 2630	Individuals with Exceptionalities in Society	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
TERG 3711	Reading Application in Content Areas, Secondary Years	3
Preclinical Courses		
SED 3706	Principles of Teaching Adolescents	3
SED 4800E	English Methods for Adolescent and Young Adult Learners	3
SPED 4858	Educational Teaching Strategies for Students with Exceptionalities: Grades 6-12	4
TCED 4800L	Laboratory Experience for Teaching All Learners	0
SPED 4859	Behavior and Classroom Management for Students with Exceptionalities, 6-12	4
SPED 4860	Transition, Collaboration & IEP Writing for Students w/ Exceptionalities: 6-12	4
Student Teaching Courses		
SED 4842A	Student Teaching Seminar for Secondary Education	2
SED 4842	Supervised Student Teaching: High School	5
SPED 4849	Supervised Student Teaching: Mild Moderate/Disabilities	5
TCED 5888E	Seminar edTPA Review	1
Total Semester Hours		131-133

Year 1**Fall**

YSU 1500	Success Seminar	
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
ENGL 2618	American Literature and Diversity	3
MATH 2623	Quantitative Reasoning	3
EDFN 1501	Introduction to Education	3
NS Elective with lab		4

Semester Hours**17-19****Spring**

ENGL 1551	Writing 2	3
SPED 2630	Individuals with Exceptionalities in Society	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
ENGL 2631	Mythology in Literature	3
TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1
ENGL 2651	Introduction to Language	3
CMST 1545	Communication Foundations	3

Semester Hours**17****Year 2****Fall**

ENGL 3700	Literary Study	3
ENGL 3710	British Literature 1	3
ENGL 3712	American Literature 1	3
PSYC 1560	General Psychology	3
NS Elective		3

Semester Hours**15****Spring**

SED 3706	Principles of Teaching Adolescents	3
ENGL 3741	Advanced Writing for Teachers	3
ENGL 3713	American Literature 2	3
PSYC 3758	Lifespan Development	3
CMST 2656	Interpersonal Communication	3

Semester Hours**15****Year 3****Fall**

ENGL 4881	Shakespeare and His World	3
ENGL 3705	Young Adult Literature	3
PSYC 3709	Psychology of Education	3
SED 4800E	English Methods for Adolescent and Young Adult Learners	3
EDFN 3710	Educational Assessment	3
CMST 2655	Communication in Groups	3

Semester Hours**18****Spring**

ELIS 4803	Modern Classroom Assessment	3
EDFN 3708	Education and Society	3
TERG 3711	Reading Application in Content Areas, Secondary Years	3
JOUR 4821	Advising Student Media	3
ENGL 4850	Sociolinguistics	3

SPED 4867	Intervention and Remediation of Receptive/Expressive Language Dysfunction	3
Semester Hours		18
Year 4		
Fall		
SPED 4858	Educational Teaching Strategies for Students with Exceptionalities: Grades 6-12	4
TCED 4800L	Laboratory Experience for Teaching All Learners	0
SPED 4859	Behavior and Classroom Management for Students with Exceptionalities, 6-12	4
SPED 4860	Transition, Collaboration & IEP Writing for Students w/Exceptionalities: 6-12	4
Any Gen Ed Elective		3
Semester Hours		15
Spring		
SED 4842	Supervised Student Teaching: High School	5
SED 4842A	Student Teaching Seminar for Secondary Education	2
SPED 4849	Supervised Student Teaching: Mild Moderate/Disabilities	5
TCED 5888E	Seminar edTPA Review	1
Any Gen Ed Elective		3
Semester Hours		16
Total Semester Hours		131-133

This program will allow student to graduate with licensure in two content areas.

Special Education: Intervention Specialist (IS K-12)/Integrated Social Studies (ISS 7-12)

Candidates of the program are prepared for careers as intervention specialists (IS) and as an integrated social studies (ISS) teacher who provide academic content and enhanced social skills for *all* students including those who are with a disability, reinforcement-based behavioral interventions, inclusion strategies, and assistive technology to individuals with exceptionalities. Each of our degree programs prepares candidates to successfully pass the Ohio licensure exam which will result in the corresponding Intervention Specialist and Adolescent/Young Adult Integrated Social Studies 7-12 licensure.

COURSE	TITLE	S.H.
First Year Experience		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Courses		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
MATH 2623	Quantitative Reasoning	3-5
or MATH 2623C	Quantitative Reasoning with Co-Requisite Support	
Arts and Humanities 2 Courses Met by HIST 1501 and 1511 in major		
Natural Science (met with GEOG 1503 and 2630 & 2630L in major)		
Social Science (Met with ECON 2610 in major)		
PSYC 1560	General Psychology	3
Required GER Electives (9 s.h.)		
CMST 1545	Communication Foundations	3

PSYC 3758	Lifespan Development	3
Final GER Elective met in the Major with HIST 1512		
Subject Area Courses		
HIST 1501	Discovering American History	3
HIST 1511	World Civilization to 1500	3
HIST 1512	World Civilization from 1500	3
HIST 3702	Early America	3
HIST 3703	Nineteenth Century America	3
HIST 3712	United States in Crisis: 1900-1945	3
HIST 3748	History of Ohio	3
HIST 3764	Modern Europe, 1715 to the Present	3
HIST 3795	The World since 1945	3
HIST 4870	Senior Research Seminar	3
ECON 2610	Principles 1: Microeconomics	3
ECON 2631	Introductory Macroeconomics for Education Majors	3
GEOG 1503	Physical Geography	3
GEOG 2640	Human Geography	3
GEOG 2630 & 2630L	Weather and Weather Lab	4
POL 1560	American Government	3
ELIS 4803	Modern Classroom Assessment	3
SPED 4867	Intervention and Remediation of Receptive/Expressive Language Dysfunction	3

Professional Education Courses		
EDFN 1501	Introduction to Education	3
TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1
EDFN 3708	Education and Society	3
PSYC 3709	Psychology of Education	3
EDFN 3710	Educational Assessment	3
SPED 2630	Individuals with Exceptionalities in Society	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
TERG 3711	Reading Application in Content Areas, Secondary Years	3

Preclinical Courses		
SED 3706	Principles of Teaching Adolescents	3
SED 4800S	Social Studies Methods for Adolescent and Young Adult Learners	3
TCED 4800L	Laboratory Experience for Teaching All Learners	0
SPED 4858	Educational Teaching Strategies for Students with Exceptionalities: Grades 6-12	4
SPED 4859	Behavior and Classroom Management for Students with Exceptionalities, 6-12	4
SPED 4860	Transition, Collaboration & IEP Writing for Students w/Exceptionalities: 6-12	4

Student Teaching Courses		
SED 4842	Supervised Student Teaching: High School	5
SED 4842A	Student Teaching Seminar for Secondary Education	2
SPED 4849	Supervised Student Teaching: Mild Moderate/Disabilities	5
TCED 5888E	Seminar edTPA Review	1

Total Semester Hours	125-129
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Year 1**Fall**

YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	S.H. 1-2
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ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
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MATH 2623 or MATH 2623C	Quantitative Reasoning or Quantitative Reasoning with Co- Requisite Support	3-5
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EDFN 1501	Introduction to Education	3
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HIST 1511	World Civilization to 1500	3
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CMST 1545	Communication Foundations	3
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Semester Hours 16-20

Spring

ENGL 1551	Writing 2	3
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TCED 2600	Becoming an Education Professional	1
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TCED 2601	Diversity and Equity in the Classroom	1
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SPED 2630	Individuals with Exceptionalities in Society	3
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SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
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HIST 1512	World Civilization from 1500	3
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GEOG 2640	Human Geography	3
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HIST 1500	Discovering World History	3
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Semester Hours 17

Year 2**Fall**

POL 1560	American Government	3
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ECON 2610	Principles 1: Microeconomics	3
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HIST 3702	Early America	3
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PSYC 1560	General Psychology	3
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GEOG 1503	Physical Geography	3
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HIST 3748	History of Ohio	3
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Semester Hours 18

Spring

ECON 2631	Introductory Macroeconomics for Education Majors	3
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HIST 3703	Nineteenth Century America	3
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PSYC 3758	Lifespan Development	3
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SED 3706	Principles of Teaching Adolescents	3
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GEOG 2630	Weather	3
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GEOG 2630L	Weather Lab	1
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Semester Hours 16

Year 3**Fall**

SED 4800S	Social Studies Methods for Adolescent and Young Adult Learners	3
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PSYC 3709	Psychology of Education	3
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HIST 3712	United States in Crisis: 1900-1945	3
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EDFN 3710	Educational Assessment	3
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HIST 3764	Modern Europe, 1715 to the Present	3
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Semester Hours 15

Spring

EDFN 3708	Education and Society	3
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ELIS 4803	Modern Classroom Assessment	3
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HIST 3795	The World since 1945	3
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TERG 3711	Reading Application in Content Areas, Secondary Years	3
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SPED 4867	Intervention and Remediation of Receptive/ Expressive Language Dysfunction	3
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Semester Hours 15

Year 4**Fall**

SPED 4858	Educational Teaching Strategies for Students with Exceptionalities: Grades 6-12	4
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TCED 4800L	Laboratory Experience for Teaching All Learners	0
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SPED 4859	Behavior and Classroom Management for Students with Exceptionalities, 6-12	4
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SPED 4860	Transition, Collaboration & IEP Writing for Students w/Exceptionalities: 6-12	4
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HIST 4870	Senior Research Seminar	3
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Semester Hours 15

Spring

SED 4842	Supervised Student Teaching: High School	5
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SED 4842A	Student Teaching Seminar for Secondary Education	2
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SPED 4849	Supervised Student Teaching: Mild Moderate/ Disabilities	5
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TCED 5888E	Seminar edTPA Review	1
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Semester Hours 13

Total Semester Hours 125-129

Candidates of the program are prepared for careers as intervention specialists (IS) and as an integrated social studies (ISS) teacher who provide academic content and enhanced social skills for *all* students including those who are with a disability, reinforcement-based behavioral interventions, inclusion strategies, and assistive technology to individuals with exceptionalities. Each of our degree programs prepares candidates to successfully pass the Ohio licensure exam which will result in the corresponding Intervention Specialist and Adolescent/Young Adult Integrated Social Studies 7-12 licensure.

Bachelor of Science in Education in Special Education: Intervention Specialist Mild/Moderate Needs K-12 Introduction

Candidates of the program are prepared for careers as intervention specialists who provide enhanced social skills of those with a disability, reinforcement-based behavioral interventions, inclusion strategies, and assistive technology to individuals with exceptionalities. Each of our degree programs prepares candidates to successfully pass the Ohio licensure exam which will result in the corresponding Intervention Specialist Licensure. The YSU student chapter of Council for Exceptional Children (CEC) participates in multiple college, university, and community events to advocate for individuals with exceptional learning needs.

Welcome

Our Special Education (Mild-Moderate Licensure) program is designed to prepare graduates with the knowledge, skills, and dispositions to best serve in schools and agencies in the area. Our Special Education program seeks to meet the educational and service needs of Northeast Ohio and Western Pennsylvania. Our program is exemplified by the quality and diversity of classroom instruction, field experiences, program options, student, faculty, and graduates in the community. YSU has a long history of producing accomplished graduates who have served the area as Special Education teachers, Intervention Specialists, and Special Education Professionals. We

have a strong connection with our alumni, program supervisors, schools and agencies, and others who support students with exceptional learning needs in the Youngstown area.

Undergraduate candidates will find a unique educational experience that prepares them for employment and/or advanced study in Special Education. For more information, review our website and contact Special Education faculty with any questions.

Pam Epler, Ph.D.
Program Director/Assistant Professor
2211 Beeghly Hall
Beeghly College of Liberal Arts, Social Sciences, and Education
Department of Teacher Education and Leadership Studies
(330) 941-7230
pleplerbrooks@ysu.edu

For specific questions about the Intervention Specialist (Mild/Moderate) Licensure Option in Special Education program, please contact the program director.

Intervention Specialist License (K-12)

The Intervention Specialist program requires a minimum of 121 s.h. The BS in Education degree requires the courses listed on the curriculum sheet. Licensure also requires passing the Ohio Assessments for Educators Exams prior to student teaching.

The Learning Outcomes for this program align with the seven Standards of the Council for Exceptional Children (CEC):

- Candidates will analyze learners to determine unique needs using the principles and theories of human development.
- Candidates will prioritize areas of the general curriculum and accommodations for individuals with exceptional learning needs.
- Candidates will individualize instruction to meet the unique learning, communication, social and behavior needs of students with exceptional learning needs.
- Candidates will develop and use appropriate technology adaptations for all individuals with exceptional learning needs.
- Candidates will demonstrate reinforcement-based classroom management interventions with students with exceptional learning needs.
- Candidates will evaluate the progress of students with exceptional learning needs on their IEP goals to inform the adjustment of learning and behavior plans

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or SS 1500	Strong Start Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Mathematics Requirement		
MATH 2665	Foundations of Middle School Mathematics 2	4
Arts and Humanities (6 s.h.)		
ART 2648	Experience Art: Social and Behavioral Perspectives	3
Arts and Humanities elective		3
Natural Sciences (2 courses, 1 with lab) (7 s.h.)		7
Social Science (6 s.h.)		
PSYC 1560	General Psychology	3
HIST 2605	Turning Points in United States History 1	3

or HIST 2606	Turning Points in United States History 2	
Social and Personal Awareness (6 s.h.) Met by KSS courses in the major		
PSYC 3758	Lifespan Development	3
Subject Area Curriculum		
KSS 1500	Physical Activity Core Concepts	1
KSS 1509	Meditation	1
KSS 1552	Yoga	1
ENGL 3703	Literature for Young Children	3
OR ENGL 3704 Literature Middle School Readers		
MATH 3767	Algebra/Geometry for Middle School Teachers 1	4
ELIS 4803	Modern Classroom Assessment	3
SPED 4836	Educational Teaching Strategies for Students with Exceptionalities: K -12 Moderate to Severe	4
SPED 4853	Diagnosis and Intervention in Mathematics for Special Education	3
SPED 4866	Assessment and Referral of Exceptional Children and Youth for the Intervention Specialist	3
SPED 4867	Intervention and Remediation of Receptive/Expressive Language Dysfunction	3
Professional Education Courses		
EDFN 1501	Introduction to Education	3
TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1
EDFN 3708	Education and Society	3
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
TERG 2605	Reading Foundational Skills Across Content Areas Pre-K – 12	3
TERG 3700	Phonological Awareness and Phonics	3
TERG 3720	Developmental Reading Instruction: Vocabulary, Comprehension, and Writing	3
TERG 3730	Reading Assessment, Instruction, and Intervention	3
Preclinical Courses		
SPED 4837	Behavior and Classroom Management for Students with Exceptionalities: K-12 Moderate to Severe	4
SPED 4836	Educational Teaching Strategies for Students with Exceptionalities: K -12 Moderate to Severe	4
SPED 4838	Collaboration & IEP Writing for Students w/ Exceptionalities: K -12 Moderate to Severe	4
TCED 4800L	Laboratory Experience for Teaching All Learners	0
SPED 4858	Educational Teaching Strategies for Students with Exceptionalities: Grades 6-12	4
SPED 4859	Behavior and Classroom Management for Students with Exceptionalities, 6-12	4
SPED 4860	Transition, Collaboration & IEP Writing for Students w/ Exceptionalities: 6-12	4
Student Teaching		12
SPED 4849	Supervised Student Teaching: Mild Moderate/ Disabilities	
SPED 4869	Student Teaching Seminar for Special Education	
TCED 5888E	Seminar edTPA Review	1
Total Semester Hours		125-127

Year 1

Fall		S.H.
YSU 1500	Success Seminar	1
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
Natural Science with Lab		4
ART 2648	Experience Art: Social and Behavioral Perspectives	3
MATH 3767	Algebra/Geometry for Middle School Teachers 1	4
YSU 1500	Success Seminar	1
EDFN 1501	Introduction to Education	3
Semester Hours		19-20

Spring

ENGL 1551	Writing 2	3
TERG 2605	Reading Foundational Skills Across Content Areas Pre-K – 12	3
SPED 2630	Individuals with Exceptionalities in Society	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
MATH 2665	Foundations of Middle School Mathematics 2	4
TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1
Semester Hours		15

Year 2

Fall		
CMST 1545	Communication Foundations	3
TERG 3700	Phonological Awareness and Phonics	3
ENGL 3703 or ENGL 3704	Literature for Young Children or Literature for Middle School Readers	3
PSYC 1560	General Psychology	3
NS elective/ lab		3
Semester Hours		15

Spring

TERG 3720	Developmental Reading Instruction: Vocabulary, Comprehension, and Writing	3
ELIS 4803	Modern Classroom Assessment	3
EDFN 3708	Education and Society	3
PSYC 3758	Lifespan Development	3
HIST 2605 or HIST 2606	Turning Points in United States History 1 or Turning Points in United States History 2	3
AH Elective		3
Semester Hours		18

Year 3

Fall		
SPED 4867	Intervention and Remediation of Receptive/ Expressive Language Dysfunction	3
SPED 4853	Diagnosis and Intervention in Mathematics for Special Education	3
PSYC 3709	Psychology of Education	3
TERG 3730	Reading Assessment, Instruction, and Intervention	3
KSS 1500	Physical Activity Core Concepts	1
KSS 1552	Yoga	1
KSS 1509	Meditation	1
Semester Hours		15

Spring

SPED 4836	Educational Teaching Strategies for Students with Exceptionalities: K -12 Moderate to Severe	4
TCED 4800L	Laboratory Experience for Teaching All Learners	0
SPED 4837	Behavior and Classroom Management for Students with Exceptionalities: K-12 Moderate to Severe	4
SPED 4838	Collaboration & IEP Writing for Students w/ Exceptionalities: K - 12 Moderate to Severe	4
SPED 4866	Assessment and Referral of Exceptional Children and Youth for the Intervention Specialist	3
Semester Hours		15

Year 4

Fall		
SPED 4858	Educational Teaching Strategies for Students with Exceptionalities: Grades 6-12	4
TCED 4800L	Laboratory Experience for Teaching All Learners	0
SPED 4859	Behavior and Classroom Management for Students with Exceptionalities, 6-12	4
SPED 4860	Transition, Collaboration & IEP Writing for Students w/Exceptionalities: 6-12	4
Semester Hours		12

Spring

SPED 4853	Diagnosis and Intervention in Mathematics for Special Education	3
SPED 4849	Supervised Student Teaching: Mild Moderate/ Disabilities	10
SPED 4869	Student Teaching Seminar for Special Education	2
TCED 5888E	Seminar edTPA Review	1
Semester Hours		16

Total Semester Hours**125-126**

Associate of Arts in Teacher Education

The Teacher Education Program is designed to provide graduates the educational background needed to pursue careers in childcare centers, preschools, elementary, middle and secondary schools. Graduates of the Teacher Education Program will meet the licensing requirements for an administrator as specified by the Ohio Department of Job and Family Services Licensing rule. Candidates will be eligible to obtain a Prekindergarten Associate License from the Ohio Department of Education. Candidates will have the applicable educational background to transfer into baccalaureate programs in Early Childhood/P-5 Primary (PK-5), Middle Childhood (4-9), Adolescent to Young Adult (7-12), or Intervention Specialist (Special Education).

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	

General Education Requirements

Knowledge Domains: (all General Education courses must be OTM approved courses - please consult an academic advisor regarding GER courses)

ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
MATH 2661	Mathematics for Elementary Teachers 1	4
Natural Science Course with lab (1 other NS met in major)		4
GEOL 1504	The Dynamic Earth	
2 Arts and Humanities Courses		6
Social Science Courses (met in major: PSYC 1560 and SOC 2601)		
GER Electives any two additional courses from the above knowledge domains		6
CMST 1545	Communication Foundations	3
Major Requirements		
PSYC 1560	General Psychology	3
SOC 2601	Social Problems	3
EDFN 1501	Introduction to Education	3
CHFM 2633	Early Childhood: Integrating Development and Education	3
CHFM 2650	Introduction to Assessment of Young Children	3
CHFM 3750	Families, Communities and Schools (Title change: Families, Communities, and Schools)	3
CHFM 2670	Wellness in Early Childhood Years	3
or CHFM 3770	Wellness During the Early Childhood Years	
GEOL 1504	The Dynamic Earth	3
ELIS 2601	Development, Learning and the Arts	3
ENGL 3703	Literature for Young Children	3
TERG 2605	Reading Foundational Skills Across Content Areas Pre-K – 12	3
or TERG 3700	Phonological Awareness and Phonics	
Total Semester Hours		63-65

Year 1**Fall**

YSU 1500	Success Seminar	
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
PSYC 1560	General Psychology	3
CMST 1545	Communication Foundations	3
EDFN 1501	Introduction to Education	3
AH Gen Ed		3

Semester Hours **16-18**

Spring

ENGL 1551	Writing 2	3
CHFM 2633	Early Childhood: Integrating Development and Education	3
CHFM 2650	Introduction to Assessment of Young Children	3
SOC 2601	Social Problems	3
Gen Ed Elective		3

Semester Hours **15**

Year 2**Fall**

CHFM 3750	Families, Communities and Schools (Title change: Families, Communities, and Schools)	3
CHFM 3770	Wellness During the Early Childhood Years	3
GEOL 1504	The Dynamic Earth	3
MATH 2661	Mathematics for Elementary Teachers 1	4

Gen Ed Elective		3
Semester Hours		16
Spring		
ELIS 2601	Development, Learning and the Arts	3
ENGL 3703	Literature for Young Children	3
TERG 2605	Reading Foundational Skills Across Content Areas Pre-K – 12 (or TERG 3700)	3
NS Gen Ed + Lab		4
AH Gen Ed		3
Semester Hours		16
Total Semester Hours		63-65

1

2 May add General Education Requirements listed as possible summer courses to any of the four semesters

Learning Outcomes

At the completion of the Teacher Education program, graduates will be able to:

- Communication skills focusing on effective written and oral communications in an educational setting with parents, fellow educational professionals and community and business leaders
- Knowledge needed to identify, assess, and assist with the education of a diverse student population
- Working foundation of the historical, philosophical, theoretical, and legal issues of education
- Practical professional skills to assist in the establishment and maintenance of an effective, productive, and safe educational setting
- Personal ethical standards and professional practices used by successful education professionals

Associate of Applied Science in Early Childhood Associate Pre-K

Program Coordinator

Patrick O'Leary (330) 941-3343 pmoleary@ysu.edu

Overview

This associate degree leads to Associate Licensure in Pre-Kindergarten Education. Graduates are qualified to teach in or manage licensed daycare and preschool programs, and they are eligible for *Associate Pre-kindergarten Teacher Licensure* after passing the Pre-k Praxis examination. Most of the coursework can be applied toward a bachelor's degree for Family and Consumer Science Instructor or Early Childhood Education. Within the framework of their required courses, students complete 300 hours of clinical/field work. This program normally requires four semesters of study averaging 15-18 hours per semester.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
MATH 2623	Quantitative Reasoning	3
A & H or NS Elective (one course must include a lab)		3-4

PSYC 1560	General Psychology	3
CMST 1545	Communication Foundations	3
Major Requirements		
CHFM 1514	Introduction to Early Childhood Education	3
CHFM 1530	Infants and Toddlers: Development and Care	3
CHFM 2633	Early Childhood: Integrating Development and Education	3
SPED 2630	Individuals with Exceptionalities in Society	3
HEPE 2624	Physical Education for Children in Early Childhood Settings	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
CHFM 2664	Effective Classroom Management and Positive Guidance in the Early Childhood Classroom	3
CHFM 3765	Assessment of Children in Early Childhood Settings	3
CHFM 3733L	Practicum in Early Childhood Settings	3
ELIS 2601	Development, Learning and the Arts	3
CHFM 3750	Families, Communities and Schools	3
CHFM 2670	Wellness in Early Childhood Years	3
or CHFM 3770	Wellness During the Early Childhood Years	
CHFM 3790	Directed Practice in PreK Education	4
CHFM 3790S	Directed Practice Seminar	2
CHFM 3755	Parenting	3
Total Semester Hours		61-64

Year 1**Fall**

YSU 1500	Success Seminar	
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
CHFM 1514	Introduction to Early Childhood Education (or)	3
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
PSYC 1560	General Psychology	3
CMST 1545	Communication Foundations	3
Gen Ed AH or NS Course		3-4
Semester Hours		16-19

Spring

CHFM 1530	Infants and Toddlers: Development and Care	3
ENGL 1551	Writing 2	3
CHFM 2633	Early Childhood: Integrating Development and Education	3
CHFM 3755	Parenting	3
HEPE 2624	Physical Education for Children in Early Childhood Settings	3
Semester Hours		15

Year 2**Fall**

SPED 2630	Individuals with Exceptionalities in Society	3
SPED 2630L	Individuals with Exceptionalities in Society Laboratory Experience	0
CHFM 2670	Wellness in Early Childhood Years	3
or CHFM 3770	or Wellness During the Early Childhood Years	
CHFM 3765	Assessment of Children in Early Childhood Settings	3
CHFM 3733L	Practicum in Early Childhood Settings	3

CHFM 3750	Families, Communities and Schools	3
Semester Hours		15
Spring		
CHFM 2664	Effective Classroom Management and Positive Guidance in the Early Childhood Classroom	3
ELIS 2601	Development, Learning and the Arts	3
CHFM 3790	Directed Practice in PreK Education	4
CHFM 3790S	Directed Practice Seminar	2
MATH 2623	Quantitative Reasoning	3
Semester Hours		15
Total Semester Hours		61-64

1

2 May add General Education Requirements listed as possible summer courses to any of the four semesters

Learning Outcomes

At the completion of the Pre-kindergarten program, graduates will be able to:

- Design and implement developmentally appropriate lessons.
- Involve families in learning.
- Assess a child's development in five developmental domains.
- Recognize and use ethical guidelines and professional standards related to early childhood practice.

Endorsements

Early Childhood Generalist (Grades 4-5)

The Department of Teacher Education and Leadership Studies offers the Early Childhood Generalist (Grades 4-5) endorsement. This endorsement is approved by the State of Ohio and is offered online. This endorsement may be added to an existing Early Childhood Education (P-3) license, for teaching grades 4-5 in Math, Science, Social Studies, and Language Arts. This is not a major and does not stand alone as an area of study.

The endorsement is offered during summer semesters through web-based instruction. A 50-hour field experience is required. Passage of the OAE 018 (subtest 1) and 019 (subtest 2) examinations are required.

EMCE 5801 Early Childhood Generalist Science

EMCE 5802 Early Childhood Generalist Math

EMCE 5803 Early Childhood Generalist Language Arts

EMCE 5804 Early Childhood Generalist the Arts, Health and Fitness

EMCE 5805 Early Childhood Generalist Social Studies

Middle Childhood Generalist (Grades 4-5)

The Department of Teacher Education and Leadership Studies offers the Middle Childhood Generalist Endorsement. This endorsement is approved by the State of Ohio and may be added to an existing Middle Childhood License. An endorsement to teach grades 4 – 6 in one or more additional areas can be added to a present Middle Childhood License. This endorsement also requires the passage of the OAE Elementary Education subtest 1 – 018 with a passing score of 220 or higher & subtest 2 – 019 with a passing score of 220 or higher or the respective content area test.

Approved English Courses

ENGL 3704 Literature for Middle School Readers

ENGL 3739 Writing for Middle School Teachers

Score of 220 on the OAE Middle Grades Language Arts (028).

Approved Mathematics Courses

MATH 1564 Foundations of Middle School Mathematics 1

MATH 2665 Foundations of Middle School Mathematics 2

Score of 220 on the OAE Middle Grades Math test (030).

Approved Science Courses

GEOL 1504 The Dynamic Earth

PHYS 2607 Physical Science for Middle and Secondary Education

Score of 220 on the OAE Middle Grades Science test (029).

Reading Endorsement (K-12)

The Department of Teacher Education and Leadership Studies offers the Reading Endorsement (Grades K-12). This endorsement is approved by the State of Ohio and can be added to any standard teaching license or certificate. This endorsement also requires the passage of OAE (Ohio Assessments for Educators) Reading – Sub test I (038) passing score of 220 or higher; and OAE Reading - Sub test II (039) passing score of 220 or higher. Candidates must purchase a TaskStream account.

TERG 6923 Literacy and Phonics Instruction

TERG 6924 Content Literacy

TERG 6926 Reading and Language Arts Assessment

TERG 6927 Practicum: Coaching for Effective Literacy Instruction

TERG 6928 Practicum: Case Study in Reading and Language Arts

TESOL (Teaching English to Speakers of Other Languages) (Grades K-12)

The Department of Teacher Education and Leadership Studies offers the Teaching English to Speakers of Other Languages (TESOL) Endorsement in cooperation with the Department of English. This can be added to any teaching license. This endorsement requires the passage of OAE (Ohio Assessments for Educators) #21 English to Speakers of Other Languages, passing score of 220 or higher. The 18 s.h. of required coursework includes:

ENGL 2651 Introduction to Language

Or:

ENGL 3755 Principles of Linguistic Study

ENGL 4850 Sociolinguistics

ENGL 4851 Language Acquisition

ENGL 4852 Linguistics and Literacy

ENGL 4856 TESOL Methods

ENGL 4857 TESOL Practicum

Minor in Education

Students have the option of earning a Minor in Education by completing prescribed courses from the Teacher Education and Leadership Studies Department.

COURSE	TITLE	S.H.
Required Courses		
EDFN 1501	Introduction to Education	3
EDFN 3708	Education and Society	3
SPED 2630 & 2630L	Individuals with Exceptionalities in Society and Individuals with Exceptionalities in Society Laboratory Experience	3
Select one of the following classes		3
PSYC 3709	Psychology of Education	
ELIS 3700	Building Pro-Social Learning Environments P-5	
SED 3706	Principles of Teaching Adolescents	
TEMC 4801	The Middle School Learning Community	
TERG 3700	Phonological Awareness and Phonics	
Total Semester Hours		12

Department of English and World Languages

Welcome

Majors in the Department of English and World Languages share a love of language. They make time to read or to write; they pay attention to how language works and how it is used; they hold onto the striking turn of a phrase. They wish to visit places, observe characters, and absorb the language created in all kinds of texts. The Department of English and World Languages welcomes those who seek diversity, who understand the limits of their own worldviews and who seek ways to understand others. Language is a foundational human bond. We come to language and literature and linguistics and writing to wonder, to understand, to inspire, and to work. You are welcome here.

Our department's mission is to educate citizens to use language effectively and to appreciate the history, diversity, and complexity of their culture. The department seeks to improve students' abilities to read and write, to listen attentively and to communicate, to think analytically and creatively, to appreciate the aesthetics of literature, and to value diverse cultures. Department faculty teach purposefully, leading investigations of writing, language, literature, and culture, work informed by research and scholarly activity, service to the University, and broad-based community involvement.

For information, contact Jeff Buchanan, Department Chair.
jmbuchanan@ysu.edu

Academic Programs

The Department of English and World Languages offers:

- Bachelor of Arts (BA) degree in English.
- In collaboration with the Department of Teacher Education and Leadership Studies, a Bachelor of Science (BS) degree in Integrated Language Arts.
- Academic Minors in: English Studies, British and American Literature, Public and Professional Writing, Linguistics, and Creative Writing.
- Masters of Arts (MA) degree in English.
- Graduate certificates in: Literature for Children and Young Adults, the Teaching of Writing, Teaching English to Speakers of Other Languages (TESOL), and Public and Professional Writing.
- Coursework in American Sign Language, Italian, Spanish, and Film Studies.

For information about our academic programs, contact the Department Chair or the following Program Coordinators:

- Corey Andrews (ceandrews@ysu.edu): Literature
- Diana Awad-Scrocco (dlawadscrocco@ysu.edu): Public and Professional Writing

- Chris Barzak (cbarzak@ysu.edu): Creative Writing
- Jackie Mercer (jmercer@01ysu.edu): English Education (Integrated Language Arts)
- Gina Villamizar (gvillamizar@ysu.edu): World Languages
- Nicole Pettitt (npettitt@ysu.edu): Linguistics and TESOL
- Luke Hardy (lhardy01@ysu.edu): Graduate Programs

Academic Activities

Students interested in Italian or Spanish, including non-majors and non-minors, are invited to participate in the Italian or Spanish Club. Club activities include regular meetings, conversation hours, organized dinners, and attendance at various events such as Opera Western Reserve and the Cleveland International Film Festival.

The Department strongly encourages all students to study abroad.

Chair

Jeffrey M. Buchanan, Ph.D., Chair

Professor

Corey E. Andrews, Ph.D., Professor

Diana Awad-Scrocco, Ph.D., Associate Professor

Kevin E. Ball, Ph.D., Professor

Christopher Barzak, M.F.A., Professor

Laura L. Beadling, Ph.D., Professor

Maria Conti Maravillas, Ph.D., Assistant Professor

Suzanne Diamond, Ph.D., Professor

Timothy Francisco, Ph.D., Professor

Jay L. Gordon, Ph.D., Associate Professor

Lucas D. Hardy, Ph.D., Associate Professor

Alena Kirova, Ph.D., Assistant Professor

Nicole Pettitt, Ph.D., Assistant Professor

Dolores V. Sisco, Ph.D., Assistant Professor

Gina Villamizar, Ph.D., Associate Professor

Lecturer

Barbara Flinn, M.A., Senior Lecturer

Jacklynn Mercer, M.A., Senior Lecturer

Cynthia Vigliotti, M.A., Senior Lecturer

Majors

- BA in English (p. 174)

Minors

- Minor in English Studies (p. 178)
- Minor in British and American Studies (p. 177)
- Minor in Public and Professional Writing (p. 178)

- Minor in Linguistics (p. 178)
- Minor in Creative Writing (p. 177)

English

Programs in English

In English, a student can earn a BA while sharpening skills in reading, writing, and thinking. Minors are also available in English Studies, British and American Literature, Public and Professional Writing, Linguistics, and Creative Writing.

Literature majors learn to demonstrate an attentiveness to textual detail; they are able to explain the relationship between texts and their broader literary, historical, and cultural contexts; literature majors analyze ways in which forms, culture, and identity influence both the production of texts and the critical reception of those texts; as writers, majors arrange and place arguments, using appropriate source material and clear, organized language.

Students are well-positioned for careers that build on these skills—analysis, communication, writing, collaboration—and for graduate school in English, Law, and/or Business.

Students seeking a minor are encouraged to explore. We offer opportunities to write in academic, professional, and creative genres and to study language and its social and cultural functions. Our programs spark the imagination and teach students to read carefully and write purposefully.

ENGL 1509 Academic English for International Students 3 s.h.

Development of writing and reading comprehension skills in English through outlining, summary, and response. Emphasis on vocabulary, main idea, detail, and conclusion in assigned reading and writing. Entrance on basis of English-as-a-Second-Language placement test. Must be taken until a grade of C or better is achieved. Does not count toward a degree. Grading is ABC/NC. Next course in sequence must be the 4 semester hours ENGL 1549 Writing 1 with Support.

ENGL 1512 English Conversation for Non-native Speakers 1 s.h.

Development of conversation skills. Focus on oral-aural fluency, idiomaticity, extracting and organizing information, and situation-oriented communication strategies. Emphasis on meaningful topics relevant to the students' pursuit of their academic goals. Entrance on basis of English-as-a-Second-Language placement test. Does not count toward a degree. Grading is ABC/NC.

ENGL 1541 Introduction to College Writing 3 s.h.

Intensive individualized instruction in written communication and college-level reading practices in a computer-assisted environment. Open to students based upon ACT/ SAT/Composition Placement Test results. Grading for English 1541 is ABC/NC. Does not count toward the graduation requirement in composition and does not count toward a degree. Next course in sequence must be the 4 semester hours ENGL 1549 Writing 1 with Support.

Prereq.: Placement by ACT/SAT test results, as noted in course description.

ENGL 1549 Writing 1 with Support 4 s.h.

Strategies for writing as a means of critical inquiry, with focus on writing processes and on the roles of writer, audience, and purpose as they affect writing. Students divide their time between regular and computer classrooms, where they acquire and develop basic word-processing and electronic communication skills. This four-credit hour version of Writing One emphasizes development of college-level writing conventions, organizational strategies, and revision and editing techniques. Grading is ABCDF, but students must earn a "C" or better to satisfy the General Education requirement and continue to ENGL 1551 or ENGL 1551H.

Prereq.: Appropriate ACT/SAT scores or completion of English 1541.

ENGL 1550 Writing 1 3 s.h.

Strategies for writing as a means of critical inquiry, with focus on writing processes and on the roles of writer, audience, and purpose as they affect writing. Students divide their time between regular and computer classrooms, where they acquire and develop basic word-processing and electronic communication skills. Open to students on the basis of Composition and Reading Test results or successful completion of ENGL 1509 or ENGL 1539 or ENGL 1540. Grading is ABCDF but must earn a "C" or better to satisfy the General Education requirement and continue to ENGL 1551 or ENGL 1551H.

ENGL 1550H Honors Writing 1 3 s.h.

Strategies for writing as a means of critical inquiry, with focus on writing processes and on the roles of writer, audience, and purpose as they affect writing. Writing assignments treat a broad range of ideas, especially in response to challenging readings. Stylistic experimentation is encouraged so that each student can develop a distinctive writing style. Students divide their time between regular classrooms and computer classrooms, where they have the opportunity to acquire and develop basic word-processing and electronic communication skills. Grading is ABCDF but must earn a "C" or better to satisfy the General Education requirement.

Prereq.: Eligibility for the Honors Program and permit on the basis of ACT/SAT scores or Composition Placement Test.

ENGL 1551 Writing 2 3 s.h.

Practice in writing with emphasis on the process of investigation: exploration of topics, formulation of tentative theses, collection of data from suitable primary and secondary sources, and clear and appropriate presentation of the results of these inquiries. Students divide their time between regular and computer classrooms, where they have the opportunity to perform online research. Grading is ABCDF but must earn a C or higher to satisfy the General Education requirement.

Prereq.: ENGL 1549 with a grade of "C" or better or ENGL 1550 with a grade of "C" or better or ACT/SAT scores or Composition and Reading Test results.

ENGL 1551H Honors Writing 2 3 s.h.

Research on a topic of some depth, conducted independently and focused on a single project that results in a substantial investigative paper. Students divide their time between regular and computer classrooms, where they have the opportunity to perform online research. Grading is ABCDF but must earn a C or higher to satisfy the General Education requirement. 3 s.h.

Prereq.: Admission to the Honors Program and ENGL 1550H with a grade "C" or better.

ENGL 1560 Language, Ethnicity, and Gender 3 s.h.

Basic understanding of relations between ethnicity, gender, and speech style, distinguishing linguistics, sociolinguistics, and women's issues. Examination of topics such as language, socialization, oral vs written language, language and class membership, and intra-ethnicity variation in Urban Vernacular English.

ENGL 1590 Introduction to Literature 3 s.h.

Literary works from various genres and periods by culturally diverse authors. Students learn literary terms to analyze and interpret literature. A major goal is to improve critical thinking skills by relating literature to film, music, art and/or live performance.

Gen Ed: Arts and Humanities.

ENGL 1590H Honors Introduction to Literature 3 s.h.

Primarily British or American works in a variety of genres, chosen to illuminate a central topic, are read and discussed critically to promote understanding and enjoyment of reading. Focused on one of four topics: Nature and the Environment, The Good Life, Science and Technology, or Social Justice.

Gen Ed: Arts and Humanities.

ENGL 2601 Intermediate Writing for Teachers 3 s.h.

A course to increase proficiency in critical reading and writing. Designed specifically for students entering the College of Education; reading, discussions and writing assignments emphasize current issues in Education. Assignments allow students to practice, collaboratively and individually, the kinds of writing used in teaching. Does not count toward the English major.

Prereq.: Completion of ENGL 1551 with grade "C" or better.

ENGL 2610 World Literature 3 s.h.

A survey of nonwestern literatures, emphasizing their cultural, historical, literary, and global contexts.

Gen Ed: Arts and Humanities, International Perspectives, Social and Personal Awareness.

ENGL 2615 Science Fiction and Fantasy Literature 3 s.h.

Works from the science fiction and fantasy genres are read and discussed critically to promote understanding and enjoyment of reading.

Gen Ed: Arts and Humanities.

ENGL 2617 Women in Literature 3 s.h.

Examination of works by and about women, drawn primarily from American and English writers.

Gen Ed: Arts and Humanities, Domestic Diversity, Social and Personal Awareness.

ENGL 2617H Honors Women in Literature 3 s.h.

Examination of works by and about women, drawn primarily from American and English writers.

Gen Ed: Arts and Humanities, Domestic Diversity, Social and Personal Awareness.

ENGL 2618 American Literature and Diversity 3 s.h.

Writers and works in relation to the diversity of American culture, politics, lifestyles, and social movements.

Gen Ed: Arts and Humanities, Domestic Diversity, Social and Personal Awareness.

ENGL 2618H Honors American Literature and Diversity 3 s.h.

Writers and works in relation to the diversity of American culture, politics, lifestyles, and social movements.

Gen Ed: Arts and Humanities, Domestic Diversity, Social and Personal Awareness.

ENGL 2620 African Literature 3 s.h.

Survey of African literature, with emphasis on experiences, styles, and themes of African writers, as well as the effects of African literature on cultural discourse throughout the world.

Gen Ed: Arts and Humanities.

ENGL 2623 Literature, Work, and Class 3 s.h.

Analysis of literary representations of work and class, with special attention to working class authors, subjects, and styles. Focuses on social and historical influences, as well as the impact of social changes and new knowledge upon working-class literature.

ENGL 2630 LGBTQIA Literature 3 s.h.

Explores literature by LGBTQIA authors about LGBTQIA issues and themes with the goal to expose the vibrancy and range of the literature of "queerness."

Gen Ed: Arts and Humanities, Domestic Diversity, Social and Personal Awareness.

ENGL 2631 Mythology in Literature 3 s.h.

Introductory study of myths, chiefly classical, with some attention to their origins and cultural significance, and of literary works, both classical and modern, in which myths are used.

Gen Ed: Arts and Humanities.

ENGL 2631H Honors Mythology in Literature 3 s.h.

Introductory study of myths, chiefly classical, with some attention to their origins and cultural significance, and of literary works, both classical and modern, in which myths are used.

Gen Ed: Arts and Humanities.

ENGL 2646 Introduction to Fiction Writing 3 s.h.

Examination and application of narrative techniques and conventions designed to introduce the basic elements of writing fiction.

ENGL 2647 Introduction to Poetry Writing 3 s.h.

Examination and application of poetic techniques and conventions designed to introduce the basic elements of writing poetry.

ENGL 2650 Introduction to Creative Writing 3 s.h.

Intro to Creative Writing introduces the devices, conventions, and techniques of creative writing, particularly fiction writing and poetry writing, although creative nonfiction, scriptwriting, and other formats may be included at instructor's discretion.

ENGL 2651 Introduction to Language 3 s.h.

Introduction to language principally for prospective teachers, with emphasis on the nature and function of language and its history, variations, and acquisition.

Gen Ed: Domestic Diversity, Social Science, Social and Personal Awareness.

ENGL 2665 Introduction to Film Study 3 s.h.

Introduction to film as a medium of artistic expression. Technical aspects of film and the relationship of film to other media and to society.

Gen Ed: Arts and Humanities.

ENGL 2665H Honors Introduction to Film Study 3 s.h.

Introduction to film as a medium of artistic expression. Technical aspects of film and the relationship of film to other media and to society.

Gen Ed: Arts and Humanities.

ENGL 3700 Literary Study 3 s.h.

Gateway course for English majors. Content to include key terms, strategies for reading, interpretation, research, and the conventions for assessing and using sources.

Prereq.: Completion of ENGL 1551 with grade "C" or better.

ENGL 3703 Literature for Young Children 3 s.h.

Study of the development of children's literature, giving the prospective elementary teacher criteria for evaluating books for children. Required of all elementary education candidates.

Prereq.: Completion of ENGL 1551 with grade "C" or better.

ENGL 3704 Literature for Middle School Readers 3 s.h.

Study of fiction and nonfiction genres for students in the middle school grades, including characters and authors from various cultures and ethnicities. Required of middle childhood reading and language arts majors.

Prereq.: Completion of ENGL 1551 with grade "C" or better.

ENGL 3705 Young Adult Literature 3 s.h.

Study of literature for and about adolescents and of related topics, including young adults as readers, critical standards for evaluation, and the use of adolescent literature in secondary schools.

Prereq.: Completion of ENGL 1551 with grade "C" or better.

ENGL 3706 Introduction to Literary Theory 3 s.h.

Provides an introduction to literary theory and criticism for English majors, emphasizing the history and application of critical approaches to literature. By reading core works in literary theory, students will learn application of theoretical approaches to various texts.

Prereq.: ENGL 1551 grade of "C" or higher.

ENGL 3710 British Literature 1 3 s.h.

Beginnings to the Enlightenment. Students read a selection of British literature, emphasizing literary history and written analysis.

Prereq.: ENGL 3700 or concurrent with ENGL 3700.

ENGL 3711 British Literature 2 3 s.h.

From Romanticism to the Present. Students read a selection of British literature, emphasizing literary history and written analysis.

Prereq.: ENGL 3700 or concurrent with ENGL 3700.

ENGL 3712 American Literature 1 3 s.h.

Colonial period to 1865. Examine works from a range of American authors and genres drama, fiction, poetry, short stories, novels, and non-fiction essays within their cultural, historical, and literary contexts.

Prereq.: ENGL 3700 or concurrent with ENGL 3700.

ENGL 3713 American Literature 2 3 s.h.

1865 to present. Examine works from a range of American authors and genres drama, fiction, poetry, short stories, and non-fiction essays within their cultural, historical, and literary contexts.

Prereq.: ENGL 3700 or concurrent with ENGL 3700.

ENGL 3715 Graphic Novels 3 s.h.

Students will engage in several developmental activities as well as create several short graphic works themselves, which the class will discuss.

Prereq.: ENGL 1551 or 1551H.

ENGL 3730 Teaching Language Arts 3 s.h.

Introduces middle school language arts teacher candidates to discussions about the teaching of writing and language and the development of methods of teaching reading, writing, and language.

Prereq.: ENGL 1551 with a grade of "C" or better.

ENGL 3732 Images of Women 3 s.h.

An examination through language, literature, folklore, film and myth of the ways in which the meanings and representations of women have been constructed and implemented in Western culture. Introduces key concepts and theoretical frameworks drawn from current scholarship about women.

Prereq.: Completion of ENGL 1551 with grade "C" or better.

ENGL 3737 Popular Culture Studies 3 s.h.

Introduction to critical issues and approaches to popular culture through the study of various texts from literature, television, film, advertising, popular music, and computer cyberculture.

Prereq.: ENGL 1551 with grade of "C" or better.

ENGL 3738 Selected Topics in World Literature 3 s.h.

A comparative examination of a genre, historical period, or literary movement. May be repeated once with different topic.

Prereq.: Completion of ENGL 1551 with grade "C" or better.

ENGL 3739 Writing for Middle School Teachers 3 s.h.

Designed to strengthen proficiency in writing, with emphasis on issues related to the teaching of English in middle school. Limited to students seeking middle childhood licensure with a concentration in Language Arts.

Prereq.: Admission to upper division status in the Beeghly College of Education.

ENGL 3740 Nonfiction Narrative Writing 3 s.h.

Course in nonfiction narrative writing that examines a range of prose styles, including personal essays and memoirs, travel writing, political commentary, and forms of science writing. Students learn to identify and use the rhetorical elements that inform narrative nonfiction writing situations: purpose and audience, characters and dialogue, the narrative arc, narrative themes, imagery, symbolism, and metaphor. Students read, analyze, and write narrative nonfiction essays, using various sources of information. They also learn to communicate in multimodal formats, using different forms of technology.

Prereq.: Completion of ENGL 1551 or ENGL 1551H with grade "C" or better.

ENGL 3741 Advanced Writing for Teachers 3 s.h.

Designed to strengthen proficiency in writing, with emphasis on issues relating to the teaching of English. Limited to students seeking English or Integrated Language Arts certificates.

Prereq.: Admission to upper-division status in the College of Education.

ENGL 3742 Business Writing 3 s.h.

Introduction to the elements of business writing: audience and task analysis; techniques of gathering, interpreting, and presenting business research; appropriate conventions, genres, styles, and formats; elements of collaborative, global, and electronic communication; and application of computer technology to document design and production.

Prereq.: C or better in ENGL 1551.

ENGL 3743 Introduction to Public, Professional and Technical Writing 3 s.h.

Exploration of writing for public and professional/technical audiences. Students examine the use of writing in public organizations, government, the nonprofit sector, the safety and health professions, and political and social campaigns. With an emphasis on audience and purpose, students consider the rhetorical and ethical demands of writing in public, professional and technical contexts. Assignments may include analysis and research, proposals, media kits, editorials, instructions, position papers, and web content.

Prereq.: ENGL 1551 or ENGL 1551H with a minimum grade of C.

ENGL 3744 Writing with Data 3 s.h.

Introduction to writing effectively with data. Students examine various forms of qualitative and quantitative data, focusing on how to use data rhetorically to advance research-based arguments for lay and specialized audiences. Students collect, write about, and cite qualitative and quantitative data, including methods such as interviews, surveys, focus groups, online community analysis, and quasi and true experiments. Students also learn how writers incorporate data-driven arguments into different written genres and represent those arguments using data-visualization tools. No knowledge of statistics is required.

Prereq.: ENGL 1551 or ENGL 1551H with a minimum grade of C.

ENGL 3745 Writing for Online Media 3 s.h.

Analysis of the rhetoric of online verbal and visual discourse and exploration of techniques for examining and producing documents meant to be accessed online. Students consider common audiences, purposes, and genre expectations for various genres of online writing. Students use web design applications to produce online writing that serves a range of rhetorical purposes.

Prereq.: ENGL 1551 or ENGL 1551H with a minimum grade of C.

ENGL 3746 Fiction Writing Workshop 3 s.h.

Supervised workshop in which students develop their individual narrative skills, styles, and talents. May be repeated once.

Prereq.: ENGL 2646.

ENGL 3747 Poetry Writing Workshop 3 s.h.

Supervised workshop in which students develop their individual poetic skills, styles, and talents. May be repeated once.

Prereq.: ENGL 2647.

ENGL 3748 Screenwriting 3 s.h.

Examination and application of story concepts, theme and character development, structure, page design, and formatting. Students will develop their own story, treatment, and screenplay. May be repeated once.

Prereq.: Completion of ENGL 1551 with grade "C" or better.

ENGL 3749 Writing the Youth Novel 3 s.h.

Examination and application of elements associated with novels for young readers. Students will develop their own narrative skills, styles, and talents in a supervised workshop. May be repeated once.

Prereq.: ENGL 2646.

ENGL 3750 Language and Culture 3 s.h.

Language structure as an instrument in human behavior and social institutions with emphasis on cross-cultural and intercultural communication.

Prereq.: Completion of ENGL 1551 with grade "C" or better.

ENGL 3751 Rhetoric and Argument 3 s.h.

Examination of historical and contemporary rhetorical concepts that inform written arguments. Students analyze present-day issues, evaluate other writers' arguments, and construct a range of arguments that incorporate written, visual, oral, and digital modes of representation. Students design and participate in written and oral debates on current topics and compose their own forms of public persuasive communication.

Prereq.: ENGL 1551 or ENGL 1551H with a minimum grade of C.

ENGL 3752 Ethnographic Writing 3 s.h.

Analysis and production of ethnographic nonfiction texts with a focus on the rhetorical strategies ethnographic writers use to advance claims. Students learn to recognize the rhetorical elements that inform ethnographic writing situations, including purpose, audience, stance, voice, and genre. Students write ethnographic nonfiction essays using primary and secondary sources of information and learn to communicate in written, audio, visual, and multimodal formats, using various technologies.

Prereq.: ENGL 1551 or ENGL 1551H with a minimum grade of C.

ENGL 3755 Principles of Linguistic Study 3 s.h.

Survey of elements of linguistic structure, methods of analysis and description, theoretical models, and the role of language in human affairs.

Prereq.: Completion of ENGL 1551 with grade "C" or better.

ENGL 3757 Development of the English Language 3 s.h.

Sounds, vocabulary, grammar, and usage, from old to contemporary English.

Prereq.: Completion of ENGL 1551 with grade "C" or better.

ENGL 3765 Film Genres 3 s.h.

Study of a particular type of film, such as comedy, western, documentary, or science fiction. May be repeated once with a different topic.

Prereq.: ENGL 3710, ENGL 3711, ENGL 3712, ENGL 3713 or ENGL 2665.

ENGL 3770 American Literature in Historical Perspective 3 s.h.

Poetry, prose, drama, and other forms of literary expression examined within the context of a specific aspect of American social, intellectual, and cultural history. May be repeated once with different topic.

Prereq.: ENGL 3700 or concurrent.

Cross-Listed: AMER 3770.

ENGL 3771 British Literature in Historical Perspective 3 s.h.

British fiction, poetry, drama, nonfiction prose, and other forms of literary expression examined through the lens of a specific and contemporaneous social, cultural, intellectual, or global framework. Permission of instructor.

ENGL 3780 American Genres 3 s.h.

Study of a particular type of literature (e.g., short story, autobiography, or film) as it developed in the United States. May be repeated once with a different topic.

Prereq.: ENGL 3700 or concurrent.

ENGL 3790 Selected Topics in Multicultural Studies 3 s.h.

Concentrated study of discourse in English, primarily literature, from cultures other than the dominant or majority culture of a given society. Designed to develop awareness and sensitivity to issues of difference, power, and cross-cultural perspectives, and to address and facilitate students' multicultural literacy. May be repeated once with different topic.

Prereq.: Completion of ENGL 1551 with grade "C" or better.

ENGL 4830 Major Figures in British Literature 3 s.h.

Concentrated study of the works of a British writer who has contributed significantly to the literary tradition. May be repeated once with different topic.

Prereq.: ENGL 3700 with a grade of "C" or higher.

ENGL 4831 British Genres, Circles, and Movements 3 s.h.

Study of a literary genre, a group of writers who shared a cultural context or who influenced one another's work, or a trend or development in literature. May be repeated once with different topic.

Prereq.: ENGL 3700 with a grade of "C" or higher.

ENGL 4843 Advanced Professional and Technical Writing 3 s.h.

Advanced instruction in professional and technical writing, expanding on knowledge and skills developed in ENGL 3742 or 3743, with emphasis on the creation and design of complex documents using tools such as Microsoft Word and Adobe InDesign.

Prereq.: ENGL 3742 or ENGL 3743 with grade "C" or better.

ENGL 4844 Writing in the Health Science Professions 3 s.h.

Advanced writing course focused on the writing practices and genres produced in the health professions with a focus on writing about health and medicine for lay audiences. Students examine specific genres of writing produced by clinicians, researchers, and those working in health-science fields. Students learn the rhetorical strategies needed to write and communicate effectively in health and medical contexts, including health-profession entrance essays, health science research reports, patient and clinician communications, and public health documents.

Prereq.: ENGL 1551 (Writing 2) or ENGL 1551H (Honors Writing 2) with grade of "C" or higher.

ENGL 4844C CE Writing in Health Prof 3 s.h.

Advanced writing course focused on the writing practices and genres produced in the health professions with a focus on writing about health and medicine for lay audiences. Students examine specific genres of writing produced by clinicians, researchers, and those working in health-science fields. Students learn the rhetorical strategies needed to write and communicate effectively in health and medical contexts, including health-profession entrance essays, health science research reports, patient and clinician communications, and public health documents.

Prereq.: ENGL 3742 or ENGL 3743 with a minimum grade of C.

ENGL 4845 Grant Writing 3 s.h.

Study of various issues and strategies involved in writing grant proposals to help solve a range of problems and support various causes that improve people's lives and communities. Students learn how grant proposals enable significant research in natural, behavioral, and social sciences; facilitate civic and educational projects; and advance community development and artistic initiatives. Students learn the functions and conventions of grant proposals, the range of research required to write grant proposals, and the rhetorical and practical processes that produce them and lead to approval. The course emphasizes two key stages of writing grant proposals: developing the proposal (including defining needs, reviewing existing projects and literature, and researching sources of funds), and writing the proposal with a particular audience in mind.

Prereq.: ENGL 1551 (Writing 2) or ENGL 1551H (Honors Writing 2) with grade of "C" or higher.

ENGL 4846 Visual Rhetoric 3 s.h.

Study of visual elements across a range of historical and contemporary rhetorical practices and genres. Students explore the rhetorical implications of design and analyze how design and writing work together as an integrated process. Students work with specific technological tools to analyze existing texts and to create single- and multi-paged texts for particular rhetorical purposes, audiences, and contexts.

Prereq.: ENGL 1551 (Writing 2) or ENGL 1551H (Honors Writing 2) with grade of "C" or higher.

ENGL 4847 Writing and the Public Sphere 3 s.h.

This course addresses writing that aims to serve the public interest. Students analyze and critique writing primarily from the nonprofit sector, covering such areas as public safety and health, social and political campaigns, governmental policies, environmental concerns, animal rights, and the arts. As writers, students will examine how writing and revision enable them to recognize and address problems in both established and new ways.

Prereq.: ENGL 1551 (Writing 2) or ENGL 1551H (Honors Writing 2) with grade of "C" or higher.

ENGL 4849 Copyediting 3 s.h.

Study of the skills needed to make appropriate decisions about the content, grammar, mechanics, style, organization, and format of scholarly, trade, journalistic, and other professional publications, including newsletters and electronic publications. Topics include stages in the publishing process, proofreading, hard-copy versus online editing, mechanical and substantive editing, and the use of house and press styles.

Prereq.: ENGL 1551 (Writing 2) or ENGL 1551H (Honors Writing 2) with grade of "C" or higher.

ENGL 4850 Sociolinguistics 3 s.h.

An investigation of the relationship between language and society. Includes discussion of dialects and standard language, language planning, linguistic identity, multi- and bilingualism, class, gender, ethnicity, and social interaction. Listed also as FNLG 4850.

Prereq.: ENGL 2651 or ENGL 3755.

ENGL 4851 Language Acquisition 3 s.h.

A study of research on the learning of first and second languages. Topics include developmental sequences, learner variables, critical periods and conditions for learning, and the roles of input and interaction. The course is designed for those planning to teach languages. Listed also as FNLG 4851.

Prereq.: ENGL 2651 or ENGL 3755.

ENGL 4852 Linguistics and Literacy 3 s.h.

Examination of the linguistic, social, and cultural dimensions of reading and writing and their impact on literacy acquisition and performance in language.

Prereq.: ENGL 2651 or ENGL 3755.

ENGL 4854 Language Assessment 3 s.h.

Language Assessment is intended to engage students in exploring different theories, issues, procedures, methods and approaches related to assessments for English language learners. By introducing relevant theory and current practice in assessment, the course is designed to integrate theory and practice to provide students with both conceptual understanding and practical experience with language assessment.

ENGL 4855 Advanced Linguistics 3 s.h.

In-depth study of selected issues in contemporary linguistic theory. Especially recommended for students pursuing advanced studies or a minor in linguistics or planning graduate studies.

Prereq.: ENGL 2651 or ENGL 3755.

ENGL 4856 TESOL Methods 3 s.h.

Introduction to teaching English as a Second Language (ESL), including reading, writing, listening, and speaking. Focus on using communicative methods with non-native speakers.

Prereq.: ENGL 2651 or ENGL 3755.

ENGL 4857 TESOL Practicum 3 s.h.

Supervised teaching in English as a Second Language (ESL) program. Additionally, weekly seminar attendance required.

Prereq.: ENGL 4856.

ENGL 4858 English Grammar 3 s.h.

Descriptions and analysis of English language structure.

Prereq.: ENGL 2651 or ENGL 3755.

ENGL 4859 Selected Topics in Discourse 3 s.h.

Study in depth of a specific topic such as stylistics, semantics, or rhetoric. May be repeated once with different topic.

Prereq.: ENGL 3740, ENGL 3741, or ENGL 3755 as appropriate to topic.

ENGL 4860 The Medieval World 3 s.h.

British literature from the Anglo-Saxon period to the age of Chaucer, presented in the context of the period's history and culture.

Prereq.: ENGL 3700 with grade of "C" or higher.

ENGL 4862 Themes in American Literature 3 s.h.

In-depth examination of a significant theme in American literature and culture through analysis of prose, poetry, drama, and/or film from different historical periods.

Prereq.: ENGL 3700 with grade of "C" or higher.

ENGL 4863 Themes in British Literature 3 s.h.

In-depth examination of a significant theme in British literature and culture through analysis of differing literary types and genres from different historical periods.

Prereq.: Permission of instructor.

ENGL 4864 American Literary Conversations 3 s.h.

Study of two or more American writers whose work is related. Focuses on writers who influenced each other, who wrote during the same period, or who explored similar themes or used similar literary styles.

Prereq.: ENGL 3700 with grade of "C" or higher.

ENGL 4865 Selected Topics in Film 3 s.h.

An important aspect of or approach to film not covered in other courses. May be repeated once with different topic.

Prereq.: ENGL 3710, ENGL 3711, ENGL 3712, ENGL 3713, or ENGL 2665.

ENGL 4871 The Black Experience in American Literature 3 s.h.

Study of African-American literature that explores the intersections between race, gender, and class in America, with emphasis on black minority culture, experience, and perspective.

Prereq.: ENGL 3700 with a grade of "C" or higher.

ENGL 4881 Shakespeare and His World 3 s.h.

Study of Shakespeare's works along with an exploration of the artistic and social forces that shaped his writing.

Prereq.: ENGL 3700 with a grade of "C" or higher.

ENGL 4882 The English Renaissance 3 s.h.

Study of British literature from 1500 to 1660 and the social, cultural, and artistic forces that influenced it.

Prereq.: ENGL 3700 with a grade of "C" or higher.

ENGL 4886 Restoration and Eighteenth Century British Literature 3 s.h.

Study of British literature of the period and the social, cultural, and artistic forces that influenced it.

Prereq.: ENGL 3700 with a grade of "C" or higher.

ENGL 4887 The Romantic Period 3 s.h.

Study of British literature from 1776 to 1832 and the social, cultural, and artistic forces that influenced it.

Prereq.: ENGL 3700 with grade of "C" or better.

ENGL 4890 Senior Seminar 3 s.h.

Study of literature, linguistics, or criticism and theory requiring a long, critical, research-based paper.

Prereq.: ENGL 3700 and at least one of the following ENGL 3710, ENGL 3711, ENGL 3712 or ENGL 3713.

Gen Ed: Capstone.

ENGL 4891 Individual Study 1-3 s.h.

Exploration of a topic in English studies. An academic project or written report produced in consultation with an English instructor is required. May be repeated with different topics for a maximum of 3 s.h.

Prereq.: Senior standing in English and department permit.

ENGL 4892 Nineteenth Century British Literature Studies 3 s.h.

Nineteenth-century writers, works, and themes read in the context of the period's culture and history.

Prereq.: ENGL 3700 with a grade of "C" or higher.

ENGL 4895 Early Twentieth Century British Studies 3 s.h.

Literature read in the context of the period's literary movements, culture, and history.

Prereq.: ENGL 3700 with a grade of "C" or higher.

ENGL 4896 British Literature from World War II to the Present 3 s.h.

Literature read in the context of the period's literary movements, culture, and history.

Prereq.: ENGL 3700 with a grade of "C" or higher.

ENGL 4897 English Internship 1-3 s.h.

Supervised experience directed by an English faculty member and a designated representative of a participating organization. Enrollment is contingent upon the availability of internships. Students are selected on the basis of qualifications including GPA, courses taken, recommendations and an interview.

Prereq.: 12 hours of English, junior or senior standing, and a department permit.

ENGL 4898 Public and Professional Writing Internship 1-3 s.h.

Supervised work-and-learning experiences in public and professional writing under the direction of a faculty member and an employee of a participating business, organization, or institution. Internship encompasses 10 to 20 hours of student time each week. Enrollment is contingent upon the availability of internships. Students are selected on the basis of their current resume, brief statement of interest, and faculty recommendations. May be repeated with the approval of the department chairperson.

Prereq.: ENGL 3743 with a minimum grade of C.

ENGL 4899 Public and Professional Writing Senior Project 3 s.h.

Capstone experience for the Public and Professional Writing major.

Individualized research, analysis, development, and oral presentation of a project that responds to a client's needs by incorporating audience-appropriate writing, design, and/or editing in a usable high-quality product. Taken during the student's final undergraduate year.

Prereq.: Senior standing and permission of a Public and Professional Writing advisor.

Gen Ed: Capstone.

Bachelor of Arts in English

The English literature major requires 42 semester hours. This curriculum sheet includes general education requirements and the minor. You'll take electives to complete the minimum 120 sh for graduation.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS SEMINAR		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Any Gen Ed Math		3-4
Arts and Humanities (6 s.h.)		6
Natural Sciences (2 courses, 1 with lab) (6-7 s.h.)		6-7
Social Science (6 s.h.)		6
Gen Ed Electives (9 s.h.)		9
Foreign Language Requirement		
FNLG 1501	Conversational Foreign Language 1	3
FNLG 1502	Conversational Foreign Language 2	3
Multicultural Studies		
Choose one course from the list below		3
ENGL 2617	Women in Literature	
ENGL 2618	American Literature and Diversity	
ENGL 2620	African Literature	
ENGL 3732	Images of Women	
ENGL 3790	Selected Topics in Multicultural Studies	
ENGL 4850	Sociolinguistics	
ENGL 4871	The Black Experience in American Literature	
Major Requirements		
ENGL 3700	Literary Study	3
ENGL 3706	Introduction to Literary Theory	3
ENGL 3710	British Literature 1	3
ENGL 3711	British Literature 2	3
ENGL 3712	American Literature 1	3
ENGL 3713	American Literature 2	3
ENGL 4890	Senior Seminar (Capstone)	3
Language Studies		
ENGL 3755	Principles of Linguistic Study	3
or ENGL 3757	Development of the English Language	
British Literature Studies		
Select one of the following:		3
ENGL 4830	Major Figures in British Literature	
or ENGL 4831	British Genres, Circles, and Movements	
or ENGL 4860	The Medieval World	
or ENGL 4881	Shakespeare and His World	

or ENGL 4882The English Renaissance	
or ENGL 4886Restoration and Eighteenth Century British Literature	
or ENGL 4887The Romantic Period	
or ENGL 4892Nineteenth Century British Literature Studies	
or ENGL 4895Early Twentieth Century British Studies	
or ENGL 4896British Literature from World War II to the Present	
American Literature Studies	
Select one of the following:	3
ENGL 3770 American Literature in Historical Perspective	
or ENGL 3780American Genres	
or ENGL 4862Themes in American Literature	
or ENGL 4864American Literary Conversations	
or ENGL 4871The Black Experience in American Literature	
Select one additional British or American Literatures Studies Course from the above list (The course must cover a period before 1900.)	3
Advanced Writing	
Select one of the following:	3
JOUR 3716 Feature Writing	
or JOUR 3717Editorial and Opinion Writing	
or JOUR 3721News Content Creation 1	
or ENGL 3740Nonfiction Narrative Writing	
or ENGL 3741Advanced Writing for Teachers	
or ENGL 3743Introduction to Public, Professional and Technical Writing	
or ENGL 3744Writing with Data	
or ENGL 3746Fiction Writing Workshop	
or ENGL 3747Poetry Writing Workshop	
or ENGL 3748Screenwriting	
Popular Culture Studies	
Select one of the following:	3
ENGL 3750 Language and Culture	
or ENGL 3765Film Genres	
or ENGL 3737Popular Culture Studies	
or ENGL 4865Selected Topics in Film	
Minor	18
Electives to meet 120 hours	17
Total Semester Hours	120-124
This plan is a road-map to graduation, but you have many options in how you manage your schedule. Speak to a department advisor for help creating a plan that will help you to achieve your professional goals (call 330-941-3414 or email the literature coordinator listed on the department website).	
Year 1	
Fall	S.H.
YSU 1500 Success Seminar	1-2
or YSU 1500S or Youngstown State University Success Seminar	
or HONR 1500 or Intro to Honors	
ENGL 1550 Writing 1	3-4
or ENGL 1549 or Writing 1 with Support	
FNLG 1550 Elementary Foreign Language	4
NS Gen Ed	3
AH Gen Ed	3
Any Gen Ed MATH	3-4
Semester Hours	17-20
Spring	
ENGL 1551 Writing 2	3
FNLG 1502 Conversational Foreign Language 2	3
SS Gen Ed	3

GER Elective	3
GER Elective	3
Semester Hours	15
Year 2	
Fall	
ENGL 3700 Literary Study	3
ENGL 3755 Principles of Linguistic Study	3
or ENGL 3757 or Development of the English Language	
ENGL 26XX, 37XX, or 48XX: Multicultural Studies ⁵	3
Minor XXXX	3
NS/Lab	3-4
Semester Hours	15-16
Spring	
ENGL 3710 British Literature 1	3
ENGL 3712 American Literature 1	3
Minor course	3
GER Elective	3
SS XXXX	3
Semester Hours	15
Year 3	
Fall	
ENGL 3711 British Literature 2	3
ENGL 3713 American Literature 2	3
Minor course: Upper-division	3
Social Science	3
Arts and Humanities	3
Semester Hours	15
Spring	
ENGL 48XX: British Literature ¹	3
ENGL 37XX or 48XX American Literature ²	3
ENGL or JOUR 37XX Advanced Writing ³	3
ENGL 37XX or 48XX Popular Culture Studies ⁴	3
MINOR: Upper-division	3
ELECT	3
Semester Hours	18
Year 4	
Fall	
ENGL 36XX or 48XX Upper-Div Amer or Brit Lit ^{1 OR 2}	3
Minor: Upper-division	3
Elective	4
Elective	3
Semester Hours	13
Spring	
ENGL 4890 Senior Seminar	3
Minor: Upper-division	3
Elective	3
Elective	3
Semester Hours	12
Total Semester Hours	120-124

¹ For the upper-division British Literature requirement, pick one from this list: 4830 (Major Figures in British Literature), 4831 (British Genres, Circles, and Movements), 4860 (The Medieval World), Shakespeare and His World), 4882 (The English Renaissance), 4886 (Restoration and Eighteenth Century British Literature), 4887 (The Romantic Period), 4892 (Nineteenth Century British Literature Studies), 4895 (Early 20th Century British Studies), or 4896 (British Literature–WW II to the Present).

- 2 For the upper-division American Literature requirement, pick one from the following list: 3770 (American Literature in Historical Perspective), 3780 (American Genres), 4862 (Themes in American Literature), 4864 (American Literary Conversations), 4871 (The Black Experience in American Literature).
- 3 For the Advanced Writing requirement, pick one of the following courses (all of these require completion of Comp 2 as a prerequisite, and some have additional prerequisites—check the course descriptions): JOUR 3716 (Intro to Magazine Journalism), 3717 (Editorial and Opinion Writing), JOUR 3721L (Journalism Workshop); ENGL 3740 (Advanced Writing), 3741 (Advanced Writing for Teachers), 3743 (Prof and Tech Communication), 3744 (Proposal and Report Writing), 3746 (Fiction Writing Workshop), 3747 (Poetry Writing Workshop), 3748 (Screenwriting), 3849 (Writing the Youth Novel)
- 4 For the Popular Culture Studies requirement, take one of the following: 3750 (Language and Culture), 3765 (Film Genres), 3737 (Popular Culture Studies), 4865 (Selected Topics in Film).

Learning Outcomes

The Department of English and World Languages has established the following learning outcomes for students completing the English major:

- English majors will demonstrate an attentiveness to the specific features of selected (and/or assigned) texts.
- English majors will be able to explain the relationship between texts and their broader literary, historical, and cultural contexts.
- English majors will be able to analyze ways in which forms, culture, and identity influence both the production of texts and the critical reception of those texts.
- English majors will be able to establish an argumentative thesis; find and use appropriate sources to develop the student’s own argument; and use clear, organized language.

Bachelor of Arts in Public and Professional Writing

The Bachelor of Arts degree in Public and Professional Writing requires 60 semester hours, distributed as follows:

COURSE	TITLE	S.H.
UNIVERSITY REQUIREMENT - STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or SS 1500	Strong Start Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Any GER Math (MATH 2623 or 2623C preferred)		3-5
Arts & Humanities (6 s.h.)		6
Natural Sciences (2 courses, 1 with lab) (6-7 s.h.)		7
Social Science (6 s.h.)		6
Social and Personal Awareness (6 s.h.)		6
Foreign Language Requirement		
FNLG 1550	Elementary Foreign Language (or FNLG 1505)	4
FNLG 2600	Intermediate Foreign Language (or FNLG 1506)	4
I. REQUIRED CORE COURSES (27 s.h.)		
ENGL 3744	Writing with Data	3
ENGL 3745	Writing for Online Media	3
ENGL 3743	Introduction to Public, Professional and Technical Writing	3
ENGL 3751	Rhetoric and Argument	3

ENGL 3752	Ethnographic Writing	3
ENGL 4845	Grant Writing	3
ENGL 4846	Visual Rhetoric	3
ENGL 4849	Copypediting	3
ENGL 4899	Public and Professional Writing Senior Project	3
II. WRITING AND LANGUAGE STUDY (15 s.h.)		
15 s.h. of 3000- or 4000-level courses from those listed below, 3 hours of which must be PPW		15
PPW		
ENGL 3740	Nonfiction Narrative Writing	
ENGL 4844	Writing in the Health Science Professions	
ENGL 4847	Writing and the Public Sphere	
ENGL 4898	Public and Professional Writing Internship	
Journalism		
JOUR 3716	Magazine Publishing	
JOUR 3717	Editorial and Opinion Writing	
JOUR 3721L	News Content Creation 1	
JOUR 3725	News Reporting	
JOUR 3726	American Media: History, Principles and Practices	
JOUR 3760	News Reporting 2	
JOUR 4824	Communication Law	
Creative Writing		
ENGL 3746	Fiction Writing Workshop	
ENGL 3747	Poetry Writing Workshop	
ENGL 3748	Screenwriting	
Linguistics		
ENGL 3755	Principles of Linguistic Study	
ENGL 4850	Sociolinguistics	
ENGL 4855	Advanced Linguistics	
ENGL 4858	English Grammar	
ENGL 4859	Selected Topics in Discourse	
Communication Studies		
CMST 3717	Intro to Media Relations Campaigns	
CMST 3750	Gender Communication	
CMST 3756	Interviewing	
CMST 4898	Media Analysis	
III. MINOR		
Take any available minor (12 s.h. minimum)		12-19
IV. Electives to reach 120 hours		20
Total Semester Hours		120-131
Year 1		
Fall		S.H.
YSU 1500	Success Seminar	1-2
or SS 1500	or Strong Start Success Seminar	
or HONR 1500	or Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
FNLG 1550	Elementary Foreign Language	4
Arts & Humanities		3
Any GER Math (MATH 2623 or MATH 2623C preferred)		3-5
Elective 15xx / 26xx		3
Semester Hours		17-21
Spring		
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
FNLG 2600	Intermediate Foreign Language	4

Social Sciences	3
Social & Personal Awareness	3
Semester Hours	16
Year 2	
Fall	
ENGL 3743 Introduction to Public, Professional and Technical Writing (Now: "Intro. to Public, Prof., and Tech Writing")	3
ENGL 3744 Writing with Data (Now: "Writing from Data")	3
Minor course (1 of 6)	3
Writing and Language Study (1 of 5)	3
Natural Science	3
Semester Hours	15
Spring	
ENGL 3745 Writing for Online Media (Now: "Writing for Online Media")	3
ENGL 3751 Rhetoric and Argument (Now: "Rhetoric and Argument")	3
Minor course (2 of 6)	3
Natural Science (Lab)	4
Elective 15xx/26xx	3
Semester Hours	16
Year 3	
Fall	
ENGL 4846 Visual Rhetoric	3
Writing and Language Study (2 of 5)	3
Minor course (3 of 6)	3
Arts & Humanities	3
Social & Personal Awareness	
Semester Hours	12
Spring	
ENGL 3752 Ethnographic Writing	3
ENGL 4849 Copyediting (Now: "Copyediting")	3
Writing and Language Study (3 of 5)	3
Minor course (4 of 6)	3
Elective 15xx/26xx	3
Semester Hours	15
Year 4	
Fall	
ENGL 4845 Grant Writing	3
Writing and Language Study (4 of 5)	3
Minor Course (5 of 6)	3
Elective (15xx/26xx)	3
Elective (37xx/48xx)	3
Semester Hours	15
Spring	
ENGL 4899 Public and Professional Writing Senior Project (Now: "Public and Professional Writing Senior Project")	3
Writing and Language Study (5 of 5)	3
Minor course (6 of 6)	3
Elective 15xx/26xx	3
Elective 37xx/48xx	3
Semester Hours	15
Total Semester Hours	121-125

Upper-division hours = 48

Learning Outcomes

The English Department has established the following learning outcomes for students completing the professional and technical writing major:

- PPW majors will **WRITE** documents to meet the demands, purpose, and interests of a specific client and audience.
- PPW majors will **DESIGN** documents to meet the demands, purpose, and interests of a specific client and audience.
- PPW majors will **REFLECT** on and **REVISE** their documents' writing and design using concrete criteria set by a specific client and audience.
- PPW majors will **DELIVER ORAL PRESENTATIONS** of their documents' writing and design using professionally designed visual aid.

Minor in British and American Literature

COURSE	TITLE	S.H.
ENGL 3700	Literary Study	3
ENGL 3710	British Literature 1	3
or ENGL 3711	British Literature 2	
ENGL 3712	American Literature 1	3
or ENGL 3713	American Literature 2	
Select one upper-division American Literature course from the following:		3
ENGL 3770	American Literature in Historical Perspective	
ENGL 3780	American Genres	
ENGL 4862	Themes in American Literature	
ENGL 4864	American Literary Conversations	
ENGL 4871	The Black Experience in American Literature	
Select one upper-division British Literature course from the following:		3
ENGL 4830	Major Figures in British Literature	
ENGL 4831	British Genres, Circles, and Movements	
ENGL 4860	The Medieval World	
ENGL 4881	Shakespeare and His World	
ENGL 4882	The English Renaissance	
ENGL 4886	Restoration and Eighteenth Century British Literature	
ENGL 4887	The Romantic Period	
ENGL 4892	Nineteenth Century British Literature Studies	
ENGL 4895	Early Twentieth Century British Studies	
ENGL 4896	British Literature from World War II to the Present	
ENGL 4890	Senior Seminar	3

Total Semester Hours **18**

Minor in Creative Writing

18 hours required from among the following courses. Some courses may be repeated (ENGL 3715, ENGL 3746, ENGL 3747, ENGL 3748, ENGL 3749). ENGL 2646 (Fiction) and 2647 (Poetry) are prerequisites for the upper-division workshops in fiction and poetry.

COURSE	TITLE	S.H.
Select 18 hours from the following courses:		18
ENGL 2646	Introduction to Fiction Writing	
ENGL 2647	Introduction to Poetry Writing	
ENGL 3715	Graphic Novels	
ENGL 3740	Nonfiction Narrative Writing	
ENGL 3746	Fiction Writing Workshop	
ENGL 3747	Poetry Writing Workshop	
ENGL 3748	Screenwriting	

ENGL 3749	Writing the Youth Novel	
Total Semester Hours		18

Total Semester Hours 18

Minor in English Studies

COURSE	TITLE	S.H.
ENGL 3700	Literary Study	3
Select one of the following literature survey courses:		3
ENGL 3710	British Literature 1	
ENGL 3711	British Literature 2	
ENGL 3712	American Literature 1	
ENGL 3713	American Literature 2	
Select one upper division American Literature OR upper division British Literature from the following:		3
American Literature Courses		
ENGL 3770	American Literature in Historical Perspective	
ENGL 3780	American Genres	
ENGL 4862	Themes in American Literature	
ENGL 4864	American Literary Conversations	
ENGL 4871	The Black Experience in American Literature	
British Literature Courses		
ENGL 4830	Major Figures in British Literature	
ENGL 4831	British Genres, Circles, and Movements	
ENGL 4860	The Medieval World	
ENGL 4881	Shakespeare and His World	
ENGL 4882	The English Renaissance	
ENGL 4886	Restoration and Eighteenth Century British Literature	
ENGL 4887	The Romantic Period	
ENGL 4892	Nineteenth Century British Literature Studies	
ENGL 4895	Early Twentieth Century British Studies	
ENGL 4896	British Literature from World War II to the Present	
Select one other literature course from the following:		3
ENGL 2610	World Literature	
ENGL 2617	Women in Literature	
ENGL 2618	American Literature and Diversity	
ENGL 2620	African Literature	
ENGL 2631	Mythology in Literature	
ENGL 2665	Introduction to Film Study	
ENGL 3703	Literature for Young Children	
ENGL 3704	Literature for Middle School Readers	
ENGL 3705	Young Adult Literature	
ENGL 3738	Selected Topics in World Literature	
ENGL 3765	Film Genres	
ENGL 4865	Selected Topics in Film	
Select two additional English Studies courses – one course from any two of the following groups:		6
Group 1: Language, Writing, and Culture		
ENGL 2651	Introduction to Language	
ENGL 3755	Principles of Linguistic Study	
ENGL 3740	Nonfiction Narrative Writing	
ENGL 3790	Selected Topics in Multicultural Studies	
Group 2: Journalism		
JOUR 2622		
JOUR 2626		
JOUR 3716	Magazine Publishing	
JOUR 3717	Editorial and Opinion Writing	

JOUR 3723	Advanced Journalism Editing and Design	
JOUR 4824	Communication Law	
Group 3: Creating Writing		
ENGL 2646	Introduction to Fiction Writing	
ENGL 2647	Introduction to Poetry Writing	
ENGL 3748	Screenwriting	
ENGL 3746	Fiction Writing Workshop	
ENGL 3747	Poetry Writing Workshop	
Group 4: Technical and Professional Communication		
ENGL 3743	Introduction to Public, Professional and Technical Writing	
ENGL 3744	Writing with Data	
ENGL 4849	Copyediting	
Total Semester Hours		18

Minor in Linguistics

The minor in linguistics requires completion of a minimum of 18 semester hours including ENGL 3755 Principles of Linguistic Study. Contact Nicole Pettitt, Linguistic Program Director, for further details.

COURSE	TITLE	S.H.
Required Courses		
ENGL 3755	Principles of Linguistic Study	3
Group I		
Select at least two courses:		6
ENGL 3750	Language and Culture	
ENGL 3757	Development of the English Language	
ENGL 4850	Sociolinguistics	
ENGL 4855	Advanced Linguistics	
ENGL 4858	English Grammar	
FRNC 3710	Applied French Phonetics	
FRNC 4885	French Conversation and Composition Capstone	
SPAN 3724	Spanish Phonetics and Phonology	
SPAN 3735	Advanced Spanish Grammar and Composition	
SPAN 3736	Introduction to Spanish Linguistics	
SPAN 5855	Topics in Spanish Language and Linguistics	
Additional Coursework for Groups I and II		
Select at least 9 s.h. from the following:		9
ENGL 4851	Language Acquisition	
ENGL 4856	TESOL Methods	
ENGL 4857	TESOL Practicum	
ENGL 4858	English Grammar	
ENGL 4859	Selected Topics in Discourse	
PHIL 2619	Introduction to Logic	
PHIL 3714	Language and Mind	
PHIL 3719	Symbolic Logic	
CSCI 5835	Artificial Intelligence	
Total Semester Hours		18

Minor in Public and Professional Writing

COURSE	TITLE	S.H.
ENGL 3743	Introduction to Public, Professional and Technical Writing	3
ENGL 3744	Writing with Data	3

ENGL 4845	Grant Writing	3
ENGL 4846	Visual Rhetoric	3
Select two of the following:		6
ENGL 3740	Nonfiction Narrative Writing	
ENGL 3745	Writing for Online Media	
ENGL 3751	Rhetoric and Argument	
ENGL 3752	Ethnographic Writing	
ENGL 4844	Writing in the Health Science Professions	
ENGL 4847	Writing and the Public Sphere	
ENGL 4849	Copyediting	
Total Semester Hours		18

World Languages and Cultures

Programs in World Languages

Students may select to study Spanish or Italian where they learn to read and write, speak and listen in the target language; they also are introduced to how the language works and functions linguistically. Study includes an introduction to the literatures and cultures of Spanish- and Italian-speaking peoples and regions.

Specifically, students will develop a cultural understanding and appreciation of the history of those areas in which Spanish or Italian is (or was) spoken. Students will be able to read and understand a variety of materials written in Spanish and Italian, and they will be able to understand Spanish and Italian when spoken in a variety of contexts. In addition, majors will be able to carry on a conversation, deliver a speech, and compose in the target language.

Department course offerings also include American Sign Language. Beginning and Intermediate courses in ASL are available, and the General Education Requirement in Foreign Language can be fulfilled by the study of ASL, Italian, or Spanish.

Learning Outcomes

The learning outcomes for all modern language courses, the level of expectation depending on the level of the course, are as follows:

- **Cultural Understanding:** The student will develop an understanding and appreciation of the history and culture of those areas in which the target language is (or was) spoken.
- **Reading Comprehension:** The student will be able to read and understand a variety of materials written in the target language. These materials may include but are not limited to: novels, plays, poetry, newspaper and magazine articles, and private correspondence (e.g., business communications).
- **Listening Comprehension:** The student will be able to understand the target language when spoken in a variety of contexts. These contexts may include but are not limited to conversation with another individual or individuals, formal lectures, song and film.
- **Oral Expression:** The student will be able to carry on a conversation and deliver a speech in the target language.
- **Written Expression:** The student will be able to compose in the target language a variety of written documents. These documents may include but are not limited to formal and casual correspondence, essays and creative works.

American Sign Language

ASL 1550 Elementary American Sign Language 1 2 s.h.

Introduction to the fundamentals of American Sign Language (ASL), including vocabulary, syntax, and grammatical non-manual signals. Introduction to the history and culture of the Deaf Community. Grading is ABC/NC.

ASL 1551 Elementary American Sign Language 2 2 s.h.

Continuation of ASL 1550 with further development of vocabulary, syntax and grammatical non-manual signals and additional study of the history and culture of the Deaf Community.

Prereq.: ASL 1550.

ASL 1552 Intermediate American Sign Language 1 2 s.h.

Continuation of ASL 1551 with further development of vocabulary, syntax and grammatical non-manual signals and additional study of the history and culture of the Deaf Community.

Prereq.: ASL 1551.

ASL 2600 Intermediate American Sign Language 2 2 s.h.

Continuation of ASL 1552 with further development of vocabulary, syntax and grammatical non-manual signals and additional study of the history and culture of the Deaf Community.

Prereq.: ASL 1552.

Arabic *

ARBC 1550 Elementary Arabic 4 s.h.

Intensive training in understanding, speaking, reading, and writing Arabic. Geography and daily life, as well as appreciation of the culture of Arabic speakers, are studied. Assignments in the Language Learning and Resource Center (LLRC). Grading is ABC/NC.

ARBC 2600 Intermediate Arabic 4 s.h.

A continuation of ARBC 1550 with intensive training in understanding, speaking, reading, and writing Arabic. Geography and daily life, as well as appreciation of the culture of Arabic speakers, are studied. Assignments in the Language Learning and Resource Center (LLRC).

Prereq.: ARBC 1550.

ARBC 2605 Advanced Intermediate Arabic 1 3 s.h.

A continuation of ARBC 2600 with intensive training in understanding, speaking, reading, and writing Arabic. Geography and daily life, as well as appreciation of the culture of Arabic speakers, are studied.

Prereq.: ARBC 2600.

ARBC 2606 Advanced Intermediate Arabic 2 3 s.h.

A continuation of ARBC 2605 with intensive training in understanding, speaking, reading, and writing Arabic.

Prereq.: ARBC 2605.

ARBC 3701 Advanced Arabic 1 3 s.h.

A continuation of ARBC 2606 with intensive training in understanding, speaking, reading, and writing Arabic.

Prereq.: ARBC 2606.

ARBC 3702 Advanced Arabic 2 3 s.h.

A continuation of ARBC 3701 with intensive training in understanding, speaking, reading, and writing Arabic.

Prereq.: ARBC 3701.

ARBC 3799 Study Abroad in Arabic 1-15 s.h.

An individually-arranged program of foreign study in the Arabic language. Programs can be of two general types: (1) trips or residential programs sponsored by consortial universities, and (2) independent academic coursework through institutions with which YSU does not have a consortial agreement. A written statement detailing the student's academic plan must be approved by the Chair of Foreign Languages and the Dean of CLASS prior to the trip. May be repeated up to a total of 15 s.h., if specific course content changes. Note: study abroad generally requires about one year's advance planning.

Prereq.: Sophomore status and approval of the Chair of Foreign Languages.

* Currently only ARBC 1550 and ARBC 2600 are regularly offered.

Chinese*

CHIN 1550 Elementary Chinese 4 s.h.

Intensive training in understanding, speaking, reading, and writing Chinese. Geography and daily life, as well as appreciation of the culture of Chinese speakers, are studied. Assignments in the Language Learning and Resource Center (LLRC). Grading is ABC/NC.

CHIN 2600 Intermediate Chinese 4 s.h.

Continuation of CHIN 1550 with intensive training in understanding, speaking, reading, and writing Chinese. Geography and daily life, as well as appreciation of the culture of Chinese speakers, are studied. Assignments in the Language Learning and Resource Center (LLRC).

Prereq.: CHIN 1550.

CHIN 2605 Advanced Intermediate Chinese 1 3 s.h.

A continuation of CHIN 2600 with intensive training in understanding, speaking, reading, and writing Chinese. Geography and daily life, as well as appreciation of the culture of Chinese speakers, are studied.

Prereq.: CHIN 2600 or placement test.

CHIN 2606 Advanced Intermediate Chinese 2 3 s.h.

A continuation of CHIN 2605 with intensive training in understanding, speaking, reading, and writing Chinese.

Prereq.: CHIN 2605.

CHIN 3701 Advanced Chinese 1 3 s.h.

A continuation of CHIN 2606 with intensive training in understanding, speaking, reading, and writing Chinese.

Prereq.: CHIN 2606.

CHIN 3702 Advanced Chinese 2 3 s.h.

A continuation of CHIN 3701 with intensive training in understanding, speaking, reading, and writing Chinese.

Prereq.: CHIN 3701.

CHIN 3799 Study Abroad in Chinese 1-15 s.h.

An individually-arranged program of foreign study in the Chinese language. Programs can be of two general types: (1) trips or residential programs sponsored by consortial universities, and (2) independent academic coursework through institutions with which YSU does not have a consortial agreement. A written statement detailing the student's academic plan must be approved by the Chair of Foreign Languages and the Dean of CLASS prior to the trip. May be repeated up to a total of 15 s.h., if specific course content changes. Note: study abroad generally requires about one year's advance planning.

Prereq.: sophomore status and approval of the Chair of Foreign Languages.

* Currently only CHIN 1550 and CHIN 2600 are regularly offered.

Foreign Languages*

FNLG 1550 Elementary Foreign Language 4 s.h.

Intensive training in understanding, speaking, reading, and writing a foreign language not regularly offered. Geography and daily life, as well as appreciation of the culture of its speakers, are studied. Assignments in the Language Learning and Resource Center (LLRC). Grading is ABC/NC.

FNLG 1550H Honors Elementary Foreign Language 4 s.h.

Intensive training in understanding, speaking, reading, and writing a foreign language not regularly offered. Geography and daily life, as well as appreciation of the culture of its speakers, are studied. Students should achieve an intermediate-low level of proficiency. Assignments in the Language Learning and Resource Center (LLRC). Grading is ABC/NC.

FNLG 2600 Intermediate Foreign Language 4 s.h.

Intensive training in understanding, speaking, reading, and writing a foreign language not regularly offered. Geography and daily life, as well as appreciation of the culture of the speakers, are studied. Assignments in the Language Learning and Resource Center (LLRC).

Prereq.: FNLG 1550 in the same language.

FNLG 2601 Advanced Intermediate Foreign Language 1 3 s.h.

Intensive training in understanding, speaking, reading, and writing a foreign language not regularly offered. Geography and daily life, as well as appreciation of the cultures of speakers of the language, are studied.

Prereq.: FNLG 2600 in the same language.

FNLG 2602 Advanced Intermediate Foreign Language 2 3 s.h.

A continuation of FNLG 2601 with intensive training in understanding, speaking, reading, and writing a foreign language not regularly offered.

Prereq.: FNLG 2601 in the same language.

FNLG 2610 Foreign Film 3 s.h.

Study of representative films originally produced in a language other than English; examination of relevant critical theories and of historic and institutional factors affecting the development of the genre; special attention to cultural issues raised in the films.

Gen Ed: Arts and Humanities, International Perspectives, Social and Personal Awareness.

FNLG 2660 Women in the Ancient World 3 s.h.

Study of various aspects of the lives of women in Ancient Greece and Rome. Emphasis on examination and evaluation of primary sources. All readings are in English.

Gen Ed: Social Science.

FNLG 3701 Advanced Foreign Language 1 3 s.h.

A continuation of FNLG 2602 with intensive training in understanding, speaking, reading, and writing in a foreign language not regularly offered.

Prereq.: FNLG 2602 in the same language.

FNLG 3702 Advanced Foreign Language 2 3 s.h.

A continuation of FNLG 3701 with intensive training in understanding, speaking, reading, and writing in a foreign language not regularly offered.

Prereq.: FNLG 3701 in the same language.

FNLG 3799 Study Abroad in Foreign Language 1-15 s.h.

An individually-arranged program of foreign study in a language not regularly offered. Programs can be of two general types: (1) trips or residential programs sponsored by consortial universities, and (2) independent academic coursework through institutions with which YSU does not have a consortial agreement. A written statement detailing the student's academic plan must be approved by the Chair of Foreign Languages and the Dean of CLASS prior to the trip. May be repeated up to a total of 15 s.h., if specific course content changes. Note: study abroad generally requires about one year's advance planning.

Prereq.: sophomore status and approval of the Chair of Foreign Languages.

FNLG 4801 Methods of Foreign Language Teaching 3 s.h.

Methods of teaching World Languages (P-12) that are focused on developing students' target language communicative proficiency and are based on the ACTFL World-Readiness Standards for Learning Languages (W-RSLLs). Course concentrates on engaging students in the Interpretive, Interpersonal, and Presentational Modes of Communication, Integrated Performance Assessments (IPAs), and the integration of technology into World Language teaching. This course requires 80 hours of field experience in a local high school.

Prereq.: Permission of the Department Chair.

FNLG 4899 Professional Development for Teachers 1 s.h.

Students will 1) attend an appropriate professional conference and produce a journal detailing their experiences at the conference, and 2) assemble and present a portfolio of their previous language coursework to the faculty and other interested parties.

Prereq.: Permission of the Department Chair.

* FNLG 1550, FNLG 1550H, FNLG 2600, FNLG 2601, FNLG 2602 and FNLG 3799 are used as the YSU equivalents for credit students may have earned in foreign languages not offered by the Department of Foreign Languages.

French

FRNC 1550 Elementary French 4 s.h.

Intensive training in understanding, speaking, reading, and writing French. Geography and daily life, as well as appreciation of the culture of its speakers, are studied. Assignments in the Language Learning and Resource Center (LLRC). Grading is ABC/NC.

FRNC 2600 Intermediate French 4 s.h.

Intensive training in understanding, speaking, reading, and writing French; knowledge of the natural and cultural features of French-speaking countries and regions. Assignments in the Language Learning and Resource Center (LLRC).

Prereq.: Placement test or FRNC 1550.

FRNC 2605 Advanced Intermediate French 3 s.h.

Advanced training in understanding, speaking, reading, and writing French; knowledge of the natural and cultural features of French-speaking countries and regions. Assignments in the Language Learning and Resource Center (LLRC).

Prereq.: Placement test or FRNC 2600.

FRNC 2606 Intensive French Review 3 s.h.

Intensive review of basic French speaking and writing language skills. Grammatical structures and vocabulary in context.

Prereq.: Placement test or FRNC 2600.

FRNC 3701 Service Learning in French 1-2 s.h.

Using the French language to engage in community service or an internship. Completion of a journal written in French and detailing the experience is required. May be repeated up to 4 s.h.

Prereq.: Approval of Department Chair, and FRNC 2600 or placement test.

FRNC 3710 Applied French Phonetics 3 s.h.

A systematic study of French phonetics to correct defects in pronunciation and intonation and give students a better understanding of the differences between the French and English sound systems.

Prereq.: FRNC 2605 and FRNC 2606.

FRNC 3716 Advanced French Grammar and Composition 3 s.h.

A systematic study of French language morphology, sentence structure, and usage applied to a variety of written discourse styles. Contrast with English discourse styles and effective grammatical use.

Prereq.: FRNC 2605 and FRNC 2606.

FRNC 3717 Advanced French Conversation 3 s.h.

Development of oral expression through discussion of current topics in the context of French and Francophone culture, politics, and economics. Expansion of vocabulary.

Prereq.: FRNC 2605 and FRNC 2606.

FRNC 3720 Literature and Culture: France 3 s.h.

A study of major works of French literature through its history, placed in the cultural context which helped produce them.

Prereq.: FRNC 2605 and FRNC 2606.

FRNC 3725 Francophone Literature and Culture 3 s.h.

A study of major works representative of Francophone literature in their cultural context.

Prereq.: FRNC 2605 and FRNC 2606.

FRNC 3736 Introduction to French Linguistics 3 s.h.

Examination of basic concepts and issues of modern French linguistic theory. Emphasis is on sociolinguistics with attention also to phonology, morphology, syntax and pragmatics.

Prereq.: FRNC 2605 and FRNC 2606.

FRNC 3740 French for Business and Communication 3 s.h.

Development of oral and written communication in business and other practical situations. Business practices in French-speaking countries.

Prereq.: FRNC 2605 and FRNC 2606.

FRNC 3750 French Civilization and Culture 3 s.h.

A study of contemporary French civilization and culture, focusing on what the French consider typical of their character, as exemplified by their traditions, magazines, films, and heroes. Readings and class work in French.

Prereq.: FRNC 2605 and FRNC 2606.

FRNC 3780 French Composition and Conversation Review 3 s.h.

Review course emphasizing impromptu conversations and in-class essay writing. Intended for students who need additional coursework to achieve the level of Advanced Low on the ACTFL Oral Proficiency Interview and/or the ACTFL Writing Proficiency Test. May not be counted toward the major. Grading is CR/NC.

Prereq.: 15 s.h. in French at the 3700 level or above and permission of Chair.

FRNC 3799 Study Abroad in French 1-15 s.h.

An individually-arranged program of foreign study in the French language. Programs can be of two general types: (1) trips or residential programs sponsored by consortial universities, and (2) independent academic coursework through institutions with which YSU does not have a consortial agreement. A written statement detailing the student's academic plan must be approved by a member of the French faculty, the chair of Foreign Languages and the dean of CLASS prior to the trip. Credit toward fulfillment of requirements for the French major will be determined by the chair of Foreign Languages and not the French faculty. May be repeated up to a total of 15 s.h., if specific course content changes. Note: study abroad generally requires about one year's advance planning.

Prereq.: Sophomore status and approval of the chair of Foreign Languages.

FRNC 4885 French Conversation and Composition Capstone 3 s.h.

Capstone course emphasizing impromptu conversations and in-class essay writing. Students must achieve a level of Advanced Low on both the ACTFL Oral Proficiency Interview and the ACTFL Writing Proficiency Test.

Prereq.: 15 s.h. in French at the 3700 level or above and permission of Chair.

FRNC 4886 French Composition and Conversation Capstone 3 s.h.

Capstone course emphasizing impromptu conversations and in-class essay writing. Student must achieve a level of Intermediate High on both the ACTFL Oral Proficiency Interview and the ACTFL Writing Proficiency Test.

Prereq.: 15 s.h. in French at the 3700 level or above and permission of Chair.

German

GRMN 1550 Elementary German 4 s.h.

Intensive training in understanding, speaking, reading, and writing German. Geography and daily life, as well as appreciation of the culture of its speakers, are studied. Students should achieve an intermediate-low level of proficiency. Assignments in the Language Learning and Resource Center (LLRC). Grading is ABC/NC.

GRMN 2600 Intermediate 4 s.h.

Intensive training in understanding, speaking, reading, and writing German; knowledge of geography and daily life as well as appreciation of the cultures of German speakers. Students should achieve an intermediate-mid level of proficiency. Assignments in the LLRC.

Prereq.: Placement test or GRMN 1550.

GRMN 2605 Advanced Intermediate 3 s.h.

Intensive training in understanding, speaking, reading, and writing German; knowledge of geography and daily life as well as appreciation of the cultures of German speakers. By the end of the course the students should achieve an intermediate-high level of proficiency. Assignments in the LLRC.

Prereq.: Placement test or GRMN 2600.

GRMN 6901 Special Topics in German 3 s.h.

Arranged course for graduate students only.

Prereq.: Two 4800-level courses in German with grade of "B" or better.

Greek

GRK 1550 Elementary Ancient Greek 4 s.h.

Introduction to Ancient Greek with emphasis on those aspects of grammar most essential for developing the ability to read Greek. Translation of simple Ancient Greek texts into English. Grading is ABC/NC.

GRK 2600 Intermediate Ancient Greek 4 s.h.

Continuation of GRK 1550 with emphasis on more complex aspects of Ancient Greek grammar. Translation of more advanced Ancient Greek texts, including some authentic passages.

Prereq.: Placement test or GRK 1550.

GRK 2603 Directed Reading in Ancient Greek 1 3 s.h.

Reading of selections from an Ancient Greek author or genre with emphasis on translation. Review of Ancient Greek grammar and introduction of some advanced grammatical constructions not covered in Ancient Greek 1550 or 2600. May be repeated once if topic is different.

Prereq.: Permission of Chair and either placement test or GRK 2600.

GRK 3753 Directed Reading in Ancient Greek 2 3 s.h.

Reading of selections from an Ancient Greek author or genre with emphasis on translation and interpretation of text; review of Ancient Greek grammar, introduction of relevant modern scholarship, and writing of evaluative essays. May be repeated once if topic is different.

Prereq.: GRK 2603 and permission of Chair.

GRK 4883 Directed Reading in Ancient Greek 3 3 s.h.

Reading of selections from an Ancient Greek author or genre with emphasis on translation and interpretation of text. Review of Ancient Greek grammar. Writing of a research paper. May be repeated once if topic is different.

Prereq.: GRK 3753 and permission of Chair.

Hebrew*

HBRW 1550 Elementary Hebrew 4 s.h.

Beginning training in understanding, speaking, reading, and writing Hebrew. Geography and daily life, as well as appreciation of the culture of its speakers, are studied. Assignments in the Language Learning and Resource Center (LLRC). Grading is ABC/NC.

HBRW 2600 Intermediate Hebrew 4 s.h.

Intensive training in understanding, speaking, reading, and writing Hebrew; knowledge of geography and daily life as well as appreciation of the culture of Hebrew speakers. Assignments in the Language Learning and Resource Center (LLRC).

Prereq.: Placement test or HBRW 1550.

HBRW 2605 Advanced Intermediate Hebrew 3 s.h.

Reading and discussion in Hebrew of selections from the Hebrew Scripture.

Prereq.: Placement test or HBRW 2600.

HBRW 3706 Readings in Hebrew Scripture 3 s.h.

Reading and discussion in Hebrew of selections from the Hebrew Scriptures. May be repeated once if the texts studied are different.

Prereq.: HBRW 2605.

HBRW 3799 Study Abroad in Hebrew 1-15 s.h.

An individually-arranged program of foreign study in the Hebrew language. Programs can be of two general types: (1) trips or residential programs sponsored by consortial universities, and (2) independent academic coursework through institutions with which YSU does not have a consortial agreement. A written statement detailing the student's academic plan must be approved by a member of the Hebrew faculty, the chair of Foreign Languages and the dean of CLASS prior to the trip. May be repeated up to a total of 15 s.h., if specific course content changes. Note: study abroad generally requires about one year's advance planning.

Prereq.: Sophomore status and approval of the chair of Foreign Languages.

* Currently only HBRW 1550 and HBRW 2600 are regularly offered.

Italian

ITAL 1505 Elementary Italian 1 4 s.h.

Intensive training in understanding, speaking, reading, and writing Italian. Geography and daily life, as well as appreciation of the culture of its speakers, are studied. Assignments in the Language Learning and Resource Center (LLRC). Grading is ABC/NC.

ITAL 1506 Elementary Italian 2 4 s.h.

Intensive training in understanding, speaking, reading, and writing Italian; knowledge of geography and daily life as well as appreciation of the cultures of Italian speakers. Assignments in the Language Learning and Resource Center (LLRC).

Prereq.: Placement test or ITAL 1550 or ITAL 1505.

ITAL 1550 Elementary Italian 4 s.h.

Intensive training in understanding, speaking, reading, and writing Italian. Geography and daily life, as well as appreciation of the culture of its speakers, are studied. Assignments in the Language Learning and Resource Center (LLRC). Grading is ABC/NC.

ITAL 2600 Intermediate Italian 4 s.h.

Intensive training in understanding, speaking, reading, and writing Italian; knowledge of geography and daily life as well as appreciation of the cultures of Italian speakers. Assignments in the Language Learning and Resource Center (LLRC).

Prereq.: Placement test or ITAL 1550.

ITAL 2605 Advanced Intermediate Italian 4 s.h.

Intensive training in understanding, speaking, reading and writing Italian; knowledge of geography and daily life as well as appreciation of the cultures of Italian speakers.

Prereq.: Placement test or ITAL 2600.

ITAL 2607 Intermediate Italian 1 4 s.h.

Intensive training in understanding, speaking, reading and writing Italian; knowledge of geography and daily life as well as appreciation of the cultures of Italian speakers.

Prereq.: Placement test or ITAL 1506 or ITAL 2600.

ITAL 2608 Intermediate Italian 2 4 s.h.

Intensive training in understanding, speaking, reading and writing Italian; knowledge of geography and daily life as well as appreciation of the cultures of Italian speakers.

Prereq.: ITAL 1506 or ITAL 2600.

ITAL 2610 Introduction to Italian Film 1 s.h.

Analysis, written and oral, of Italian films presented in conjunction with FNLG 2610.

Prereq.: ITAL 1506 or ITAL 2600.

Coreq.: FNLG 2610 or FNLG 2610H.

ITAL 3701 Service Learning in Italian 2 s.h.

Using the Italian language to engage in community service or an internship. Completion of a journal written in Italian and detailing the experience is required. May be repeated up to 4 semester hours.

Prereq.: Approval of Department Chair; and ITAL 1506 or ITAL 2600 placement test.

ITAL 3702 Intensive Italian Review 4 s.h.

Intensive training in understanding, speaking, reading, and writing Italian. Grammatical structures and vocabulary in context.

Prereq.: ITAL 2605.

ITAL 3726 Italian Phonetics and Phonology 4 s.h.

Current theory in Italian phonetics and phonology aimed at improving the pronunciation and intonation of second language learners. Attention given to a comparison of the Italian and English phonological systems and the phonological comparisons of standard and regional dialects of Italian. Regular in-class discussion, linguistic analyses, and practice on phonological data sets, all in Italian.

Prereq.: Either ITAL 2607 and ITAL 2608; or ITAL 3702.

ITAL 3735 Italian Civilization and Culture 4 s.h.

A condensed study of the geography, history, literature and social heritage of Italy, from the fall of the Roman Empire to the present. Regular in-class discussion and occasional in-class writing assignments, all in Italian.

Prereq.: Either ITAL 2607 and ITAL 2608; or ITAL 3702.

ITAL 3736 Italian Linguistics 4 s.h.

Basic concepts and issues of modern Italian linguistic theory in the areas of phonology, morphology, syntax, semantics, and pragmatics. Emphasis is placed on sociolinguistics, dialectology and Italian dialect endangerment. Regular in-class discussion and occasional in-class writing assignments, all in Italian.

Prereq.: Either ITAL 2607 and ITAL 2608; or ITAL 3702.

ITAL 3740 Survey of Italian Literature 1 4 s.h.

Introduction to Italian literature from the 14th Century to the Renaissance through representative selections of key literary figures. Theoretical and critical approaches to help interpret texts. Regular in-class discussion and occasional in-class writing assignments, all in Italian.

Prereq.: Either ITAL 2607 and ITAL 2608; or ITAL 3702.

ITAL 3741 Survey of Italian Literature 2 4 s.h.

Introduction to Italian literature from the Enlightenment to the present through representative selections of key literary figures. Theoretical and critical approaches to help interpret texts. Regular in-class discussion and occasional in-class writing assignments, all in Italian.

Prereq.: Either ITAL 2607 and ITAL 2608; or ITAL 3702.

ITAL 3750 Contemporary Italian Literature 4 s.h.

A study of contemporary Italian literature and its movements and innovations across a variety of genres, including fiction, memoir, poetry, song lyrics, rap and journalism. Featuring the works of Ammaniti, Baricco, Benni, Consoli, Khouma, Mazzucco, Severgnini and Virzi. Regular in-class discussion and occasional in-class writing assignments, all in Italian.

Prereq.: Either ITAL 2607 and ITAL 2608; or ITAL 3702.

ITAL 3755 Advanced Italian Conversation and Composition 4 s.h.

Development of written expression through a systematic study of Italian morphology, sentence structure, and usage applied to a variety of written discourse styles such as description, narration, and exposition. Development of oral expression through discussion of current topics in the context of Italian culture, politics, and economics. Expansion of vocabulary. Laboratory work according to individual needs.

Prereq.: Either ITAL 2607 and ITAL 2608; or ITAL 3702.

ITAL 3760 Literary Representations of 19th Century Italy 4 s.h.

A study of literary representations of 19th century Italy and the Italians from the pre-Risorgimento era through the turn of the century, with concentration on the works of Foscolo, Manzoni, Verga and di Lampadusa. Regular in-class discussion and occasional in-class writing assignments, all in Italian.

Prereq.: Either ITAL 2607 and ITAL 2608; or ITAL 3702.

ITAL 3770 Special Topics in Italian 4 s.h.

Study of an author, genre, movement or historical period in Italian literature, culture or history. May be repeated if the topic changes.

Prereq.: Either ITAL 2607 and ITAL 2608; or ITAL 3702.

ITAL 3780 Italian Composition and Conversation Review 3 s.h.

Review course emphasizing impromptu conversations and in-class essay writing. Intended for students who need additional coursework to achieve the level of Advanced Low on the ACTFL Oral Proficiency Interview and/or the ACTFL Writing Proficiency Test. May not be counted toward the major. Grading CR/NC.

Prereq.: 16 s.h. in Italian at the 3700 level or above and permission of Chair.

ITAL 3798 Study Abroad in Sicily 4 s.h.

A structured but individualized program of study at the Culturforum Italian Language School in Cefalu, Sicily.

Prereq.: either ITAL 3702 or both ITAL 2605 and permission of Chair.

ITAL 3799 Study Abroad in Italian 1-15 s.h.

An individually-arranged program of foreign study in the Italian language. Programs can be of two general types: (1) trips or residential programs sponsored by consorcial universities, and (2) independent academic coursework through institutions with which YSU does not have a consorcial agreement. A written statement detailing the student's academic plan must be approved by a member of the Italian faculty, the chair of Foreign Languages and the dean of CLASS prior to the trip. Credit toward fulfillment of requirements for the Italian major will be determined by the chair of Foreign Languages and the Italian faculty. May be repeated up to a total of 15 s.h., if specific course content changes. Note: study abroad generally requires about one year's advance planning.

Prereq.: Sophomore status and approval of the chair of Foreign Languages.

ITAL 4880 Italian Conversation and Composition Capstone 4 s.h.

Capstone course emphasizing impromptu conversations and in-class essay writing. Students should achieve a level of Advanced Low on both the ACTFL Oral Proficiency Interview and the ACTFL Writing Proficiency Test.

Prereq.: 16 s.h. in Italian at the 3700 level or above and permission of Chair.

Gen Ed: Capstone.

Latin

LATN 1550 Elementary Latin 4 s.h.

Introduction to Latin, with emphasis on those aspects of grammar most essential for developing the ability to read Latin. Translation of simple Latin texts into English. Introduction to the culture of the late Roman Republic, including reading selected primary sources in English. Assignments in the Language Learning and Resource Center (LLRC). Grading is ABC/NC.

LATN 2600 Intermediate Latin 4 s.h.

Continuation of Latin 1550 with emphasis on more complex aspects of Latin grammar. Translation of more advanced Latin texts, including some authentic passages.

Prereq.: Placement test or LATN 1550.

LATN 2603 Directed Reading in Latin 1 3 s.h.

Reading of selections from a Latin author or genre with emphasis on translation. Review of Latin grammar and introduction of some advanced grammatical constructions not covered in Latin 1550 or LATN 2600. May be repeated once if topic is different.

Prereq.: Placement test or LATN 2600.

LATN 3753 Directed Reading in Latin 2 3 s.h.

Reading of selections from a Latin author or genre with emphasis on translation and interpretation of text. Review of Latin grammar, introduction to relevant modern scholarship, and writing of evaluative essays. May be repeated once if topic is different.

Prereq.: LATN 2603 and permission of Chair.

LATN 4883 Directed Reading in Latin 3 3 s.h.

Reading of selections from a Latin author or genre with emphasis on translation and interpretation of text, review of Latin grammar, and writing of a research paper. May be repeated once if topic is different.

Prereq.: LATN 3753 and permission of Chair.

Spanish

SPAN 1505 Elementary Spanish 1 4 s.h.

Intensive training in understanding, speaking, reading, and writing Spanish. Geography and daily life, as well as appreciation of the culture of its speakers, are studied. Assignments in the Language Learning and Resource Center (LLRC).

SPAN 1506 Elementary Spanish 2 4 s.h.

Intensive training in understanding, speaking, reading, and writing Spanish; geography and daily life, as well as appreciation of the cultures of Spanish speakers are studied. Assignments in the Language Learning and Resource Center (LLRC).

Prereq.: Placement or SPAN 1505 or SPAN 1550.

SPAN 2607 Intermediate Spanish 1 3 s.h.

Review and expansion of basic Spanish language skills and cultural information. Assignments in the Language Learning and Resource Center (LLRC).

Prereq.: Placement Exam or SPAN 1506 or SPAN 2600.

SPAN 2608 Intermediate Spanish 2 3 s.h.

Further study of the Spanish language and Hispanic cultures through oral, written, and reading activities. Focus is on contextualized vocabulary and review of grammar to help students move towards a more advanced level.

Prereq.: SPAN 2607 or SPAN 2605.

SPAN 3701 Service Learning in Spanish 1-2 s.h.

Using the Spanish language to engage in community service or an internship. Completion of a journal written in Spanish and detailing the experience is required. May be repeated up to 4 semester hours.

Prereq.: Placement Exam or SPAN 1506 or SPAN 2600.

SPAN 3701C CE Service Learning in Spanish 1-2 s.h.

Using the Spanish language to engage in community service or an internship. Completion of a journal written in Spanish and detailing the experience is required. May be repeated up to 4 semester hours.

Prereq.: Placement Exam or SPAN 1506 or SPAN 2600.

SPAN 3724 Spanish Phonetics and Phonology 3 s.h.

Introduction to theoretical Spanish phonetics and phonology with the practical goal of improving students' pronunciation of Spanish; production of Spanish speech sounds and general characteristics of Spanish pronunciation, including intonation.

Prereq.: Both SPAN 2607 and SPAN 2608 or SPAN 3702.

SPAN 3735 Advanced Spanish Grammar and Composition 3 s.h.

A systematic study of Spanish morphology, sentence structure, and usage applied to a variety of written discourse styles such as description, narration, and exposition. Discussion of contrasts with English discourse styles, and effective grammatical use.

Prereq.: Both SPAN 2607 and SPAN 2608 or SPAN 3702.

SPAN 3736 Introduction to Spanish Linguistics 3 s.h.

Examines some of the basic concepts and issues of modern Spanish linguistic theory in the areas of phonology, morphology, syntax and pragmatics, with special emphasis on sociolinguistics.

Prereq.: Both SPAN 2607 and SPAN 2608 or SPAN 3702.

SPAN 3740 Business Spanish 3 s.h.

Principles of effective commercial letter and report writing and oral communication in business in the Spanish-speaking world.

Prereq.: SPAN 2607 or SPAN 2608 or SPAN 2605.

SPAN 3755 Advanced Spanish Conversation 3 s.h.

Development of oral expression through discussion of current topics in the context of worldwide Hispanic culture, politics, and economics. Expansion of vocabulary. Laboratory work according to individual needs.

Prereq.: Both SPAN 2607 and SPAN 2608 or SPAN 3702.

SPAN 3762 Culture: Spain 3 s.h.

Examination of the cultural landscape and major issues in Spanish society through the study of art, history, geography, politics, music, cinema, popular culture, and cultural groups in the various regions of Spain.

Prereq.: Both SPAN 2607 and SPAN 2608 or SPAN 3702.

SPAN 3763 Introduction to Literature: Spain 3 s.h.

Introduction to Peninsular literature through representative selections of key works of fiction, poetry and film. Theoretical and critical approaches to help the student interpret texts.

Prereq.: Both SPAN 2607 and SPAN 2608 or SPAN 3702.

SPAN 3766 Culture: Spanish-America 3 s.h.

This course examines the cultural landscape and major issues in Spanish-American society through the study of art, history, geography, politics, music, cinema, popular culture, and cultural groups in the various regions.

Prereq.: Both SPAN 2607 and SPAN 2608 or SPAN 3702.

SPAN 3767 Introduction to Literature: Spanish-America 3 s.h.

Introduction to Spanish-American literature through representative selections of key works of fiction, poetry and film. Theoretical and critical approaches to help the student interpret texts.

Prereq.: Both SPAN 2607 and SPAN 2608 or SPAN 3702.

SPAN 3770 Special Topics in Spanish 3 s.h.

Study of an author, genre, movement or historical period in Spanish literature, culture or history. May be repeated if the topic changes.

Prereq.: Both SPAN 2607 and SPAN 2608 or SPAN 3702.

SPAN 3780 Spanish Composition and Conversation Review 3 s.h.

Review course emphasizing impromptu conversations and in-class essay writing. Intended for students who need additional coursework to achieve the level of Advanced Low on the ACTFL Oral Proficiency Interview and/or ACTFL Writing Proficiency Test. May not be counted toward the major. Grading is CR/NC.

Prereq.: 15 s.h. in Spanish at the 3700 level or above and permission of Chair.

SPAN 3799 Study Abroad in Spanish 1-15 s.h.

An individually-arranged program of foreign study in the Spanish language. Programs can be of two general types: (1) trips or residential programs sponsored by consortial universities, and (2) independent academic coursework through institutions with which YSU does not have a consortial agreement. A written statement detailing the student's academic plan must be approved by a member of the Spanish faculty, the chair of Foreign Languages and the dean of CLASS prior to the trip. Credit toward fulfillment of requirements for the Spanish major will be determined by the chair of Foreign Languages and the Spanish faculty. May be repeated up to a total of 15 s.h., if specific course content changes. Note: study abroad generally requires about one year's advance planning.

Prereq.: Sophomore status and approval of the chair of Foreign Languages.

SPAN 4880 Spanish Conversation and Composition Capstone 3 s.h.

Capstone course emphasizing impromptu conversation and in-class essay writing. Student must achieve a level of Advanced Low on both the ACTFL Oral Proficiency Interview and the ACTFL Writing Proficiency Test.

Prereq.: 15 s.h. in Spanish at the 3700 level or above and permission of Chair.

SPAN 5855 Topics in Spanish Language and Linguistics 3 s.h.

An introduction to the terminology, concepts, bibliography and current issues in Spanish language and linguistics. Major topics include phonology, morphology, semantics, syntax, applied linguistics, transformational grammar, and other topics related to language variation and society. May be repeated once when topic varies.

Prereq.: Any 3700-level SPAN course.

SPAN 5870 Topics in Spanish Literature: Spain 3 s.h.

Study of an author, a genre, or a movement in Spanish literature from 1492 to the present. The topic will be announced each time the course is offered. May be taken three times if content is not repeated.

Prereq.: SPAN 3762 or SPAN 3763.

SPAN 5885 Topics in Hispanic Literature and Film 3 s.h.

Examines the relationship between the Hispanic narrative discourse and cinema, including film adaptations of literary works. Modern social and cultural issues, as well as Hispanic self-images. May be taken three times if content is not repeated.

Prereq.: one of SPAN 3762, SPAN 3763, SPAN 3766, SPAN 3767.

Gen Ed: Capstone.

SPAN 5890 Topics in Spanish Literature: Spanish-America 3 s.h.

Study of an author, a genre, or a movement in Latin America from 1492 to the present. The topic will be announced each time the course is offered. May be taken three times if content is not repeated.

Prereq.: SPAN 3766 or SPAN 3767.

Gen Ed: Capstone.

Minor in Spanish

COURSE	TITLE	S.H.
Required Courses		
SPAN 2600		4
SPAN 2605		3
SPAN 3702		3
Select an additional 8-9 hours of Spanish (SPAN) courses at the 3700 level.		8-9
Total Semester Hours		18-19

Credit by Examination for SPAN 2600

A student who places into SPAN 2605 and successfully completes that course may apply for credit by examination for SPAN 2600, thereby expediting the attainment of a Spanish minor.

Study Abroad in Colombia

A student who completes SPAN 3702 may then take SPAN 3798. For additional information see the BA in Spanish (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-liberal-arts-social-sciences/departments-foreign-languages-literatures/ba-spanish/>).

Certificate in Italian

COURSE	TITLE	S.H.
ITAL 1506	Elementary Italian 2	4
ITAL 2607	Intermediate Italian 1	4
ITAL 2608	Intermediate Italian 2	4
ITAL 3799	Study Abroad in Italian	1-15

Credit by Examination for ITAL 1506 Elementary Italian 2

A student who places into ITAL 2607 Intermediate Italian 1 and successfully completes that course or ITAL 2608 may apply for credit by examination for ITAL 1506 Elementary Italian 2, thereby expediting the attainment of the Italian certificate.

Study Abroad in Italian

In order to complete the Italian Certificate, the student must complete a 3-credit study abroad program in Italy. Students should consult with the Italian faculty and with the International Programs Office for assistance in choosing an appropriate program.

Learning Outcomes

Cultural Understanding

The student will start to develop an understanding and appreciation of the history and culture of those areas in which the target language is spoken. Attainment of this outcome will be facilitated by the mandated study abroad.

Reading Comprehension

The student will be able to read and understand a variety of straightforward materials written in the target language. These materials may include but are not limited to: signs, menus, schedules, poetry, newspaper and magazine articles, and private correspondence (e.g., business communications).

Listening Comprehension

The student will be able to understand the target language when spoken in a variety of contexts. These contexts may include but are not limited to: conversation with another individual or individuals, songs, and films.

Oral Expression

The student will be able to carry on a rudimentary conversation and deliver a short speech in the target language. The student's discourse will be comprehensible to a native speaker of the language accustomed to dealing with non-native speakers.

Written Expression

The student will be able to compose in the target language a variety of straightforward written documents. These documents may include but are not limited to: formal and casual correspondence, short essays, summaries, and notes. The student's writing will be comprehensible to a native speaker of the language accustomed to dealing with non-native speakers.

Certificate in Spanish

COURSE	TITLE	S.H.
SPAN 2600		4
SPAN 2605		3
SPAN 3702		3
SPAN 3798		4

Credit by Examination for SPAN 2600 Intermediate Spanish

A student who places into SPAN 2605 Advanced Intermediate Spanish and successfully completes that course may apply for credit by examination for SPAN 2600 Intermediate Spanish, thereby expediting the attainment of a Spanish certificate.

Study Abroad in Colombia

A student who completes SPAN 3702 Intensive Spanish Review may then take SPAN 3798 Study Abroad in Colombia. For additional information see the BA in Spanish (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-liberal-arts-social-sciences-education/departments-foreign-languages-literatures/ba-spanish/>).

Learning Outcomes

Cultural Understanding

The student will start to develop an understanding and appreciation of the history and culture of those areas in which the target language is spoken. Attainment of this outcome will be facilitated by the mandated study abroad.

Reading Comprehension

The student will be able to read and understand a variety of straightforward materials written in the target language. These materials may include but are not limited to: signs, menus, schedules, poetry, newspaper and magazine articles, and private correspondence (e.g., business communications).

Listening Comprehension

The student will be able to understand the target language when spoken in a variety of contexts. These contexts may include but are not limited to: conversation with another individual or individuals, songs, and films.

Oral Expression

The student will be able to carry on a rudimentary conversation and deliver a short speech in the target language. The student's discourse will be

comprehensible to a native speaker of the language accustomed to dealing with non-native speakers.

Written Expression

The student will be able to compose in the target language a variety of straightforward written documents. These documents may include but are not limited to: formal and casual correspondence, short essays, summaries, and notes. The student's writing will be comprehensible to a native speaker of the language accustomed to dealing with non-native speakers.

Department of Humanities and Social Sciences

Welcome to Humanities and Social Sciences

Welcome to Youngstown State University and the Department of Humanities and Social Sciences (HSS). The department is comprised of the disciplines of Anthropology, History, Philosophy, Politics and International Relations, and Sociology. Our department embodies the YSU mission of inspiring individuals, enhancing futures, and enriching lives. Graduates from the programs in this department are lifelong learners who go on to be leaders in their communities and workplaces, as well as attend some of the best graduate and professional programs in the world.

The programs in HSS help students develop marketable skills and perspectives that are broadly applicable and always in demand despite an ever-changing world. These include critical thinking, cogent argumentation, analytical and research techniques, and communication in both traditional and digital formats, and a deeper understanding of the human condition from multiple perspectives. We emphasize hands-on, experiential learning at all curriculum levels. Our strength lies in the students' development of analytical, research, and presentation skills.

The faculty of the Department of Humanities and Social Sciences are committed to the educational mission of YSU and to enhancing the lives of YSU students and the wider community. Faculty in the department are engaged in important and impactful research on historical and contemporary social, ethical, and environmental issues. They also serve pivotal roles as officers in the regional and national organizations associated with their fields of expertise and offer that expertise in service to local, national, and global communities. For example, you will find members of our department active in curating museum exhibits, serving on ethics boards in local hospitals, speaking before Congress, commenting on local and national politics, listing and curating important historical sites, participating in archeological digs in multiple countries, helping local and regional coroners and law enforcement departments, and helping to plan the cities we call home. We offer a large variety of courses, regularly bring speakers to campus, have multiple student organizations, and are the home for many centers with a variety of focus areas.

We invite you to learn more about the diverse areas we represent at YSU by looking at our specific programs below. If you have even been motivated to investigate the following questions, you are in the right place.

- How did we get to now and how can that knowledge help us in the future?
- What is the proper role of government?
- How should we understand the space in which we all operate?
- How do groups of people relate?
- What is it to be Human?
- What role does religion play in our lives and how does it impact the decisions we make?
- What is the right thing to do?
- What is our role in government in a democratic society?
- How can we create a more equitable community?

- How should we address social injustices?
- What forms of activism are most effective in creating change?
- How can I best serve my local, national, and global communities?

We look forward to talking with you and seeing you in our courses.

—Loren R. Lease, Chair, Department of Humanities and Social Sciences

Departmental Majors

More information can be found about the department by looking at the specific programs we encompass. Please contact the program directors listed below:

- Anthropology (<https://catalog.ysu.edu/undergraduate/colleges-programs/college-liberal-arts-social-sciences-education/departments-anthropology/>) and Sociology (<https://catalog.ysu.edu/undergraduate/colleges-programs/college-liberal-arts-social-sciences-education/departments-sociology/>) -- Dr. Matt O'Mansky, meomansky@ysu.edu
- History (p. 192) -- Dr. Brian Bonhomme, bbonhomme@ysu.edu
- Philosophy (p. 199) -- Dr. Mark Vopat, mvopat@ysu.edu
- Politics and International Relations (p. 205) -- Dr. Cryshanna Jackson Leftwich, cackson@ysu.edu (afuller@ysu.edu)

Interdisciplinary Minors

- Africana Studies (p. 213) -- Dr. Patrick Spearman, ptspearman@ysu.edu
- Geography (p. 188) -- Dr. Dawna Cerney, dlcerney@ysu.edu (mvopat@ysu.edu)
- Pre-Law (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-liberal-arts-social-sciences-education/departments-politics-international-relations-prelaw-center/minor-in-pre-law/>) -- Dr. Alan Tomhave, aetomhave@ysu.edu (mvopat@ysu.edu)
- Women's and Gender Studies (p. 214) -- Dr. Amanda Fehlbaum, afehlbaum@ysu.edu

Contact Information

Dr. Loren R. Lease, Department Chair – llease@ysu.edu – (330) 941-3456

Rosa Vega, Administrative Assistant – rmvega@ysu.edu – (330) 941-3456

520 DeBartolo Hall

(330) 941-3456

Anthropology

Welcome to the program of Anthropology. We are located on the fourth floor of DeBartolo Hall in room 444 and our program phone number is 330-941-3442.

We offer a BA degree in Anthropology. We also offer minors in five different areas, including Archaeology, Forensic Anthropology, and others. All of our programs are hands-on and experiential. We offer students opportunities for internships, fieldwork, and faculty-led and independent study abroad so that they emerge well-qualified to pursue graduate degrees and rewarding careers.

ANTHROPOLOGY

Anthropology is the cultural and biological study of humankind. It is a discipline that asks such question as, "What makes us human?" "How did we develop biologically and culturally?" "Where did we come from and where are we going?" Through the study of Archaeology, Biological Anthropology, and Cultural Anthropology at YSU, students explore these questions and the ways in which we begin to answer them. Students are broadly trained in the discipline and emerge well-trained to pursue graduate degrees and careers in and related to anthropology. The program offers numerous opportunities to work with materials in the classroom and lab, including osteological and faunal remains and artifacts. Our students participate on faculty-led archaeological class projects in Guatemala, the Bahamas, and in northeast Ohio and have

joined anthropological field schools in Belize, Canada, South Africa, Cyprus, Transylvania, Poland, Spain, and elsewhere.

Chair

Loren R. Lease, Ph.D., Professor, Chair

Professor

Amanda Fehlbaum, Ph.D., Associate Professor

Qi Jiang, Ph.D., Professor

Matt O'Mansky, Ph.D., Associate Professor

Major:

- BA in Anthropology (<https://catalog.ysu.edu/undergraduate/colleges-programs/college-liberal-arts-social-sciences-education/departments-anthropology/ba-anthropology/>)

Minors:

- Anthropology, General Minor (<https://catalog.ysu.edu/undergraduate/colleges-programs/college-liberal-arts-social-sciences-education/departments-anthropology/anthropology-general-minor/>)
- Anthropology, Biological Minor (<https://catalog.ysu.edu/undergraduate/colleges-programs/college-liberal-arts-social-sciences-education/departments-anthropology/anthropology-biological-minor/>)
- Anthropology, Cultural Minor (<https://catalog.ysu.edu/undergraduate/colleges-programs/college-liberal-arts-social-sciences-education/departments-anthropology/anthropology-cultural-minor/>)
- Anthropology, Forensic Minor (<https://catalog.ysu.edu/undergraduate/colleges-programs/college-liberal-arts-social-sciences-education/departments-anthropology/forensic-anthropology-minor/>)
- Archaeology Minor (<https://catalog.ysu.edu/undergraduate/colleges-programs/college-liberal-arts-social-sciences-education/departments-anthropology/archaeology-minor/>)

ANTH 1500 Introduction to Anthropology 3 s.h.

An exploration of what it means to be human from a biological and cultural perspective using archaeology, bioanthropology, and ethnography to trace over four million years of human development.

Gen Ed: Social Science.

ANTH 1503 The Rise and Fall of Civilizations 3 s.h.

Comparative survey of the archaeological evidence on the origins, development, and collapse of the great early civilizations of the world. The transformation of societies from settled villages to urban states in Mesopotamia, Egypt, China, Mexico, and Peru. Analysis of the archaeological discoveries, alternative interpretations, and general theories of cultural evolution.

Gen Ed: Social Science.

ANTH 2600 Human Osteology 4 s.h.

An examination of the anatomy of the skeleton in a defleshed state to gain an understanding of the characteristics and personal biology of individuals and exploration of the range of human variation within and between populations.

ANTH 3701 Social Statistics 4 s.h.

Measurement and interpretation of social data by the use of descriptive techniques. Examines methods of probability theory as a basis for statistical inference, hypothesis testing, correlation, chi-square, and variance analysis.

Cross-Listed: SOC 3701, CRJS 3710.

ANTH 3702 Archaeology 3 s.h.

An introduction to the methods and subject matter of archaeology in its reconstruction of Paleolithic and prehistoric cultures as inferred from artifacts.

Prereq.: ANTH 1500 or ANTH 1503.

ANTH 3703 Biological Anthropology 4 s.h.

The physical origins and development of the human species as a member of the primate order and the biological bases of human differences disclosed by human paleontology and archaeology.

Prereq.: ANTH 1500.

Cross-Listed: BIOL 3704.

ANTH 3704 Primates 3 s.h.

Primate evolution throughout the Cenozoic Era, from primate origins to the advent of hominids. Examines research into the natural behavior of a wide range of primates, focusing on the social organization of terrestrial monkeys and apes.

Prereq.: ANTH 3703.

ANTH 3705 Cultural Anthropology 3 s.h.

A cross-cultural comparison of the cultural norms that regulate society, emphasizing the functional prerequisites for the existence of society and individual demands on society.

Prereq.: ANTH 1500.

ANTH 3760 Cultures of Afro-Eurasia 3 s.h.

An examination of the ethnography, cultural contributions, and achievements of Old World peoples, which may include the cultures of Europe, Africa, the Middle East, Asia or Australia and Oceania. May be taken up to three times for credit if the topic is different.h in AFST, including AFST 2601.

Prereq.: ANTH 3705 or 6 s.

ANTH 3761 Cultures of the New World 3 s.h.

An examination of various topics in New World cultures. Topics vary by semester and may include native South Americans, native North Americans, Native Americans' civil rights, the reservation system, and others. May be taken up to three times for credit if the topic is different.

Prereq.: ANTH 1500.

ANTH 3775 Native North Americans 3 s.h.

Detailed discussion of the culture and achievements of the tribal peoples native to North America.

Prereq.: ANTH 1500.

ANTH 3777 Bahamian Archaeology 3 s.h.

Examines the prehistory and ecology of the Bahamas and entails archaeological surveys and excavation of sites. May be repeated once.

Prereq.: ANTH 3702 or permission of the instructor.

ANTH 3778 Archaeological Techniques 1-9 s.h.

Practice in archaeological field methods, including surveying, mapping, excavation, and artifact analysis. Amount of field work and lab analysis can vary from four weeks to one semester. Credit hours may vary accordingly from 1 to 9 hours with approval of the instructor and department chair.

Prereq.: ANTH 3702 or permission of the chair.

ANTH 3779 Fieldwork in Historical and Industrial Sites Archaeology 3 s.h.

Excavation of New World sites after 1492, culminating in the physical examination of the remains of historical, industrial, and post-industrial sites. Techniques for literature search and fieldwork. May be repeated once with different site or theoretical focus.

Prereq.: ANTH 3702 or permission of chair.

ANTH 3780 Forensic Anthropology 1 4 s.h.

Forensics from the perspective of anthropology, especially through hands-on study of human remains. Methods of determining the sex, age, ancestry, and stature of an individual. Field methods for forensic anthropology and trauma analysis. 4 s.h.

Prereq.: ANTH 2600 or BIOL 3705.

ANTH 3790 Aging in Cross-Cultural Perspective 3 s.h.

Examines the phenomenon of aging from cross-cultural perspectives with an emphasis on cultural evolution and its impact upon the status, roles and cultural values associated with aging and the aged. Listed also as SOC 3790 and GERO 3790.

Prereq.: ANTH 1500 or SOC 1500, or GERO 1501.

ANTH 4800 Undergraduate Research 1-2 s.h.

Research participation under the direction and guidance of a full-time faculty member. Designed to acquaint the advanced student with special research problems associated with various aspects of the discipline. May be repeated to a maximum of 4 s.h.

Prereq.: Permission of chairperson and junior standing.

ANTH 4801 Anthropological Thought 3 s.h.

Analysis of the theories and methodology of the major contributors to contemporary anthropological thought, such as the evolutionist, diffusionist, functional, and multilinear schools.

Prereq.: ANTH 1500: Introduction to Anthropology and sophomore standing .

ANTH 4824 Afro-Eurasian Archaeology Topics 3 s.h.

Examination of the development of Afro-Eurasian societies (Africa, Europe, Far East, Middle East, and Oceanic cultures). May be taken twice for credit if topic is different.

Prereq.: ANTH 1500: Introduction to Anthropology.

ANTH 4825 Archaeology of the Americas: Topics 3 s.h.

Examination of the archaeological evidence of the development of cultures in the Americas. Topics vary by semester and may include historical archaeology, North American prehistory, Ohio prehistory, Maya, Aztec and Inca, South American prehistory, and others. May be taken up to three times for credit if the topic is different. Some topics may include field work.

Prereq.: ANTH 1500: Introduction to Anthropology.

ANTH 4850 Research Methods 3 s.h.

An introduction to methods employed in social research. Attention is given to (1) the logic of sociological inquiry and the relationship between theory and methods; (2) the various qualitative and quantitative methods; (3) research design, data collection, organization, analysis, interpretation and application; (4) the social, cultural, political, and ethical context of social research; and (5) computer skills employed in data analysis. Listed also as SOC 4850 or GERO 4850.

Prereq.: SOC 3701 or ANTH 3701.

ANTH 4860 Senior Thesis 2 3 s.h.

Students Implement and complete a quantitative or qualitative research project and paper on the proposal approved by the thesis advisor.

Prereq.: Senior status in Anthropology.

Gen Ed: Capstone.

ANTH 4881 Forensic Anthropology 2 4 s.h.

A continuation of Forensic Anthropology 1. An in-depth examination of the human skeletal system, its differentiation from other commonly found animal remains, and the ways in which skeletal remains help determine the cause of death, trauma to skeleton, antemortem skeletal conditions, postmortem interval, postmortem changes to bone, additional aspects of individualization, etc.

Prereq.: ANTH 2600 with "C" or better.

ANTH 4882 Paleoanthropology 3 s.h.

The origin and evolution of the human species in biological terms from studies of human evolution and emergence of certain critical biocultural essentials. Emphasis on fundamentals of paleoanthropological research, evidence of human evolution, important fossil finds and sites, and phylogenetic relationships.

Prereq.: ANTH 3703 with "C" or better; or BIOL 3759 with "C" or better.

ANTH 4890 Advanced Topics in Archaeology 3 s.h.

Study of select subjects dealing with various aspects of advanced archaeological issues, methodologies, techniques, and applications. Topics vary by semester and include archaeological laboratory techniques and cultural resource management. May be taken twice with different topics.

Prereq.: ANTH 3702.

ANTH 6910 Special Anthropological Problems 3 s.h.

Advanced seminars focusing on independent study at the graduate level. The study of archaeology, its methods and functions; human origins and differentiation; anthropology of religion; and cultural change and its impact. May be repeated with different topic.

Geography and Urban-Regional Studies

Professor

Dawna Lynn Cerney, Ph.D., Professor

Peter Kimosop, Ph.D., Associate Professor

Bradley A. Shellito, Ph.D., Professor

Geography holistic discipline that spans the humanities, social sciences, and natural sciences providing synergistic ways to understand modern problems and develop solutions. The skills and knowledge sets contained within a geography background are in high demand in industry and government.

The minor combines well with several majors including anthropology, biological sciences, business, environmental sciences, history, and public health, to identify from local to international relationships.

The minor can be customized to the students' academic and professional aspirations.

- Minor in Geography (p. 192)

GEOG 1503 Physical Geography 3 s.h.

An introductory analysis of selected elements of the natural habitat and their geographic distribution. Includes processes involved in weather, climates, soils, vegetation, and landforms.

Gen Ed: Natural Science.

GEOG 1503H Honors Physical Geography 3 s.h.

An introductory analysis of selected elements of the natural habitat and their geographic distribution. Includes processes involved in weather, climates, soils, vegetation, and landforms.

Gen Ed: Natural Science.

GEOG 1503L Physical Geography Laboratory 1 s.h.

Observation, collection and analysis of data pertaining to the Earth's weather and climate, surface landforms, drainage systems, soils, vegetation and changing global environmental conditions. In-class labs, local field excursions, and web-based assignments enable students to investigate these phenomena using the scientific method. The class meets two hours each week. Optional lab to accompany GEOG 1503.

Prereq.: GEOG 1503 or concurrent with GEOG 1503.

GEOG 2610 Map Use and Interpretation 3 s.h.

The use of maps, aerial photography, and satellite imagery to depict physical and cultural landscapes. Topics include map elements and how to locate, read, and interpret maps and remotely-sensed imagery.

GEOG 2611 Geospatial Foundations 3 s.h.

An overview of geospatial science and technology, including introductory concepts in spatial analysis, Geographic Information Systems, remote sensing, and GPS. The class provides a survey of theoretical geospatial topics as well as their applications.

Gen Ed: Social Science.

GEOG 2611H Honors Geospatial Foundations 3 s.h.

An overview of geospatial science and technology, including introductory concepts in spatial analysis, Geographic Information Systems, remote sensing, and GPS. The class provides a survey of theoretical geospatial topics as well as their applications in a computer lab setting.

Gen Ed: Social Science.

GEOG 2626 World Geography 3 s.h.

A comparative study of representative regions of the world. Attention is focused on an examination of the physical, cultural, social and political attributes of selected regions.

Gen Ed: International Perspectives, Social Science, Social and Personal Awareness.

GEOG 2626H Honors World Geography 3 s.h.

A comparative study of representative regions of the world. Attention is focused on an examination of the physical, cultural, social and political attributes of selected regions.

Gen Ed: International Perspectives, Social Science, Social and Personal Awareness.

GEOG 2630 Weather 3 s.h.

An examination of basic weather elements, their interrelationships and the natural laws that govern them. Focus is on both global scale atmospheric processes and localized factors that influence weather conditions and patterns.

Gen Ed: Natural Science.

GEOG 2630H Honors Weather 3 s.h.

An examination of basic weather elements, their interrelationships and the natural laws that govern them. Focus is on both global scale atmospheric processes and localized factors that influence weather conditions and patterns.

Gen Ed: Natural Science.

GEOG 2630L Weather Lab 1 s.h.

Students observe, collect and analyze atmospheric data, and determine and predict weather conditions. Atmospheric laws and meteorological principles, concepts, and processes are investigated using the scientific method. Weekly investigations are undertaken in this hybrid lab encompassing in-class and online instructions. The class meets in person as needed for guidance.

Optional lab to accompany GEOG 2630: Weather.

Prereq.: GEOG 2630 or concurrently with GEOG 2630.

GEOG 2640 Human Geography 3 s.h.

An examination of the place to place variation in people's utilization of the earth. Topics include the distribution of people, spatial variations in culture, urbanization and politicization of space.

Gen Ed: International Perspectives, Social Science, Social and Personal Awareness.

GEOG 2640H Honors Human Geography 3 s.h.

An examination of the place to place variation in people's utilization of the earth. Topics include the distribution of people, spatial variations in culture, urbanization and politicization of space.

Gen Ed: International Perspectives, Social Science, Social and Personal Awareness.

GEOG 3701 Introduction to Geographic Information Science 3 s.h.

Introduction to the principles of collection, storage, manipulation, retrieval, analysis and visualization of spatial data in a computer environment. Credit will not be given for GEOG 3701 if a student has already received credit for GEOG 5810.

Prereq.: GEOG 2611.

GEOG 3702 Introduction to Remote Sensing 3 s.h.

Analysis and interpretation of earth features from both airborne and satellite observation platforms. Topics include photogrammetry, digital data manipulation, multispectral imagery analysis, and interpretation of environmental features. Credit will not be given for GEOG 3702 if a student has already received credit for GEOG 5805.

Prereq.: GEOG 2611.

GEOG 3703 Human Impacts on the Environment 3 s.h.

Focus is on the interaction between natural systems and human activities that results in environmental change and degradation of the Earth's atmosphere, waters, soil, vegetation, and animal life. Societal conflicts, mitigation, conservation, and sustainable resource strategies are discussed.

Prereq.: GEOG 1503 or GEOL 1504 or GEOL 1505 or ENST 1500 or ENST 2600 or HIST 3774.

GEOG 3705 Mountain Geography 3 s.h.

Investigates the physical, biological, and cultural processes that take place in selected mountain environments. Topics also include resource use, environmental change, and sustainable development at both regional and global scales.

Prereq.: BIOL 1505 or ENST 1500 or ENST 2600 or GEOG 1503 or GEOL 1504 or GEOL 1505.

GEOG 3712 Thematic Map Design and Symbolization 3 s.h.

An introduction to cartographic design. Emphasis is on composition elements and the construction and perception of point, line, and area map symbols. The use of color, statistical techniques, and animated maps are also explored.

Prereq.: GEOG 2610 or GEOG 2611 or GEOG 2626 or GEOG 2640.

GEOG 3713 Geography of South America 3 s.h.

Spatial patterns found in the physical and cultural landscapes of South America.

Prereq.: GEOG 2626 or GEOG 2640; or HIST 3728.

GEOG 3715 Geography of Middle America 3 s.h.

Spatial patterns found in the physical and cultural landscapes of Middle America (Mexico, Central America, and the Caribbean).

Prereq.: GEOG 2626 or GEOG 2640; or HIST 3727.

GEOG 3717 Geography of Europe 3 s.h.

Spatial patterns found in the physical and cultural landscapes of Europe.

Prereq.: GEOG 2626 or GEOG 2640.

GEOG 3719 Geography of the United States 3 s.h.

Spatial patterns found in the physical and cultural landscapes of the United States.

Prereq.: GEOG 2626 or GEOG 2640; or HIST 2605 or HIST 2606.

GEOG 3721 Geography of Ohio 3 s.h.

Spatial patterns found in the physical and cultural landscapes of Ohio.

Prereq.: GEOG 2626 or GEOG 2640; or HIST 2605 or HIST 2606 or HIST 3748.

GEOG 3724 Themes in Cultural Geography 3 s.h.

A seminar focusing on cultural traditions in geography in the United States. Primary focus is on scholars, traditions, theory and methodology of cultural geography as published in the professional literature.

Prereq.: GEOG 2626 or GEOG 2640 or ANTH 1500 or SOC 1500.

GEOG 3726 Urban Geography 3 s.h.

A study of the changing spatial patterns associated with the rise of urbanization, comparative urban developments and cities as a part of the urban system.

Prereq.: GEOG 2626 or GEOG 2640; or HIST 3736; or SOC 3707.

GEOG 3730 Global Climates 3 s.h.

Focus is on the scientific foundations of Earth's climate system; basic understanding of climate behavior, patterns, variability and change; contributions of human activities to climate change; and societal vulnerabilities and responses to climate variability and change.

Prereq.: GEOG 1503 or GEOG 2630 or permission of instructor.

GEOG 3733 Severe and Hazardous Weather 3 s.h.

Focus is on severe weather that may threaten harm to life and/or property.

The scientific underpinning of severe weather types and their geographic distributions, hazards, and mitigation measures. Topics include extratropical cyclones; thunderstorms; lightning; tornadoes; hurricanes; floods; droughts; cold and heat waves; blizzards; snow, ice and wind storms; and El Nino/La Nina.

Prereq.: GEOG 1503 or GEOG 2630.

GEOG 3735 Water in the Earth System 3 s.h.

Focus is on the cycling of water within the Earth system. Covers the unique properties of water, the global water cycle, the distribution of water within the various reservoirs of the hydrosphere, the role of water in energy transfer and systems interactions, and human impacts on water resources.

Prereq.: GEOG 1503 or GEOG 2630; or GEOL 1504 or GEOL 1505 or GEOL 2602; or ENST 1500 or ENST 2600.

GEOG 3737 Soils and Land Use 3 s.h.

Examination of soil characteristics influencing land use planning and development. Topics include the basic physical and chemical properties of soil, soil water, the soil-forming factors, the use and interpretation of county soil reports, and soil characteristics beneficial and detrimental to selected land use practices. Participation in field trips is required.

Prereq.: GEOG 1503; or GEOL 1504 or GEOL 1505; or ENST 2600; high school chemistry recommended.

GEOG 3750 Topics in Regional Geography 3 s.h.

Application of the regional method to selected areas of the world. Topic is announced each time the course is offered. May be repeated three times for credit if content is not repeated. Maximum credit 9 s.h.

Prereq.: GEOG 2626 or GEOG 2640.

GEOG 3775 Field Methods in Geography 3 s.h.

Practical experiences in geographic data collection. Emphasis on applying techniques of observation, sampling, surveying, interviewing and mapping to both physical and human spatial phenomena. Participation in field trips is mandatory.

Prereq.: GEOG 1503 or GEOG 2610 or GEOG 2640.

GEOG 3781 GIS Applications for the Social Sciences 3 s.h.

Applications of Geographic Information Science (GIS) techniques for the social sciences in disciplines such as economics, sociology, anthropology, political science, and urban/cultural geography, as distinct from physical or environmental sciences. Focus is on the integration of a spatial perspective in social research, analysis and policy development and how GIS can be useful for collecting and analyzing both qualitative and quantitative data.

Prereq.: GEOG 2611.

GEOG 3782 GIS Applications for the Natural Sciences 3 s.h.

Applications of Geographic Information Science (GIS) techniques for the natural sciences in disciplines such as physical geography, geology, biology, ecology, natural hazards, environmental monitoring, planning and infrastructure, water resources, climate change, and energy. Topics range from spatial data quality, data conversion, database design, data management, analysis, and visualization.

Prereq.: GEOG 2611.

GEOG 3783 GIS in Youngstown 3 s.h.

The course is designed to provide planners and community developers with an important analytical skill set that is becoming increasingly important in their professions. In this course, students will learn how GIS can be useful for collecting and analyzing both qualitative and quantitative data. This course can also be useful to a community practitioner who is interested in utilizing spatial information to address issues or problems in the urban environment, and affecting positive change in their communities.

Prereq.: GEOG 2611 or GEOG 2640.

GEOG 4801 Advanced Geographic Information Science 3 s.h.

A continuation of Introduction to Geographic Information Science focusing on theory and application of advanced techniques in spatial data handling, GIS modeling, and spatial analysis. Credit will not be given for GEOG 4801 if a student has already received credit for GEOG 5811. 3 s.h.

Prereq.: GEOG 3701 or GEOG 5810.

GEOG 4802 Advanced Remote Sensing 3 s.h.

A continuation of Introduction to Remote Sensing focusing on advanced theory of image classification, image processing and enhancement, and methods of spatial analysis. Credit will not be given for GEOG 4802 if a student has already received credit for GEOG 5806.

Prereq.: GEOG 3702 or GEOG 5805.

GEOG 4820 Urban-Regional Studies Seminar 3 s.h.

Selected aspects of urban-regional studies not covered in existing courses. Topic to be announced each time the course is offered. May be taken up to two times for credit if topic is not repeated.

Prereq.: GEOG 3726 or consent of instructor.

GEOG 4825 Geography Internship 1-3 s.h.

Practical application of geographic principles and skills in the public or private workplace. A minimum of 40 clock hours per credit hour per semester is required in the work setting. An activities log must be maintained and oral and written reports of the internship experience are required. May be repeated for up to 6 s.h. By permit only.

Prereq.: 3 s.h. upper-division geography.

GEOG 4840 Seminar in Geography 3 s.h.

Selected aspects of geography not covered in existing courses. Topic to be announced each time the course is offered. May be taken up to two times for credit if topic is not repeated.

Prereq.: 9 s.h. of geography.

GEOG 4890 Geography Capstone 3 s.h.

Investigation of research topics, methods, and issues in geography. Students select a geographic research topic, collect and analyze data using appropriate methods and present findings in oral and written form.

Prereq.: Senior standing in Geography.

Gen Ed: Capstone.

GEOG 4890C CE Geography Capstone 3 s.h.

Investigation of research topics, methods, and issues in geography. Students select a geographic research topic, collect and analyze data using appropriate methods and present findings in oral and written form.

Prereq.: Senior standing in Geography.

Gen Ed: Capstone.

GEOG 5802 Biogeography 3 s.h.

The distribution and scale of flora and fauna and the factors and processes that produce these patterns. Topics also include disturbance events, dispersal, colonization and invasion, and biological hierarchy.

Prereq.: BIOL 1505 or BIOL 2602 or GEOG 1503.

GEOG 5820 Directed Research in Geography 1-3 s.h.

An in-depth study of a specific problem in geography. The problem is dependent upon the student's interest and competence, availability of faculty supervision and department equipment. May be repeated up to 3 s.h.

Prereq.: 20 s.h. of Geography.

GEOG 5850 International Area Study 3 s.h.

A course in the geography and history of a selected international area with emphasis on cultural development by traveling in the selected region. The class and travel is supervised by the geography and/or history faculty. The course grade is based upon a term paper which must be submitted within 60 days after the end of the course.

Prereq.: permission of the chairperson.

Certificate in Geospatial Science and Technology (GSAT)

The certificate in Geospatial Science and Technology provides a program for students and professionals interested in geospatial careers and technologies (including Geographic Information Science, Remote Sensing, the Global Positioning System, Cartography, and spatial data handling and analysis). The Certificate signifies academic proficiency in Geospatial Science and Technology and is administered by the Department of Humanities and Social Sciences. It is rendered upon completion of the requirements below and includes both a physical copy of the certificate plus an entry on student transcripts.

Students must take a minimum of 18 s.h. (6 courses) as listed below and complete them with a cumulative GPA of 3.00 (B) or higher and no course grade below a C. The certificate is available to undergraduates and non-degree seeking professionals who meet course requirements. Note that some classes may require prerequisites courses for entrance.

COURSE	TITLE	S.H.
Required Courses (9 s.h.)		
GEOG 2611	Geospatial Foundations	

GEOG 3701	Introduction to Geographic Information Science
GEOG 3702	Introduction to Remote Sensing

Select one course from the following (3 s.h.)

GEOG 4801	Advanced Geographic Information Science
GEOG 4802	Advanced Remote Sensing

Select two elective courses from the following (6-7 s.h.):

GEOG 3712	Thematic Map Design and Symbolization
GEOG 3775	Field Methods in Geography
GEOG 3781	GIS Applications for the Social Sciences
GEOG 3782	GIS Applications for the Natural Sciences
GEOG 4825	Geography Internship ¹
GEOG 4801	Advanced Geographic Information Science
GEOG 4802	Advanced Remote Sensing
GEOG 4840	Seminar in Geography
GEOG 5812	²
GEOG 5820	Directed Research in Geography ¹
CSIS 3722	Development of Databases
CSIS 3726	Visual/Object-Oriented Programming
CEEN 2610 & 2610L	Surveying and Surveying Laboratory

¹ These courses are allowed for credit in the GSAT certificate only if they contain a significant Geospatial Science and Technology related component, are taken for 3 s.h. of credit, and are given approval by the chairperson.

² These courses are allowed to count for elective credit only if they have not been taken under required courses.

Learning Outcomes

The department offers a Certificate in Geospatial Science and Technology. The certificate represents academic proficiency for career-oriented students and professionals in the geospatial field to include geographic information science, remote sensing, global positioning systems, cartography, and spatial data handling and analysis. It is rendered upon completion of the requirements and includes a physical copy of the certificate and entry on the student's transcript.

Learning Outcomes

Students, upon fulfilling the requirements of the Certificate in Geospatial Science and Technology (GSAT), will:

- Effectively use, analyze, and interpret maps and other graphic representations of geographic information.
- Be proficient in geographic methods and techniques such as cartography, GIScience, remote sensing, and field methods.
- Effectively communicate geographic information in written and oral forms.

Demonstrate proficiency in one or more applications of geospatial technology – geographic information systems, global positional systems, and remote sensing.

Minor in Geographic Information Science

COURSE	TITLE	S.H.
Required Courses		
GEOG 2611	Geospatial Foundations	3
GEOG 3701	Introduction to Geographic Information Science	3
GEOG 3702	Introduction to Remote Sensing	3
GEOG 4801	Advanced Geographic Information Science	3
Select 6 s.h. from the following courses:		6

GEOG 3712	Thematic Map Design and Symbolization
GEOG 3775	Field Methods in Geography
GEOG 3781	GIS Applications for the Social Sciences
GEOG 3782	GIS Applications for the Natural Sciences
GEOG 4802	Advanced Remote Sensing
GEOG 5812	
GEOG 5814	

The following may be used to fulfill the required 6 s.h. above if the course theme is GIScience related:

GEOG 4825	Geography Internship
GEOG 4840	Seminar in Geography

The following course is suggested but not required:

CSIS 1590	Survey of Computer Science and Information Systems
6 s.h. of the minor must be upper-division (3700+)	

Total Semester Hours **18**

Minor in Human Geography

COURSE	TITLE	S.H.
Required course (3 s.h.):		
GEOG 2640	Human Geography	3
Select 3 s.h. from the following courses:		3
GEOG 2610	Map Use and Interpretation	
GEOG 2611	Geospatial Foundations	
Select 12 s.h. from the following courses with 6 s.h. being upper-division (3700+) credit:		12
GEOG 2626	World Geography	
GEOG 2650		
GEOG 3701	Introduction to Geographic Information Science	
GEOG 3712	Thematic Map Design and Symbolization	
GEOG 3724	Themes in Cultural Geography	
GEOG 3726	Urban Geography	
GEOG 3741		
GEOG 3745		
GEOG 5850	International Area Study	
The following may be used to fulfill the required 12 s.h. above if the course theme is human geography related:		
GEOG 4825	Geography Internship	
GEOG 4840	Seminar in Geography	
Total Semester Hours		18

Minor in Environmental Geography

COURSE	TITLE	S.H.
Select 3 s.h. from the following courses:		
GEOG 1503	Physical Geography	3
GEOG 2630	Weather	3
Select 3 s.h. from the following courses:		
GEOG 2610	Map Use and Interpretation	3
GEOG 2611	Geospatial Foundations	3
Select 12 s.h. from the following courses:		
GEOG 1503	Physical Geography	3
GEOG 2630	Weather	3
GEOG 3701	Introduction to Geographic Information Science	3
GEOG 3702	Introduction to Remote Sensing	3
GEOG 3703	Human Impacts on the Environment	3
GEOG 3705	Mountain Geography	3

GEOG 3730	Global Climates	3
GEOG 3733	Severe and Hazardous Weather	3
GEOG 3735	Water in the Earth System	3
GEOG 3737	Soils and Land Use	3
GEOG 3775	Field Methods in Geography	3
GEOG 3782	GIS Applications for the Natural Sciences	3
GEOG 5802	Biogeography	3

The following may be used to fulfill the required 12 s.h. above if the course theme is environmentally related:

GEOG 4840	Seminar in Geography	3
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Total Number of Semester Hours - 18

Minor in Regional Geography

COURSE	TITLE	S.H.
Select 3 s.h. from the following courses:		3
GEOG 2626	World Geography	
GEOG 2640	Human Geography	
Select 15 s.h. from the following courses:		15
GEOG 3713	Geography of South America	
GEOG 3715	Geography of Middle America	
GEOG 3717	Geography of Europe	
GEOG 3719	Geography of the United States	
GEOG 3721	Geography of Ohio	
GEOG 3724	Themes in Cultural Geography	
GEOG 3750	Topics in Regional Geography	
The following may be used to fulfill the required 15 s.h. if the course theme is regionally related:		
GEOG 4840	Seminar in Geography	
GEOG 5850	International Area Study	
6 s.h. of the minor must be in courses numbered 3700 or higher		
Total Semester Hours		18

Minor in General Geography

COURSE	TITLE	S.H.
Required Course:		
GEOG 1503	Physical Geography	3
Select 3 s.h. from the following:		3
GEOG 2626	World Geography	
GEOG 2640	Human Geography	
Select 3 s.h. from the following physical/environmental geography courses:		3
GEOG 2630	Weather	
GEOG 3703	Human Impacts on the Environment	
GEOG 3705	Mountain Geography	
GEOG 3730	Global Climates	
GEOG 3733	Severe and Hazardous Weather	
GEOG 3735	Water in the Earth System	
GEOG 3737	Soils and Land Use	
GEOG 5802	Biogeography	
Select 3 s.h. from the following geospatial techniques courses:		3
GEOG 2610	Map Use and Interpretation	
GEOG 2611	Geospatial Foundations	
Select 3 s.h. from the following human and regional geography courses:		3
GEOG 2650		
GEOG 3713	Geography of South America	
GEOG 3715	Geography of Middle America	

GEOG 3717	Geography of Europe
GEOG 3719	Geography of the United States
GEOG 3721	Geography of Ohio
GEOG 3724	Themes in Cultural Geography
GEOG 3726	Urban Geography
GEOG 3741	
GEOG 3745	
GEOG 3750	Topics in Regional Geography
GEOG 3775	Field Methods in Geography
GEOG 4825	Geography Internship
GEOG 4840	Seminar in Geography
GEOG 5850	International Area Study

Select 3 s.h. from any upper-division course listed above or any course listed below: **3**

GEOG 3701	Introduction to Geographic Information Science
GEOG 3702	Introduction to Remote Sensing
GEOG 3712	Thematic Map Design and Symbolization
GEOG 5812	

6 s.h. of the minor must be in courses number 3700 or higher.

Total Semester Hours **18**

History

Welcome

Hello! I want to tell you how pleased we are to welcome you to Youngstown State University and to the History Program. With a faculty of seven, we offer courses across a broad range of subjects and have something to interest everyone.

I hope that you will drop by and visit us on the fifth floor of DeBartolo Hall. Please feel welcome to stop in for advice, general information, or just to chat. You may also want to watch for notices from our Student Clubs – History Club and Phi Alpha Theta – about scheduled events throughout the semester.

I encourage you to drop by the Youngstown Historical Center of Industry and Labor located at 151 Wood Street on the southern edge of campus. The museum is managed by the History Program, and you and your guests are very welcome to visit us there. (Your student ID grants you free admission at any time.)

Dr. Brian Bonhomme

History Program Coordinator

Mission

The Program of History at Youngstown State University is dedicated to the discovery and dissemination of knowledge about the past, to edify our present, and better plan for the future. The program promotes and integrates scholarship, teaching, and service to educate its undergraduate and graduate students. It promotes civic engagement with the wider community. Through the teaching of history in and out of the classroom the program fosters understanding and appreciation of diversity and provides a global perspective. Our aim is to examine and disseminate knowledge of the past and of the nature of its study and reconstruction through a variety of educational experiences and historical methodologies and to train future scholars of history.

The student majoring in history must complete, in addition to the general University requirements, the group requirements outlined on the curriculum sheet (p. 196). It is recommended that the student select courses with assistance from an advisor, since certain courses are preferable to others according to whether one contemplates graduate study, secondary school

teaching, or any of the many other careers for which History provides excellent preparation.

The Bachelor of Arts in History can be completed in eight semesters if students average 16 hours per semester.

For more information, visit the Department of Humanities and Social Sciences on the fifth floor of DeBartolo Hall, which houses the History Program, or contact us at (330) 941-3452.

Professor

Daniel Ayana, Ph.D., Professor

Brian Bonhomme, Ph.D., Professor

Eleanor A. Congdon, Ph.D., Associate Professor

Amy Fluker, Ph.D., Associate Professor

Martha Pallante, Ph.D., Professor

David A. Simonelli, Ph.D., Professor

Lecturer

Kyle Starkey, M.A., Senior Lecturer

Majors

- Bachelor in History (p. 196)

Minors

- Minor in History (p. 198)
-

HIST 1500 Discovering World History 3 s.h.

Introduction to the methods, problems, and content of world history from Antiquity to the present. Emphasizes the relevance of past events and developments to the modern world. Does not count toward the major or minor in history, nor toward integrated social science degrees.

Gen Ed: Arts and Humanities.

HIST 1501 Discovering American History 3 s.h.

Survey of American history focusing on five strategic events in the American past. Emphasis is on cultural conflict and compromise, institutional developments and revolutions, and the emergence of democracy as concept and practice. This course is intended for those students for whom history is not a requirement.

Gen Ed: Arts and Humanities.

HIST 1511 World Civilization to 1500 3 s.h.

Origins and growth of the major civilizations of the world from earliest times to about 1500.

Prereq.: Placement into ENGL 1550 or completion of ENGL 1539 or ENGL 1540.

Gen Ed: Arts and Humanities.

HIST 1511H Honors World Civilization to 1500 3 s.h.

An honors course in the origins and growth of the major civilizations of the world from earliest times to about 1500 with emphasis on the analysis and critical evaluation of historical developments.

Prereq.: Eligibility for admissions to University Honors Program, or recommendation of a history instructor.

Gen Ed: Arts and Humanities.

HIST 1512 World Civilization from 1500 3 s.h.

Development of the major civilizations of the world from 1500 to the present.

Prereq.: Placement into ENGL 1550 or completion of ENGL 1539 or ENGL 1540.

Gen Ed: Arts and Humanities.

HIST 1512H Honors World Civilization from 1500 3 s.h.

An honors course in the development of the major civilizations of the world from about 1500 to the present with emphasis on the analysis and critical evaluation of historical developments.

Prereq.: Eligibility for admissions to University Honors Program, or recommendation of a history instructor.

Gen Ed: Arts and Humanities.

HIST 2600 Introduction to Jewish Studies 3 s.h.

What does it mean (and what has it meant) to be Jewish? This course prepares students for the study of Jewish peoples and histories, with a focus on diverse communities, identities, culture, and religion. Historical analysis is paired with investigations into twenty-first century Jewish life, providing insight into the contemporary world. Special attention is paid to US and local Jewish communities.

Gen Ed: Arts and Humanities, Domestic Diversity, Social and Personal Awareness.

HIST 2601 American Military History 3 s.h.

A survey of American military history from the origin of the United States Army to the present, with emphasis on how military policies and strategies have been influenced by the domestic and foreign affairs of the United States.

HIST 2605 Turning Points in United States History 1 3 s.h.

Key episodes in the social, economic, political and cultural developments of the United States to 1877, exploring how diverse peoples shaped the growing nation.

Prereq.: Readiness for ENGL 1550.

Gen Ed: Arts and Humanities.

HIST 2605H Honors Turning Points in United States History 1 3 s.h.

An honors course concerning the political, social, and economic development of the United States to 1877 with emphasis on the analysis and critical evaluation of historical developments.

Prereq.: Eligibility for admission to University Honors Program, or recommendation of a history instructor.

Gen Ed: Social Science.

HIST 2606 Turning Points in United States History 2 3 s.h.

Key episodes in the social, economic, political and cultural developments of the United States since 1877, exploring how diverse peoples shaped the growing nation.

Prereq.: Readiness for ENGL 1550.

Gen Ed: Arts and Humanities.

HIST 2606H Honors Turning Points in United States History 2 3 s.h.

An honors course concerning the political, social, and economic development of the United States from 1877 to the present with emphasis on the analysis and critical evaluation of historical developments.

Prereq.: Eligibility for admission to University Honoree Program, or recommendation of a history instructor.

Gen Ed: Domestic Diversity, Social Science, Social and Personal Awareness.

HIST 2607 History Methods and Applications 3 s.h.

The first part of the course focuses on historical methods, including the nature and use of primary and secondary sources; collection and interpretation of data; analysis and critical thinking; historians' resources, tools, and scholarly apparatus; and general historical standards. The second part explores opportunities for the application of the historians' skills, from professional fields and career options to personal development and everyday life. Students completing the course will have developed skills and resources applicable to career development, including creating a professional portfolio and sample grant application.

HIST 2656H Honors History of Western Civilization 2 3 s.h.

An honors course in Western Civilization from 1715 to the present with emphasis on the analysis of historical developments.

HIST 3700 The Atlantic World 3 s.h.

Development of the Atlantic rim from 1450 to 1700 with emphasis on the processes of exploration, cultural contact, and colonization. Cross-cultural focus on West Africa, the Caribbean and eastern North America.

HIST 3701 American Military History 3 s.h.

A survey of United States armed conflict and its impact on US society, culture, economy and changing intra- and international diplomatic relationships, including the social and cultural foundations relevant to the US military, and aspects of US military doctrine, logistics, leadership, technology, strategy and tactics used, and how these changed over time.

HIST 3702 Early America 3 s.h.

From the first English interactions with the Native Americans and Africans, to the rebellion for Independence, to the struggles over the creation of the Constitution.

HIST 3703 Nineteenth Century America 3 s.h.

United States history from the War of 1812 through the Spanish-American War. Emphasis on constitutional developments, the issue of slavery, the Civil War and Industrialization.

HIST 3712 United States in Crisis: 1900-1945 3 s.h.

Covers events in the United States from 1900 through the end of World War II. Social, political and cultural history of the Progressive era, World Wars I and II, the Roaring Twenties, the Great Depression and the New Deal.

HIST 3715 Introduction to Historic Preservation 3 s.h.

Introduction to the field of historic preservation. Provides historical context for the discipline as well as a basic grounding in the concepts and opportunities of the field.

HIST 3717 Constitutional History of the United States 3 s.h.

The development of the American constitutional system from colonial times to the present.

HIST 3723 History of American Sports 3 s.h.

An examination of sports within America from earliest times to the present. Special emphasis on the manner in which sports and society have influenced each other, such as racial and class relationships, social mobility, politics, religion, and foreign policy.

HIST 3726 History of Women in the United States 3 s.h.

Analysis of the various roles and contributions of women in American history.

HIST 3730 The Black Experience in American History 3 s.h.

A historical study of Black people's roles in and contribution to the political, social, and economic development of American society.

HIST 3734 History of Organized Crime in the United States 3 s.h.

The history of organized crime emphasizes the organization of the criminal underworld, the ethnic, racial, and religious composition of criminal groups, and the impact of organized crime on prostitution, gambling, Prohibition, and drugs.

HIST 3740 The Vietnam War 3 s.h.

American involvement in Southeast Asia from the days of French rule to the fall of the Saigon government and beyond. Includes the war debate at home, and other consequences of the war.

HIST 3743 Labor in United States History 3 s.h.

Traces the transformation of American workers and the impact of the labor movement upon the United States. Emphasizes the diversity of the working class and the historical context of the of the political and social implications of the labor movement.

HIST 3748 History of Ohio 3 s.h.

The important events and movements that have shaped Ohio history in the social, economic, religious and political areas.

HIST 3748C CE History of Ohio. 3 s.h.

The important events and movements that have shaped Ohio history in the social, economic, religious and political areas.

HIST 3749 Africa and the US in Global Connections 3 s.h.

Analysis of US involvement in Africa in its wider global contexts. Course begins with US efforts to stop the Transatlantic Slave Trade and shows how this led incrementally to US involvement not only in Africa but in global affairs more generally. Course covers US involvement in African anti-colonial movements; bilateral relations with independent African states; African perspectives on industrialization and development; US Cold War policy in Africa; and recent developments involving energy policy, the war on terror, and how the rise of China is helping reshape US policy toward Africa.

Prereq.: none.

HIST 3750 History of Modern Africa 3 s.h.

The impact of colonialism on the peoples of 20th century Africa, focusing on subSahara: Colonialism, colonial administration, urbanization, nationalism, pan-Africanism, decolonization and the challenges of modern Africa.

HIST 3751 History of South Africa 3 s.h.

From the beginnings of the 19th century to the present.

HIST 3752 Ancient History 1 3 s.h.

From the Neolithic Revolution to the Peloponnesian Wars. Intensive study of civilizations of Mesopotamia and Egypt, as well as Hellenic history.

HIST 3753 Ancient History 2 3 s.h.

The Hellenic Period to the fall of Rome. Intensive study of the Age of Alexander and the Roman Republic.

HIST 3755 Early Medieval Civilization 3 s.h.

A political, economic, intellectual and cultural history which traces events and developments throughout Europe from the collapse of the Ancient World to the beginning of the High Middle Ages.

HIST 3756 High Medieval Civilization 3 s.h.

A political, economic, intellectual and cultural history which traces events and developments throughout Europe during the High Middle Ages (eleventh through fifteenth centuries).

HIST 3758 Renaissance Europe 3 s.h.

A survey of European history from the end of the High Middle Ages to the 16th century. Emphasizes the rise of humanism and of Renaissance culture in Italy, its dissemination beyond the Alps as well as the development of national states and the flowering of the Late Medieval tradition in western and eastern Europe.

HIST 3762 The Second World War 3 s.h.

An examination of the war's diplomatic and ideological origins; social, economic, and political factors; and strategic, tactical, and technological dimensions of the conflict in all major theaters.

HIST 3764 Modern Europe, 1715 to the Present 3 s.h.

A survey of European history from the Enlightenment to the European Union. Themes include the development and debate surrounding European civilization's emphasis on individuality, technology, capitalism, class, war, and progress.

HIST 3769 Modern Germany 3 s.h.

Unification and modernization; scientific, technological, and cultural splendors; world power and disaster; Nazism, the Holocaust, and German society.

HIST 3770 Asia to 1500 3 s.h.

Political, economic, religious, artistic, and philosophical developments in India, China and along the Silk Road, from ancient times to 1500 C.E.

HIST 3774 Global Environmental History: Topics and Methods 3 s.h.

The historical development and diversity of ideas and actions regarding the interaction of human societies and the natural environment. From 1492 to the present, with particular emphasis on the nineteenth and twentieth centuries. Economic growth and resource depletion. Emergence and development of conservation, environmentalism, ecology. Ideas, events, and institutions. Historiography and methods of environmental history.

HIST 3774C CE Global Environmental History: Topics and Methods 3 s.h.

The historical development and diversity of ideas and actions regarding the interaction of human societies and the natural environment. From 1492 to the present, with particular emphasis on the nineteenth and twentieth centuries. Economic growth and resource depletion. Emergence and development of conservation, environmentalism, ecology. Ideas, events, and institutions. Historiography and methods of environmental history.

HIST 3775 Global Industrial Revolution 3 s.h.

Major themes and events in the origins and global diffusion of industrialization from the 18th to the 21st centuries. The Industrial Revolution and associated changes in technology, society, culture, economy, geo-politics, environment, and public health.

HIST 3778 Russia to 1855 3 s.h.

History of Russia from its ninth century origins to the eve of the Great Reforms of Tsar Alexander II. Surveys political, social, cultural, and intellectual developments, the Orthodox Church, and Russian expansion and colonization in Siberia and Alaska.

HIST 3779 Russia 1855 to Present 3 s.h.

The Russian Empire from the Great Reforms of Alexander II to its collapse during WWI, the Revolutions of 1917, the rise and fall of the Soviet Union (1922-1991), and Soviet successor states to the present.

HIST 3783 How to Conquer the World: Britain and Its Empire, 1688 to the Present 3 s.h.

An integrative history of Britain and its empire, from the Glorious Revolution to the Brexit vote in 2016. Focus is on how the acquisition of an empire influenced the development of British liberal politics, industrial and multicultural society, economic morality, and a diverse and world-ranging culture.

Prereq.: .

HIST 3788 The Holocaust 3 s.h.

This course explores the history and consequences of the Holocaust, the genocide of Jews and other communities by the Nazis and their collaborators. We situate the Holocaust in a number of contexts, including the history of racism and antisemitism, the politics of colonialism and nationalism, and global warfare. Other topics include collaboration and resistance, the concentration-camp system, multiple victim groups, postwar justice, and a focus on gender.

HIST 3789 Jewish History 3 s.h.

Where do Jews come from? What has it meant to live in the world as a Jew? This course provides an overview of the Jewish experience and of Jewish identities from ancient to modern times, in locations around the world. Carefully selected "episodes" introduce students to the great variety within Jewish history and culture. We will pay special attention to the complex and ever-shifting relationships between Jews and the majority non-Jewish populations among whom they have lived, as well as to the connections, both real and imagined, between Jews over long distances and across time. (The Holocaust is taught in a separate course.)

HIST 3790 Medieval Britain 3 s.h.

From the Celtic times to 1485. Emphasizes the political and cultural evolution of the British people before and after the Norman Conquest, including the creation of the English identity, the development of constitutional monarchy, the propaganda value of architecture, art, and literature, and the role of the Church.

HIST 3792 History of Ireland 3 s.h.

Irish history from St. Patrick to the Good Friday Agreement. Emphasis is on Ireland's relationship with Britain, Europe and the United States, and its troubled status as colony, occupied nation and part of the United Kingdom.

HIST 3794 The First World War 3 s.h.

An examination of the origins of the war, the social, economic, intellectual and political repercussions, and the technical and military developments.

HIST 3795 The World since 1945 3 s.h.

Global developments including the Cold War, decolonization and economic dependency in the non-western world; militarism and terrorism; pollution; and the internationalism of the world.

HIST 3796 Genocide and Mass Murder 3 s.h.

The origins, definitions, causes and forms of genocide. Case studies will be drawn from across geographical regions and time periods such as Armenia, the Holocaust, Cambodia, the former Yugoslavia, Rwanda and the Sudan.

HIST 3798 Middle East 2: The Modern Period 3 s.h.

The 20th century. Impact of oil, Arab nationalism, Zionism, Islamic fundamentalism.

HIST 3799 Lessons of the Holocaust from the US Holocaust Memorial Museum 3 s.h.

The Holocaust weighs heavily on contemporary culture. This course explores how individuals and communities have sought to make sense of that atrocity; the lessons they have drawn from it; and how they have invoked the Holocaust to advance various ideologies and politics. We will learn to analyze how moral arguments are made and to situate them in their historical and intellectual contexts. The course requires a supervised and free visit to the U.S. Holocaust Memorial Museum in Washington, D.C., in addition to coursework.

HIST 4801 Select Problems in American History 3 s.h.

Specific problems in American history in such areas as economics, political theory, and cultural and intellectual history. May be repeated with different content.

Prereq.: Consent of instructor.

HIST 4808 Oral Communication Projects in History 1 s.h.

Development of oral communication skills for students of history. Emphasizes the understanding of effective speaking practices, the development of self-analysis, and the presentation of material gathered from a linked course. Concurrent: Enrollment in an upper division history course.

HIST 4809 Documentation and Interpretation of Historic Sites 3 s.h.

Methods of documenting historic properties especially as related to the National Register of Historic Places. Includes interpretation of historic sites for public exhibit.

Prereq.: HIST 3715.

HIST 4811 Practicum in Historic Preservation 3 s.h.

Experience in historic preservation through student participation in a wide variety of historic preservation projects. Prepares students for internships outside the university.

Prereq.: HIST 3715 and permission of Historic Preservation Committee.

HIST 4811C CE Practicum Hist Preservtn 3 s.h.

Experience in historic preservation through student participation in a wide variety of historic preservation projects. Prepares students for internships outside the university.

Prereq.: HIST 3715 and permission of Historic Preservation Committee.

HIST 4812 Historic Preservation Internship 3 s.h.

Practical application of principles and methods in the field of historic preservation with the goal of producing a completed project. Internship to be selected by student in conjunction with program director. May be repeated once.

Prereq.: HIST 3715 and approval of internship committee.

HIST 4812C CE Historic Preservatn Intern 3 s.h.

Practical application of principles and methods in the field of historic preservation with the goal of producing a completed project. Internship to be selected by student in conjunction with program director. May be repeated once.

Prereq.: HIST 3715 and approval of internship committee.

HIST 4813 History Program Internship 1-3 s.h.

Hands-on, experiential learning via an internship at any of a variety of History-Program-approved opportunities and sites in or beyond the Mahoning Valley. Emphasis on the development and application of discipline-related skills including critical-thinking, engagement with research materials, interpretation of sources, organization of materials, presentation of findings, or similar. Internship to be selected by student in consultation with Program Director. May be repeated once.

HIST 4815 American Material Culture 3 s.h.

A discussion and analysis of the use and importance of material artifacts as texts for the recovery of the American past. Emphasis on sources not traditionally utilized by historians. Examples include the contextual analysis of children's books, foodways, and sacred spaces.

Prereq.: HIST 2605 and HIST 2606, or AMER 2601 and AMER 3701.

Cross-Listed: AMER 4815.

HIST 4840 Oral History 3 s.h.

Instruction in methods of taking, processing, and utilizing oral depositions relating to history. This course includes assignments in the field.

Cross-Listed: HIST 6940.

HIST 4850 International Area Study 3-9 s.h.

A course in the geography and history of a selected international area with emphasis on cultural development by traveling in the selected region. The class and travel is supervised by the Geography and/or History faculty. The course grade is based upon a term paper which must be submitted within 60 days after the end of the course.

Prereq.: By permit only.

HIST 4851 Select Problems in European History 3 s.h.

Specific problems in European history in such areas as economics, political theory, and cultural and intellectual history. May be repeated with different content.

Prereq.: Consent of instructor.

HIST 4851S Select Prob Euro Hist of Sci 3 s.h.

Compares Western and non-Western traditions.

HIST 4859 Museum Curation and Interpretation 4 s.h.

Introduction to the field of museum studies. The history and function of museums, especially in the United States. Museum administration, curation, exhibit development, collections management, outreach and education.

Cross-Listed: HIST 6959.

HIST 4860 Select Problems in Transnational History 3 s.h.

Transnational issues in African, Asian, Latin American, and/or Middle Eastern history in such areas as economic, political, social, cultural and intellectual history. May be repeated with different content.

Prereq.: Consent of the instructor.

HIST 4861 Select Topics in Jewish Studies 3 s.h.

This course will cover themes and questions in Jewish studies as selected and defined by the instructor. It will be a vehicle for delivering timely courses that are responsive to student needs and interest. It will also serve in the development of new and permanent courses at YSU. May be repeated up to 6 semester hours.

Prereq.: HIST 2600.

Cross-Listed: JUDC 4861.

HIST 4870 Senior Research Seminar 3 s.h.

A seminar that requires the writing of an extensive paper based mainly on primary material. All history majors must take this course.

Prereq.: Senior standing and completion of four upper-division history courses with a grade of "C" or better.

Gen Ed: Capstone.

HIST 5806 American Architectural History 1 3 s.h.

Development of structural styles and trends within the United States, focusing on formal architectural styles.

Prereq.: HIST 2605 and HIST 2606.

HIST 5807 American Architectural History 2 3 s.h.

Development of vernacular, folk, and industrial architecture in the United States. Focus is on local variants with emphasis on 20th Century specimens. Field trips will view representative building types, especially housing.

Prereq.: HIST 5806.

HIST 5808 American Architectural History 4 s.h.

Focuses on the development and nature of architectural trends in the US, both formal and vernacular styles, in their historic context. Students will learn how to identify historic building materials, evaluate their condition, and make recommendations for their protection. Maybe taken by both undergraduate and graduate students.

HIST 5810 Conservation of the Historic Built Environment 3 s.h.

The theory and practice of preserving and rehabilitating all aspects of the historic built environment. Provides broad exposure through field experience.

Prereq.: HIST 3715.

Judaic Studies

JUDC 4851 Jewish Studies Internship 3 s.h.

Students receive course-credit for interning at a Jewish organization, community center, or synagogue; projects serving Jews or Jewish communities at non-Jewish organizations; or for educational or research initiatives with a focus on Jewish themes. May be repeated up to 6 semester hours for minor credit with permission from the CJHS Director.

Prereq.: HIST 2600.

JUDC 4861 Select Topics in Jewish History 3 s.h.

This course will cover themes and questions in Jewish studies as selected and defined by the instructor. It will be a vehicle for delivering timely courses that are responsive to student needs and interest. It will also serve in the development of new and permanent courses at YSU. May be repeated up to 6 semester hours.

Prereq.: HIST 2600.

JUDC 4871 Directed Readings in Jewish Studies 1-3 s.h.

An opportunity for undergraduates to explore selected themes, questions, or debates in Jewish studies scholarship or to study a corpus of Jewish literature. Students may use this course to prepare for future research projects or graduate school. May be repeated up to 6 semester hours.

Prereq.: HIST 2600.

Bachelor of Arts in History

History is a foundational academic discipline providing perspective and context for meaningful citizenship and considered lives. The YSU Program in History provides outstanding preparation for rewarding careers in education and research, law, media and journalism, business and consulting, museum curation and historic preservation, and much more. The study of History also offers something even more valuable: vital skills and perspectives not tied narrowly to specific and often transient jobs, technologies, or circumstances, but broadly applicable and always relevant in an ever-changing world. These include critical thinking, analytical and research skills, cogent argumentation, and communication in both traditional and digital formats, historical imagination, and a deeper understanding of the human condition. Our programs emphasize hands-on, experiential learning in methodology and research – as well as in traditional content – at all curriculum levels.

Program requirements are simple and flexible, allowing timely completion and student-driven choice of content focus. Students will take two introductory level courses (from a choice of four), nine upper division courses (mixing American and World offerings, with at least two from each), and a Capstone project.

Beyond the Major itself, it is recommended that students consider choosing elective courses across other disciplines in the social sciences and the humanities. Particular attention is called to courses offered in Anthropology, Geography and GIS, Political Science, Philosophy, and Sociology. Students contemplating graduate work in history should consult early and often with History faculty and the Program Coordinator.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	

or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics Requirement		3
Arts and Humanities (6 s.h.)	Introductory courses in major full fill this requirement	0
Natural Sciences (2 courses, 1 with lab) (6-7 s.h.)		7
Social Science (6 s.h.)		6
General Education Electives (9 s.h. Select three courses)		9
Foreign Language Requirement		
FNLG 1501	Conversational Foreign Language 1	3
FNLG 1502	Conversational Foreign Language 2	3
Major Requirements		
Introductory Courses		
Select any two of the following courses		6
HIST 1511	World Civilization to 1500	
HIST 1512	World Civilization from 1500	
HIST 2605	Turning Points in United States History 1	
HIST 2606	Turning Points in United States History 2	
Upper Division Courses		
Select nine courses total from groups A (American) and B (World). You must complete at least two courses from each category.		27
Group A - American History		
HIST 3700	The Atlantic World ¹	
HIST 3701	American Military History	
HIST 3702	Early America	
HIST 3703	Nineteenth Century America	
HIST 3712	United States in Crisis: 1900-1945	
HIST 3715	Introduction to Historic Preservation	
HIST 3717	Constitutional History of the United States	
HIST 3723	History of American Sports	
HIST 3726	History of Women in the United States	
HIST 3730	The Black Experience in American History	
HIST 3734	History of Organized Crime in the United States	
HIST 3740	The Vietnam War ¹	
HIST 3743	Labor in United States History	
HIST 3748	History of Ohio	
HIST 3762	The Second World War	
HIST 4801	Select Problems in American History	
HIST 4811	Practicum in Historic Preservation	
HIST 4812	Historic Preservation Internship	
HIST 4815	American Material Culture	
HIST 5806	American Architectural History 1	
HIST 5807	American Architectural History 2	
HIST 5810	Conservation of the Historic Built Environment	
Group B - World History		
HIST 3752	Ancient History 1	
HIST 3753	Ancient History 2	
HIST 3755	Early Medieval Civilization	
HIST 3756	High Medieval Civilization	
HIST 3758	Renaissance Europe	
HIST 3762	The Second World War	
HIST 3764	Modern Europe, 1715 to the Present	
HIST 3769	Modern Germany	
HIST 3774	Global Environmental History: Topics and Methods ¹	
HIST 3778	Russia to 1855	

HIST 3779	Russia 1855 to Present ¹	
HIST 3783	How to Conquer the World: Britain and Its Empire, 1688 to the Present	
HIST 3788	The Holocaust	
HIST 3790	Medieval Britain	
HIST 3794	The First World War	
HIST 4850	International Area Study ¹	
HIST 4851	Select Problems in European History	
HIST 3700	The Atlantic World ¹	
HIST 3740	The Vietnam War	
HIST 3749	Africa and the US in Global Connections	
HIST 3750	History of Modern Africa	
HIST 3751	History of South Africa	
HIST 3770	Asia to 1500	
HIST 3775	Global Industrial Revolution	
HIST 3789	Jewish History	
HIST 3795	The World since 1945	
HIST 3796	Genocide and Mass Murder	
HIST 3798	Middle East 2: The Modern Period	
HIST 4850	International Area Study	
HIST 4860	Select Problems in Transnational History	

Capstone		
HIST 4870	Senior Research Seminar	3
Minor Requirement		12
Students are required to take a minor of their choosing.		
Free Electives		34
Elective coursework necessary to meet 120 s.h. graduation requirement.		
Total Semester Hours		120-122

¹ All courses must be passed with a grade of C or better. Courses may count in only one category. Seven courses in Groups A and B must be at 3700 level or higher.

Year 1		
Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
Any TWO from: HIST 1511, HIST 1512, HIST 2605, HIST 2606		6
Gen Ed Math		3
Gen Ed SS		3
Semester Hours		16-18
Spring		
ENGL 1551	Writing 2	3
Gen Ed SS		3
Gen Ed NS		3
Gen Ed Elective		3
HIST 26XX/37XX		3
Semester Hours		15

Year 2		
Fall		
FNLG 1501	Conversational Foreign Language 1	3
Gen Ed NS		4
Gen Ed Elective		3
Minor course		3

HIST 37XX	3
Semester Hours	16
Spring	
Gen Ed Elective	3
NAT SCI Gen Ed lecture course	3
FNLG 1502 Conversational Foreign Language 2	3
Minor course	3
HIST 37XX	3
Semester Hours	15
Year 3	
Fall	
HIST 37XX	3
HIST 37XX	3
Minor course	3
Elective	3
Elective 37XX	3
Semester Hours	15
Spring	
HIST 37XX	3
HIST 37XX	3
Minor course	3
Elective course	3
Elective course	3
Semester Hours	15
Year 4	
Fall	
HIST 37XX	3
HIST 37XX	3
Minor course	3
Elective course	2
Elective 37XX	3
Semester Hours	14
Spring	
HIST 4870 Senior Research Seminar	3
Minor course	3
Elective 37XX	3
Elective 37XX	3
Elective 15XX	2
Semester Hours	14
Total Semester Hours	120-122

Learning Outcomes

- (All courses) Students will demonstrate the skills necessary for the historian to analyze information and report findings effectively, by recognizing the difference between primary and secondary resources and being able to critically read and analyze their content; by effectively communicating in written and oral media; and by exhibiting satisfactory critical-thinking and synthesis skills.
- (All courses) Students will demonstrate comprehension of the basic concepts that guide the historian's work, by understanding: the concepts of historiography and that historical interpretation is not fixed but changes over time; the significance of chronologies and the impact of cause and effect; and the importance and impact of cultural diversity on the past and its relevance in the present.
- (Applied History Courses only): Students will demonstrate the ability to translate traditional historical scholarship into media meant primarily for non-academic audiences.

Minor in History

The History Minor offers students a meaningful introduction to the methods and content of the field. Courses emphasize skills transferable to a wide variety of applications and career choices, including critical thinking, problem-solving, source and data analysis, and presentation of findings. By providing context and insight into human social development over time, the History Minor makes a perfect complement to a wide range of majors, including those in the STEM and professional fields.

COURSE	TITLE	S.H.
HIST 1511	World Civilization to 1500	3
or HIST 1512	World Civilization from 1500	
HIST 2605	Turning Points in United States History 1	3
or HIST 2606	Turning Points in United States History 2	
Select four courses chosen from Groups B and C below. At least one course from each group must be selected. Courses must be at the 3700-level or higher. All courses must be passed with a grade of C or better.		12
Group B (American)		
HIST 3700	The Atlantic World ¹	
HIST 3701	American Military History	
HIST 3702	Early America	
HIST 3712	United States in Crisis: 1900-1945	
HIST 3715	Introduction to Historic Preservation	
HIST 3717	Constitutional History of the United States	
HIST 3723	History of American Sports	
HIST 3726	History of Women in the United States	
HIST 3734	History of Organized Crime in the United States	
HIST 3740	The Vietnam War ¹	
HIST 3743	Labor in United States History	
HIST 3748	History of Ohio	
HIST 3762	The Second World War ¹	
HIST 4801	Select Problems in American History	
HIST 4811	Practicum in Historic Preservation	
HIST 4812	Historic Preservation Internship	
HIST 4815	American Material Culture	
HIST 5806	American Architectural History 1	
HIST 5807	American Architectural History 2	
HIST 5810	Conservation of the Historic Built Environment	
Group C (Global)		
HIST 3700	The Atlantic World ¹	
HIST 3740	The Vietnam War ¹	
HIST 3749	Africa and the US in Global Connections	
HIST 3750	History of Modern Africa	
HIST 3751	History of South Africa	
HIST 3752	Ancient History 1	
HIST 3753	Ancient History 2	
HIST 3755	Early Medieval Civilization	
HIST 3758	Renaissance Europe	
HIST 3762	The Second World War ¹	
HIST 3764	Modern Europe, 1715 to the Present	
HIST 3769	Modern Germany	
HIST 3770	Asia to 1500	
HIST 3774	Global Environmental History: Topics and Methods ¹	
HIST 3775	Global Industrial Revolution ¹	
HIST 3778	Russia to 1855	
HIST 3779	Russia 1855 to Present ¹	
HIST 3788	The Holocaust	

HIST 3789	Jewish History	
HIST 3790	Medieval Britain	
HIST 3794	The First World War	
HIST 3795	The World since 1945	
HIST 3798	Middle East 2: The Modern Period	
HIST 4850	International Area Study ¹	
HIST 4851	Select Problems in European History	
HIST 4860	Select Problems in Transnational History	
Total Semester Hours		18

¹ No course can count in more than one group. Courses may count in only one category.

Minor in Judaic Studies

Jewish history stretches back over three-thousand years and spans the globe. Students minoring in Jewish studies explore fundamental aspects of Jewish history, religion, culture, politics, and thought, through the study of Jewish societies in their profound variety. We simultaneously use a focus on Jewish experiences to reflect broadly upon the societies in which Jews have lived (including our own). The study of Jewishness thus functions as a key to forming deeper insights into world, national, and local history and culture. Our program also offers a focus on the history and meaning of the Holocaust, the study of which helps students think critically about modernity, politics, and morality.

Study-abroad trips to various locations around the world may be taken for credit, based upon availability and the approval of the Director of the Center for Judaic and Holocaust Studies. Hebrew language may be taken for minor credit as well.

The Center for Judaic and Holocaust Studies organizes a robust selection of extra-curricular programs. These events supplement classroom instruction and offer opportunities for active participation and student leadership.

For more information, visit the Center for Judaic and Holocaust Studies at Youngstown State University (<https://jewishstudies.ysu.edu/>).

No students will be accepted to this program at this time.

COURSE	TITLE	S.H.
Required Course (9 semester hours)		
HIST 2600	Introduction to Jewish Studies	3
HIST 3788	The Holocaust	3
HIST 3789	Jewish History	3
Electives (Complete 6 semester hours)		
HIST 3798	Middle East 2: The Modern Period	3
HIST 3799	Lessons of the Holocaust from the US Holocaust Memorial Museum	3
HBRW 2600	Intermediate Hebrew (Requires HBRW 1550 for which minor credit is not offered. Students who enter with knowledge of Hebrew may test into HBRW 2600.)	4
JUDC 4851	Jewish Studies Internship	3
JUDC/HIST 4861	Select Topics in Jewish History	3
JUDC 4871	Directed Readings in Jewish Studies (Individualized study)	1-3
POL 3765	Israeli Politics	3
REL 2611	Judaism Christianity and Islam	3
REL 3731	Hebrew Scriptures	3
REL 3750		3

Study-abroad trips may be counted towards the minor with the approval of the Director of the Center for Judaic and Holocaust Studies

Students may consult with the Director of the Center for Judaic and Holocaust Studies to have additional courses counted towards the minor.

Total Semester Hours: 15 (minimum)

Philosophy

Welcome to Philosophy

Welcome to Youngstown State University and the program in Philosophy. Our program offers the opportunity to explore the “big questions” such as the nature of right and wrong, issues surrounding justice and fairness, and those that deal with what makes for a valuable life—matters of central importance to the lives of our students, university, and community. Additionally, the philosophy program provides students with logical, critical thinking, and writing skills that will prepare them for any number of careers after graduation as well as prepare them for graduate and professional programs. Philosophy majors who may be thinking of going into law or business or pursuing a graduate degree generally outperform most other disciplines on standardized entrance exams.

In addition to our wonderful course offerings, and life and job preparation, we have a vibrant student organization; organize a speakers' series with world-class scholars; and are home to the Dr. James Dale Ethics Center, a 3+3 pre-law program, and the YSU Intercollegiate Ethics Bowl Team. I encourage you to explore our website to learn more about the offerings of the Philosophy program at Youngstown State University.

The YSU program of Philosophy offers a wealth of productive studies for life and technical knowledge for career opportunities. Our program makes an excellent addition to complement any career.

-Alan Tomhave, Associate Dean

Contact Information

Dr. Alan Tomhave, Associate Dean of BCLASSE- aetomhave@ysu.edu - (330) 941-3456

Dr. Mark Vopat, Philosophy and Religious Studies Program Coordinator - mvopat@ysu.edu - (330) 941-3362

For more information, call (330) 941-3448

Program Highlights:

3+3 Articulations with Law Schools

The Philosophy program at YSU has joined with Case Western Reserve University Law and Akron Law (and working on one more!) to offer a 3+3 program. The 3+3 program is designed for you to complete all the requirements of the Philosophy BA at YSU in three years. Year four of your undergraduate program would be spent at one of the aforementioned law schools. Upon successful completion of your first year of law, those law school credits transfer back to YSU to complete the required 120 hours for your BA degree. If you know for sure that you want to attend law school, this is a great way to save a year of undergrad work (and tuition) and get started on your law degree.

If you are interested in taking advantage of the 3+3 programs, please be sure to see either Dr. Mark Vopat or Dr. Alan Tomhave to discuss it. Your advising appointments will focus on ensuring that you meet all the requirements for the program and stay on track with the admissions requirements for the law schools in the program. It is important to note that you are not guaranteed admission into either law school and must still meet the usual requirements for admittance to the law school.

Ethics Bowl

The Philosophy program is home to YSU's Intercollegiate Ethics Bowl team. Ethics Bowl is a debate style competition in which teams do research and work

collaboratively to address ethical questions about cases that are prepared for the competition. The topics can range from the 3D printing of guns to college admissions and the use of algorithms in various aspects of our lives. Teams must also show an awareness of the views of those who disagree with their advocated position and how to resolve those concerns. Teams work with Philosophy faculty to develop positions and practice presentations, then get judges from across campus help in final preparations. This is a great way to get to know faculty from across YSU and your fellow students. It involves travel in November to a regional Ethics Bowl competition and can involve travel in the spring semester as well. If you are interested in participating, please contact either Dr. Mark Vopat (mvopat@ysu.edu) or Dr. Alan Tomhave (aetomhave@ysu.edu).

The Dr. James Dale Ethics Center

The Dr. James Dale Ethics Center was founded in 1993 to support the study and teaching of ethics and to promote moral reflection and conduct in personal and professional life. Its activities are guided by the conviction that institutions of higher education play a crucially important role in creating and sustaining a democratic people, concerned not only with private but also common purposes. To accomplish its mission, the Center:

- Sponsors ethics seminars, workshops, and conferences for regional professionals;
- Offers lectures to the University and general community;
- Provides ethics consultation for regional organizations;
- Promotes the scholarship of teaching and learning of ethics

The Director of the Ethics Center is Dr. Mark Vopat, Professor of Philosophy in the Department of Philosophy and Religious Studies.

The Philosophy Circle

The Philosophy Circle is a group of more than 140 faculty, alumni, and friends whose donations support special departmental activities, including awards for outstanding student papers and funding for the Dr. Thomas and Albert Shipka Speakers Series. The Shipka Speakers Series has sponsored over 40 lectures by outstanding scholars, on topics related to philosophy and religious studies that are of wide interest to both the university and the larger community. For videos of recent talks, see the Shipka Speakers Series (<http://philrel.ysu.edu/shipka-speakers-series/>) page.

Departmental Scholarships

The programs of Philosophy and Religious Studies offer the following scholarships. Please contact the department office for more information.

- Evangelos Michelakis Meshel Scholarship in Philosophy
- Robert G. & S. Ann Berich Meigetter Scholarships in Philosophy
- Dr. Earl Eugene Eminhizer Scholarship in Religious Studies
- Sister Jean Gillespie Memorial Award in Religious Studies
- Bevan-Dillingham Scholarship in Philosophy and Religious Studies
- Helen Pavlov Memorial Scholarship in Philosophy and Religious Studies

Philosophy and Religious Studies Club

The Philosophy and Religious Studies Club is a student-run group open to all persons interested in philosophy and religious studies. The club hosts an annual educational fundraiser that showcases the interests of a department faculty member. Topics vary for this popular evening complete with music, food, and wine tasting. The students also organize bi-monthly "Eat Drink Think" events (EDT), which are social events focused on classic and modern texts held over food and drinks. EDT events provide a nice forum for majors, non-majors, and community members to delve deeply into persistent questions in philosophy and religion and their relation to public policy, national and global events, and academics. For more information, please visit Philosophy and Religious Studies (<http://www.ysu.edu/philrel/>) website and join our Facebook ([https://www.facebook.com/pages/YSU-Philosophy-and-Religious-](https://www.facebook.com/pages/YSU-Philosophy-and-Religious-StudiesDepartment/188613781180674/)

[StudiesDepartment/188613781180674/](https://www.facebook.com/pages/YSU-Philosophy-and-Religious-StudiesDepartment/188613781180674/)) group, "YSU Philosophy and Religious Studies Club," for updates about upcoming events.

Professor

Alan E. Tomhave, Ph.D., Professor

Mark C. Vopat, Ph.D., Professor

Majors

- Philosophy Major (p. 203)

Minors

- Professional Ethics Minor (p. 204)
- Philosophy Minor (p. 204)

Philosophy

PHIL 1560 Introduction to Philosophy 3 s.h.

The nature of philosophy and its relation to science, religion, and art; study of the philosophical approach and attitude, the basic problem areas in philosophy, and some typical philosophical viewpoints.

Gen Ed: Arts and Humanities.

PHIL 1561 Technology and Human Values 3 s.h.

An examination of the impact of technology and science on contemporary human values and investigations of social and political perspectives on modern technocracy, based on case studies in science, medicine, and engineering.

Gen Ed: Arts and Humanities.

PHIL 1565 Critical Thinking 3 s.h.

An examination of the logical skills needed for critical thinking in practical situations. Topics include procedures and guidelines for identifying and evaluating arguments, recognizing and eliminating informal fallacies, and writing and critiquing argumentative essays.

Gen Ed: Arts and Humanities.

PHIL 2610 Global Ethics 3 s.h.

Examination of morality and justice from a global perspective, including such topics as war, terrorism, and states; poverty and the global economy; religion, gender, and identity; globalization and the environment; and markets and intellectual property.

Cross-Listed: as REL 2610.

Gen Ed: Arts and Humanities.

PHIL 2612 Ancient & Medieval Philosophy 3 s.h.

An examination of philosophers and philosophical systems in Western civilization from the pre-Socratics until the Renaissance.

PHIL 2619 Introduction to Logic 3 s.h.

Introduction to syllogistic or classical logic, symbolic and inductive logic. Emphasis on the rules of syllogism, immediate inferences, propositional functions, classes, truth tables, Venn diagrams; the use of analogy, generalization, the verification of hypotheses, and scientific method.

Prereq.: MATH 1501 or at least Level 20 on the Mathematics Placement Test.

Gen Ed: Mathematics.

PHIL 2625 Introduction to Professional Ethics 3 s.h.

An examination of the ideals and virtues central to professionalism; study of selected codes of professional ethics and their roots in classical ethical traditions; and analysis of selected ethical issues and problems in a variety of professions.

Gen Ed: Arts and Humanities.

PHIL 2626 Engineering Ethics 3 s.h.

An examination of ethical problems in the major fields of engineering and an explanation of the methodology needed to address them; an analysis of the rights and duties of engineers in their relations to clients, employers, the public, and the engineering profession.

Prereq.: One 2600-level PHIL course, or PHIL 1560 or ENTC 1505 or ENGR 1550.

Gen Ed: Arts and Humanities.

PHIL 2627 Law and Criminal Justice Ethics 3 s.h.

Examination of major theories in philosophy of law and justice, and the study of ethical issues and professional standards in criminal justice practice.

Prereq.: Any 2600-level PHIL course or PHIL 1560 or CJFS 2601, CJFS 2602 or CJFS 2603.

Gen Ed: Arts and Humanities.

PHIL 2628 Business Ethics 3 s.h.

Examines ethical problems in business, ethical responsibilities of business professional, and business as a global institution. Topics include the corporation, at-will employment, unions, technology, privacy, advertising, whistle-blowing, globalization, environmental impact, human rights, just distribution, affirmative action and cultural diversity.

Gen Ed: Arts and Humanities.

PHIL 2629 Research Ethics in Science 3 s.h.

This course will focus on issues of ethics in scientific research. Topics covered include: ethical decisions with respect to appropriate and legitimate exploration pathways of scientific research; ethical standards for research publication and peer review procedures; research misconduct such as inaccuracy, misrepresentation data fabrication, data omission, negligence, and fraudulent enterprise; fair, unbiased objectivity in scientific research; obligation to human research subjects regarding rights and welfare; resulting in consequences for individuals influenced by scientific research.

Prereq.: None.

PHIL 2631 Environmental Ethics 3 s.h.

Application of ethical theories in evaluating human interaction with the natural environment, analysis of rights and duties regarding other species and future generations, the ethics of environmental activism, and philosophical and religious perspectives on environmental issues.

Gen Ed: Environmental Sustainability, Social and Personal Awareness.

PHIL 2635 Ethics of War and Peace 3 s.h.

Examines reasons for making war, for restraint on the conduct of war, and for rejecting war as an instrument of national policy as understood within a variety of moral traditions, both secular and religious.

Gen Ed: Arts and Humanities.

PHIL 2698 Introductory Individual Study in Philosophy 1 s.h.

Introductory study of a philosophical problem, movement, thinker, or the relationship of philosophy to problems in other disciplines. Intended to be an independent study course with subject matter dependent upon approval of the faculty member and student. May be repeated up to 3 s.h.

PHIL 3702 History of Modern Philosophy 3 s.h.

Study of major Western philosophical figures and movements from the Renaissance through the 19th century.

Prereq.: One 2600-level PHIL course or PHIL 1560.

PHIL 3708 Social and Political Philosophy 3 s.h.

A study of the philosophical foundations of democracy, dictatorship, and communism, especially their views of reality, knowledge, human nature, and morality, with attention to rights, duties, freedom, authority, dissent, censorship, crime and punishment, and religion.

Prereq.: PHIL 1560.

PHIL 3711 General Ethics 3 s.h.

Examination and evaluation of the major ethical theories in classical, dialectic, pragmatic and naturalistic, analytic and positivist, and existentialist thought.

Prereq.: PHIL 1560.

Gen Ed: Arts and Humanities.

PHIL 3712 Philosophy of Religion 3 s.h.

The philosophical investigation of religious questions such as existence and nature of the divine, the problem of evil, death and immortality, religion and science, and religious experience.

Prereq.: PHIL 1560 or REL 2601.

Cross-Listed: REL 3712.

PHIL 3713 Philosophy of the Family 3 s.h.

Examines the family from philosophical, political, and historical perspectives and considers issues of justice in familial relationships. Explores the relationship among parents, children, and the state, and reviews the evolving conceptions of childhood, child well-being, and children's rights.

Prereq.: ENGL 1551.

PHIL 3714 Language and Mind 3 s.h.

Introduction to the study of traditional philosophical problems in the analysis of linguistic structures and functions and of their implications for the nature of mind, including meaning, mental representation and causation, information processing, and psychological explanation.

Prereq.: One 2600-level PHIL course or PHIL 1560.

PHIL 3715 Philosophy of Science 3 s.h.

A philosophical consideration of some of the fundamental concepts and assumptions of the sciences: the nature of scientific knowledge; the relation of scientific to other kinds of knowledge and experience.

Prereq.: PHIL 1560.

PHIL 3719 Symbolic Logic 3 s.h.

The structure and properties of axiomatic systems; the theory of propositional and relational logic; the algebra of classes; related topics.

Prereq.: PHIL 2619.

PHIL 3723 Philosophy of Law 3 s.h.

Examination of the nature and limits of law, the justification of the legal system, the relationship between law and morality, state punishment of individuals, the justification for punishment, citizens' rights and issues of privacy, liberty, discrimination, and civil disobedience.

Prereq.: One 2600-level PHIL course or PHIL 1560.

PHIL 3725 Biomedical Ethics 3 s.h.

An examination of ethical issues posed by biomedical research and technology, including issues of informed consent, patients' rights, experimentation, genetic research and intervention, death and dying, and the allocation of scarce resources.

Prereq.: One 2600-level PHIL course or SOC 3703 or SOC 3745 or PSYC 3780 or admission to the NEOMED-YSU program or the BS in Nursing program.

PHIL 3740 Muslim Thinkers and Thinkers 3 s.h.

Examination of the theological, philosophical, legal, and political writings and ideas of major Muslim thinkers and mystics from the classical through the modern period, covering the continuities and differences.

Prereq.: any 2600-level REL course or PHIL 1560.

Cross-Listed: REL 3740.

PHIL 3745 Classical Asian Philosophy 3 s.h.

Focus is on selected classical philosophical texts in Hinduism, Buddhism, Confucianism, and Taoism.

Prereq.: Any lower division course in Philosophy or ASST 1550.

PHIL 3798 Intensive Individual Study of Philosophy 1 s.h.

Intensive study of a philosophical problem, movement, thinker, or the relationship of philosophy to problems in other disciplines. Intended to be an independent study course with subject matter dependent upon approval of the faculty member and student. May be repeated up to 3 s.h.

Prereq.: One 3700-level PHIL course.

PHIL 4801 Data Ethics 3 s.h.

In the very early days of computing, there is an expression that is generally attributed to William Mellin: “garbage in, garbage out”. As many are aware the phrase loosely denotes that what comes out of the computer process is only as good as what goes into the machine. While some outputs may be seen as trivially bad, others carry with them substantial moral harm. The way data is collected and processed has real-world ethical implications. In this course, we examine the ways data can have unintended moral consequences in the hopes of avoiding these errors in the future.

Prereq.: None.

PHIL 4805 Direct Readings in Philosophy 3 s.h.

Independent study course with subject matter dependent upon approval of the faculty member in consultation with student.

Prereq.: Any 3700 level PHIL course.

PHIL 4820 Seminar in Philosophy 3 s.h.

Study in depth of a particular philosopher, topic, or area in philosophy, as determined by the instructor; may be repeated with different course content.

Prereq.: One 3700-level PHIL course.

Gen Ed: Capstone.

PHIL 4820U Seminar: How to Live Good Life 3 s.h.**PHIL 4861 Senior Capstone Project 3 s.h.**

Research and writing of a paper, or other committee approved project, on a philosophical topic, under the supervision of a full-time faculty member and in consultation with a committee of at least two other members of the department.

Prereq.: Philosophy major with senior standing and completion of at least 21 s.h. of PHIL courses.

Gen Ed: Capstone.

PHIL 4870 Internship in Ethical Practice 1-3 s.h.

Students work with professionals in a local organization, thereby gaining direct access to the ethical issues involved in such an environment. Students will be supervised by an appropriate working professional and either a faculty member of the Dr. James Dale Ethics Center or another faculty member in the department selected for this purpose. The course grade shall be assigned by the YSU supervisor, based on the project journal, an evaluation of the student's on-site work by the participating professional and the YSU supervisor, and a final project paper. Registration by permit only. 1 s.h., repeatable to a total of.

Prereq.: One 3700-level PHIL or REL course.

Religious Studies

REL 2601 Introduction to World Religions 3 s.h.

A survey of the major world religions exploring their distinctive features and common threads. A study of their founders, systems of thought, symbols, and sacred literatures.

Gen Ed: Arts and Humanities, International Perspectives, Social and Personal Awareness.

REL 2602 Introduction to Religious Studies 3 s.h.

Examines the religious features of doctrines, myths or practices and surveys various methods by which religion is explored and scrutinized.

REL 2605 Myth, Symbol, and Ritual 3 s.h.

An introduction to the nature and function of myth, symbol, and ritual. Myth interpretation, the relationship between societies and their myths, and the cultural use of myths, symbols, and rituals in religious and spiritual contexts.

Gen Ed: Arts and Humanities.

REL 2610 Global Ethics 3 s.h.

Examination of morality and justice from a global perspective, including such topics as war, terrorism, and states; poverty and the global economy; religion, gender, and identity; globalization and the environment; and markets and intellectual property.

Cross-Listed: as PHIL 2610.

Gen Ed: Arts and Humanities.

REL 2611 Judaism Christianity and Islam 3 s.h.

Judaism, Christianity, and Islam. Examines the origins, foundational texts, beliefs and practices, intellectual and spiritual dimensions, and cultural norms and values of each religion, as well as the structures of authority in the community founded by each religion and the factors that have promoted the survival of each.

REL 2617 Introduction to Asian Religions 3 s.h.

A survey of the religions of India, China, and Japan, their systems of thought, moral values, and methods of personal transformation.

Gen Ed: Arts and Humanities, International Perspectives, Social and Personal Awareness.

REL 2621 Religion and Moral Issues 3 s.h.

The relation of specific religious and moral issues to questions of personal conduct and social policy.

Gen Ed: Arts and Humanities.

REL 2621H Honors Religion and Moral Issues 3 s.h.

The relation of specific religious and moral issues to questions of personal conduct and social policy.

Gen Ed: Arts and Humanities.

REL 2623 Introduction to Christianity 3 s.h.

Introduction to the Christian religion, exploring its origins, emergence as the official religion of the Roman Empire, and global expansion into one of the largest religions of the world. Attention is given to core beliefs, events, and persons of significant impact, to the diversity of approaches available within the Christian tradition, and to such contemporary issues as gender, the environment, and war. No familiarity is presupposed with the Bible, Christianity, or the academic study of religion.

REL 3712 Philosophy of Religion 3 s.h.

The philosophical investigation of religious questions such as existence and nature of the divine, the problem of evil, death and immortality, religion and science, and religious experience.

Prereq.: 12 credits of undergraduate coursework.

Cross-Listed: PHIL 3712.

REL 3720 The World of Islam 3 s.h.

The study of the origins and development of classical and modern Islam, including the Prophet Muhammad, the Quran, and Muslims in America.

Prereq.: 12 credits of undergraduate coursework.

REL 3722 Popes Saints and Rebels 3 s.h.

The origin and development of Christianity; examination of the life and teachings of Jesus; Christian theology, liturgy, and symbolism; and divisions of contemporary Christianity.

Prereq.: 12 credits of undergraduate coursework.

REL 3726 Buddhist Beliefs Practices and Debate 3 s.h.

An Introduction to Buddhist traditions, their historical development in countries like India, China, Tibet and Thailand, and Buddhist positions on contemporary issues. Special attention to practices, beliefs, and ethics.

Prereq.: 12 credits of undergraduate coursework.

REL 3728 Hindu Traditions 3 s.h.

Examines Yoga, meditation, karma, reincarnation, and major devotional and ceremonial traditions that have developed around Shiva, Vishnu, and the Goddess. A central part of the course is the study of the dynamics between popular worship and the contemplative traditions of Hindu culture.

Prereq.: 12 credits of undergraduate coursework.

REL 3731 Hebrew Scriptures 3 s.h.

A critical analysis of the Hebrew scriptures in terms of historical background, textual development, and religious and ethical themes.

Prereq.: One 2600-level REL course or HIST 2600.

REL 3732 Jesus and the Gospels 3 s.h.

The life and teachings of Jesus in their historical context. Examination of the ways in which Jesus is interpreted within the synoptic gospels. Prereq.: One 2600-level REL or PHIL course 3740. Muslim Thinkers. Examination of the theological, philosophical, legal, and political writings and ideas of major Muslim thinkers from the classical through the modern period, covering the continuities and differences.

Prereq.: any 2600-level REL course or PHIL 1560.

Cross-Listed: REL 3740.

REL 3733 Women And the Bible 3 s.h.

A study of Biblical interpretation utilizing narratives that portray women in Hebrew and Christian Scriptures. Students will learn analytical skills required for narrative interpretation and exegetical analysis.

Prereq.: 12 credits of undergraduate coursework.

REL 3740 Muslim Thinkers and Mystics 3 s.h.

Examination of the theological, philosophical, legal, and political writings and ideas of major Muslim thinkers and mystics from the classical through the modern period, covering the continuities and differences.

Prereq.: 12 credits of undergraduate coursework.

Cross-Listed: PHIL 3740.

REL 3743 Reform, Revolt, or Revolution in Islam 3 s.h.

Critical examination of the movements of change in Islam intended to (1) reassert the primacy of Islamic religious norms in society (reform); (2) challenge the dominant political structures (revolt); or (3) bring about a radical societal change (revolution). The course examines in depth the use of Islamic motifs and symbols in all these movements.

Prereq.: REL 2601 or POL 1550 or permission of instructor.

REL 3744 Islamic Culture and Literature 3 s.h.

Introduction to the diversity of Muslim culture and literature across the world. Emphasis on classical and premodern literature, art and architecture.

Prereq.: 12 credits of undergraduate coursework.

REL 3748 Islam and the West 3 s.h.

Examination of the historical relationship between the and Islamic and Western worlds, as well as their interaction in modern contexts.

Prereq.: 12 credits of undergraduate coursework.

REL 3760 Sex and Religion 3 s.h.

Explores the tensions between religion and sex through the Western and non-Western lens. Divided into sections, this course covers attitudes toward sex by early modern Christians, a few non-Western religious traditions and contemporary Western religion.

Prereq.: 12 credits of undergraduate coursework.

REL 4825 Methods and Study of Religion 3 s.h.

This course explores the principal methodological issues in the scholarly study of religion and enables students to expand and synthesize disciplinary knowledge.

Prereq.: REL 2602.

REL 4871 Senior Capstone Project 3 s.h.

Research and writing of a paper, or other committee approved project, on a topic in religious studies, under the supervision of a full-time faculty member and in consultation with a committee of at least two other members of the department.

Prereq.: Religious Studies major with senior standing and completion of at least 21 s.h. of REL courses.

Gen Ed: Capstone.

Bachelor of Arts in Philosophy

The mission of the philosophy program is to foster greater understanding and appreciation of the value of philosophical inquiry and the examination of perennial questions about the nature of human experience, the purpose of human endeavors individually and communally, and the value of knowledge. We create diverse educational experiences that develop ethical, intellectually curious students who are invested in their communities. By developing critical, logical, and creative thinking, sound judgment, and effective civil

communication, we produce students who can engage their philosophical reasoning in the service of solving real-world problems, attending to the ethical issues and theoretical complexities of purpose, policy, and implementation.

A major in philosophy is ideal for students who plan to enter the field of philosophy, law, professional or medical ethics, the ministry, or other fields requiring a liberal arts background.

The major consists of 30 semester hours, including:

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics Requirement (PHIL 2619)		
Arts and Humanities (6 s.h. met with PHIL 1560 and PHIL 3711 in major)		
Natural Sciences (2 courses, 1 with lab)		7
Social Science (2 courses)		6
General Education Electives (Any 3 Gen Ed courses)		9
Foreign Language Requirement		
FNLG 1501	Conversational Foreign Language 1	3
FNLG 1502	Conversational Foreign Language 2	3
Major Requirements		
PHIL 1560	Introduction to Philosophy	3
PHIL 2619	Introduction to Logic	3
PHIL 2612	Ancient & Medieval Philosophy	3
PHIL 3702	History of Modern Philosophy	3
PHIL 3711	General Ethics	3
PHIL 4820	Seminar in Philosophy	3
Philosophy Electives (Three additional courses in Philosophy, 2 of which must be at the 3700-level or 4800-level.)		9
PHIL 4861	Senior Capstone Project	3
or PHIL 4820	Seminar in Philosophy	
Minor		12
Electives Must complete a minimum number of electives to meet the 120sh total graduation requirement		43
Total Semester Hours		120-122
Year 1		
Fall		
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
PHIL 1560	Introduction to Philosophy	3
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
FNLG 1501	Conversational Foreign Language 1	3
Gen Ed Elective		3
Semester Hours		13-15
Spring		
PHIL 2612	Ancient & Medieval Philosophy	3
Social Science Gen Ed		3
ENGL 1551	Writing 2	3
FNLG 1502	Conversational Foreign Language 2	3

Elective	4
Semester Hours	16
Year 2	
Fall	
PHIL 2619 Introduction to Logic	3
Natural Science Gen Ed	3
Minor Course	3
Elective	3
Elective	3
Semester Hours	15
Spring	
PHIL 3702 History of Modern Philosophy	3
Social Science Gen Ed	3
Minor 15XX/26XX course	3
Natural Science plus lab 15XX/26XX	4
Gen Ed Elective	3
Semester Hours	16
Year 3	
Fall	
PHIL 3711 General Ethics	3
PHIL Elective 37XX	3
Minor course	3
Gen Ed Elective	3
Elective 37XX	3
Semester Hours	15
Spring	
PHIL Elective 37XX	3
Minor course	3
Elective	3
Elective 37XX	3
Elective 37XX	3
Semester Hours	15
Year 4	
Fall	
PHIL 4820 Seminar in Philosophy	3
Minor 37XX course	3
Elective	3
Elective 37XX	3
Elective 37XX	3
Semester Hours	15
Spring	
PHIL 4861 Senior Capstone Project	3
Minor 37XX course	3
PHIL Elective	3
Elective 37XX	3
Elective 37XX	3
Semester Hours	15
Total Semester Hours	120-122

- Demonstrated ability to engage in charitable reading (willingness to consider alternative and plausible interpretations of an author's work) and to consider arguments from the standpoint and experience of others (suspend one's personal views).
- Master the basics of theoretical writing, including the development of precise definitions, effective analysis of texts, traditions, and theoretical positions, and effective development, defense, and critique of arguments.
- Demonstrated ability to revise beliefs, ideas, and arguments when presented with new sources, criticism, and evidence or to withhold judgment in the absence of reasons (reasonable disagreement and intellectual humility).

Minor in Islamic Studies

NO STUDENTS WILL BE ACCEPTED TO THIS PROGRAM AS OF SPRING 2023

COURSE	TITLE	S.H.
REL 2601	Introduction to World Religions	3
REL 3720	The World of Islam	3
REL 3740	Muslim Thinkers and Mystics	3
Select 9 s.h. of the following:		9
REL 3743	Reform, Revolt, or Revolution in Islam	
REL 3744	Islamic Culture and Literature	
REL 3748	Islam and the West	
REL 4850	(on appropriate topic, requiring approval by the Director of the Center for Islamic Studies)	
Total Semester Hours		18

Minor in Philosophy

COURSE	TITLE	S.H.
PHIL 1560	Introduction to Philosophy	3
Select at least 6 s.h. from the following:		6
PHIL 1561	Technology and Human Values	
PHIL 1565	Critical Thinking	
PHIL 2619	Introduction to Logic	
PHIL 2625	Introduction to Professional Ethics	
Select at least 3 s.h. from the following:		3
PHIL 2612	Ancient & Medieval Philosophy	
PHIL 3702	History of Modern Philosophy	
Select at least 3 s.h. from the following:		3
PHIL 3711	General Ethics	
PHIL 3719	Symbolic Logic	
Any 3700- or 4800-level course in philosophy		3
Total Semester Hours		18

Minor in Professional Ethics

COURSE	TITLE	S.H.
PHIL 1560	Introduction to Philosophy	3
PHIL 2625	Introduction to Professional Ethics	3
PHIL 3711	General Ethics	3
Select at least nine s.h. from the following, of which one must be upper level:		9
PHIL 1561	Technology and Human Values	
PHIL 2610	Global Ethics	
PHIL 2626	Engineering Ethics	
PHIL 2627	Law and Criminal Justice Ethics	
PHIL 2628	Business Ethics	
PHIL 2631	Environmental Ethics	

Learning Objectives

- Demonstrated reasoning ability (competently utilize principles of critical thinking, including assessment of definitions, recognition of fallacies, and application of the principles of good inductive and deductive reasoning).
- Demonstrated ability to articulate philosophical ideas and arguments (clarity, nuance, and sophistication of content) and knowledge of seminal figures in history who espouse them.

PHIL 2635	Ethics of War and Peace
PHIL 3725	Biomedical Ethics
PHIL 3735	

Total Semester Hours**18**

Minor in Religious Studies

NO STUDENTS WILL BE ACCEPTED TO THE PROGRAM AS OF SPRING 2023

COURSE	TITLE	S.H.
REL 2601	Introduction to World Religions	3
REL 4825	Methods and Study of Religion	3
Select four additional Religious Studies courses (12 s.h.), at least one of which (3 s.h.) must be at the 3700-level or 4800-level.		12
Total Semester Hours		18

Politics and International Relations / Rigelhaupt Pre-Law Center

The program of Politics and International Relations is housed on the fourth floor of DeBartolo Hall. The professors who make up the program are considered experts in their fields and are often quoted in regional, national, and international publications.

In addition to the Political Science major, students can choose to focus on two additional areas: Public Management or Foreign Affairs. When receiving their degree, students will be given a certificate by the department certifying that they have completed either the Foreign Affairs or the Public Management track described in this Undergraduate Catalog. Four areas of study are offered as minors.

Politics and International Relations includes many programs and student organizations. The Urban Internship Program, Peace and Conflict Studies, the Global Education Program, and the Columbus Internship Program offered in conjunction with the State Legislature are just four examples of curricular programs. An annual Law Day is organized by the program faculty, which brings in Law School representatives from throughout the country to YSU to discuss admission criteria and answer questions. The program also prepares a Moot Court team each year, which is nationally rated and competes in regional and national tournaments sponsored by the American Collegiate Moot Court Association.

The program is also home to Alpha Alpha Rho, YSU's local chapter of Pi Sigma Alpha, the National Political Science Honor Society.

For more information, please contact the Department of Humanities and Social Sciences at (330) 941-3456 or call the program offices at (330) 941-3436.

Pre-Law

Pre-Law Advisor: Dr. Paul Sracic

Pre-Law advisement is available in the Rigelhaupt Pre-Law Center to acquaint students with the various fields of legal practice, which require specialized undergraduate study, and to help students prepare for the law school entrance examination (LSAT).

Law school admission standards generally require an undergraduate point average of at least 3.00 and placement above the 50th percentile in the Law School Admissions Test, which is designed to measure capacity for analytic thought and for precision in the use of language. Regional and national law schools may have more rigorous requirements. Interested students are advised to visit the Law School Admission Council's (LSAC) website.

Professor

Adam L. Fuller, Ph.D., Associate Professor

Cryshanna A. Jackson Leftwich, Ph.D., Professor

Paul A. Sracic, Ph.D., Professor

Majors

- Political Science Major (<https://catalog.ysu.edu/undergraduate/colleges-programs/college-liberal-arts-social-sciences-education/departments-politics-international-relations-prelaw-center/political-science-major/>)
- Foreign Affairs Track (<https://catalog.ysu.edu/undergraduate/colleges-programs/college-liberal-arts-social-sciences-education/departments-politics-international-relations-prelaw-center/foreign-affairs-major/>)
- Public Management Program (<https://catalog.ysu.edu/undergraduate/colleges-programs/college-liberal-arts-social-sciences-education/departments-politics-international-relations-prelaw-center/public-management-program/>)

Minors

- Minor in Peace and Conflict Studies (<https://catalog.ysu.edu/undergraduate/colleges-programs/college-liberal-arts-social-sciences-education/departments-politics-international-relations-prelaw-center/peace-conflict-studies-minor/>)
- Minor in Political Science (<https://catalog.ysu.edu/undergraduate/colleges-programs/college-liberal-arts-social-sciences-education/departments-politics-international-relations-prelaw-center/political-science-minor/>)
- Minor in American Politics (<https://catalog.ysu.edu/undergraduate/colleges-programs/college-liberal-arts-social-sciences-education/departments-politics-international-relations-prelaw-center/political-science-minor/>)
- Minor in Foreign Affairs (<https://catalog.ysu.edu/undergraduate/colleges-programs/college-liberal-arts-social-sciences-education/departments-politics-international-relations-prelaw-center/foreign-affairs-minor/>)

POL 1550 Introduction to Political Science 3 s.h.

Study of politics, government, and societal institutions at both national and international levels.

Gen Ed: International Perspectives, Social Science, Social and Personal Awareness.

POL 1550H Honors Introduction to Political Science 3 s.h.

Study of politics, government, and societal institutions at both national and international levels.

Gen Ed: International Perspectives, Social Science, Social and Personal Awareness.

POL 1560 American Government 3 s.h.

The foundations of American democratic government with an emphasis on the responsibilities of citizenship, civil rights, and civil liberties, parties and elections, and American political institutions. Students are encouraged to understand and discuss issues of social justice, equality and freedom, and majoritarianism. Topics include the civil rights movement, campaign finance reform, federalism, and affirmative action.

Gen Ed: Social Science.

POL 2640 Contemporary World Governments 3 s.h.

A comparative analysis of the development of institutions, attitudes, public policy, economic, and social systems of a number of foreign political systems.

Prereq.: POL 1550 or POL 1560.

Gen Ed: International Perspectives, Social Science, Social and Personal Awareness.

POL 2660 International Relations 3 s.h.

An examination of theoretical and practical issues in the development of modern international politics, law and organization and political economy, with special attention to contemporary global and regional issues.

Gen Ed: International Perspectives, Social Science, Social and Personal Awareness.

POL 2695 Model United Nations 1 s.h.

A comparative study of foreign policy, contemporary global issues, international law, and international governmental organizations. Stresses interactive and role playing educational methodologies. Students are required to participate in one or more approved conference or field trips. May be repeated to a maximum of 3 s.h.

Prereq.: Consent of instructor.

POL 3700 American Presidency 3 s.h.

An examination of the role of the chief executive officer within the governmental framework. The offices of mayor and governor are treated, but the primary emphasis is on critical evaluation of the American presidency.

Prereq.: POL 1560.

POL 3701 American Legislative Process 3 s.h.

An examination of the lawmaking function. Emphasis on the United States Congress, with limited consideration of state and local government legislative practices.

Prereq.: POL 1560.

POL 3702 Law and Society 3 s.h.

The American judicial system, its institutional development and its role in policy determination, as evidenced in leading Supreme Court decisions. Limited coverage of state judicial systems.

Prereq.: POL 1560.

POL 3704 American Political Parties and Elections 3 s.h.

A descriptive analysis of the role of political parties in a democratic society, with emphasis on development of a theory of party, an examination of the history and characteristics of the American party system, and a quantitatively structured description of the national electorate.

Prereq.: POL 1560.

POL 3706 African-American Politics 3 s.h.

The politics of African Americans within American society in terms of organization, behavior, objectives, relative influence and power.

Prereq.: POL 1560 or AFST 2600.

POL 3707 Moot Court 1 3 s.h.

An introduction to appellate advocacy through the practical application of legal analysis and synthesis. This course analyzes one or two specific constitutional issues based on pre-determined U.S. Supreme Court cases. Students will analyze and synthesize Supreme Court decisions and present simulated oral argument as if before the U.S. Supreme Court based on those decisions. May be repeated for a maximum of 6 s.h.

Prereq.: POL 3702 and consent of chairperson.

POL 3708 American Constitutional Law 1: Government Power, Structure, and Limits 3 s.h.

Constitutional interpretations by the Supreme Court based on the examination of leading cases. Focus is on the powers of Congress, the President, the Courts, and the States.

Prereq.: POL 3702.

POL 3709 American Constitutional Law 2: Civil Rights and Liberties 3 s.h.

Constitutional interpretations by the Supreme Court based on the examination of leading cases. Focus is on Civil Rights and Liberties.

Prereq.: POL 3702.

POL 3712 Political Behavior 3 s.h.

An introduction to the primary research theories, perspectives and methodologies common to the study of government and global affairs, including computerize quantitative analysis.

Prereq.: POL 1550 or POL 1560.

POL 3714 American Public Opinion 3 s.h.

An introduction to the origins, uses, effects, and analysis of public opinion, including a practicum in opinion polling requiring field work and computerized quantitative analysis.

Prereq.: POL 1550 or POL 1560.

POL 3717 Health Care Policy 3 s.h.

A comprehensive overview of the American healthcare system. Particular attention given to the design and implementation of the Affordable Care Act.

Prereq.: BIO 1545 or EMS 1501 or MATC 2600 or MLT 1501 or AHLT major or POL 1560 or permission of instructor 3 s.

POL 3718 American Public Policy and Policy Analysis 3 s.h.

The formation, implementation, and evaluation of contemporary American public policy.

Prereq.: POL 1560.

POL 3720 Public Management 3 s.h.

A study of administrative organizations in American federal and state governments, with special attention to their role in the formulation and implementation of public policy as demonstrated in case studies.

Prereq.: POL 1560.

POL 3722 State and Local Government 3 s.h.

The political processes and institutions of state and local governments, with special attention to Ohio government.

Prereq.: POL 1560.

POL 3724 Public Budgeting 3 s.h.

Study of the politics, theories, and techniques of public budgeting. Includes the process of budget preparation, adoption and execution. Topics include debt management and capital budgets. This course is.

Prereq.: POL 3720.

Cross-Listed: ECON 3724.

POL 3725 Individualized Study 1-3 s.h.

A supervised individual study of a special topic or issue in any area of contemporary politics and political science. An academic plan of study including a syllabus is required and will be placed in the student's file. May be repeated for up to 6 s.h.

Prereq.: POL 1560 or POL 2640 or POL 2660, and permission of the chairperson.

POL 3741 Russia and China: From Revolution to Reform 3 s.h.

A comparative analysis of politics in the Russian Federal Republic and the People's Republic of China, emphasizing contemporary issues of domestic governance and regional international relations as seen in the context of revolutionary Communism and the appearance of post-Communist reform politics.

Prereq.: POL 2640 or POL 2660 or ASST 1550.

POL 3742 Political Development and Political Regimes 3 s.h.

A comparative analysis of political development of selected states, with a focus on the social and political forces that lead to the formation of democracies and dictatorships.

Prereq.: POL 2640 or POL 2660.

POL 3744 European Politics 3 s.h.

Comparative analysis of the political development, governing systems, political behavior, public policy, and interrelations of selected European states, emphasizing the role of the European Union and the formation of new democracies in Eastern Europe.

Prereq.: POL 2640 or POL 2660.

POL 3751 Latin American Politics 3 s.h.

A comparative analysis of the political development, governing systems, political behavior, public policy, and international relations of selected Latin American states.

Prereq.: POL 2640 or POL 2660.

POL 3757 Aging and Social Policy 3 s.h.

Critical examination of the social policies and social systems which affect aging and retirement.

Prereq.: SOC 1500, GERO 1501, or POL 1560.

POL 3760 International Political Economy 3 s.h.

Study of the relationship between global capitalism and the interstate political system, with emphasis on post-Cold War issues and American policy.

Prereq.: POL 2660.

POL 3761 United States Foreign Policy 3 s.h.

Examination of the domestic political formulation and international execution of U.S. foreign policy, emphasizing regional issues of security and political economy and the changing U.S. role in the post-Cold War world.

Prereq.: POL 2640 or POL 2660.

POL 3763 International Law 3 s.h.

Analysis of the principles and formation of international law as it has developed through customs and international agreement.

Prereq.: POL 2640 or POL 2660.

POL 3764 International Organizations 3 s.h.

Analysis of the development, organizational structure, public policy and political behavior of regional and international organizations, with focus on the United Nations.

Prereq.: POL 2640 or POL 2660.

POL 3765 Israeli Politics 3 s.h.

A survey of the government and politics of the state of Israel, focusing on the role of Zionism, the various Israeli political parties, the problems of Israel's lack of a constitution, the operations of the Israeli parliamentary system, and the social, religious, economic, ethnic, cultural and foreign policy debates within Israeli government.

Prereq.: POL 2640 or POL 2660 or HIST 1512 or HIST 3788 or HIST 3789 or HIST 2600.

POL 3767 Asian Politics 3 s.h.

A comparative analysis of the political development, governing systems, political behavior, public policy, and international relations of selected Asian states, with emphasis on their role in the global economy relative to the U.S.

Prereq.: POL 2640 or POL 2660.

POL 3768 International Conflict 3 s.h.

Examination of the dynamics of international political conflict, with special attention to issues of the use of force, the nature of ethnopositional conflict, and the relative effectiveness of various approaches to negotiation, conflict management, and conflict resolution.

Prereq.: POL 2660.

POL 3785 Political Thought 1 3 s.h.

The development of western political thought from the time of classical Greece through the Medieval period. Among major figures treated: Plato, Aristotle, Cicero, Augustine, Aquinas, and Machiavelli.

Prereq.: 9 s.h. of Political Science.

POL 3786 Political Thought 2 3 s.h.

The development of western political thought from the Renaissance to the Modern period. Among the major figures treated: Hobbes, Locke, Rousseau, Burke, Smith, Publius, Tocqueville, and Mill.

Prereq.: 9 s.h. of Political Science.

POL 3787 Political Thought 3 3 s.h.

The development of western political thought of the 19th and 20th centuries. Among the major figures treated: Hegel, Marx, Nietzsche, Arendt, and Rawls.

Prereq.: 9 s.h. of Political Science.

POL 4801 Senior Research Seminar 3 s.h.

Investigation and presentation of a research project. Students explore a research topic, using appropriate political science methods, and present their results in oral and written form.

Prereq.: 24 hours of political science.

Gen Ed: Capstone.

POL 4810 Urban Internship Seminar 2-4 s.h.

This course is designed to give students firsthand experience working in the field of public management, government, law, and/or urban public service. Intern appointments are for one semester. The intern is scheduled for fifteen (15) hours a week in the sponsor agency on a calendar confirmed with the agency supervisor. Interns are responsible to agency supervisors for satisfactory performance, as indicated by the supervisor's signature on the weekly Journal Form, and on the end-of-the-term Summary Sheet.

Prereq.: Junior or senior standing; POL 1560; and acceptance into the program by the urban internship coordinator prior to registration.

POL 4850 Sustainability, Climate Change, and Society 3 s.h.

Explores environmental, economic, and social aspects of sustainable development, with an emphasis on economy and society. Examines the roles of institutions, humans and policies in sustainable development as well as reconfiguring relationships between our institutions and the natural world. Listed also as ENST 5820.

Prereq.: Minimum junior standing.

POL 5800 Select Problems, American Government 2-4 s.h.

Seminar/capstone course examining topical issues of American Government.

Prereq.: 15 s.h. of Political Science and consent of chairperson.

POL 5860 Select Problems of Global Affairs 2-4 s.h.

Seminar/capstone course examining topical issues of contemporary global affairs and international relations. This course may be repeated once.

Prereq.: 15 s.h. of Political Science and consent of chairperson.

POL 5880 Select Problems, Political Thought 2-4 s.h.

Seminar/capstone course examining selected political issues and ideologies within the context of the broader traditions of political thought.

Prereq.: 15 s.h. of Political Science and consent of chairperson.

Bachelor of Arts in Political Science

Overview

A major in political science comprises 33 political science semester hours with the requirement that the student complete:

- a minimum of two courses in American Government
- a minimum of two courses from Comparative Government and International Relations
- one Political Thought course
- a capstone course

This degree may be earned in eight semesters if students enroll in 16 hours per semester.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics Requirement		3
Arts and Humanities (6 s.h.)		6
Natural Sciences (2 courses, 1 with lab) (6-7 s.h.)		7
Social Science (6 s.h.)		
3 s.h. are fulfilled with POL 1560 (required for the major)		
Social Science elective		3
General Education Electives (9 s.h.)		9
Foreign Language Requirement		
FNLG 1501	Conversational Foreign Language 1	3

FNLG 1502	Conversational Foreign Language 2	3
Major Requirements		
POL 1560	American Government	3
American Government		
Select one of the following:		3
POL 3700	American Presidency	
POL 3701	American Legislative Process	
POL 3702	Law and Society	
POL 3704	American Political Parties and Elections	
POL 3707	Moot Court 1	
POL 3706	African-American Politics	
POL 3717	Health Care Policy	
POL 3718	American Public Policy and Policy Analysis	
POL 3720	Public Management	
POL 3722	State and Local Government	
POL 3708	American Constitutional Law 1: Government Power, Structure, and Limits	
POL 3709	American Constitutional Law 2: Civil Rights and Liberties	
POL 3724	Public Budgeting	
POL 3725	Individualized Study	
POL 3757	Aging and Social Policy	
POL 4810	Urban Internship Seminar	
POL 5800	Select Problems, American Government	
Political Thought		
Select one of the following:		3
POL 3785	Political Thought 1	
POL 3786	Political Thought 2	
POL 3787	Political Thought 3	
POL 5880	Select Problems, Political Thought	
Contemporary and International		6
select two of the following		
POL 2640	Contemporary World Governments (Social Science/ Social and Personal Awareness)	
POL 2660	International Relations (Social Science/Social and Personal Awareness)	
POL 3741	Russia and China: From Revolution to Reform	
POL 3744	European Politics	
POL 3760	International Political Economy	
POL 3761	United States Foreign Policy	
POL 3763	International Law	
POL 3764	International Organizations	
POL 3765	Israeli Politics	
POL 3767	Asian Politics	
POL 5860	Select Problems of Global Affairs	
Capstone Course		
POL 4801	Senior Research Seminar	3
Additional Required Hours		
Select a minimum of 15 s.h. (total 33 s.h. in Political Science).		15
Electives		28
Minor Requirements		18
Total Semester Hours		120-122

Year 1		
Fall		
YSU 1500	Success Seminar	S.H. 1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
POL 1560	American Government	3
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
MATH 2623	Quantitative Reasoning	3
FNLG 1501	Conversational Foreign Language 1	3
Semester Hours		13-15
Spring		
POL 2640	Contemporary World Governments	3
POL 2660	International Relations	3
ENGL 1551	Writing 2	3
FNLG 1502	Conversational Foreign Language 2	3
GER Elective		3
Semester Hours		15
Year 2		
Fall		
POL 37XX	Domestic Politics	3
POL 37XX	Dom. or Intl.	3
Minor 15XX/26XX		3
Natural Science 15XX/26XX		3
Social Science 15XX/26XX		3
Semester Hours		15
Spring		
POL 37XX	Dom. or Intl	3
POL 37XX	Dom. or Intl	3
Minor 15XX/26XX		3
Natural Science + Lab 15XX/2600		4
GER Elective		3
Semester Hours		16
Year 3		
Fall		
POL 3785	Political Thought 1	3
or POL 3786	or Political Thought 2	
or POL 3787	or Political Thought 3	
POL 37XX	Dom. or Intl	3
Minor 37XX		3
Minor 37XX		3
Arts and Humanities 15XX/26XX		3
Semester Hours		15
Spring		
POL 37XX	Dom or Intl	3
POL 37XX	Dom on Intl	3
Elective 37XX		3
Elective 37XX		3
Arts and Humanities 15XX/26XX		3
Semester Hours		15
Year 4		
Fall		
POL 37XX		3
Minor 37XX		3
Elective		4
Elective		4

Elective	3
Semester Hours	17
Spring	
POL 4801 Senior Research Seminar	3
Elective 37XX	3
Elective	3
Elective	5
Semester Hours	14
Total Semester Hours	120-122

Learning Outcomes

The department's learning outcomes for political science majors are as follows:

- Students will be able to summarize fundamental components of knowledge that have developed in relation to areas of political theory, American government, comparative politics, and international relations.
- Students will recognize and explain the fundamental ideas and constitutional principles that have shaped the American Republic, as well as the institutions and behaviors that provide the setting and substance of American politics.
- Students will recognize and explain the basic ideas, problems and processes of comparative politics and international relations relative to issues of Western and non-Western political development, different forms of national government, and foreign policy behaviors relative to a global economy.
- Students will use and apply the Style Manual of the American Political Science Association (APSA) in conjunction with their research and writing skills associated with the creation of credible political science projects.

Foreign Affairs

The Foreign Affairs Track provides students with a broad background and understanding of international relations and comparative politics. Students study patterns of conflict and cooperation among nations, international organizations, and other international actors while developing a broader understanding of the problems of governance, justice, economic development, and political stability.

The program is designed to accommodate students seeking careers in such fields as diplomacy, international security, humanitarian and technical assistance, international education, international trade, and public affairs.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS SEMINAR		
YSU 1500	Success Seminar	1-2
or SS 1500	Strong Start Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Mathematics Requirement		3-4
Arts and Humanities		6
Natural Science		6-7
Social Science (Met in Major - POL 1560, ECON 1501)		0
Social and Personal Awareness (Met in Major - HIST 1512, POL 2640)		0
Foreign Language Requirement		8
FNLG 1550	Elementary Foreign Language (or FNLG 1505)	
FNLG 2600	Intermediate Foreign Language (or FNLG 1506)	

Major Requirements

Select one course from each of the following:

Economics	3
ECON 1501	Economics in Action
For students minoring in Economics, one of the following may be substituted:	
ECON 2610	Principles 1: Microeconomics (For students minoring in Economics)
ECON 2630	Principles 2: Macroeconomics (For students minoring in Economics)

Geography	3
GEOG 2626	World Geography
GEOG 3713	Geography of South America
GEOG 3715	Geography of Middle America
GEOG 3717	Geography of Europe

History	3
HIST 1512	World Civilization from 1500

Required Political Science Courses

POL 1560	American Government	3
POL 2640	Contemporary World Governments	3
POL 2660	International Relations	3
One additional Upper-level course in American Government		3
POL 4801	Senior Research Seminar	3

Political Thought

Select one of the following:		3
POL 3785	Political Thought 1	
POL 3786	Political Thought 2	
POL 3787	Political Thought 3	

Upper-Division Courses

Select a total of 15 s.h. from the courses listed below. A minimum of 6 s.h. must be taken from International relations area and a minimum of 6 s.h. from the Comparative Politics area.

International Relations

Select 2-3 of the following:	
POL 3760	International Political Economy
POL 3761	United States Foreign Policy
POL 3763	International Law
POL 3764	International Organizations
POL 3768	International Conflict

Comparative Politics

Select 2-3 of the following:	
POL 3741	Russia and China: From Revolution to Reform
POL 3742	Political Development and Political Regimes
POL 3744	European Politics
POL 3751	Latin American Politics
POL 3767	Asian Politics

Electives (Minimum 27)	27
Minor Requirements	18
Total Semester Hours	120-124

Public Management Program

The public management track is designed to provide a broad background in government and economics for students who plan a career in national, state, or local government. The program also gives students exposure to specific skills.

This major is designed to prepare students to directly enter the workforce in the public sector, pursue a master of public administration, and pursue careers in the non-profit sector.

Professional training of public servants contributes to the fulfillment of the Mission of Youngstown State University, which states that the "University and public service are seen, not only as interrelated, but also as fundamental to endeavors both within and outside the University."

Because of the required area specialty, a minor is not required for this track.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or SS 1500	Strong Start Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
Mathematics Requirement		
Arts and Humanities		6
Natural Science		7
Social Science (Met in Major - POL 1560, ECON 2610)		0
Social and Personal Awareness		6
Foreign Language Requirement		
FNLG 1550	Elementary Foreign Language (or FNLG 1505)	8
FNLG 2600	Intermediate Foreign Language (or FNLG 1506)	
Major Requirements		
POL 1560	American Government	3
ECON 2610	Principles 1: Microeconomics	3
ECON 2630	Principles 2: Macroeconomics	3
ECON 3702	Public Finance	3
POL 3718	American Public Policy and Policy Analysis	3
POL 3720	Public Management	3
POL 3722	State and Local Government	3
POL 3724	Public Budgeting	3
POL 4801	Senior Research Seminar	3
ACCT 2602	Financial Accounting	3
SOC 3701	Social Statistics	4
Select one of the following:		3
POL 3785	Political Thought 1	
POL 3786	Political Thought 2	
POL 3787	Political Thought 3	
Select one of the following:		
MGT 3725	Fundamentals of Management	3
or MGT 3750	Managing Individuals in Organizations	
Select 9 additional credits to define an area specialty. See the Coordinator of Politics and International Relations for details.		9
MINOR		14-18
Electives (Minimum 29 s.h.)		29
Total Semester Hours		120-125
Year 1		
Fall		
YSU 1500	Success Seminar	1
POL 1560	American Government	3
ENGL 1550	Writing 1	3

MATH 2623	Quantitative Reasoning	3
FNLG 1550	Elementary Foreign Language	4
Semester Hours		14
Spring		
POL 2640	Contemporary World Governments	3
POL 2660	International Relations	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
FNLG 2600	Intermediate Foreign Language	4
Semester Hours		16
Year 2		
Fall		
Arts and Humanities 15XX/26XX		3
Social and Personal Awareness 15XX/26XX		3
ECON 2610	Principles 1: Microeconomics	3
Natural Science 15XX/26XX		3
Social Science 15XX/26XX		3
Semester Hours		15
Spring		
POL 3785-87 Political Thought		3
POL 37XX Domestic or International		3
ECON 2630	Principles 2: Macroeconomics	3
Natural Science + Lab 15XX/26XX		3
Social and Personal Awareness 15XX/26XX		3
Semester Hours		15
Year 3		
Fall		
POL 3722	State and Local Government	3
POL 3720	Public Management	3
ACCT 2602	Financial Accounting	3
ECON 3702	Public Finance	3
Arts and Humanities 15XX/26XX		3
Semester Hours		15
Spring		
POL 3718	American Public Policy and Policy Analysis	3
Social Science 15XX		3
MGT 3725	Fundamentals of Management ^{OR MGT 3750} Human Behavior in Organization	3
SOC 3701	Social Statistics	4
Elective		3
Semester Hours		16
Year 4		
Fall		
POL 3724	Public Budgeting	3
POL 4810	Urban Internship Seminar	2-4
Specialty XXXX		3
Specialty XXXX		3
Specialty XXXX		3
Semester Hours		14-16
Spring		
POL 4801	Senior Research Seminar	3
Elective		3
Elective		3
Elective		3
Semester Hours		12
Total Semester Hours		117-119

Minor in American Politics

COURSE	TITLE	S.H.
POL 1560	American Government	3
Select five of the following:		15
POL 3700	American Presidency	
POL 3701	American Legislative Process	
POL 3702	Law and Society	
POL 3703		
POL 3704	American Political Parties and Elections	
POL 3714	American Public Opinion	
POL 3718	American Public Policy and Policy Analysis	
POL 3722	State and Local Government	
Total Semester Hours		18

Minor in Foreign Affairs

COURSE	TITLE	S.H.
Required Courses		
POL 1550	Introduction to Political Science	3
POL 2640	Contemporary World Governments	3
or POL 2660	International Relations	
International Relations		
Select one to three courses from the following:		3-9
POL 3760	International Political Economy	
POL 3761	United States Foreign Policy	
POL 3764	International Organizations	
POL 3763	International Law	
POL 3768	International Conflict	
Comparative Politics		
Select one to three courses from the following:		3-9
POL 3741	Russia and China: From Revolution to Reform	
POL 3742	Political Development and Political Regimes	
POL 3744	European Politics	
POL 3751	Latin American Politics	
Total Semester Hours		18

Minor in Peace and Conflict Studies

The university offers a minor in Peace and Conflict Studies with the advice and approval of the chair of the department in which the student is majoring. The multidisciplinary minor focuses on the historical, geographical, political, cultural, psychological, and philosophical dimensions of human conflict and conflict resolution, emphasizing the cross-cultural and global context of contemporary conflict situations and approaches to conflict management and resolution.

The following is a list of approved recommended courses for the minor; the minor consists of a minimum of 18 semester hours, of which at least nine must be accumulated from approved upper-division courses (number 3700 and above).

COURSE	TITLE	S.H.
Select a minimum of 18 s.h. from the following recommended courses:		18
HIST 1512	World Civilization from 1500	
HIST 4860	Select Problems in Transnational History	
REL 2601	Introduction to World Religions	
REL 2617	Introduction to Asian Religions	
GEOG 2626	World Geography	

POL 2660	International Relations	
POL 3768	International Conflict	
PHIL 2635	Ethics of War and Peace	
PSYC 3750	Special Topics in Psychology	
SOC 3708	Political Sociology	
Total Semester Hours		18

Students should consult with the program coordinator in determining the particular composition of the minor.

Students interested in further study in the program may design and pursue an Individualized Curriculum Program (ICP) in consultation with program directors. Currently, Peace and Conflict Studies has an approved ICP that allows interested students to pursue coursework in areas of global and regional studies, communications and dispute resolution, and peace strategies.

The ICP offers the possibility of a comprehensive and focused major and is especially useful to students considering graduate studies or employment with non-profit organizations that need individuals with appropriate backgrounds in conflict resolution and cross-cultural knowledge and skills.

For more information about this minor, contact (330) 941-3437.

Minor in Political Science

A political science minor will provide the student with a basic understanding of government and social institutions at the national and international level. A minor in Political Science consists of 18 semester hours:

COURSE	TITLE	S.H.
POL 1560	American Government	3
POL 2640	Contemporary World Governments	3
or POL 2660	International Relations	
Select four upper-division political science courses.		12
Total Semester Hours		18

Sociology

Welcome to the program of Sociology. We are located on the fourth floor of DeBartolo Hall in room 444 and our program phone number is 330-941-3442.

We offer a BA degree and minor in Sociology. All of our programs are hands-on, offering students opportunities for internships, fieldwork, and study abroad so that they emerge well-qualified to pursue graduate degrees and rewarding careers.

SOCIOLOGY

Sociology is the scientific study of society, human social relationships, and social institutions. At the core of sociology is the sociological imagination – a need to make the familiar strange and look beyond what is normally taken-for-granted to more nuanced understandings of social life. Much like society itself, sociological investigations are diverse, covering everything from the analysis of strangers interacting on the street to global social movements. The Sociology Program at YSU gives students a broad education in the field of sociology, emphasizing contemporary issues related to inequality, social institutions, gender and the family, deviance and criminology, aging, and research. Students learn how to think critically about human social life, seek answers to research questions, and help others understand how society works and how we might improve it. Our students have the opportunity to intern with a number of local and regional organizations, such as the Northeast Ohio Coalition Against Human Trafficking and Compass Community and Family Services.

Chair

Loren R. Lease, Ph.D., Professor, Chair

Professor

Amanda Fehlbaum, Ph.D., Associate Professor

Qi Jiang, Ph.D., Professor

Matt O'Mansky, Ph.D., Associate Professor

Major:

- Major in Sociology (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-liberal-arts-social-sciences-education/departments-sociology/ba-sociology/>)

Minor:

- Minor in Sociology (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-liberal-arts-social-sciences-education/departments-sociology/sociology-minor/>)

SOC 1500 Introduction to Sociology 3 s.h.

An introduction to the science of human societies and groups: analysis of the structures, functions, and processes that bring about changes in societies, groups, communities, classes, and institutions.

Gen Ed: Social Science.

SOC 1500H Honors Introduction to Sociology 3 s.h.

An introduction to the science of human societies and groups: analysis of the structures, functions, and processes that bring about changes in societies, groups, communities, classes, and institutions.

Gen Ed: Social Science.

SOC 2601 Social Problems 3 s.h.

A sociological overview of various contemporary social issues, analyzing significant discrepancies between standards of expectation and actual social behavior, attempting to ascertain possible causes, and discussing trends and possible changes.

Gen Ed: Social Science.

SOC 2630 Criminology 3 s.h.

Study of the social context of crime in America. Review of historical theories offered in explanation of criminal behavior.

SOC 2640 Gender in Society 3 s.h.

Sociological analysis of gender role issues by major institutions of society, including political, educational, economic and legal systems as well as media and the family. Focus is on effects of stratification, culture, gender norms, and the socialization process.

Cross-Listed: WMST 2640.

Gen Ed: Domestic Diversity, Social Science, Social and Personal Awareness.

SOC 2650 Human Trafficking 3 s.h.

An introduction to human trafficking by exploring the social constructs that define the sex and labor trade and understanding how social institutions support them. Topics include identifying traffickers, buyers and victims/survivors; legislation; state and local responses; coalitions and law enforcement; and society's efforts to prevent trafficking in persons.

Gen Ed: Social Science.

SOC 2690 Identities and Differences 3 s.h.

A study of personal and social issues that shape the understanding and development of identity and diversity.

Gen Ed: Domestic Diversity, Social and Personal Awareness.

SOC 3700 Minority Groups 3 s.h.

Survey of the origins and characteristics of ethnic and racial minority groups, with emphasis on the significance of membership in such a group for in-group, out-group, and community solidarity.

Prereq.: SOC 1500.

Cross-Listed: AMER 3700.

SOC 3701 Social Statistics 4 s.h.

Measurement and interpretation of social data by use of descriptive techniques. Examines methods of probability theory as a basis for statistical inference, hypothesis testing, correlation, chi-square, and variance analysis.

Cross-Listed: ANTH 3701, CRIM 3710.

SOC 3705 The Family 3 s.h.

Family and kinship systems as major institutions; their development, functions, and relation to other basic institutions found in different cultures and social strata.

Prereq.: SOC 1500 or ANTH 1500.

SOC 3707 Urban Sociology 3 s.h.

A comparative study of cities of pre-industrial and industrial societies, historical and contemporary. The process of urbanization and changing urban structure and functions.

Prereq.: SOC 1500.

SOC 3708 Political Sociology 3 s.h.

The social conditions that affect government and politics and that may help to determine political order and regulate struggles for power; associations and movements leading to stability or change.

Prereq.: SOC 1500.

SOC 3720 Applied Sociology 3 s.h.

Uses of sociology in practical affairs, providing theory and data for public policy, institutional reform, social action programs, and social inventions. Contributions to architectural design, industrial engineering, community planning, and innovative legislation.

Prereq.: SOC 1500.

Cross-Listed: AMER 3720.

SOC 3731 Social Deviance 3 s.h.

Focuses on problems of drug abuse, sexual deviation, crime, and other forms of deviance. Theoretical approaches to deviant behavior; etiologies and methods of social control are explored.

Prereq.: SOC 1500 or CRJS 1500.

SOC 3733 White Collar Crime 3 s.h.

Focuses on distinguishing between various types of white collar crime, such as corporate fraud, corruption of public officials, and environmental crime. Also examines theoretical explanations for white collar crime and situates it within larger social contexts of power and status.

Prereq.: SOC 1500 or CRJS 1500.

SOC 3735 Juvenile Delinquency 3 s.h.

Social and psychological factors underlying delinquency; the juvenile court and probation; treatment and preventive measures.

Prereq.: SOC 1500 or CRJS 1500.

SOC 3736 Crime and the Life Course 3 s.h.

Examines the development, stability, and change of criminal behavior throughout different stages of the life course. Themes such as criminal trajectories, transitions, and turning points are discussed.

Prereq.: SOC 1500 or CJFS 1500.

SOC 3740 Complex Organizations 3 s.h.

Structures and processes of large-scale organizations: leadership, control techniques, tensions, bureaucratic pathologies, organizational change.

Prereq.: SOC 1500.

SOC 3741 Social Movements 3 s.h.

Analysis of the role of social movements, intellectual criticism, and socioeconomic trends; study of the dynamics of change initiated outside of regular and institutionalized channels, including mobs and crowds.

Prereq.: SOC 1500.

SOC 3743 Social Stratification and Inequality 3 s.h.

Comparative analysis of social stratification systems with major emphasis on modern Western societies.

Prereq.: SOC 1500.

SOC 3745 Sociology of Health, Illness, and Healthcare 3 s.h.

Social attitudes toward illness. Cultural and social factors in disease definition of illness, and organization of the health professions and health facilities. Listed also as GERO 3745.

Prereq.: SOC 1500, GERO 1501, or admission to NEOMED-YSU program.

Gen Ed: Well Being, Social and Personal Awareness.

SOC 3746 Sociology of the Body 3 s.h.

This course examines the body and its relationship to the self as a product of complex social arrangements and processes. The body is studied as an object of social control and as the focus of shifting race, gender, and sexual categories. Topics include health, medicine, consumerism, sports, and popular culture.

Prereq.: SOC 1500.

SOC 3747 Sociology of Sexuality 3 s.h.

Examines sexuality and how it is perceived, defined, and experienced in the context of society. Sexuality is studied as subject to social norms, attitudes, and beliefs through public and private policies, practices, and institutions. Explores how the social construction of sexuality influences both sexual and non-sexual relationships.

Prereq.: 3 semester hours in Sociology.

Cross-Listed: WMST 3747.

SOC 3749 Sociological Theory 3 s.h.

The major theoretical traditions in Sociology emerging from the enlightenment period and evolving to the present.

Prereq.: SOC 1500 or ANTH 2602.

SOC 3757 Aging and Social Policy 3 s.h.

Critical examination of social policies and social systems which affect aging and retirement. Listed also as GERO 3757 and POL 3757.

Prereq.: SOC 1500, GERO 1501, or POL 1560.

SOC 3798 Select Topics in Sociology 3 s.h.

In-depth examination of various sociological topics and issues of both current and long-standing interest. May be taken twice with different topics.

Prereq.: 3 s.h. in Sociology.

SOC 4800 Undergraduate Research 1-2 s.h.

Research participation under the direction of a faculty member. Designed to acquaint the advanced student with special research problems associated with various aspects of the discipline. May be repeated for a maximum of 4 s.h.

Prereq.: Permission of chairperson and 20 s.h. in Sociology.

SOC 4810 International Study in Sociology 3 s.h.

Sociological study of a selected international area. Travel to the area of study under the supervision of a Sociology faculty member. The course grade is based on participation in the trip and a term paper or comparable assignments. May be repeated once. Permission of the chairperson.

SOC 4821 Internship in Sociology 3-9 s.h.

Application of sociological knowledge in settings such as social agencies, government offices, hospitals, nursing homes, correctional facilities, and industry. Maximum of 6 s.h. may be applied to the Sociology major.

Prereq.: Junior standing and at least 9 s.h. of Sociology, and permission of chairperson.

SOC 4850 Research Methods 3 s.h.

An introduction to methods employed in social research. Attention is given to (1) the logic of scientific inquiry and the relationship between theory and methods; (2) the various qualitative and quantitative methods; (3) research design, data collection, organization, analysis, interpretation and application; (4) the social, cultural, political, and ethical context of social research; and (5) computer skills employed in data analysis. Listed also as ANTH 4850 or GERO 4850. **Prereq.:** SOC 3701, ANTH 3701.

SOC 4860 Senior Thesis 3 s.h.

A capstone experience for the major in sociology. Implementing and completing a quantitative or qualitative research project and/or paper on a topic approved by thesis advisor.

Prereq.: Senior status in Sociology; SOC 4850.

SOC 6900 Special Sociological Problems 3 s.h.

Advanced seminars focusing on independent study at the graduate level; social organization in a changing world; social disorganization (or deviance) and social controls; social and cultural factors in personality development; minority relationships; sociology of law; social change; and comparative institutions.

Minor in Africana Studies

Program Director: Dr. Patrick Spearman

ptspearman@ysu.edu

4409 Beeghly Hall

(330) 941-1934

The Africana Studies Minor examines the histories, politics, and cultures of people of African descent throughout the diaspora. The purpose of Africana Studies is to provide student with critical insight and analysis necessary to understanding the African and African American experience and their contributions of African people in shaping the world.

COURSE	TITLE	S.H.
AFST 2600	Introduction to Africana Studies 1	3
AFST 2601	Introduction to Africana Studies 2	3
Select two courses from the following (6 s.h.):		6
ENGL 2620	African Literature	
HIST 3750	History of Modern Africa	
HIST 3751	History of South Africa	
Select two courses from the following (6 s.h.):		6
ENGL 4871	The Black Experience in American Literature	
HIST 3730	The Black Experience in American History	
HIST 4801	Select Problems in American History	
Total Semester Hours		18

AFST 2600 Introduction to Africana Studies 1 3 s.h.

The social-historical and intellectual heritage of black people in Africa and the Americas.

Gen Ed: Domestic Diversity, Social Science, Social and Personal Awareness.

AFST 2601 Introduction to Africana Studies 2 3 s.h.

The cultural and intellectual heritage of black people in Africa and the Americas as reflected in literature, philosophy, and art.

Gen Ed: Arts and Humanities, Domestic Diversity, Social and Personal Awareness.

AFST 3700 Africana Studies Colloquium 1 3 s.h.

A social studies seminar focusing on the historic, economic, political, or social aspects of the experiences of people of African descent. May be repeated once with different content.

Prereq.: AFST 2600.

AFST 3701 Africana Studies Colloquium 2 3 s.h.

A humanities seminar focusing on the art, music, literature and/or philosophy of people of African descent. May be repeated once with different content.

Prereq.: AFST 2601.

Minor in Pre-Law

The Pre-Law minor is designed to give students an introduction to numerous types of law, criminal, Constitutional, and business. Courses will introduce students to the politics, practices, and philosophical aspects of the law. The minor is designed to be paired with any major on campus.

COURSE	TITLE	S.H.
Required Courses		9
PHIL 2619	Introduction to Logic	

CRJS 2602	Criminal Courts	
MGT 2604	Legal and Social Responsibilities of Business	
Electives		9
ANTH 3761	Cultures of the New World (Anthropology of Law)	
CRJS 3718	Family Law	
CRJS 3719	Criminal Law	
CRJS 3720	Legal Research	
CRJS 3721	Evidence	
CRJS 4890	Judicial Administration	
MGT 3714	Legal Environment of Business	
PHIL 2627	Law and Criminal Justice Ethics	
PHIL 3708	Social and Political Philosophy	
PHIL 3719	Symbolic Logic	
PHIL 3723	Philosophy of Law	
POL 3702	Law and Society	
POL 3707	Moot Court 1	
POL 3708	American Constitutional Law 1: Government Power, Structure, and Limits	
POL 3709	American Constitutional Law 2: Civil Rights and Liberties	
POL 3785	Political Thought 1	
POL 3786	Political Thought 2	
POL 3787	Political Thought 3	
Total Semester Hours		18

Minor in Women's and Gender Studies

Women's and Gender Studies Program Director

Director: Dr. Amanda Fehlbaum

Room 507 DeBartolo Hall

(330) 941-2716

wstudies@ysu.edu

The Women and Gender Studies program allows students to use interdisciplinary feminist analysis to examine and critique ideological assumptions in regards to gender as a social construct and the impact of said gender norms on social institutions. The program aims to develop a new generation of scholars and leaders who will work to acknowledge, understand, and critically interrogate human differences such as those of gender, race, class, sexuality, nation, ability, ethnicity, and religion so that difference may be respected, accommodated, and celebrated in social life and provide the skills necessary for an advancement of knowledge about the possibilities for equality and freedom for all.

The University offers a minor in Women's and Gender Studies with the advice and approval of the chair of the department in which the student is majoring. The minor requires completion of 18 hours. For information about the Women's and Gender Studies minor, contact the director or visit Women's and Gender Studies (<http://www.ysu.edu/academics/college-liberal-arts-social-sciences/womens-and-gender-studies-minor/>).

COURSE	TITLE	S.H.
WMST 2601	Introduction to Women's Studies	3
Select 15 semester hours from the courses listed below, with a minimum of 6 semester hours required at the 3700-level or above.		15
ART 1544	Survey of Art History: Body, Gender, and Self	
CHFM 3718	Family Law ¹	

CHFM 3731	Individual and Family Development	
CMST 3750	Gender Communication	
CRJS 3718	Family Law ¹	
CRJS 4850X	Special Topics in Criminal Justice Sex Crimes	
CRJS 4851	Women and Justice	
ECON 1503	Rich and Poor: Diversity and Disparity in the United States Workplace	
ENGL 2617	Women in Literature	
ENGL 2618	American Literature and Diversity	
ENGL 2618H	Honors American Literature and Diversity	
ENGL 2630	LGBTQIA Literature	
HIST 3726	History of Women in the United States	
MGT 3755	Managing Workplace Diversity	
PHIL 3713	Philosophy of the Family	
PHLT 2692	Human Sexuality ²	
PSYC 2692	Human Sexuality ²	
PSYC 3730	Psychology of Gender	
PSYC 3777	Cross-Cultural Social Psychology	
SCWK 3720	Cultural Diversity	
SOC 2640	Gender in Society	
SOC 2650	Human Trafficking	
SOC 2690	Identities and Differences	
SOC 3705	The Family	
SOC 3746	Sociology of the Body	
SOC 3747	Sociology of Sexuality	
WMST 3750	Special Topics in Women's Studies	
WMST 4850	Senior Research Project	
Total Semester Hours		18

- ¹ 1. Students may not take both CHFM 3718 and CRJS 3718 for credit for the minor
- ² 2. Students may not take both PHLT 2692 and PSYC 2692 for credit for the minor

WMST 2601 Introduction to Women's Studies 3 s.h.

Introduces key concepts, theoretical frameworks, and interdisciplinary research drawn from current scholarship about women. Concentrates on major issues relevant to the status and roles of contemporary women, including examination of effects of sexism, racism, ethnicity, and class distinction.

Gen Ed: Domestic Diversity, Social Science, Social and Personal Awareness.

WMST 2640 Gender in Society 3 s.h.

Sociological analysis of gender role issues by major institutions of society, including political, educational, economic and legal systems as well as media and the family. Focus is on effects of stratification, culture, gender norms, and the socialization process.

Cross-Listed: SOC 2640.

Gen Ed: Domestic Diversity, Social Science, Social and Personal Awareness.

WMST 3747 Sociology of Sexuality 3 s.h.

Examines sexuality and how it is perceived, defined, and experienced in the context of society. Sexuality is studied as subject to social norms, attitudes, and beliefs through public and private policies, practices, and institutions. Explores how the social construction of sexuality influences both sexual and non-sexual relationships.

Prereq.: 3 semester hours in Sociology.

WMST 3750 Special Topics in Women's Studies 3 s.h.

May be repeated for a maximum of 6 s.h. with different topics.

Prereq.: WMST 2601; or ENGL 1551 and permission of director.

WMST 4850 Senior Research Project 1-3 s.h.

Research and writing of a paper on a topic in women's studies, under the supervision of full-time faculty. Grading is Traditional/PR.

Prereq.: Senior standing, completion of 15 s.h. in Women's Studies, and permission of program director.

Certificate in Paralegal Studies

COURSE	TITLE	S.H.
ENGL 1550	Writing 1	3
or ENGL 1549	Writing 1 with Support	
CRJS 2602	Criminal Courts	3
CRJS 3718	Family Law	3
CRJS 3719	Criminal Law	3
CRJS 3720	Legal Research	3
LAW 1500	Introduction to Paralegal Studies	3
LAW 2600	Civil Litigation and Procedure	3
LAW 3701	Torts	3
LAW 3702	Contracts	3
LAW 3721	Legal Writing	3
LAW 3704	Estate Law	3
LAW 3705	Real Property/Real Estate Law	3
Total Semester Hours		36

Associate of Applied Science in Paralegal Studies

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
Math or Logic		
PHIL 2619	Introduction to Logic	3
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Arts and Humanities		
PHIL 2627	Law and Criminal Justice Ethics	3
Social Sciences		
SOC 1500	Introduction to Sociology	3
Natural Science Elective		
Major Required Courses		
LAW 1500	Introduction to Paralegal Studies	3
LAW 2600	Civil Litigation and Procedure	3
LAW 3701	Torts	3
LAW 3702	Contracts	3
LAW 3721	Legal Writing	3
CRJS 2602	Criminal Courts	3
LAW 3750	Paralegal Practicum	3
CRJS 3720	Legal Research	3
ENGL 3742	Business Writing	3
MGT 2604	Legal and Social Responsibilities of Business	3
POL 1560	American Government	3
SOC 3740	Complex Organizations	3
Electives (choose two from below)		6

CRJS 3718	Family Law	
CRJS 3719	Criminal Law	
POL 3702	Law and Society	
POL 3708	American Constitutional Law 1: Government Power, Structure, and Limits	
LAW 3704	Estate Law	
LAW 3705	Real Property/Real Estate Law	
Total Semester Hours		61-63

Department of Psychological Sciences and Counseling

Welcome to the Psychology Program

Psychology is a great major! The Bachelor of Arts Program in Psychology is the largest major in the Beeghly College of Liberal Arts, Social Sciences, and Education, and one of the most popular at YSU because an understanding of human behavior is essential for most professions and careers.

The Bachelor of Arts degree may be appropriate for students seeking:

- a general liberal arts degree
- preparation for graduate study in psychology

We have faculty who teach all major specialties of the field including clinical, personality, learning, cognitive, developmental, physiological, health, and social psychology.

As the theme of the Psychology Program is *Student and Community Success*, faculty members conduct research into topics such as resilience and protective factors; mental and physical health, wellness, and fitness; learning persistence; motivation; personal beliefs; and developing critical thinking.

We are unique because we

- are focused upon student success,
- have small classes that are mostly taught by full-time faculty members,
- conduct personal advising,
- inspire students to participate in research opportunities with faculty,
- encourage student engagement through study-abroad experiences, traveling to conferences, joining Psi Chi, and doing fieldwork / internship placements.

For more information, visit the Psychology (<http://www.ysu.edu/academics/college-liberal-arts-social-sciences/psychology-major/>) Program or call (330) 941-3401

The Bachelor of Arts in psychology can be earned in eight semesters if students average 15-16 hours per semester. Psychology majors must select an official minor as listed in the Undergraduate Catalog.

Chair

Jeffrey T. Coldren, Ph.D., Professor, Chair

Professor

David Frank, Ph.D., Assistant Professor

Carrie R. Jackson, D.Ed., Assistant Professor

James Juergensen, Ph.D., Assistant Professor

Victoria E. White Kress, Ph.D., Professor

Matthew Lindberg, Ph.D., Associate Professor

Kenneth L. Miller, Ph.D., Professor

Jake J. Protivnak, Ph.D., Professor

Madeleine Stevens, Ph.D., Assistant Professor

Ying Joy Tang, Ph.D., Assistant Professor

Richard W. VanVoorhis, D.Ed., Professor

Lecturer

David B. Fruehstorfer, Ph.D., Lecturer

Swati Sethi, M.A., Senior Lecturer

Andrea Snyder, Ph.D., Lecturer

Paul E. Yarab, Ph.D., Lecturer

Jennifer Yensel, Ph.D., Principal Lecturer

Majors

- BA in Psychology (p. 218)
-

Minors

- General Psychology Minor (p. 219)
- Developmental Psychology Minor (p. 219)
- Psychology of Mental Health Minor (p. 219)
- Counseling Minor (p. 219)

PSYC 1560 General Psychology 3 s.h.

An examination of scientific and clinical approaches to understanding the relationships between one's physical, mental, and emotional well-being, and quality of life, including the basic principles governing the growth and maintenance of behavior, emotion, and cognition.

Gen Ed: Social Science.

PSYC 1560H Honors General Psychology 3 s.h.

An examination of scientific and clinical approaches to understanding the relationships between one's physical, mental, and emotional well-being, and quality of life, including the basic principles governing the growth and maintenance of behavior, emotion, and cognition.

Gen Ed: Social Science.

PSYC 2600 Social Psychology 3 s.h.

Examination of the influence of social interactions on the thoughts, feelings, and behaviors of the individual and the group.

Gen Ed: Social Science.

PSYC 2600H Honors Social Psychology 3 s.h.

Examination of the influence of social interactions on the thoughts, feelings, and behaviors of the individual and the group.

Gen Ed: Social Science.

PSYC 2607 Psychology of Intimate Relationships 3 s.h.

Psychological principles pertaining to intimate relationships, both marital and non-marital, and family dynamics. Includes topics such as communication, problem solving, domestic violence, and sexuality.

Gen Ed: Social Science.

PSYC 2617 Research Methods for Psychology 3 s.h.

An introduction to psychological research methods. Students learn how to conduct ethical research and report their findings as well as to critically evaluate the research of others.

Prereq.: "C" or better in PSYC 1560, psychology major or minor, or consent of instructor.

PSYC 2618 Introduction to Statistics 3 s.h.

Further exploration of psychological research methods and basic statistical analysis, with emphasis on descriptive techniques and data visualization.

Prereq.: "C" or better in PSYC 2617.

PSYC 2629 Data-Based Decision Making 3 s.h.

Students will learn to make decisions and draw inferences from statistical analyses, with emphasis on hypothesis-testing and inferential techniques.

Prereq.: C or better in PSYC 2618.

PSYC 2655 Child Development 3 s.h.

Foundations of human development from conception through approximately the first decade of life. Fundamental issues of developmental processes in biological, cognitive, and social-emotional domains and their broader implications for society and later development of the individual.

Gen Ed: Social Science.

PSYC 2692 Human Sexuality 3 s.h.

An interdisciplinary approach to the study of human sexuality.

Cross-Listed: PHLT 2692.

Gen Ed: Social Science, Social and Personal Awareness.

PSYC 3700L Social Psychology Laboratory 1 s.h.

An introduction to planning and conducting social psychological research. Topics include creating participant impact while minimizing loss of control, reducing demand characteristics and experimenter bias, and enhancing mundane and experimental realism. Two hours per week.

Prereq.: PSYC 2617 with grade of "C" or better and PSYC 3700 or PSYC 3700H (may be taken concurrently).

PSYC 3702 Abnormal Psychology 3 s.h.

Patterns of deviant behavior, including current systems of classification; classic syndromes; the nature and trend of major maladjustments; possible causative factors; and methods of prevention and treatment.

Prereq.: PSYC 1560.

PSYC 3702H Honors Abnormal Psychology 3 s.h.

Patterns of deviant behavior, including current systems of classification; classic syndromes; the nature and trend of major maladjustments; possible causative factors; and methods of prevention and treatment.

Prereq.: PSYC 1560.

PSYC 3702L Abnormal Psychology Laboratory 1 s.h.

An introduction to conducting research on psychological disorders, to include a critical review of research literature, examination of case studies, and gathering field-based data. Two hours per week.

Prereq.: PSYC 2617 with grade of "C" or better and 3702 or PSYC 3702H (may be taken concurrently).

PSYC 3705 Psychology of Learning 3 s.h.

A study of the learning process with emphasis on factors such as reinforcement, respondent conditioning, discrimination, generalization, transfer, etc.; an introduction to modern learning theory.

Prereq.: PSYC 2617.

PSYC 3705L Psychology of Learning Laboratory 1 s.h.

Laboratory studies of learning processes. Students use observational and data-recording techniques relevant to investigations of learning processes. Laboratory activities include investigations of classical conditioning, reinforcement, shaping, extinction, practice effects or other phenomena. Two hours per week.

Prereq.: PSYC 2617 with grade of "C" or better and PSYC 3705 (may be taken concurrently).

PSYC 3709 Psychology of Education 3 s.h.

Principles of psychology as applied to the educational process, including characteristics of the individual learner, the classroom, the instructor, methods and techniques, and other factors in the learning process.

Prereq.: PSYC 1560.

PSYC 3712 Industrial/Organizational Psychology 3 s.h.

Principles of psychology applied to business and industry with emphasis upon both personnel and organizational behavior. Topics include job analysis, selection, performance appraisal, organizational development, job satisfaction, motivation, and leadership.

Prereq.: PSYC 2617 or equivalent.

PSYC 3720 Motivation 3 s.h.

Classical and contemporary theories of motivation. Overview of research and theory on the interactive role of biological, learned, and cognitive components in motivation of human behavior, including emotion, need for achievement, affiliation, and power.

Prereq.: PSYC 2617.

PSYC 3724 Advanced Statistical Methods in Psychology 3 s.h.

A continuation of inferential statistics: complex analysis of variance and nonparametric statistics; additional study of special correlational techniques and concepts of regression and prediction. Recommended for the student preparing to seek an advanced degree.

Prereq.: "C" or better in PSYC 2618.

PSYC 3728 Biopsychology 3 s.h.

The structural-functional relationships of the various divisions of the neural system, their relationship to the organism as a whole, and their contributions to human behavior.

Prereq.: PSYC 2617.

PSYC 3728L Physiological Psychology Laboratory 1 s.h.

An introduction to experimental methods for studying effects of environmental stimuli on brain function and behavior in animals. Two hours per week. Permit required.

Prereq.: PSYC 2617 with grade of "C" or better and PSYC 3728 (may be taken concurrently).

PSYC 3730 Psychology of Gender 3 s.h.

An exploration of psychological research and theories as they apply to gender issues. An optional lab is available.

Prereq.: PSYC 1560.

PSYC 3734 Applied Behavior Analysis 3 s.h.

Applied Behavior Analysis. Scientific and conceptual foundations of applied behavior analysis. Basic principles of behavior analysis and application in applied settings are emphasized. The behavioral approach is contrasted with other approaches to the understanding and treatment of behavior, with a focus on scientific criteria and methodological differences. Ethical standards are covered.

Prereq.: PSYC 1560.

PSYC 3740 Psychological Measurement 3 s.h.

Theories and principles of test construction, and an overview of psychological tests and questionnaires use in mental health, educational, and vocational settings.

Prereq.: PSYC 2618.

PSYC 3750 Special Topics in Psychology 3 s.h.

Selected areas of study not covered in the mainstream curriculum. May be repeated with different topics to a maximum of 9 s.h. toward the major.

Prereq.: PSYC 1560.

PSYC 3751 Special Topics in Psychology Laboratory 1 s.h.

An introduction to planning and conducting research in selected areas of study. May be repeated with different topics to a maximum of 3 semester hour toward the major.

Prereq.: PSYC 2617 with grade of "C" or better.

PSYC 3758 Lifespan Development 3 s.h.

Study of theory and research on development from conception to death. Focus upon psychological, physiological, social and cultural influences. May not be taken for credit if the student has received credit for two or more of PSYC 3755, PSYC 3756, PSYC 3757.

Prereq.: PSYC 1560.

Gen Ed: Social Science, Well Being, Social and Personal Awareness.

PSYC 3761 Cognition 3 s.h.

Experimental methods, research findings, and current theories concerned with human cognitive processes. The information-processing approach, focusing on how information is transformed, stored, manipulated, and retrieved.

Topics include attention, pattern recognition and categorization, memory, and language.

Prereq.: PSYC 2617.

PSYC 3761L Cognition Laboratory 1 s.h.

Laboratory demonstrations and experiments using research techniques in cognition. Two hours per week.

Prereq.: PSYC 2617 with grade of "C" or better.

Coreq.: PSYC 3761.

PSYC 3766 Cognitive Neuroscience 3 s.h.

This course is designed to provide students with a strong basic knowledge of the field of Cognitive Neuroscience. We will cover the foundations of the field and develop a thorough understanding of the neural bases of cognition, affect, and human behavior. Throughout this course, we will get a review of various areas of Cognitive Neuroscience, including neuroanatomy, hemispheric specialization, brain development, vision, audition, attention, language, executive functions, learning/memory, consciousness and emotion regulation, among a variety of other topics. This course will include a variety of sources including the required textbook, additional readings, and a series of podcasts/presentations.

Prereq.: PSYC 2617.

PSYC 3770 Individual Study 1-2 s.h.

Individual study of a special problem, or a review of the literature relating to a specific psychological problem or issue. A written report is required, one copy of which remains on file in the department. May be repeated for a maximum of 4 s.h. with different problems.

Prereq.: PSYC 1560 and consent of the chairperson.

PSYC 3775 Personality 3 s.h.

A critical overview of the major personality theories and theorists in the field of psychology, their application to the understanding of everyday life and a description of the pertinent research applicable to the evaluation of personality theories.

Prereq.: PSYC 1560.

PSYC 3777 Cross-Cultural Social Psychology 3 s.h.

A psychological examination of the impact of culture on individual social behavior as applied to topics such as attribution, moral reasoning, gender differences, and group dynamics.

Prereq.: PSYC 3700 or ASST 1550.

PSYC 3779 Careers in Psychology 3 s.h.

Overview of professional development, including information on career preparation, job search strategies, and graduate studies.

Prereq.: PSYC 1560.

PSYC 3780 Psychological Aspects of Disease and Death 3 s.h.

The primary factors affecting an individual's attitude toward illness, bereavement, and mortality. The psychological and physiological aspects of disease processes and death.

Prereq.: PSYC 1560.

PSYC 3785H Honors Seminar in Psychology 1 s.h.

Study of selected topics within psychology suitable to the honors program.

Prereq.: Admission to the Psychology Honors Program, permit required.

PSYC 3790 Field Work in Psychology 3 s.h.
Exploration of different types of work and issues encountered in professional positions within the field of psychology. Supervised field work hours (approximately 10 hours per week) will be arranged. Criminal background check is required.
Prereq.: PSYC 1560 and permission of the chair.

PSYC 4800 Introduction to Psychotherapy 3 s.h.
A critical overview of major psychotherapeutic approaches to mental health including an evaluation of empirical validity. Students will develop an increased sensitivity to multicultural and ethical issues.
Prereq.: PSYC 3702 or PSYC 3775.

PSYC 4815 Health Psychology 3 s.h.
Psychosocial factors that affect the promotion and maintenance of health, as well as the prevention and treatment of illness.
Prereq.: 6 s.h. of 3700-level PSYC courses.

PSYC 4835 Special Topics in Developmental Psychology 3 s.h.
Advanced and specialized topics in developmental psychology. Topics vary over semesters, and may include the study of infancy, the development of exceptional children, cross-cultural developmental psychology, among others. May be repeated with different topics to a maximum of 6 s.h. toward the major.
Prereq.: PSYC 3755 or PSYC 3756 or PSYC 3757 or PSYC 3758.

PSYC 4841 History of Psychology 3 s.h.
The development of scientific psychology, with major emphasis on trends since the mid-19th century.
Prereq.: 9 s.h. of psychology.

PSYC 4850 Seminar 3 s.h.
Major topics in psychology selected by the instructor not covered in other courses.
Prereq.: C or better in PSYC 2617.

PSYC 4890 Thesis 1-2 s.h.
Data collection and a research paper on a topic approved by the thesis advisor. This project takes two semesters to complete. Must be repeated for a maximum of 3 s.h. in the psychology major.
Prereq.: Grade of "C" or better in PSYC 2619 & consent of thesis advisor & chair.

PSYC 4891H Honors Thesis 1-2 s.h.
The student prepares an empirical research paper on a topic approved by an honors thesis advisor and honors thesis committee. May be repeated for a maximum of 3 s.h. in the psychology major.
Prereq.: C or better in PSYC 2619, consent of thesis advisor & chair, and admission into the Honors Program.

PSYC 4895 Senior Psychology Capstone Experience 2 s.h.
A capstone experience for the major in psychology.
Prereq.: Senior status, grade of "C" or better in PSYC 2618, one PSYC lab course, and consent of thesis advisor and chair.
Gen Ed: Capstone.

Bachelor of Arts in Psychology

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics Requirement		3
Arts and Humanities (6 s.h.)		6
Natural Sciences (2 courses, 1 with lab) (6-7 s.h.)		7

Social Science (6 s.h., 3 s.h. hours is covered in the major)		3
General Education Electives (Select 6 s.h.)		6
CMST 1545	Communication Foundations	3
Major Requirements		
PSYC 1560	General Psychology	3
PSYC 2617	Research Methods for Psychology	3
PSYC 2618	Introduction to Statistics	3
PSYC 2629	Data-Based Decision Making	3
PSYC 3702	Abnormal Psychology	3
PSYC 2600	Social Psychology	3
PSYC 3758	Lifespan Development	3
or PSYC 2655	Child Development	
PSYC 3728	Biopsychology	3
or PSYC 3766	Cognitive Neuroscience	
PSYC 3761	Cognition	3
or PSYC 3705	Psychology of Learning	
PSYC 4850	Seminar	3
Major Electives		
Select 9 hours in any course applicable to the major.		9
Minor Requirement		18
Electives		28
Total Semester Hours		120-122

Note: Remedial coursework needs to be taken first and will most likely require students to attend summer sessions in order to complete a BA in Psychology within four years.

Year 1		
Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
PSYC 1560	General Psychology	3
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
CMST 1545	Communication Foundations	3
GER Arts and Humanities		3
GER Elective		3
Semester Hours		16-18
Spring		
PSYC 2617	Research Methods for Psychology	3
PSYC 2600	Social Psychology	3
ENGL 1551	Writing 2	3
MATH 2623	Quantitative Reasoning	3
GER Arts and Humanities Course		3
Semester Hours		15
Year 2		
Fall		
PSYC 2618	Introduction to Statistics	3
PSYC 3702	Abnormal Psychology	3
GER Natural Science Course with Lab		4
GER Social Science		3
GER Elective		3
Semester Hours		16
Spring		
PSYC 2629	Data-Based Decision Making	3

PSYC 3728 or PSYC 3766	Biopsychology or Cognitive Neuroscience	3
GER Natural Science Course		3
Elective		3
Minor Course		3
Semester Hours		15
Year 3		
Fall		
PSYC 3728 or PSYC 3766	Biopsychology or Cognitive Neuroscience	3
PSYC Elective		3
Minor Course		3
Electives		6
Semester Hours		15
Spring		
PSYC 3761 or PSYC 3705	Cognition or Psychology of Learning	3
PSYC 3758 or PSYC 2655	Lifespan Development or Child Development	3
PSYC Elective		3
Minor Course		3
Electives		3
Semester Hours		15
Year 4		
Fall		
PSYC 4850	Seminar	3
Minor Course		3
Electives		9
Semester Hours		15
Spring		
PSYC Elective		3
Minor Course		3
Minor Course		3
Electives		4
Semester Hours		13
Total Semester Hours		120-122

Learning Outcomes

1. Students will discriminate amongst the fundamental psychological concepts.
2. Students will demonstrate the ability to clearly communicate ideas in both oral & written forms using APA style.
3. Students will evaluate research using professionally accepted criteria.
4. Students will devise solutions to real-life problems by applying psychological concepts.
5. Students will interpret topics and discussions related to human diversity.

Minor in Developmental Psychology

COURSE	TITLE	S.H.
PSYC 1560	General Psychology	3
PSYC 3755	Child Development	3
PSYC 3756	Adolescent Development	3
PSYC 3757	Adult Development	3
An additional 6 s.h. in Psychology from the following courses		6
PSYC 2692	Human Sexuality	
PSYC 3702	Abnormal Psychology	
PSYC 3709	Psychology of Education	

PSYC 3734	ABA Principles 1: Applied Behavior Analysis	
PSYC 4835	Special Topics in Developmental Psychology	
Total Semester Hours		18

Minor in General Psychology

COURSE	TITLE	S.H.
PSYC 1560	General Psychology	3
PSYC 3700	Social Psychology	3
PSYC 3702	Abnormal Psychology	3
or PSYC 3775	Personality	
Select one of the following:		3
PSYC 3755	Child Development	
PSYC 3756	Adolescent Development	
PSYC 3757	Adult Development	
PSYC 3758	Lifespan Development	
Any additional 6 S.H. in Psychology		6
Total Semester Hours		18

Minor in Psychology of Mental Health

COURSE	TITLE	S.H.
PSYC 1560	General Psychology	3
PSYC 3702	Abnormal Psychology	3
PSYC 3775	Personality	3
PSYC 4800	Introduction to Psychotherapy	3
Any additional 6 S.H. in Psychology		6
Total Semester Hours		18

Minor in Counseling

The Minor in Counseling will provide students with knowledge on counseling practices, theories, and interventions to work with others within the community. Students who complete the Minor in Counseling will enable them to gain skills within various counseling approaches and techniques for work in settings related to mental health and/or seeking advanced study in Counseling.

18 Credit Hours (5 core courses and 1 elective course)

Course Listing:

Core Classes:

COUN 1587 Introduction to Health and Wellness in Contemporary Society

Provides an introduction to the wellness model integrating physical, mental, and emotional well-being. Using current research, students explore decision-making models examining ethical, theoretical, multicultural, and practical concerns in developing their own wellness strategies.

COUN 2650 Foundations of Helping Skills for Allied Health Professionals

Skill development in learning how to foster helping relationships and increase communication skills with individual, family, or group-related patient needs in a health care setting. Emphasis on ethical, cultural, socioeconomic, and special needs in allied health care settings. Includes an experiential skill video training component.

COUN 2652 Introduction to Addiction Counseling

Comprehensive overview of substance use disorders and addictions. Students will gain knowledge on the skills and treatment procedures related to working with clients struggling with substance abuse.

PSYC 1560 General Psychology

An examination of scientific and clinical approaches to understanding the relationships between one's physical, mental, and emotional well-being, and quality of life, including the basic principles governing the growth and maintenance of behavior, emotion, and cognition.

PSYC 3702 Abnormal Psychology

Patterns of deviant behavior, including current systems of classification; classic syndromes; the nature and trend of major maladjustments; possible causative factors; and methods of prevention and treatment.

Electives to choose from (must choose 1):

COUN 1588 Exploring Leadership: Theory and Practice

Introduction to the study of leadership through theoretical and practical applications. Through group interaction, discussions, and change projects, students will develop their leadership knowledge while acquiring skills to solve leadership challenges within diverse organizations. The course will provide students with intellectual and interpersonal opportunities to practice the process of becoming effective leaders.

COUN 1589 Success in Career and Life Planning

The course will facilitate the development of career and life planning skills. This course is designed for, but not restricted to, entering and undeclared students. This course will emphasize identifying strengths, clarifying values, exploring career options, developing effective decision-making skills, and learning life skills related to health, finances, relationships, and community responsibility.

PSYC 4800 Introduction to Psychotherapy

A critical overview of major psychotherapeutic approaches to mental health including an evaluation of empirical validity. Students will develop an increased sensitivity to multicultural and ethical issues.

What You'll Study

The skills that students learn in the Minor in Counseling will help them to better understand mental health and the ways that counseling skills and techniques can be applied to a mental health-related profession and/or advanced study in counseling. The unique educational experience in the Minor in Counseling will prepare students for advanced study in counseling and allow students to choose electives based on their specific interests within the field of Counseling.

COURSE	TITLE	S.H.
COUN 1587	Introduction to Health and Wellness in Contemporary Society	3
COUN 2650	Foundations of Helping Skills for Allied Health Professionals	3
PSYC 1560	General Psychology	3
PSYC 3702	Abnormal Psychology	3
PSYC 4800	Introduction to Psychotherapy	3
Select 3 s.h. from the following		3
COUN 1588	Exploring Leadership: Theory and Practice	
COUN 1589	Success in Career and Life Planning	
COUN 2652	Introduction to Addiction Counseling	

Total Semester Hours

18

Associate Degree in Individualized Studies

Associate of Applied Science (AAS) Requirements:

All courses completed for the Associate of Arts general education model must be Ohio Transfer Module (OTM) approved.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Any General Education math course		3-6
Knowledge Domains: (all General Education courses must be YSU approved GER courses - please consult an academic advisor)		
1 Natural Sciences course + Lab		4
1 Arts and Humanities Course		3
1 Social Science Course		3
CMST 1545	Communication Foundations	3
GER Elective (any two additional courses from the above knowledge domains)		6
Focus Area: Students develop the Focus Area in consultation with an adviser		21
Courses in the Focus Area must have grades of "C" or better		
The student may use up to 12 hours of other course work or experience		0-12
Elective(s): Students must complete electives to total at least 60sh for the AAS degree		
Total Semester Hours:		60-63
The last 20 semester hours and at least 16 s.h. of the concentration area must be completed at Youngstown State University.		

Associate of Arts in CLASS Associate of Arts

Welcome! The Beeghly College of Liberal Arts, Social Sciences, and Education offers a general associate-level degree to students. This two-year degree encompasses general education courses, a concentration of the humanities, social sciences, or natural sciences, and elective hours.

The Associate of Arts (AA) degree allows students to: a) increase their earning potential or increase their level of responsibility within a current position; b) complete YSU's Ohio transfer module (OTM) which ensures coursework will transfer to another state institution within Ohio; c) serve as a short-term goal on their way to a baccalaureate level degree; and d) earn a degree using courses already completed.

To inquire about earning the Associate of Arts degree, please contact an advisor in the Division of Academic Advising in the Beeghly College of Liberal Arts, Social Sciences, and Education.

Contact Information

Division of Academic Advising

DeBartolo Hall, Room 121

(330) 941-3413

Associate of Arts (AA) Requirements:

All courses completed for the Associate of Arts general education model must be Ohio Transfer Module (OTM) approved.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education		
Knowledge Domains: (all General Education courses must be OTM approved courses - please consult an academic advisor regarding GER coursees)		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Any General Education math course		3-6
2 Natural Sciences courses + Lab (one must include a lab)		7
2 Humanities Courses		6
2 Social Science Courses		6
GER Elective (any three additional courses from the above knowledge domains)		9
Concentration Area: Students choose one of three concentration areas (see list below)		21
Courses in the concentration must have grades of "C" or better		
Elective(s): Students must complete electives to total at least 60sh for the AA degree		1
Total Semester Hours:		60-63
The last 20 semester hours and at least 16 s.h. of the concentration area must be completed at Youngstown State University.		

Concentration Areas:

Students choose one concentration area below.

Humanities

Applicable courses include:

- literature courses in English or Foreign Language departments
- courses in philosophy and religious studies

- survey and/or appreciation courses in the Department of Art, the Department of Communication, the Department of Theatre and Dance, or the Dana School of Music
- AFST 2601 Introduction to Africana Studies 2

Social Studies

Courses must be selected from the following disciplines:

- Africana Studies (AFST 2600 Introduction to Africana Studies 1 only)
- anthropology
- economics
- human and regional geography
- history
- political science
- psychology
- sociology

Natural Sciences

Courses must be selected from the following disciplines:

- astronomy
- biology
- chemistry
- environmental science
- geology
- physics
- physical geography
- A&S/STEM 2600 (no longer offered)

Year 1		
Fall		S.H.
YSU 1500	Success Seminar	1
ENGL 1550	Writing 1	3
Any General Education Math course		3-6
Natural Science GER + Lab		4
Arts & Humanities GER		3
Semester Hours		14-17
Spring		
ENGL 1551	Writing 2	3
Social Science GER		3
Natural Science GER		3
Arts & Humanities GER		3
Concentration Course		3
Semester Hours		15
Year 2		
Fall		
Social Science GER		3
GER Elective		3
Concentration Course		3
Concentration Course		3
Concentration Course		3
Semester Hours		15
Spring		
Concentration Course		3
Concentration Course		3
Concentration Course		3
GER Elective		3
GER Elective		3

Elective hours <small>additional hours may be needed to total 60sh</small>	1
Semester Hours	16
Total Semester Hours	60-63

Learning Outcomes

All students will:

- (1) Demonstrate effective written communication.
- (2) Develop skills to enter the work force or build upon a liberal arts foundation to succeed in upper division coursework if pursuing a baccalaureate degree.

Social Studies concentrations:

- (3) Students will demonstrate an understanding of relationships of individuals and groups in their geographical, historical, global, societal, or cultural contexts.

Humanities concentrations:

- (4) Students will demonstrate an understanding of artistic expression in multiple forms and contexts. (GER Learning Outcome 8)
- (5) Students will demonstrate an understanding of the humanistic perspective including philosophy, ethics, critical thinking, religious inquiry, and diversity.

Natural Science concentrations:

- (6) Students will demonstrate an understanding of the natural environment and the processes that shape it. (GER Learning Outcome 13)

Bachelor of General Studies in General Studies

For more information, visit the Bachelor of General Studies (<http://www.ysu.edu/academics/college-liberal-arts-social-sciences/general-studies-major/>) webpage.

The Bachelor of General Studies degree (BGS) is a degree-completion option for students who have completed significant coursework but not the requirements for a specific major. Through careful evaluation of coursework already completed at YSU or other colleges and universities, a degree completion plan is constructed for each student. The BGS may also be appropriate for students for whom a general bachelor's degree may lead to career advancement or for those students who seek the personal satisfaction of having completed a bachelor's degree.

Individuals who have a bachelor's degree are not eligible for the BGS degree, and the BGS degree may not be earned concurrently with another bachelor's degree.

All BGS students complete the requirements of the General Education curriculum (old or new). As such, the goals of the general education curriculum are met by BGS students. They are as follows:

- Write and speak effectively
- Acquire, process, and present quantitative and qualitative information using the most appropriate technologies, including computers
- Reason critically, both individually and collaboratively; draw sound conclusions from information, ideas, and interpretations gathered from various sources and disciplines; and apply those conclusions to one's life and society

The specific requirements for the completion of the Bachelor of General Studies (B.G.S.) degree are as follows:

A 48-semester-hour concentration with at least 24 s.h. of upper-division credit comprised of:

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics Requirement		3
Arts and Humanities (6 s.h.)		6
Natural Sciences (2 courses, 1 with lab) (6-7 s.h.)		7
Social Science (6 s.h.)		6
General Education Electives (9 s.h.)		9
Major Requirements		
Two focus areas consisting of 18-24 s.h. each ¹		36
LASS 4880	General Studies Capstone	3
ENGL 4891	Individual Study (Must take for 1 hour concurrently with LASS 4880, 15 week students, or the term preceding LASS 4880, 7 week students.)	1-3
Elective Hours		42
Total Hours Required for Degree: 120 s.h.		
Total Semester Hours		120-124

¹ Focus-area requirements are either submitted by the departments offering the course work in the focus area or designed by the Coordinator of General Studies, with input from the student, based on previous student experience and coursework. In all cases the focus area coursework must be approved by the Coordinator of General Studies.

Learning Outcomes

All BGS students complete the requirements of the General Education curriculum (old or new). As such, the goals of the general education curriculum are met by BGS students. They are as follows:

- Write and speak effectively
- Acquire, process, and present quantitative and qualitative information using the most appropriate technologies, including computers
- Reason critically, both individually and collaboratively; draw sound conclusions from information, ideas, and interpretations gathered from various sources and disciplines; and apply those conclusions to one's life and society

In addition BGS students are expected complete requirements specific to the program. They are as follows:

- Demonstrate preparedness for and the behaviors indicative of professionalism in the work environment
- Analyze and synthesize a variety of texts
- Produce capstone level research work

Appreciate importance and value of an interdisciplinary degree

The Cliffe College of Creative Arts

Phyllis M. Paul, Ph.D., Dean

A Community of Artistic and Academic Excellence

The Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) (CCCA) is a vibrant and integral component of the Youngstown State University campus and a major regional arts resource. Our innovative and inclusive community of artists, educators, and scholars is engaged in nationally accredited programs of instruction, immersive experiences, and professional exhibitions, performances, and productions.

All academic programs in CCCA are dedicated to creating deep educational experiences that provide inspiration, empower innovation, and develop tomorrow's leaders. Our students hone exceptional artistic and technical abilities and develop a range of other valuable transferable proficiencies, including critical thinking, interpersonal skills, and a strong work ethic. Cliffe College graduates earn degrees in areas about which they are passionate, and their skills are applicable to careers in numerous professions. With a projected value of over \$700 billion by 2028, the global arts industry provides countless career opportunities (<https://academics.ysu.edu/cliffe-college-of-creative-arts/career-and-professional-development/>) for visual and performing artists. A degree from The Cliffe College of Creative Arts will open doors to your future!

Students not pursuing degrees in The Cliffe College of Creative Arts are welcomed and encouraged to take classes, earn a minor, and participate in other opportunities in art, dance, music, or theatre as a means of broadening and complementing their university experience.

Our Mission

The Cliffe College of Creative Arts provides a dynamic learning environment in the visual and performing arts to strengthen and broaden the intellectual and cultural horizons of a diverse community in support of the goals of Youngstown State University.

The College is dedicated to:

- demonstrating the values and principles inherent to the arts and challenging students to experience and appreciate the various forms of artistic expression;
- recognizing scholarship and teaching as integral and interrelated activities of the College as demonstrated by a faculty and staff of active artists and scholars, providing a lasting and sustainable contribution to aid students in achieving an enriched and fulfilled life;
- utilizing music, visual arts, theater, and dance to present a highly visible presence that reaches beyond the University community;
- and creating an innovative environment that cultivates its faculty, staff, and students to become leaders in their professional and civic lives.

Accreditation

Youngstown State University is accredited by the National Association of Schools of Art and Design (<https://nasad.arts-accredit.org/>) and the National Association of Schools of Music (<https://nasm.arts-accredit.org/>).

Degrees

The Cliffe College of Creative Arts offers the following bachelor's and master's degrees:

- Bachelor of Arts (B.A.)
- Bachelor of Fine Arts (B.F.A.)
- Bachelor of Music (B.M.)
- Master of Music (M.M.)

Academic Areas: Majors, Minors, and Certificates

Department of Art (<https://academics.ysu.edu/art/>)

Joy Christiansen Erb (<https://academics.ysu.edu/art/joy-christiansen-erb/>),
M.F.A., Acting Chair
Bliss Hall 4001A
330.941.1397
jchristiansenerb@ysu.edu

UNDERGRADUATE MAJORS, CONCENTRATIONS, MINORS

Bachelor of Fine Arts (B.F.A.)

- Graphic + Interactive Design, Online Program (p. 236)
- Studio Art
 - Graphic + Interactive Design (p. 232)
 - Interdisciplinary Studio Arts (p. 234)

Minors

- Minor in Art History for Non-Art Majors (p. 238)
- Minor in Digital Media for Non-Art Majors (p. 238)
- Minor in Graphic Design for Non-Art Majors (p. 238)
- Minor in Interdisciplinary Game Studies (p. 412)
- Minor in Photography for Non-Art Majors (p. 239)
- Minor in Studio Art for Non-Art Majors (p. 239)

Dana School of Music (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/>)

Joseph Carucci (<https://academics.ysu.edu/cliffe-college-of-creative-arts/leadership-administration/joseph-carucci/>), D.M.A., Director
Bliss Hall 3010
330.941.1439
jwcarucci@ysu.edu

UNDERGRADUATE MAJORS, CONCENTRATIONS, MINORS, AND CERTIFICATES

Bachelor of Music (B.M.)

- Audio and Music Production (p. 250)
- Music Education (p. 252) [focus areas: choral, instrumental, instrumental jazz]
- Music Performance (p. 260) [focus areas: instrumental, jazz, piano, voice]

Minors

- Minor in Interdisciplinary Game Studies (p. 412)
- Minor in Music (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-creative-arts-communication/school-music/music-minor/>)

Certificates

- Audio and Music Production (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-creative-arts-communication/school-music/certificate-in-audio-and-music-production/>)
- Audio and Music Production Pedagogy (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-creative-arts-communication/school-music/certificate-in-audio-and-music-production-pedagogy/>)

GRADUATE PROGRAMS

Master of Music (M.M.)

- Music Education, Online (<http://catalog.ysu.edu/graduate/graduate-programs/master-music/musiceducation/>)
- Music Performance (<http://catalog.ysu.edu/graduate/graduate-programs/master-music/musicperformance/>)

University Theatre (<https://ysu.edu/ccca/university-theatre/>)

Joseph Carucci (<https://academics.ysu.edu/cliffe-college-of-creative-arts/leadership-administration/joseph-carucci/>), D.M.A., Director
Bliss Hall 3010
330.941.1439
jwcarucci@ysu.edu

UNDERGRADUATE MAJORS, CONCENTRATIONS, AND MINORS
Bachelor of Arts (B.A.)

- Theatre Studies (p. 276)
- Film/Video Track (p. 277)

Bachelor of Fine Arts (B.F.A.)

- Theatre (p. 281)
- Musical Theatre (p. 279)

Minors

- Minor in Dance (p. 283)
- Minor in Film Studies (p. 284)
- Minor in Musical Theatre (p. 284)
- Minor in Puppetry for Non-Theatre Majors (p. 285)
- Minor in Puppetry for Theatre Majors (p. 285)
- Minor in Theatre (p. 286)

Facilities

The activities of the College are primarily conducted in Bliss Hall, which houses the College's administrative offices as well as over 150,000 square feet of specialized learning, making, exhibiting, and performing spaces. Our state-of-the-art facilities include theaters, art studios, rehearsal spaces, classrooms, concert halls, laboratories, industry-standard technology and equipment, the John J. McDonough Museum of Art (<https://ysu.edu/mcdonough-museum/>), the Judith Rae Solomon Gallery (<https://academics.ysu.edu/art/solomon-gallery-0/>), and more. In addition, students, faculty, and guest artists are regularly featured in numerous regional venues, including The Butler Institute of American Art, the DeYor Performing Arts Center (<https://deyorpac.org/>), and Stambaugh Auditorium (<https://www.stambaughauditorium.com/>).

Student Life

Our innovative academic experiences empower our students to succeed in their educational and professional endeavors. Students in Cliffe College have the opportunity to participate in national and international performances and exhibitions, study abroad programs, and internships with regional and national businesses—including the Youngstown Business Incubator, the Cafaro Company, the Pittsburgh Ballet Company, and more. We understand that the college experience isn't just about a degree, and Cliffe students are also active outside the classroom. They are involved in university and community events and join professional and student organizations.

The Cliffe College of Creative Arts Living Learning Community (<https://academics.ysu.edu/cliffe-college-of-creative-arts/llc/>) (LLC) is a community of students pursuing art, music, or theatre opportunities at YSU, including those earning degrees from other colleges on campus. The program provides specialized living environments that give our students additional academic, artistic, and personal support to further enhance the world-class education they receive at YSU. Located in Wick House—a restored mansion on the campus of YSU—our LLC offers 24/7 access to community study and practice spaces, a dedicated MAC computer lab, an art project space, and dedicated music and theatre rehearsal and study spaces. Students enrolled in the program form connections with peers who share similar academic and personal interests; experience increased interactions with faculty, staff, tutors, and upper division students; form study groups with peers; work on class projects; and take classes in the residence hall.

Community Engagement

Cliffe College is a vital cultural asset to Youngstown State University and serves as a major regional arts resource. Our over 250 events each year feature faculty and students as well as internationally acclaimed visual and performing artists such as Dance Theatre of Harlem, Ken Rinaldo, Cuarteto Latinoamericano, Julie Mehretu, Phillip Huber, David Krakauer, Al Bright, Harlem String Quartet, Marlene Aron, Karim Sulayman, and Teri Frame. The College also sponsors the Pipino Performing Arts Series (<https://ysu.edu/pipino/>), the Department of Art Lecture Series (DALS) (<https://academics.ysu.edu/art/dals/>), the Red Press Collaborative, and dynamic seasons from University Theatre (<https://ysu.edu/ccca/university-theatre/on-stage/>). CCCA students are also actively involved in our community – participating in productions with area theatre organizations, performing with professional music groups, and completing mural commissions (<https://academics.ysu.edu/cliffe-college-of-creative-arts/events-news/cliffe-college-of-creative-arts-news/departments-of-art-news/departments-of-art-students-complete-mural-vallourec-star/>) throughout the region.

Alumni Success

Graduates of Cliffe College enjoy fulfilling and broadly diverse careers as visual and performing artists. They are employed as lead designers by international corporations—including The Walt Disney Company, Facebook, and the Weather Channel—as performers with organizations such as the Metropolitan Opera, the Opry Band, and multiple professional and military ensembles across the globe, as well as in hundreds of university and school classrooms around the country. Our highly accomplished alumni (<https://academics.ysu.edu/cliffe-college-of-creative-arts/alumni-giving/>) have won Grammy® and Emmy® Awards, ASCAP awards, the Purchase Prize for Sculpture, are enshrined in the Nashville Songwriters Hall of Fame, and more.

Degree Requirements

High School Preparation

In the *Undergraduate Catalog* under Admissions, please refer to the "New Freshman Applicants (p. 37)" page.

Requirements for the B.F.A., B.M., and B.A. Degrees

Basic Skill Courses (See "General Education Requirements" under "Academic Policies and Procedures" in the undergraduate Catalog)	BFA	BM	BA
ENGL 1550 & ENGL 1551 (Writing 1 & 2)	6	6	6
CMST 1545	3	3	3
General Education Math	3	3	3

Domain Courses (See "General Education Requirements" under "Academic Policies and Procedures" in the undergraduate Catalog)	BFA	BM	BA
Arts & Humanities	6	6	6
Social Sciences	6	6	6
Natural Sciences (includes one lab science)	7	7	7
Social & Personal Awareness	6	6	6
Foreign Language	0	0-16 ¹	0-8 ²

¹ This requirement is for voice majors only. Each student must choose two languages, two semesters each from French, German, or Italian. For information about the Foreign Language Placement Test, consult the Department of English and World Languages (<https://catalog.ysu.edu/undergraduate/colleges-programs/college-liberal-arts-social-sciences-education/department-english-world-languages/#text>).

² Students must complete the equivalent of intermediate study (2600) in one language. For information about the Foreign Language Placement Test, consult the Department of English and World Languages (<https://catalog.ysu.edu/undergraduate/colleges-programs/college-liberal-arts-social-sciences-education/department-english-world-languages/#text>).

Professional Courses

These courses are listed under the appropriate department or school curricula.

Additional Degree Requirements

- Upper-division status (including completion of any specified preparatory units lacking at entrance)
- Major and minor requirements (not all programs require a minor)
- Course-level requirements
- GPA requirement
- Residency requirement
- Completion of semester hours required for the degree
- Application for graduation

Courses of Instruction

Course descriptions may be found in a separate section in the Undergraduate Catalog (<http://catalog.ysu.edu/courses/>).

For additional information, visit the The Cliffe College of Creative Arts' (p. 222) *Catalog* pages.

Department of Art Introduction

Welcome to the Department of Art at Youngstown State University! We are a leader in Northeast Ohio in preparing students for careers in the visual arts. Accredited by the National Association of Schools of Art and Design (NASAD), our student-centered programs are led by nationally and internationally recognized artist-educators. They guide students through experiential-based coursework that not only hones their skills but also encourages interdisciplinary exploration, offering unique opportunities to broaden their artistic horizons.

Students pursuing a Bachelor of Fine Arts (B.F.A.) in Studio Art can choose a concentration in Graphic + Interactive Design (p. 232) or Interdisciplinary Studio Art (p. 234). The Graphic + Interactive Design (p. 232) concentration provides students with a foundation of critical and creative design processes. It prepares them for the profession of graphic and interactive design, including careers in identity systems, package design, and motion and web design, as well as creative directing. Based primarily on digital platforms, students investigate new ways of solving complex visual problems and use print and interactive designs as solutions. The Interdisciplinary Studio Art (p. 234) concentration is designed to familiarize students with the basic concepts of art and the language of visual design, preparing them for a successful transition into a career (<https://academics.ysu.edu/art/career-preparation/>) in the arts. Our program not only fosters individual curiosities and discoveries but also immerses students in collaborative and public-engaging endeavors, cultivating social awareness and enriching the culture of our region and beyond. With this comprehensive preparation, our students are well-equipped to thrive in the competitive world of the visual arts.

Contact Information

To learn more about our degree programs, scholarships, professional development and careers, exhibitions, faculty, and students, visit Department of Art (<https://academics.ysu.edu/art/>) or contact us at 330.941.3627. To schedule a personalized campus visit, contact the Cliffe College of Creative Arts' (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu.

Joy Christiansen Erb (<https://academics.ysu.edu/art/joy-christiansen-erb/>),
M.F.A., Acting Chair
Department of Art
Bliss Hall 4001A
1 Tressel Way
Youngstown, OH 44555
330.941.3627
jchristiansenerb@ysu.edu

Mission Statement

The mission of the Department of Art at Youngstown State University is to provide a teaching and learning environment for the development of skills, concepts, and sensitivities essential to professional artists, designers, art educators, and art historians. This mission and the cultural enrichment it entails are directed at the entire student body and the community as a whole. This mission is accomplished within the context of a local multicultural society, thereby demanding a special concern for dissemination and sensitivity to a wide cultural heritage.

Learning Outcomes

- 1) Students will be able to demonstrate their proficiency in art vocabulary.
- 2) Students will be able to demonstrate technical expertise appropriate to their progression in the program as it is relevant to their chosen artistic medium.
- 3) Students will be able to demonstrate a high level of content expression appropriate to their progression in the program as it is relevant to their chosen artistic medium.

Degree Information & Requirements

The Department of Art offers courses that satisfy the following degree and major requirements. The requirements for curricula and for graduation are in accordance with the published regulations of the National Association of Schools of Art and Design (<https://nasad.arts-accredit.org/>) (NASAD).

- Bachelor of Fine Arts (B.F.A.) in Studio Art
 - Graphic + Interactive Design (p. 232)
 - Interdisciplinary Studio Arts (p. 234)

The B.F.A. in Studio Art includes concentrations in Graphic + Interactive Design (p. 232) and Interdisciplinary Studio Arts (p. 234). The Graphic + Interactive Design (p. 232) concentration prepares students for the ever-changing graphic and interactive design field by giving them a deeper understanding of design, concept development, and technical skills, focusing specifically on the design profession. The graphic design field continues to experience an explosion of possibilities, and the design curriculum directly reflects what is occurring in the industry, which prepares graduates to transition successfully to a career in graphic design. The Interdisciplinary Studio Art (p. 234) concentration is a robust professional degree focused on developing competent artists as innovative thinkers and makers. Through rigorously dynamic and stimulating learning environments, students develop and sharpen a wide range of studio, digital, and design skills along with professional and business proficiencies tailored for versatile careers in creative industries and art fields.

To transfer into a Studio Art degree program, a minimum GPA of 2.5 is required. Studio Art credit for transfer students is awarded based on a combination of portfolio work and prior college credit. Except for state-mandated transfer courses, transfer credit is not awarded solely on a listing of courses on a transcript. Transfer students should make a portfolio review appointment with the Foundation Coordinator in order to confirm transfer credit options. For more information, call the Department of Art at 330.941.3627.

Career and Professional Development

The dedicated faculty in the Department of Art are actively engaged in helping students successfully transition into a wide range of careers (<https://academics.ysu.edu/art/career-preparation/>) with national and international employers. Our students hone exceptional artistic and technical abilities, and their education gives them one of the most competitive skills in today's job market: **creativity**. They also develop a range of other valuable transferable proficiencies, including critical thinking, interpersonal skills, and a strong work ethic. Our graduates earn degrees in areas about which they are passionate, and their skills are applicable to careers in numerous professions. Your professional opportunities with a degree from the Department of Art at Youngstown State University are greater than ever!

Academic Advising

The Cliffe College Academic Advising Office (<https://academics.ysu.edu/cliffe-college-of-creative-arts/advising-student-success/>) provides optimum assistance to help our students navigate through their undergraduate years and prepare them for academic and future career endeavors! Our advisors can provide advice about staying on track with your degree program, combining your major with a supporting minor, finding resources to enhance your coursework with study abroad or other student enrichment experiences, and more. Our goal is to see you succeed! The Department of Art Academic Advisor may be reached at 330.941.3623 or crbyrne@ysu.edu.

Facilities

Our state-of-the-art facilities (<https://academics.ysu.edu/art/facilities-exhibition-spaces/>) include over 70,000 square feet of dedicated studio and exhibition space for students to develop their craft. The clean and well-equipped studio facilities offer a broad range of high-quality equipment that includes traditional to emerging technologies. Digital technology includes several labs with industry-standard Mac computers utilizing software (e.g., Adobe Creative Suite, Rhinoceros 3D, open-source creative coding platforms) and hardware (e.g., 3D digital printers, laser cutters, CNC mills, large format photographic printers, scanners). Traditional facilities and equipment include a welding fabrication area, a woodshop, a range of printing presses, photo- and digital-based printmaking equipment, ceramic potter's wheels, kilns, an analog

darkroom, medium and large format cameras, studio lighting, and portable backdrops.

Accreditation

Youngstown State University is accredited by the National Association of Schools of Art and Design (<https://nasad.arts-accredit.org/>) (NASAD), and all of our programs meet the rigorous standards set forth by the organization. YSU is one of 363 accredited conservatories, colleges, and universities recognized by NASAD. The Department of Art was reviewed by NASAD in 2016, and the next campus visit is scheduled for 2026. For more information regarding accreditation, visit NASAD (<https://nasad.arts-accredit.org/>).

Student Activities

We know that students have interests that lie beyond what they're studying or making. Becoming involved in art or university student organizations is an ideal way to pursue those interests, interact with community members on and off campus, and find your own unique niche in the department and at YSU. The university has more than 200 diverse student organizations that encompass a wide array of interests, including major-based, community service, Greek affiliations, faith-based, and special interests. We encourage you to join a student organization and improve your leadership skills, develop professional contacts, and have a positive impact on your campus and surrounding community. Of special interest to art students may be:

- Red Press Collaborative (<https://academics.ysu.edu/art/red-press-collaborative/>)
- Student Art Association (<https://academics.ysu.edu/art/student-organizations/>)
- Study Abroad to Glasgow, Scotland (<https://academics.ysu.edu/art/study-abroad/>)

Art Career Possibilities

Advertising Consultant or Designer • Advertising Illustrator • Animator • Apparel Graphic Designer • Architectural Illustrator • Architectural Photographer • Art Advisor • Art Administrator • Art Appraiser • Art Consultant • Art Critic • Art Director • Art Educator • Art Fabricator • Art Historian • Art Journalist • Art Publicist • Art Therapist • Backdrop Designer • Billboard Artist • Brand Manager • CAD Designer • Caricaturist • Cartographer • Cartoonist • Ceramic Artist • Ceramic Designer • Commercial Artist • Commercial Photographer • Community Activist • Community Artist • Community Arts Instructor • Concept Illustrator • Corporate/Public Relations Photographer • Digital Consultant • Digital Fabrication • Digital/New Media Artist • Ceramic Mold Maker • Ceramic Production Designer • Creative Director • Curator • Design Consultant • Digital Designer • Display Designer Commercial • Display Designer Retail • Documentarian • Draftsman • Editor • Editorial/ Illustration Photographer • Environmental Graphic Designer • Exhibition Preparator • Fashion Illustrator • Fashion Photographer • Fiber Artist • Fine Art Photographer • Gallery Director/Owner • Graphic Designer • Graphic Novelist • Illustrator • Image Processor • Interactive Media Designer • Installation Artist • Jewelry Designer • Letterpress Printer • Magazine Designer • Marketing Strategist • Master Printer • Medical Illustrator • Merchandise Designer • Metalsmith • Metals Artist • Muralist • Museum Curator • Art/Children's Museum Educator • Museum Registrar • Museum Staff • Newspaper Graphic Artist • Painter • Performance Artist • Photographer • Photo Editor • Photo Journalist • Police Sketch Artist • Portrait Photographer • Printmaker • Product/ Food Photographer • Product Designer • Prop Fabricator • Professor • Public Artist • Renderer • Sculptor • Set Decorator • Set Designer • Social Media Manager • Storyboard Artist • Studio Artist • Stylist • Surface Print Designer • Tattoo Artist • Technical Illustrator • Textile Designer • UX/UI Designers • Video Artist • Videographer • Web Designer • Web Developer • Wedding Photographer • Wood Artist • Woodworker

History

The Department of Art at Youngstown State University (<https://academics.ysu.edu/art/history/>) began in 1935 as an initiative of Howard

Jones, the first president of the university. He supported the concept that aesthetics and art play a major role in the development of the individual in society. Jones appointed Margaret Evans, former director and curator of The Butler Institute of American Art (<https://butlerart.com/>), to teach and direct the development of art courses in the curriculum. Evans began to establish a curriculum leading to a career in art education in elementary and secondary schools. During this period of development, art classes were held at The Butler Institute of American Art, the Mill Creek MetroParks (<https://www.millcreekmetroparks.org/>)' Weller Gallery, and various locations on the campus, ranging from private mansions along Wick Avenue to the World War II army barracks built on the campus.

Currently, the Department of Art has approximately 15 full-time and part-time faculty who teach more than 200 art majors studying ceramics, digital media, drawing, graphic + interactive design, painting, photography, printmaking, and sculpture.

General Procedures and Policies

Students are responsible for knowing about degree requirements and university and Department of Art policies and procedures. This information may be found through the Department of Art office, from the Art Academic Advisor (crbyrne@ysu.edu), or from several sections of this *Catalog*, including the Academic Policies, Rights, and Responsibilities section.

Chair

Joy Christiansen Erb (<https://academics.ysu.edu/art/faculty-directory/joy-christiansen-erb/>), M.F.A., Professor, Acting Chair

Professor

Dragana Crnjak (<https://academics.ysu.edu/art/faculty-directory/dragana-crnjak/>), M.F.A., Professor

Joseph D'Uva (<https://academics.ysu.edu/art/faculty-directory/joseph-duva/>), M.F.A., Professor

Michelle Nelson (<https://academics.ysu.edu/art/faculty-directory/michelle-nelson/>), M.F.A., Professor

Stephanie Smith (<https://academics.ysu.edu/art/faculty-directory/stephanie-smith/>), Ph.D., Professor

Jonathan Dana Sperry (<https://academics.ysu.edu/art/faculty-directory/dana-sperry/>), M.F.A., Professor

Assistant Professor

Amy Copeland (<https://academics.ysu.edu/art/faculty-directory/amy-copeland/>), M.F.A., Assistant Professor

Sebastian Giraldo (<https://academics.ysu.edu/art/faculty-directory/sebastian-giraldo/>), M.F.A. Assistant Professor

Degrees, Majors, and Concentrations

- Bachelor of Fine Arts (B.F.A.) in Studio Art
 - Graphic + Interactive Design (p. 232)
 - Interdisciplinary Studio Arts (p. 234)
- Bachelor of Fine Arts (B.F.A.) in Graphic + Interactive Design (p. 236) (online program beginning in Spring 2025)

Minors

- Minor in Art History for Non-Art Majors (p. 238)
- Minor in Digital Media for Non-Art Majors (p. 238)
- Minor in Graphic Design for Non-Art Majors (p. 238)
- Minor in Interdisciplinary Game Studies (p. 412)
- Minor in Photography for Non-Art Majors (p. 239)
- Minor in Studio Art for Non-Art Majors (p. 239)

ART 1501 Fundamentals of 2D Design 3 s.h.

The fundamental ideas and principles of 2-dimensional form. Emphasis on basic design concepts, pictorial composition, color theory, vocabulary, media and processes. Slide lectures, directed readings and studio problems.

ART 1502 Fundamentals of 3D Design 3 s.h.

Investigation of the interactions between line, plane, mass, and space. Emphasis on basic 3D concepts, color theory, vocabulary, media and techniques. Slide lectures, directed readings, writings and studio problems.

ART 1503 Freshman Seminar and Portfolio Review 1 s.h.

The Freshman Seminar helps students establish a solid foundation for success in the Department of Art. Students learn conventions and strategies within critical thinking, writing and research skills specific to success as an art and design student at YSU as well as being a creative professional. A mandatory Foundation Portfolio Review of work must be completed in the freshman Foundation Studio courses for students seeking the BFA in Studio Art degree. Students both complete the work in the seminar and pass the review to pass the course and continue in the program.

Prereq.: Enrollment in or passing grade in ART 1501, ART 1502, and ART 1521.

ART 1510 Foundation Tech Workshop: Computer Modeling for Digital Fabrication 1 s.h.

This course is designed to introduce students to a broad overview of computer modeling techniques associated with digital fabrication processes. Students will learn to apply 3D modeling software, rendering programs, image processing software, and vector-based graphics to digital fabrication processes. Emphasis will be placed on proper file preparation for output devices.

Prereq.: none.

ART 1511 Foundation Tech Workshop: Laser Cutting 1 s.h.

This course is designed to introduce students to laser cutting and engraving methods. Students will gain practical experience in preparing designs for laser cutting and engraving using a variety of substrates. Students will learn the proper, safe, and effective operation of the laser cutter.

Prereq.: None.

ART 1512 Foundation Tech Workshop: 3D Printing 1 s.h.

This course is designed to introduce 3D printing processes while working with a variety of common 3D printing materials (PLA, PETG, PCTG, TPU, Resin, etc.). Students will learn 3D printer operation, calibration, and troubleshooting, in addition to learning slicer software to accurately prepare, print, and post-process 3D computer-aided design (CAD) models.

Prereq.: None.

ART 1521 Foundation Drawing 3 s.h.

An introduction to basic drawing concepts, materials and methods. Emphasis on observational drawing. Concepts including the effective use of line, mass, volume, composition, space, and the formal principles of design.

ART 1522 Intermediate Drawing 3 s.h.

A continuation of ART 1521 with greater emphasis on process, technique, spatial organization, and the development of pictorial content. Various topics are explored including figure drawing and the use of color.

Prereq.: ART 1501 and ART 1521.

ART 1529 Design + 2D 3 s.h.

This course covers two-dimensional design principles that underlie all forms of graphic design using vector-based tools. One hour lecture and five hours lab.

ART 1531 Design + Drawing as Thinking 3 s.h.

This course is an introductory exploration of studio drawing using digital tools. A focus will be placed on learning to see and exploring essential design elements in a digital format. One hour lecture and five hours lab.

Prereq.: Art 1529.

ART 1532 Design + Raster Images 3 s.h.

This course will explore raster-based image creation and manipulation for graphic design. One hour lecture and five hours lab.

Prereq.: Art 1529.

ART 1533 Design + Color 3 s.h.

This course will focus on color theory and design as it pertains to the digital world. The course will explore the psychology of color and how hue, value, and intensity can be used expressively and in a communicative capacity. One hour lecture and five hours lab.

Prereq.: ART 1529.

ART 1534 Design + Painting 3 s.h.

This course will cover color mixing, composition, form, and spatial relationships with subjects ranging from still-life, interiors, and abstraction. One hour lecture and five hours lab.

Prereq.: Art 1529.

ART 1541 Survey of Art History 1 3 s.h.

A study of world art, focusing on the western European tradition. Covers the period from prehistoric times through 1500. Introduces key concepts, methods, and vocabulary for the study of art.

Gen Ed: Arts and Humanities.

ART 1541H Honors Survey of Art History 1 3 s.h.

A study of world art, focusing on the western European tradition. Covers the period from prehistoric times through 1500. Introduces key concepts, methods, and vocabulary for the study of art.

Gen Ed: Arts and Humanities.

ART 1542 Global Art since 1400 3 s.h.

This course surveys world art from 1400 to the present. It introduces key concepts, methods, and vocabulary for the study of art. It also treats a range of artistic media in their historical and cultural contexts.

Prereq.: ENGL 1550 is recommended.

Gen Ed: Arts and Humanities, International Perspectives, Social and Personal Awareness.

ART 1542H Honors Survey of Art History 2 3 s.h.

A study of world art, focusing on the western European tradition. Covers the period from 1500 to the present. Introduces key concepts, methods, and vocabulary for the study of art.

Gen Ed: Arts and Humanities, International Perspectives, Social and Personal Awareness.

ART 1543 Survey of Art History: Gods and Monsters--Religion, Myth, and the Supernatural 3 s.h.

This course covers the history of world art from the perspective of world religions, myths, and conceptions of the supernatural. This course introduces key concepts, methods, and vocabulary for the study of art, and treats a range of artistic media in their historical and cultural contexts.

Gen Ed: Arts and Humanities, International Perspectives, Social and Personal Awareness.

ART 1544 Survey of Art History: Body, Gender, and Self 3 s.h.

This course covers the history of world art from the perspective of the human body, issues of gender, and conceptions of self. This course introduces key concepts, methods, and vocabulary for the study of art, and treats a range of artistic media in their historical and cultural contexts.

Gen Ed: Arts and Humanities, Domestic Diversity, Social and Personal Awareness.

ART 1545 Survey of Art History: Power, Propaganda, and the Public Realm 3 s.h.

This course introduces key concepts, methods, and vocabulary for the study of art, and treats a range of artistic media in their historical and cultural contexts.

Prereq.: None, ENGL 1550 is recommended.

Gen Ed: Arts and Humanities, International Perspectives, Social and Personal Awareness.

ART 1591 Idea Development and Creativity in Cultural Context 3 s.h.

This course is centered on creative and equitable strategies in idea development and implementation applicable to innovative and collaborative problem solving in diverse fields and the ability to connect these strategies meaningfully to diverse audiences, specifically subcultures and minority groups within the United States.

Gen Ed: Domestic Diversity, Social and Personal Awareness.

ART 2601 Writing for Artists & Designers 3 s.h.

This course is designed to build competency in those kinds of writing most essential to the working life of artists and designers. Students will practice the skills of argumentation, research, and clarity of expression that will benefit critical pieces as well as the kinds of writing they are likely to have to produce as professional artists and designers in the field.

Prereq.: ART 1503 or Permission of Instructor.

ART 2611 Introduction to Sculpture 3 s.h.

An introductory course for those who have little or no experience with sculpture. Students explore basic sculptural concepts and theories using a variety of materials and methods. Directed readings, writings, technical workshops, and participation in course work exhibitions required.

Prereq.: ART 1503 or Permission of Instructor.

ART 2621 Life Drawing 3 s.h.

Students develop sound composition based upon accuracy of observation of the human figure. Understanding of proportion and the detailed study of skeletal and muscular systems will be addressed.

Prereq.: ART 1502, ART 1522.

ART 2624 Printmaking for Non-Majors 3 s.h.

A survey of basic printmaking processes; including relief, intaglio, and mono-printing techniques. Emphasis on technical, formal, and conceptual exploration related to each technique.

ART 2625 Introduction to Printmaking: Intaglio and Relief 3 s.h.

An introduction to basic intaglio and relief printmaking processes, including etching, collagraph, lino-cut, woodcut, and multiple-block printing. Emphasis on technical, formal, and conceptual issues related to each technique.

Prereq.: ART 1503.

ART 2626 Introduction to Printmaking: Lithography and Screenprinting 3 s.h.

An introduction to basic lithography and screenprinting processes, including stone and plate lithography and photo-mechanical screen-printing. Emphasis on technical, formal, and conceptual issues related to each technique.

Prereq.: ART 1503.

ART 2631 Introduction to Ceramics 3 s.h.

A broad introduction to the basic ceramic building methods, a variety of surfacing techniques, glaze and the electric firing. Class projects will allow students to practice processes and building techniques while developing their personal aesthetic within the realm of ceramic art. One hour lecture and five hours lab.

Prereq.: ART 1503 or permission of instructor.

ART 2635 Design + UX/UI Theory 3 s.h.

This course will cover the theory and methodologies behind UI (user interface) and UX (user experience) design. One hour lecture and five hours lab.

Prereq.: Art 2660.

ART 2640 Ceramics for Non-Art Majors 3 s.h.

Introduction to the basic building and forming methods in clay, a variety of surfacing techniques, glaze and firing technology. Class projects will allow students to learn techniques and build skills while developing a personal aesthetic within the realm of ceramic art. One hour lecture and five hours lab.

ART 2641 Ceramics for Non-Majors- Wheel and Alternative Processes 3 s.h.

Introduction to the basic wheel throwing technology, mold making, and slip casting process. A variety of surfacing techniques, glaze and kiln firing will be covered. Class projects will allow students to practice techniques while developing their personal aesthetic within the realm of ceramic art.

ART 2648 Experience Art: Social and Behavioral Perspectives 3 s.h.

An introductory course incorporating art education research methods to investigate social and behavioral influences on visual art learning. Classic and contemporary studies of artistic development and aesthetic response will be introduced. Learning encounters with art from early childhood through late adulthood will be addressed. Intended for education majors.

Gen Ed: Arts and Humanities.

ART 2650 Introduction to Painting 3 s.h.

This course is designed to introduce students to the fundamentals of painting. Through a variety of hands-on painting processes, exercises in color theory, painting experiments and surface treatments, variety of painting techniques and expressive use of the materials, the course will focus on developing students understanding of painting as critically and visually engaging process. One hour lecture, 5 hours lab per week.

Prereq.: ART 1503 or permission by instructor.

ART 2660 Design + Applications 3 s.h.

This course will explore visual theory, image creation, vocabulary, and applicable software needed for the graphic design profession. One hour lecture and five hours lab.

Prereq.: Art 1529 and Art 1531 and Art 1532 and Art 1533 and Art 1534.

ART 2661 Print Design 1 3 s.h.

A basic understanding of the concepts of graphic design that include layout, typography, image-making, and theme. Students will create work from thumbnails through completed projects. One hour lecture and five hours lab.

Prereq.: ART 1503 or by permission of instructor.

ART 2663 Design + Photography 1 3 s.h.

This course will cover camera settings/use along with basic photographic and artistic principles and concepts. One hour lecture and five hours lab.

Prereq.: Art 2661.

ART 2670 Photography for Non-majors 3 s.h.

An introduction to fine art photography emphasizing visual literacy and technical skills for non-art majors. Course content focuses on digital camera operation, composition and design, lighting, ethics, basic computer editing, and outsourced printing. Student must provide camera.

ART 2674 Introduction to Photography 3 s.h.

Introduction to black and white digital photographic image capture emphasizing visual literacy, creative possibilities and critical awareness of the medium as an art form. Course content focuses on DSLR camera operation, composition and basic computer editing. A digital SLR camera is required.

Prereq.: ART 1503 or permission of instructor.

ART 2691 Introduction to Digital Media 3 s.h.

This course is designed to give students a technical and theoretical overview of digital media as a means of personal and cultural expression, strengthening visual literacy. Students will explore static and dynamic digital methods.

Prereq.: ART 1503 or permission of instructor.

ART 3701 Professional Preparedness / Artist Business Practices 3 s.h.

This course provides a comprehensive and integrated examination of key components in artistic career development, along with practical skill-building, to navigate the changing art and design landscape professionally. This course will aid in gaining insights and skills to sustain a successful artistic career after graduation.

Prereq.: ART 1503 or Permission of Instructor.

ART 3702 Community Engagement Internship 2 s.h.

Through this Community Engagement Internship, students embark on a transformative journey designed to merge academic learning in the field of Studio Art with hands-on experience of working with the community. This dynamic internship extends beyond traditional classroom settings, allowing students to actively engage with local communities. By fostering meaningful connections, students gain practical insights into community dynamics and social impact while putting their creative making into practice.

Prereq.: ART 1503 or Permission of Instructor.

ART 3703 Junior Portfolio Review 1 s.h.

A mandatory review of work within each studio concentration. Students must pass to continue in the program.

Prereq.: Junior standing.

ART 3713 Sculpture Studio 3 s.h.

This course examines contemporary sculptural issues, techniques and media. Students explore alternative sculptural approaches. Individual student projects determined by faculty consultation and critiques. Directed readings, writings, group discussions. One hour lecture and five hours lab. May be repeated up to 12 semester hours.

Prereq.: ART 2611 or permission of instructor.

ART 3722 Interdisciplinary Art Practice 3 s.h.

Investigation of experimental, collaborative and interdisciplinary art practice-extending outward to include a variety of creative fields; including technology. Projects challenge students to redefine traditional approaches to art making utilizing concepts, processes and performative actions inherent to drawing in a wide context of materiality, surface, space, site-specific, collaborative and ephemeral methodologies. May be repeated a total of two times for 6 semester hours.

Prereq.: Two of the following ART 2625, ART 2626, ART 2611, ART 2674, ART 2691, ART 2669.

ART 3723 Drawing Studio 3 s.h.

Continued exploration of contemporary drawing practices with a focus on advancing creative and alternative extensions to traditional image making. Students develop personal, perceptual, conceptual, and interpretive solutions to a variety of drawing problems employing both traditional and unconventional processes and materials. Directed readings, research, writing, group discussions and critique. One hour lecture and five hours lab. May be repeated up to 12 semester hours.

Prereq.: ART 1522.

ART 3733 Ceramics Studio 3 s.h.

Explore alternative ceramic processes, midrange clay, glaze and firing technology while strengthening craft, technical, and conceptual skills. A variety of techniques, applications, technology, and the use of various interdisciplinary tools and methodologies will be covered. Class projects will allow students to build skill while developing a personal aesthetic within the realm of ceramic art. One hour lecture and five hours lab. May be repeated up to 12 semester hours.

Prereq.: ART 2631 or by permission of instructor.

ART 3737 Pre-K-4, Visual Arts Education 3 s.h.

Cognitive and interdisciplinary arts activities for multiple age levels to meet the developmental needs of learners at diverse ages. Curriculum development, long- and short-range planning, motivational procedures, assessment processes, field-based activities.

Prereq.: Junior standing (63 s.h.).

ART 3740 Topics in Ancient Art 3 s.h.

The art and architecture of the ancient cultures of the Mediterranean region and the Near East. Topics vary by semester, and include Egypt, the Ancient Near East, Greece, and Rome. May be taken twice if content is different.

Prereq.: ENGL 1550 or permission of the instructor.

ART 3741 Topics in Medieval Art 3 s.h.

Topics in European Art from the beginnings of Christianity through the Gothic period (500 and 1500 A.D.). Specific content varies by semester and may include a general survey of Medieval art, or in-depth topics such as Early Christian and Byzantine art or Medieval sculpture. May be taken twice for credit if content differs.

Prereq.: ART 1541 or consent of instructor.

ART 3742 Topics in Renaissance Art 3 s.h.

The art and architecture of Europe during the 15th and 16th centuries. Examines the work of Michelangelo, Leonardo da Vinci, Durer, and others. Topics vary by semester and include the Renaissance in Italy and the Renaissance in Northern Europe. May be repeated if the content is different.

Prereq.: ART 1542 or consent of instructor.

ART 3743 Baroque and Rococo Art 3 s.h.

Art and architecture of the 17th and early 18th centuries, an era of world exploration and scientific investigation. The works of such artists as Bernini, Velazquez, and Rembrandt are included.

Prereq.: ART 1542 or consent of instructor.

ART 3745 Nineteenth Century Art 3 s.h.

Arts of the long 19th century, including painting, sculpture, architecture, and photography are considered in terms both of broad stylistic movements (Neoclassicism, Romanticism, Realism, Impressionism, and Post-Impressionism) and within social and political contexts. European art is a central focus, but American art and the impact of the West on non-Western cultures are also within the scope of the class.

Prereq.: ENG 1550 or permission of the instructor; an art history survey at the 1500 level is recommended but not required.

ART 3746 Nineteenth Century American Art 3 s.h.

Covering all aspects and media of painting, sculpture, architecture and the decorative arts of the 19th century.

Prereq.: ART 1542 or consent of instructor.

ART 3748 Special Topics in Studio Art 3 s.h.

Study in one of the many areas of the visual process that focuses on specific content or technical methods.

Prereq.: ART 1503 or consent of instructor.

ART 3748C CE Special Topics Studio Art 3 s.h.

Study in one of the many areas of the visual process that focuses on specific content or technical methods.

Prereq.: ART 1503 or consent of instructor.

ART 3750 Twentieth Century Art and Architecture 3 s.h.

This course is a survey of the arts of the global 20th century. Major monuments of Modernism and Post-Modernism are considered. This course treats a range of artistic media in their historical and cultural contexts and requires students to think critically about the role art played in the era leading up to our own. A 1500 level art history course is recommended but not required. 3.0 s.h.

Prereq.: ENGL 1550 or permission of the instructor.

ART 3754 Design + Prepress 3 s.h.

This course introduces the technical requirements of preparing a design for production. Course will include an understanding of pre-press software, printing technology, and printing specifications. One hour lecture and five hours lab.

Prereq.: Art 3761.

ART 3756 Design + Photography 2 3 s.h.

This course will explore the use of digital technologies to compose, shoot, scan, and alter images and consider how computer use has changed photographic meaning. One hour lecture and five hours lab.

Prereq.: Art 3761.

ART 3759 Interactive Design 1 3 s.h.

An Investigation of the aesthetic and practical processes, philosophies, and history behind the field of interactive design for on screen applications. Students employ various hardware/software tools available to designers for visual interactive design. One hour lecture and five hours lab.

Prereq.: ART 2661 or permission of instructor.

ART 3760 Typography 1 3 s.h.

An Investigation of typographic design within a system over a variety of formats with a focus on a technical understanding of the principles of typography, including classification, legibility, readability, use of a grid, alignment, mood, audience and visual hierarchy as well as an understanding of typography as an art form. One hour lecture and five hours lab.

Prereq.: ART 2661 or permission of instructor.

ART 3761 Print Design 2 3 s.h.

The interaction of type and images in visual communication. Students will be introduced to typographic grid as an organizing principle as well as the relationship of form to content. One hour lecture and five hours lab.

Prereq.: ART 3760 or permission of instructor.

ART 3762 Typography 2 3 s.h.

The development of sensitivity for specific typefaces and their effective use in communications. Emphasis will be directed toward the expressive use of type in interpretive, symbolic, and metaphoric solutions. One hour lecture and five hours lab.

Prereq.: ART 3703 or by the permission of instructor.

ART 3763 Illustration 3 s.h.

Visual expression through various media, both electronic and traditional. Emphasis is on problem-solving through the exploration of technique, creative process and the development of personal styles.

Prereq.: ART 1503.

ART 3764 Typeface Design 3 s.h.

An investigation of typeface design. Students will engage in developing one or more unique typefaces, and the promotional materials used to market them. Students will engage in research related to the history of type design, and current type trends and cultural inspirations.

Prereq.: ART 2661 or by the permission of instructor.

ART 3765 Motion Design 3 s.h.

Students will engage current technologies to create dynamic motion for screen-based design. One hour lecture and five hours lab.

Prereq.: ART 3703 or permission by instructor.

ART 3769 Interactive Design 2 3 s.h.

A further investigation of interactivity/screen design. Students will encounter projects ranging from web design to interactive screen-based publications. One hour lecture and five hours lab.

Prereq.: ART 3759 or permission of instructor.

ART 3771 Analog Photography Studio 3 s.h.

This course focuses on photographic analog printing emphasizing photography as an expressive art form. Course content focuses on lighting, film development and black and white enlargement and printing. Directed readings and group discussion. One hour lecture and five hours lab. May be repeated up to 12 semester hours.

Prereq.: Art 2674 or permission of instructor.

ART 3773 Digital Photography Studio 3 s.h.

This course continues the examination of contemporary digital photography issues, techniques, media, and concept. Students explore digital photography in terms of advanced image manipulation, lighting technique, various camera formats, and large-scale printing. Directed readings, writings, and group discussions. One hour lecture and five hours lab. May be repeated up to 12 semester hours.

Prereq.: ART 2674 or permission of the instructor.

ART 3783 History and Theory of Graphic Design 3 s.h.

A chronological survey of graphic design from ancient to modern times. An emphasis on critical visual theory, specific designers who influenced the field as well as the relationship between visual communication and historical/cultural events.

Prereq.: ART 1542 or permission by instructor.

ART 3784 Art of China 3 s.h.

The art of China from prehistory to the present day. Media including ceramics, stone carving, bronzes lacquer, wood, architecture, painting, and new media will be placed in cultural, religious, political and social contexts.

Prereq.: ENGL 1550 or permission of instructor.

ART 3785 Art of Japan 3 s.h.

Japanese art from prehistory to the present including ceramics, bronzes, lacquer, wood, architecture, painting, photography and new media. Emphasis on putting works into cultural, religious, political, and social context.

Prereq.: ENGL 1550 or permission of instructor.

ART 3789 Arts of South and Southeast Asia 3 s.h.

Arts of greater India and both maritime and mainland Southeast Asia from prehistoric to contemporary, including ceramics, stone carving, architecture, painting, and photography in their cultural, religious, political and social context.

Prereq.: ENGL 1550 or Permission of Instructor.

ART 3792 Video and Animation Studio 3 s.h.

An introduction and/or continued development of the student's ability to use both digital video and animation as an expressive form of communication ranging from a variety of narrative structures. Students will gain technical knowledge by working individually and in small teams. One hour lecture and five hours lab. May be taken up to 6 semester hours.

Prereq.: ART 2691 or permission of instructor.

ART 3794 Advanced 2D Animation 3 s.h.

A forum for further study of methods, procedures, and results attainable with 2D animation software translating storyboarding into digital animations and motion graphics. Discussion of exemplary works, historical background, and technological trends. One hour lecture and five hours lab.

Prereq.: ART 3792 or permission of instructor.

ART 3795 Advanced Digital Audio/Video Production 3 s.h.

A project-oriented advanced study in digital audio/video production. A forum for further study of methods, procedures, and results attainable with video editing software, advanced editing techniques, digital compositing, and tilting software.

Prereq.: ART 3792 or permission of instructor.

ART 3796 Ideation 3 s.h.

This course focuses on learning about and practicing creative strategies that improve communication of content and ideas. While emphasis will be on strategies related to digital culture, outcomes can be in digital or non-digital mediums. This course is studio based with additional emphasis on reading, writing and discussion of related topics.

Prereq.: ART 2691.

ART 3797 Interactive Art Studio 3 s.h.

An introduction and/or continued development of creative coding and interactive digital skills within art context emphasizing the development of a creative and critical artistic practice while covering practical technical skills. One hour lecture and five hours lab. May be taken up to 6 semester hours.

Prereq.: ART 2691 or permission of instructor.

ART 3798 Transmedia Art and Visual Storytelling 3 s.h.

In the digital age, storytelling has evolved into a dynamic and interconnected art form that transcends traditional boundaries. Transmedia Art and Visual Storytelling explores narrative creation that extends beyond a single medium or platform. Through a combination of theory, practice, and analysis, students will gain a deep understanding of how to craft compelling narratives that span multiple channels, engaging audiences in new and innovative ways. One hour lecture and five hours lab.

Prereq.: ART 3792, 3794 or 3797 or permission of instructor.

ART 4800 Studio Problems 1-3 s.h.

Advanced, independent study in any two- or three-dimensional studio discipline. May be repeated for a maximum of 9 s.h.

Prereq.: Senior standing and/or permission of instructor.

ART 4801 Interdisciplinary Studies in the Visual Arts 1-4 s.h.

Interdisciplinary courses developing areas of self-interest using the most suitable range of visual strategies, media and methods of artistic production. Students select faculty from different visual disciplines to form team of two mentors. Directed readings, structured research initiatives and individual projects. Experience in selected disciplines required.

Prereq.: ART 3703.

ART 4802 Senior Project 3 s.h.

A studio concentration intended as preparation and production of work for the Senior Show graduation requirement.

Prereq.: Senior status and permission of instructor.

ART 4803 Senior Seminar 3 s.h.

Capstone course for studio majors integrating writing, oral, and critical reasoning skills specific to the student's discipline within the larger framework of the visual arts.

Prereq.: Senior standing in Art.

Gen Ed: Capstone.

ART 4824 Printmaking Studio 3 s.h.

Intermediate through advanced study within printmaking to include technical and conceptual research, refinement of technique utilizing a variety of processes, and the development of personal imagery through a portfolio of work. Emphasis on invention, experimentation, and concept development. One hour lecture/five hours lab. Repeatable to 12 credit hours.

Prereq.: ART 2625 or ART 2626.

ART 4836 Professional Practices in Middle and High Schools 3 s.h.

This course provides an overview of teaching methods in secondary school art education, grades 5-12 (middle school, early adolescents 5-8 and high school, middle adolescents 9-12). Students will explore art education content (e.g., studio art, art criticism, art history, aesthetics, visual culture, art and technology, etc.) as well as pedagogical approaches. They will gain understanding of adolescent characteristics, curriculum design, assessment, and implement art lessons to middle and high school age youths in educational settings. Students will be required to complete 24 preclinical hours of intensive teaching experience in two field placements at the secondary school. 1 hour lecture and 5 hours of lab per week.

Prereq.: ART 3737 or permission of instructor.

ART 4851 Painting Studio 3 s.h.

Painting Studio course will expand students' knowledge and practice of painting processes beyond introductory assignments, and in relation to both historical and contemporary painting practices. Use of variety of materials, mixed media painting processes as well as a range of technical and conceptual strategies, the course will provide avenues for divers investigation of painting practice and a solid foundation for personal expression. Students focus on critical thinking, research and enhancement of individual painting methodologies. Introduction to professional development strategies including proposals writing, exhibiting and promoting artwork. One hour lecture and five hours lab. May be repeated up to 12 semester hours.

Prereq.: ART 2650 or permission of instructor.

ART 4860 Design + Illustration 2 3 s.h.

This course is a further exploration of digital illustration in a narrative format. Emphasis is on problem-solving through utilizing technique, the creative process, and the development of personal styles. One hour lecture and five hours lab.

Prereq.: ART 4861.

ART 4861 Publication Design 3 s.h.

The use of type and visual elements in publication formats including newspaper design, newsletters, magazines, annual reports, book design and specialty publications.

Prereq.: ART 3703 and ART 3761.

ART 4863 Logo + Branding Design 3 s.h.

The development of logos and their applications within an identity system. How corporate signatures are the fulcrum of an identity program and how its systemic usage impacts on the corporate image. One hour lecture and five hours lab.

Prereq.: ART 3703 or by the permission of instructor.

ART 4864 Package Design 3 s.h.

The application of graphic design concepts to three-dimensional problems in the creation of packaging design. Students will consider form, visual impact, and environmental concerns related to the creation of packaging.

Prereq.: ART 3703 and ART 3761 or by the permission of instructor.

ART 4866 Design + Persuasion 3 s.h.

This course will utilize persuasive strategies and research-based methods throughout the design process while exploring a variety of design formats. One hour lecture and five hours lab.

Prereq.: Art 4861.

ART 4867 Graphic Design Internship 3 s.h.

An application of graphic design theory and practices within a professional work experience. Students are selected on the basis of preparation, portfolio, GPA, and competitive interview. Enrollment is contingent upon the availability of internship positions.

Prereq.: ART 3703 and ART 3761.

ART 4868 Graphic Design Practicum 3 s.h.

Students will work with faculty members, and a real world client to produce promotional materials from concept to print. This course will offer a full service design firm-to-client experience that will allow the student to engage in all levels of the creative/production process.

Prereq.: Permission of instructor.

ART 4869 Interactive Design Studio 3 s.h.

Continued investigation of interactivity/screen design. Students will engage in developing a more specific and individualized body of work in the area of web design or interactive screen-based publications. One hour lecture and 5 hours lab. May be repeated up to 6 semester hours.

Prereq.: ART 3759 or permission by instructor.

ART 4880 Special Topics in Art History 3 s.h.

Study in one of the many areas of art history. May be taken for up to three times for credit if the topic is not repeated.

Prereq.: ART 1541, ART 1542, or consent of instructor.

ART 4880J Special Topics in Art History Arts for the Table 3 s.h.

Study in one of the many areas of art history. May be taken for up to three times for credit if the topic is not repeated.

Prereq.: ART 1541, ART 1542, or consent of instructor.

ART 4884 Museum Internship 3 s.h.

Practical experience in the museum working with the professional staff of The Butler Institute of American Art and/or other museums of the region. Students observe and assist in virtually every phase of museum operations from care of the collections through exhibition design and implementation. May be repeated up to three times.

Prereq.: ART 4883.

ART 4891 Multimedia Design 3 s.h.

Exploration of non-linear digital presentation involving compilation of still and moving images, live video, text, and sound. An overview of multimedia in the fields of web design, interactive programming and onscreen visual communication.

Prereq.: ART 2691.

ART 4893 Advanced Digital Media/Photography Studio 3 s.h.

1 hr. lecture and 5 hrs. lab. (May be repeated up to 12 s.h.).

Prereq.: ART 3773, ART 3792, or ART 3796, or ART 3797 or permission of instructor.

ART 4896 Art and Technology Internship 3 s.h.

An application of theories and practices in the field of art and technology within a professional work environment. Admission is based on preparation, portfolio, GPA, competitive interview, and the availability of internship location.

Prereq.: ART 2691.

ART 4898 Design + Senior Project 3 s.h.

Prereq.: ART 3764 and Art 3765 and Art 3769 and Art 4860 and Art 4861 and Art 4863 and Art 4866.

ART 4899 Design + Senior Seminar 1 s.h.

This course will prepare graphic + interactive students by integrating critical thinking into creating resumes and websites for their work to prepare for the transition into the job market.

Prereq.: ART 4861.

ART 5840 Topics in Ancient Art 3 s.h.

The art and architecture of the ancient cultures of the Mediterranean region and the Near East. Topics vary by semester, and include Egypt, the Ancient Near East, Greece, and Rome. May be taken twice if content is different.

Prereq.: Junior standing.

ART 5881 Twentieth Century Art to 1960 3 s.h.

A survey of the visual arts history of the 20th century beginning with its 19th century roots. The influential artists, movements, and motivating theories will be covered against a backdrop of world events. Primary emphasis is placed upon French Impressionism, German Expressionism, Fauvism, Surrealism, and American Abstract Expressionism.

Prereq.: ART 1542 or permission of instructor.

ART 5882 Twentieth Century Art from 1960 3 s.h.

A survey of the visual arts history of the late 20th century beginning with those ideas and trends which followed Abstract Expressionism. Beginning with the late 1950s every principle artistic movement from Pop through post-Modernism will be explored against a backdrop of Post-War world events.

Prereq.: ART 1542 or permission of instructor.

Bachelor of Fine Arts in Studio Art, Graphic + Interactive Design Track Faculty

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About the Major

Step into the vibrant world of Graphic + Interactive Design (<https://academics.ysu.edu/art/graphic-interactive-design/>) at Youngstown State University. Our program houses a dynamic studio art major with a concentration in graphic design that ignites creativity and equips students with the tools to shape the design landscape. The program explores typography, illustration, layout design, identity systems, package design, motion graphics, and web design. This program is not just about pixels and vectors; it's about critical thinking and creative problem-solving with a strong core of fine art studio courses.

The program covers the essentials during your Foundations year. Brushstrokes become design skills, and composition turns into a portfolio of design work. After completing the Freshman Foundations Portfolio Review, you will explore the core of design. You will learn about formal principles, print and interface design vocabulary, and the diverse field of graphic design studies, which will pave the way for future job opportunities. Our alumni (<https://academics.ysu.edu/cliffe-college-of-creative-arts/alumni-giving/>) work nationally and internationally for companies such as Disney, Sherwin-Williams, Southwest Airlines, the Cafaro Company, Millwood, Berk Enterprises, and more!

Schedule a meeting today to talk to faculty in the program. Our world-class faculty members (<https://academics.ysu.edu/art/faculty-directory/>) are more than professors—they are seasoned professionals with a wealth of experience. They will guide you through the intricacies of design theory, from typography to color palettes. Along the way, you will tackle real-world projects, participate in design competitions, and even explore internships. The Junior Portfolio Review and Senior Project will be your stepping stones toward a successful career (<https://academics.ysu.edu/art/career-preparation/>) in graphic + interactive design.

Contact Information

To learn more about our degree programs, scholarships, professional development and careers, exhibitions, faculty, and students, visit Department of Art (<https://academics.ysu.edu/art/>) or contact us at 330.941.3627.

To schedule a personalized campus visit, contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Any Gen Ed Math (Recommended MATH 2623)		3
Arts and Humanities (2 courses) ^{Included in major}		0
Natural Sciences (2 courses, 1 with lab) (7 s.h.)		7
Social Science (2 courses)		6
General Education Electives		9
CMST 1545 (3 s.h.)		
Any Gen Ed Course (3 s.h.)		
Any Gen Ed Course (3 s.h.)		
Major Requirements		
Foundation Courses:		
ART 1501	Fundamentals of 2D Design	3
ART 1502	Fundamentals of 3D Design	3
ART 1503	Freshman Seminar and Portfolio Review	1
ART 1521	Foundation Drawing	3
ART 1522	Intermediate Drawing	3
Breadth Courses:		
ART 2611	Introduction to Sculpture	3
ART 2625	Introduction to Printmaking: Intaglio and Relief	3
or ART 2626	Introduction to Printmaking: Lithography and Screenprinting	
ART 2631	Introduction to Ceramics	3
ART 2650	Introduction to Painting	3
ART 2674	Introduction to Photography	3
ART 2691	Introduction to Digital Media	3
Concentration Courses		
ART 2661	Print Design 1	3
ART 3759	Interactive Design 1	3
ART 3760	Typography 1	3
ART 3761	Print Design 2	3
ART 3703	Junior Portfolio Review	1
ART 4869	Interactive Design Studio	3
ART 4863	Logo + Branding Design	3
ART 4802	Senior Project	3
ART 4803	Senior Seminar	3
Graphic + Interactive Design Menu *CHOOSE 5 courses:		15
ART 3762	Typography 2	
ART 4864	Package Design	
ART 4861	Publication Design	
ART 3764	Typeface Design	

ART 4869	Interactive Design Studio (This course may be taken two times and is an optional elective.)	
ART 4867	Graphic Design Internship	
ART 3765	Motion Design	
ART 3763	Illustration	
ART 3748	Special Topics in Studio Art	
ART 4868	Graphic Design Practicum	
Studio Art Elective Options: ART 3713, 3722, 3733, 3757, 3771, 3792, 3794, 3795, 3796, 3797, 4800, 4801, 4824, 4837, 4838, 4851, 4891, 4893, 4896		
Art History and Theory		
Choose two 1500 level Art History courses from the following:		6
ART 1541, ART 1542, ART 1543, ART 1544, ART 1545		
Choose three additional 3700 level or higher Art History courses from the following:		9
ART 3742, 3743, 3745, 3746, 3783, 3784, 3785, 3789, 4880, 5881		
Electives to meet 120 hours		2
Total Semester Hours		120-122
Year 1		
Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
ART 1501	Fundamentals of 2D Design	3
ART 1521	Foundation Drawing	3
Any Gen Ed Math		3
Semester Hours		13-15
Spring		
ART 1502	Fundamentals of 3D Design	3
ART 1522	Intermediate Drawing	3
ART 1503	Freshman Seminar and Portfolio Review	1
ART 2661	Print Design 1	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Semester Hours		16
Year 2		
Fall		
ART 3760	Typography 1	3
ART 2691	Introduction to Digital Media	3
ART 1500 level Art History Course 1. (Choose from: ART 1541, 1542, 1543, 1544, 1545)		3
Art Breadth Course		3
General Education Elective - Natural Science + lab		4
Semester Hours		16
Spring		
ART 3759	Interactive Design 1 (*)	3
Art Breadth Course		3
ART 1500 level Art History Course 1. (Choose from: ART 1541, 1542, 1543, 1544, 1545)		3
General Education Elective - Social Science		3
General Education Elective - Natural Science		3
*Courses are offered in varying fall, spring and summer semesters. Please see graphic design program coordinator for upcoming schedule.		
Semester Hours		15

Year 3**Fall**

ART 3761	Print Design 2 (*)	3
ART 3703	Junior Portfolio Review (F/S/X)	1
ART 4869	Interactive Design Studio (*)	3
ART 3700 or higher Art History Course		3
Art Breadth Course		3
General Education Elective - Social Science		3

*Courses are offered in varying fall, spring and summer semesters. Please see graphic design program coordinator for upcoming schedule.

Semester Hours **16**

Spring

ART 1 of five electives from G+ID menu	3
ART 1 of five electives from G+ID menu	3
ART 3700 or higher Art History Course	3
Art Breadth Course	3
General Education Elective - Any Gen Ed Course	3

Request a Graduation Evaluation from the CCAC Advising Office, 2310 Bliss Hall, (330) 941-3625 after you have completed 80-85 sh.

Semester Hours **15**

Year 4**Fall**

ART 4863	Logo + Branding Design (*)	3
ART 1 of five electives from G+ID menu		3
ART 1 of five electives from G+ID menu		3
ART 3700 or higher Art History Course		3
General Education Elective - Any Gen Ed Course		3

*Courses are offered in varying fall, spring and summer semesters. Please see graphic design program coordinator for upcoming schedule.

Semester Hours **15**

Spring

ART 4802	Senior Project	3
ART 4803	Senior Seminar	3
ART 1 of five electives from G+ID menu		3
Art Breadth Course		3
Electives to meet 120 hours		2

Semester Hours **14**

Total Semester Hours **120-122**

Learning Outcomes

1. Students will be able to demonstrate their proficiency of art vocabulary.
2. Students will be able to demonstrate technical expertise appropriate to their progression in the program as it is relevant to their chosen artistic medium.
3. Students will be able to demonstrate a high level of content expression appropriate to their progression in the program as it is relevant to their chosen artistic medium.

Bachelor of Fine Arts in Studio Art, Interdisciplinary Studio Arts Track

Faculty

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About the Major

The Interdisciplinary Studio Arts (<https://academics.ysu.edu/art/degrees-majors/studio-art/interdisciplinary-studio-arts/>) program at Youngstown State University was designed specifically for students with interests in ceramics (<https://academics.ysu.edu/art/ceramics/>), digital media (<https://academics.ysu.edu/art/digital-media/>), graphic + interactive design (<https://academics.ysu.edu/art/degrees-majors/studio-art/interdisciplinary-studio-arts/art/graphic-interactive-design-0/>), painting (<https://academics.ysu.edu/art/painting/>), photography (<https://academics.ysu.edu/art/photography/>), printmaking (<https://academics.ysu.edu/art/printmaking/>), and sculpture (<https://academics.ysu.edu/art/sculpture-0/>).

Interdisciplinary practice is a central component of contemporary art. Students enrolled in the program explore and combine a variety of media to investigate and examine relevant topics across studio areas. The curriculum fosters innovative thinking and making for those interested in exploring alternative and experimental methodologies. Working closely with internationally recognized faculty (<https://academics.ysu.edu/art/leadership/>) mentors, students following this concentration have the flexibility to select the upper-division coursework that corresponds with their unique vision.

In addition, the Interdisciplinary Studio Arts program is a dynamic and innovative course of study that is designed to prepare students for success in the contemporary art world, with a focus on career readiness and building business skills for artists. This program goes beyond traditional artistic training, incorporating a strong emphasis on practical skills, an entrepreneurial mindset, and interdisciplinary collaboration.

Career preparation (<https://academics.ysu.edu/art/graphic-interactive-design/>) is built into this degree through required business minors that may be layered with certifications in both art and business. The Interdisciplinary Studio Arts degree prepares our students to tackle the workforce head-on, creating visually skilled, financially savvy artists who are ready to make their mark nationally and internationally.

The primary focus of the Department of Art is to provide our students with the highest quality education in the visual arts. When you graduate with an art degree from Youngstown State University, you can be confident in your skills and competitive advantage in your chosen creative field.

Contact Information

To learn more about our degree programs, scholarships, professional development and careers, exhibitions, faculty, and students, visit Department of Art (<https://academics.ysu.edu/art/>) or contact us at 330.941.3627.

To schedule a personalized campus visit, contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu.

COURSE	TITLE	S.H.
First Year Requirement -Student Success		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Any Gen Ed Math (Recommended MATH 2623)		3
Arts and Humanities (2 courses) *included in Major		0
Natural Sciences (2 courses, 1 with a lab)		7
Social Science (2 courses) *If pursuing Social Media minor you must take CMST 2600		6
General Education Electives *If pursuing Business minor you must take ECON 1505 for one gen ed course elective		9
CMST 1545 (3 s.h.)		
Any Gen Ed Course (3 s.h.)		
Any Gen Ed Course (3 s.h.)		
Major Requirements		
Foundation Courses (10 s.h.):		
ART 1501	Fundamentals of 2D Design	3
ART 1502	Fundamentals of 3D Design	3
ART 1521	Foundation Drawing	3
ART 1503	Freshman Seminar and Portfolio Review	1
Introductory Courses (12 s.h.):		
ART 2611	Introduction to Sculpture	3
or ART 2631	Introduction to Ceramics	
ART 2625	Introduction to Printmaking: Intaglio and Relief	3
or ART 2626	Introduction to Printmaking: Lithography and Screenprinting	
or ART 2650	Introduction to Painting	
ART 2674	Introduction to Photography	3
or ART 2691	Introduction to Digital Media	
ART 2661	Print Design 1	3
Concentration Courses (10 s.h.):		
ART 3722	Interdisciplinary Art Practice	3
ART 3703	Junior Portfolio Review	1
ART 4803	Senior Seminar	3
ART 4802	Senior Project	3
Studio Art Electives (21 s.h.):		21

Choose two 1500 or higher Studio Art Electives from the following courses:

ART 1510*, ART 1511*, ART 1512*, ART 1522, ART 2611, ART 2625, ART 2626, ART 2631, ART 2650, ART 2674, ART 2691, ART 3713, ART 3722, ART 3723, ART 3733, ART 3748, ART 3759, ART 3760, ART 3761, ART 3762, ART 3763, ART 3764, ART 3765, ART 3769, ART 3771, ART 3773, ART 3792, ART 3794, ART 3795, ART 3796, ART 3797, ART 3798, ART 4800, ART 4801, ART 4824, ART 4851, ART 4861, ART 4863, ART 4864, ART 4867, ART 4868, ART 4869, ART 4884, ART 4891, ART 4893, ART 4896 *1 s.h., need to take a total of 6 s.h. from this category.

Choose five 3700 or higher Studio Art Electives from the following courses:

ART 3713, ART 3722, ART 3723, ART 3733, ART 3748, ART 3759, ART 3760, ART 3761, ART 3762, ART 3763, ART 3764, ART 3765, ART 3769, ART 3771, ART 3773, ART 3792, ART 3794, ART 3795, ART 3796, ART 3797, ART 3798, ART 4800, ART 4801, ART 4824, ART 4851, ART 4861, ART 4863, ART 4864, ART 4867, ART 4868, ART 4869, ART 4884, ART 4891, ART 4893, ART 4896

Art History and Theory (12 s.h.):

ART 1541	Survey of Art History 1	3
ART 1542	Global Art since 1400	3

Choose two additional 3700 or higher Art History courses from the following:

ART 3740, ART 3741, ART 3742, ART 3743, ART 3745, ART 3746, ART 3783, ART 3784, ART 3785, ART 3789, ART 4880, ART 5881

Professional Artist Preparedness (8 s.h.):

ART 2601	Writing for Artists & Designers	3
ART 3701	Professional Preparedness / Artist Business Practices	3
ART 3702	Community Engagement Internship	2

Required Minor (12-18 s.h.): *if pursuing Social Media or Business minor, one course will be fulfilled within the gen ed requirements. **12-15**

Choose one Minor from the following options:

Minor in Business for Non-Business Majors (18 s.h.)*	
Minor in Entrepreneurship (15 s.h.)	
Minor in Marketing (12 s.h.)	
Minor in Non-Profit Leadership (14-15 s.h.)	
Minor in Social Media (18 s.h.)*	

Electives to meet 120 hours (if needed) 3-0

Total Semester Hours

Total Semester Hours 120-122

Year 1

Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
ART 1501	Fundamentals of 2D Design	3
or ART 1502	or Fundamentals of 3D Design	
ART 1521	Foundation Drawing	3
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
Any Gen Ed Math		3
Semester Hours		13-15
Spring		
ART 1502	Fundamentals of 3D Design	3
or ART 1501	or Fundamentals of 2D Design	
ART 1503	Freshman Seminar and Portfolio Review	1

ART 2625 or ART 2626 or ART 2650	Introduction to Printmaking: Intaglio and Relief ¹ or Introduction to Printmaking: Lithography and Screenprinting or Introduction to Painting	3
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
General Education Elective - Any Gen Ed		3
Semester Hours		16

Year 2**Fall**

ART 2661	Print Design 1	3
ART 2674 or ART 2691	Introduction to Photography ¹ or Introduction to Digital Media	3
ART 1541 or ART 1542	Survey of Art History 1 or Global Art since 1400	3
ART 2601	Writing for Artists & Designers	3
Minor Course 1		3
Semester Hours		15

Spring

ART 3722	Interdisciplinary Art Practice	3
ART 2611 or ART 2631	Introduction to Sculpture ¹ or Introduction to Ceramics	3
ART 15XX/26XX/37XX/48XX Studio Art Elective		3
ART 1542 or ART 1541	Global Art since 1400 or Survey of Art History 1	3
Minor Course 2		3
Semester Hours		15

Year 3**Fall**

ART 3701	Professional Preparedness / Artist Business Practices	3
ART 15XX/26XX/37XX/48XX Studio Art Elective		3
ART 3700 level or higher Studio Art Elective		3
General Education Elective - Natural Science + Lab		4
General Education Elective - Social Science ^{*If pursuing Social Media minor you must take CMST 2600}		3
Semester Hours		16

Spring

ART 3703	Junior Portfolio Review	1
ART 3700 level or higher Studio Art Elective		3
ART 3700 level or higher Art History Elective		3
ART 3702	Community Engagement Internship	2
General Education Elective - Social Science		3
Minor Course 3		3
Request a Graduation Evaluation from the CCAC Advising Office, 2310 Bliss Hall, (330) 941-3625 after you have completed 80-85 sh.		
Semester Hours		15

Year 4**Fall**

ART 4803	Senior Seminar	3
ART 3700 level or higher Studio Art Elective		3
ART 3700 level or higher Studio Art Elective		3
General Education Elective - Natural Science		3
Minor Course 4		3
Semester Hours		15

Spring

ART 4802	Senior Project	3
ART 3700 level or higher Studio Art Elective		3
ART 3700 level or higher Art History Elective		3
General Education Elective - Any Gen Ed ^{*If pursuing Business minor you must take ECON 1505}		3
Minor Course 5 or electives to meet 120 s.h.		3
Semester Hours		15
Total Semester Hours		120-122

¹ Choice of Introductory Courses should be based on primary studio interests as they will be prerequisites for upper level study.

Learning Outcomes

- 1) Students will be able to demonstrate their proficiency of art vocabulary.
- 2) Students will be able to demonstrate technical expertise appropriate to their progression in the program as it is relevant to their chosen artistic medium.
- 3) Students will be able to demonstrate a high level of content expression appropriate to their progression in the program as it is relevant to their chosen artistic medium.

Bachelor of Fine Arts in Graphic and Interactive Design

The B.F.A. in Graphic + Interactive Design is an online program that will begin in the spring 2025 semester.

Faculty

Amy Copeland (<https://academics.ysu.edu/art/amy-copeland/>), M.F.A.

Assistant Professor

Bliss Hall 4089

330.941.3627

adcopeland01@ysu.edu

Sebastian Giraldo (<https://academics.ysu.edu/art/sebastian-giraldo/>), M.F.A.

Assistant Professor

Bliss Hall 4085

330.941.3301

sgiraldo@ysu.edu

Michelle Nelson (<https://academics.ysu.edu/art/michelle-nelson/>), M.F.A.

Professor

Bliss Hall 4073

330.941.1858

mnelson@ysu.edu

About the Major

Our program is meticulously designed to empower you with the skills essential for a successful career (<https://academics.ysu.edu/art/career-preparation/>) in the dynamic field of graphic design. This learning model benefits recent high school graduates, working professionals, parents, or others with commitments

beyond the classroom. Join our fully online B.F.A. in Graphic Design and unleash your creativity on the world.

Here's the scoop:

- **Trailblazing Alumni:** Our grads? They're the magic behind Disney, Sherwin-Williams, Southwest Airlines, and more.
- **Crafting Impact:** Dive into immersive seven-week semesters (we've got six start dates a year!) and create designs that leap off printed pages, dazzle phone screens, and dominate billboards.
- **Flexibility is Key:** Tailor your study hours to your unique schedule. Whether you're a parent, a working professional, or a military personnel, our program is designed to accommodate your needs.
- **Anywhere, Anytime:** Break free from boundaries! Our 100% online program lets you earn your degree from your hometown, a different state, or even while stationed as a military professional.
- **Practical Skills Galore:** Dive into industry-standard software, build a portfolio that screams "hire me," and snag those remote work skills.
- **Independence & Grit:** Develop the mojo you need to thrive in your future career. Self-discipline is a must, and we help you shape that.
- **Diverse Design Courses:** Immerse yourself in over 20 design-focused courses that keep you focused on skills for your future career. These modules are carefully crafted to expose you to a wide range of directions a design career can take.

Our faculty are not just teachers, they're mentors. They provide personalized video feedback, dissect your concepts, scrutinize your type usage, and analyze your images within the design software you use. This hands-on, individualized approach empowers you to make informed design choices and master the software, regardless of your current level.

Our collaborative community ensures you thrive, providing the support you need to succeed in your creative journey. As you dive into hands-on learning with industry-standard software, you'll build a portfolio aligned with current graphic design trends and gain practical skills highly valued in the job market. Plus, our program equips you with essential remote work skills, preparing you for a dynamic job market.

Contact Information

To learn more about our degree programs, scholarships, professional development and careers, exhibitions, faculty, and students, visit Department of Art (<https://academics.ysu.edu/art/>) or contact us at 330.941.3627.

To schedule a personalized campus visit, contact The Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>)' Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Any Gen Ed Math (Recommended MATH 2623)		3
Arts and Humanities (2 courses)	Included in major	0
Natural Sciences (2 courses, 1 with lab) (7 s.h.)		7
Social Science (2 courses)		6
General Education Electives (9 s.h.)		9

CMST 1545	Communication Foundations	
Any 2 Gen Ed Courses (6 s.h.)		
Major Requirements		
Core Courses:		
ART 1529	Design + 2D	3
ART 1531	Design + Drawing as Thinking	3
ART 1532	Design + Raster Images	3
ART 1533	Design + Color	3
ART 1534	Design + Painting	3
Studio Courses:		
ART 2663	Design + Photography 1	3
ART 3756	Design + Photography 2	3
ART 3763	Illustration (Prerequisite not required with instructor permission)	3
ART 4860	Design + Illustration 2	3
Print Design Courses:		
ART 2661	Print Design 1	3
ART 3761	Print Design 2	3
ART 3754	Design + Prepress	3
ART 4861	Publication Design (Prerequisite not required with instructor permission)	3
Interactive Design Courses:		
ART 2635	Design + UX/UI Theory	3
ART 3759	Interactive Design 1	3
ART 3769	Interactive Design 2	3
ART 3765	Motion Design	3
Expanded Design Courses:		
ART 2660	Design + Applications	3
ART 3760	Typography 1	3
ART 3762	Typography 2	3
ART 3764	Typeface Design	3
ART 4863	Logo + Branding Design	3
ART 4899	Design + Senior Seminar	1
Capstone Course:		
ART 4898	Design + Senior Project	3
Art History Courses:		
ART 1541	Survey of Art History 1	3
ART 1542	Global Art since 1400	3
ART 3783	History and Theory of Graphic Design	3
Choose one 3700 level or higher Art History course from the following:		
ART 3740, ART 3742, ART 3743, ART 3745, ART 3746, ART 3750, ART 3784, ART 3785, ART 3789, ART 4880, ART 5881		
Business Courses		
BUS 1500	Foundations of Business (Business Course)	3
MKTG 3703	Marketing Concepts and Practice	3
Total Semester Hours		120-122

Learning Outcomes

- 1.) Students will be able to demonstrate their proficiency of design vocabulary.
- 2.) Students will be able to demonstrate technical expertise appropriate to their progression in design.
- 3.) Students will be able to demonstrate a high level of conceptual development when creating multifaceted Graphic Design pieces.

Minor in Art History for Non-Art Majors

Faculty

Dr. Stephanie Smith (<https://academics.ysu.edu/art/stephanie-smith/>), Ph.D.
Professor
Bliss Hall 4083
330.941.3632
ssmith@ysu.edu

About the Minor

The Minor in Art History for Non-Art Majors exists to give tangible expression of a student's interests and proficiencies in interpreting the world of objects and images. It serves as a testament to the cultivation of critical thought and research acumen in relation to the visual world. Our minor also expands students' understanding of how art history can intersect with other fields and allows them to develop additional skills that complement the marketable competencies and knowledge they acquire in their majors.

Students who earn the Minor in Art History for Non-Art Majors often pursue careers in public relations, arts administration, galleries and museums, art restoration, and other similar professions.

Contact Information

To learn more about our degree programs, scholarships, professional development and careers, exhibitions, faculty, and students, visit Department of Art (<https://academics.ysu.edu/art/>) or contact us at 330.941.3627.

To schedule a personalized campus visit, contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu.

COURSE	TITLE	S.H.
Select 2 courses at the 1500 level		6
ART 1541	Survey of Art History 1	
ART 1542	Global Art since 1400	
ART 1543	Survey of Art History: Gods and Monsters–Religion, Myth, and the Supernatural	
ART 1544	Survey of Art History: Body, Gender, and Self	
ART 1545	Survey of Art History: Power, Propaganda, and the Public Realm	
Select 2 courses at the 3700 level or higher		6
ART 3741	Topics in Medieval Art	
ART 3742	Topics in Renaissance Art	
ART 3743	Baroque and Rococo Art	
ART 3745	Nineteenth Century Art	
ART 3784	Art of China	
ART 3785	Art of Japan	
ART 3789	Arts of South and Southeast Asia	
ART 4880	Special Topics in Art History	
ART 5840	Topics in Ancient Art	
ART 5881	Twentieth Century Art to 1960	
ART 5882	Twentieth Century Art from 1960	
Total Semester Hours		12

Minor in Digital Media for Non-Art Majors

Faculty

Dana Sperry (<https://academics.ysu.edu/art/j-dana-sperry/>), M.F.A.
Professor
Bliss Hall 4081
330.941.3627
jdsperry@ysu.edu

About the Minor

The Minor in Digital Media for Non-Art Majors teaches students to use the creative tools of tomorrow. Students pursuing this minor will explore the ways in which new technologies are engines of personal exploration and cultural production and experiment with new ways of expressing themselves through video, interactive media, digital fabrication, and more. The skills students acquire will prepare them for careers in a variety of creative industries.

Contact Information

To learn more about our degree programs, scholarships, professional development and careers, exhibitions, faculty, and students, visit Department of Art (<https://academics.ysu.edu/art/>) or contact us at 330.941.3627.

To schedule a personalized campus visit, contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu.

COURSE	TITLE	S.H.
ART 1501	Fundamentals of 2D Design	3
ART 2691	Introduction to Digital Media	3
Select three of the following:		9
ART 3792	Video and Animation Studio (may be repeated 2 times for 6 s.h.)	
ART 3797	Interactive Art Studio (may be repeated 2 times for 6 s.h.)	
ART 4893	Advanced Digital Media Studio (may be repeated 2 times for 6 s.h.)	
Total Semester Hours		15

Minor in Graphic + Interactive Design for Non-Art Majors

Faculty

Amy Copeland (<https://academics.ysu.edu/art/amy-copeland/>), M.F.A.
Assistant Professor
Bliss Hall 4089
330.941.3627
adcopeland01@ysu.edu

Sebastian Giraldo (<https://academics.ysu.edu/art/sebastian-giraldo/>), M.F.A.
Assistant Professor
Bliss Hall 4085
330.941.3301
sgiraldo@ysu.edu

Michelle Nelson (<https://academics.ysu.edu/art/michelle-nelson/>), M.F.A.

Professor
Bliss Hall 4073
330.941.1858
mnelson@ysu.edu

About the Minor

The Minor in Graphic + Interactive Design for Non-Art Majors provides students with a foundation of critical and creative design processes. Based primarily on computer technology, students will investigate new ways of solving complex visual problems and use both print and interactive designs as solutions.

Students who earn the Minor in Graphic + Interactive Design for Non-Art Majors often pursue careers in marketing, motion and web design, creative direction, and other similar professions.

Contact Information

To learn more about our degree programs, scholarships, professional development and careers, exhibitions, faculty, and students, visit Department of Art (<https://academics.ysu.edu/art/>) or contact us at 330.941.3627.

To schedule a personalized campus visit, contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu.

COURSE	TITLE	S.H.
ART 1501	Fundamentals of 2D Design	3
ART 2661	Print Design 1	3
ART 3760	Typography 1	3
ART 3759	Interactive Design 1	3
Select one of the following:		3
ART 3761	Print Design 2	
ART 3769	Interactive Design 2	
Total Semester Hours		15

Minor in Photography for Non-Art Majors

Faculty

Joy Christiansen Erb (<https://academics.ysu.edu/art/joy-christiansen-erb/>), M.F.A.
Acting Chair and Professor
Bliss Hall 4001A
330.941.1397
jchristiansenerb@ysu.edu

About the Minor

The Minor in Photography for Non-Art Majors provides students with experience in photographic processes in both traditional and digital technologies. They explore historic and contemporary issues within lens-based media with equal emphasis on the science and craft of photography and on critical thinking and conceptual development. Our minor also expands students' understanding of how photography can intersect with other fields and allows them to develop additional skills that complement the marketable competencies and knowledge they acquire in their majors.

Students who earn the Minor in Photography for Non-Art Majors often pursue careers in journalism, education, history, psychology, sociology, the sciences, and other similar professions.

Contact Information

To learn more about our degree programs, scholarships, professional development and careers, exhibitions, faculty, and students, visit Department of Art (<https://academics.ysu.edu/art/>) or contact us at 330.941.3627.

To schedule a personalized campus visit, contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu.

COURSE	TITLE	S.H.
ART 1501	Fundamentals of 2D Design	3
ART 2674	Introduction to Photography	3
ART 3773	Digital Photography Studio	3
ART 3773	Digital Photography Studio <small>Course must be taken twice</small>	3
ART 3771	Analog Photography Studio	3
Total Semester Hours		15

Minor in Studio Art for Non-Art Majors

Faculty

Joy Christiansen Erb (<https://academics.ysu.edu/art/joy-christiansen-erb/>), M.F.A.
Acting Chair and Professor
Bliss Hall 4001A
330.941.1397
jchristiansenerb@ysu.edu

Dragana Crnjak (<https://academics.ysu.edu/art/dragana-crnjak/>), M.F.A.
Professor
Bliss Hall 0016
330.941.1860
dcrnjak@ysu.edu

Joseph D'Uva (<https://academics.ysu.edu/art/joseph-duva/>), M.F.A.
Professor
Bliss Hall 4071
330.941.2540
jduva@ysu.edu

Dana Sperry (<https://academics.ysu.edu/art/j-dana-sperry/>), M.F.A.
Professor
Bliss Hall 4081
330.941.3627
jdsperry@ysu.edu

About the Minor

The Minor in Studio Art for Non-Art Majors expands students' understanding of how art can intersect with other fields, allows them to develop additional skills that complement the marketable competencies and knowledge they acquire in their majors, and provides the opportunity for them to integrate creative and artistic pursuits with other studies.

Creativity, problem-solving abilities, and critical thinking skills are competencies sought across all professions, and students who earn the Minor

in Studio Art for Non-Art Majors often pursue careers in arts administration, business, museum professions, the sciences and medical fields, and other similar professions.

Contact Information

To learn more about our degree programs, scholarships, professional development and careers, exhibitions, faculty, and students, visit Department of Art (<https://academics.ysu.edu/art/>) or contact us at 330.941.3627.

To schedule a personalized campus visit, contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu.

COURSE	TITLE	S.H.
Select one 1500-level course listed below:		3
ART 1501	Fundamentals of 2D Design	
ART 1502	Fundamentals of 3D Design	
Select two of the 2600-level courses listed below:		6
ART 2611, ART 2625, ART 2626, ART 2631, ART 2650		
Select two 3700/4800-level courses listed below:		6
ART 3713, ART 3722, ART 3733, ART 3748, ART 4800, ART 4801, ART 4824, ART 4851		
Total Semester Hours		15

Dana School of Music and University Theatre

Welcome to The Dana School of Music and University Theatre

Through exceptional instruction, innovative and comprehensive curricula, and robust music and theatre programming, our cutting-edge degrees in Music (p. 240) and Theatre (p. 271) embody the YSU mission of inspiring individuals, enhancing futures, and enriching the lives of our students and the broader community. Our world-class faculty (<https://ysu.edu/faculty-staff/?category=44151>) provide outstanding artistic and professional training and focus on the professional development and unique career goals (<https://academics.ysu.edu/cliffe-college-of-creative-arts/career-and-professional-development/>) of each student. Our programs make YSU a leader in Northeast Ohio in preparing students for today's rapidly changing fields in the performing arts.

The Dana School of Music (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/>) and University Theatre (<https://ysu.edu/ccca/university-theatre/>) present over 100 performances and productions annually and house multiple rehearsal and performance spaces, highly specialized classrooms and studios, production shops, media labs, state-of-the-art technology, and more. Our students receive individualized instruction as they pursue the B.M. in Audio and Music Production, B.M. in Music Education, B.M. in Music Performance, B.A. in Theatre Studies or Film/Video concentration, or B.F.A. in Theatre or Musical Theatre concentration. All of our programs cultivate life-long skills with proven results that may be seen in our alumni's (<https://academics.ysu.edu/cliffe-college-of-creative-arts/alumni-giving/>) impressive and wide-ranging job placement record or in the success of our students' entrance into competitive graduate programs upon completion of their degree programs at YSU.

We invite you to learn more about our programs, tour our facilities, and meet with one of our world-class faculty and current students. We would love to hear

about your interests and talk with you about how we can become an important part of your future.

Joseph Carucci (<https://academics.ysu.edu/cliffe-college-of-creative-arts/leadership-administration/joseph-carucci/>), D.M.A., Director
Dana School of Music (<https://ysu.edu/academics/college-creative-arts-and-communication/dana-school-of-music/>) and University Theatre (<https://ysu.edu/ccca/university-theatre/>)
Bliss Hall 3010
1 Tressel Way
Youngstown, OH 44555
330.941.1439
jwcarucci@ysu.edu

Contact Information

To learn more about our degree programs, audition information, scholarships, professional development and careers, performances, productions, faculty, and students, visit Dana School of Music (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/>) and University Theatre (<https://ysu.edu/ccca/university-theatre/>) or contact us at 330.941.3635.

To schedule a personalized campus visit, contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu.

Dana School of Music

Introduction

Welcome to the Dana School of Music (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/>)! Founded in 1869 (http://ead.ohiolink.edu/xtf-ead/view/?docId=ead/OYU0019.xml;chunk.id=bioghist_1;brand=default) in Warren, Ohio by William Henry Dana, the Dana School of Music (DSM) is one of the oldest institutions of its kind in the United States and is a fully accredited member of the National Association of Schools of Music (<https://nasm.arts-accredit.org/>). In 2004, the DSM became the first public university in Ohio to gain recognition as an All-Steinway School.

The Dana School of Music provides exceptional training for performers, educators, composers, and scholars that focuses on specialized educational and artistic experiences designed to prepare students for a myriad of careers in music (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/careers/>). The school offers five undergraduate and graduate majors and programs in 10 areas of study and provides opportunities for students to diversify their studies with a variety of certificates, minors, and elective courses they will use throughout their professional lives. Our world-class faculty (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/faculty/>) of performers, composers, and scholars are dedicated to creating deep educational experiences that encourage innovation, develop leadership skills, and prepare students for the widely varied purposes of music in today's world. The school also invites non-majors to participate in classes and performances and provides numerous opportunities for students in other colleges to perform in ensembles (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/ensembles/>), take General Education courses (p. 92), or pursue one of our minors (p. 243).

DSM alumni (<https://academics.ysu.edu/cliffe-college-of-creative-arts/alumni-giving/>) perform and record internationally, are Nashville Songwriters Hall of Fame members and Grammy® Award winners, work as academic faculty, are award-winning producers, arrangers, and audio engineers, artistic managers, and more. A degree from the Dana School of Music prepares students to define their future goals and equips them with exceptional skills for successful careers.

To learn more about our degree programs, audition information, scholarships, professional development and careers, entrance requirements, facilities (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/>)

facilities/), faculty, and students, visit Dana School of Music (<https://ysu.edu/academics/college-creative-arts-and-communication/dana-school-of-music/>) or contact us at 330.941.3636.

To schedule a personalized campus visit, contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu. We would love to hear about your interests, show you our school, and become an important part of your future.

Joseph Carucci (<https://academics.ysu.edu/cliffe-college-of-creative-arts/leadership-administration/joseph-carucci/>), D.M.A., Director

Dana School of Music (<https://ysu.edu/academics/college-creative-arts-and-communication/dana-school-of-music/>) and University Theatre (<https://ysu.edu/ccca/university-theatre/>)

Bliss Hall 3010

1 Tressel Way

Youngstown, OH 44555

330.941.1439

jwcarucci@ysu.edu

Mission Statement

The Dana School of Music fosters a vibrant community of student and faculty musicians/scholars who work across broad yet interrelated areas of inquiry including music industry, music education, performance, composition, improvisation, technology, research, pedagogy, theory, and history. DSM leads in the pursuit of musical excellence and the discovery, dissemination, and application of knowledge; encourages creativity and collaboration; and advocates for the importance of the arts in society.

The Dana School of Music:

- creates diverse educational experiences that develop ethical, intellectually curious students who advance the intellectual and cultural life of the university as well as regionally, nationally, and internationally through performances, recordings, research, teaching, and other public activities;
- offers undergraduate programs in audio and music production, music education, and music performance;
- offers graduate programs in music education (100% online) and music performance that allow students to focus on jazz, composition and songwriting, and music industry, among others.

Accreditation

Youngstown State University is accredited by the National Association of Schools of Music (NASM) (<https://nasm.arts-accredit.org/>).

- Date of Initial Accreditation: 9/1/1947
- Year of Most Recent Comprehensive Review: 2024
- Academic Year of Next Scheduled Comprehensive Review: 2032-33

Dana School of Music requirements for entrance and graduation are in accordance with the published regulations of the NASM.

Degrees and Majors

UNDERGRADUATE MAJORS AND AREAS OF FOCUS

Bachelor of Music (B.M.)

- Audio and Music Production (p. 250)
- Music Education (p. 252) [focus areas: choral, instrumental, instrumental jazz]
- Music Performance (p. 260) [focus areas: instrumental, jazz, piano, voice]

CERTIFICATES

- Audio and Music Production Certificate (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-creative-arts-communication/school-music/certificate-in-audio-and-music-production/>)
- Audio and Music Production Pedagogy Certificate (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-creative-arts-communication/school-music/certificate-in-audio-and-music-production-pedagogy/>)

MINORS

- Minor in Interdisciplinary Game Studies (p. 412)
- Minor in Music (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-creative-arts-communication/school-music/music-minor/>)

Academic Advising

The Cliffe College Academic Advising Office (<https://academics.ysu.edu/cliffe-college-of-creative-arts/advising-student-success/>) provides optimum assistance to help our students navigate through their undergraduate years and prepare them for academic and future career endeavors! Our advisors can provide advice about staying on track with your degree program, combining your major with a supporting minor, finding resources to enhance your coursework with study abroad or other student enrichment experiences, career development, and more. Our goal is to see you succeed! The academic advisor for music students may be reached at 330.941.3728 or smholdridge@ysu.edu.

Career and Professional Development

The dedicated faculty in the Dana School of Music are actively engaged in helping students successfully transition into a wide range of careers (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/careers/>) regionally, nationally, and across the globe. Our students hone exceptional artistic and technical abilities, and their education gives them one of the most competitive skills in today's job market: **creativity**. They also develop a range of other valuable transferable proficiencies, including critical thinking, interpersonal skills, and a strong work ethic. Our graduates earn degrees in areas about which they are passionate, and their skills are applicable to careers in numerous professions. Your professional opportunities with a degree from the Dana School of Music at Youngstown State University are greater than ever!

Facilities

Whether Dana students are rehearsing, practicing, studying, or performing, our facilities (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/facilities/>) augment their education and artistic endeavors. The Dana School of Music is located in Bliss Hall, home of the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>). The School houses the 248-seat Bliss Recital Hall, 390-seat Ford Theater, 135-seat Spotlight Theater, large and chamber ensemble rehearsal spaces, a professional recording studio, and more than 140 studios, classrooms, practice rooms, and keyboard and computer laboratories. Our students perform in a variety of exquisite and historic spaces, ranging from a 300-seat hall to a more than 2,300-seat performance venue for large-scale productions, including The Butler Institute of American Art and Butler North (<https://butlerart.com/>), the DeYor Performing Arts Center (<https://deyorpac.org/>), and Stambaugh Auditorium (<https://www.stambaughauditorium.com/>).

The MIDI Classroom provides students with the opportunity to utilize state-of-the-art technology. The classroom features 17 MIDI-equipped Macintosh workstations where students can access various Digital Audio Workstations, music notation software, music sequencing tools, and accompaniment applications.

The Dana Recording Studio utilizes a Solid-State Logic Origin 32-channel recording and mixing console that allows our students to work within hybrid

analog-digital production environments. We have 64-channels of high-quality A-D conversion from Ferrofish in our Dante-equipped studio. Students have access to Kurzweil and Roland keyboards, controllers, and synths, as well as Reason and the Native Instruments Komplete software package. The studio features an iMac running Avid Pro-Tools, Ableton Live, MOTU Digital Performer, and Apple Logic Digital Audio Workstation software. The microphone inventory includes a selection of condenser, ribbon, and dynamic microphones from companies like AEA, Neumann, AKG, Shure, Audio Technica, Royer, Cascade, Electro-Voice, and more.

An extensive collection of books, printed music, recordings, research journals, and additional technology are housed at YSU's Maag Library (<http://maag.ysu.edu/>). In addition, Maag Library provides access to numerous databases of music scores, recordings, research journals, and other resources. The Dana School of Music also has band, orchestral, choral, and jazz ensemble libraries with literature representing musical periods from the Middle Ages to the present.

Scholarships and Awards

DSM scholarships reward academic and artistic merit and reduce financial need for many students, including undergraduate, graduate, incoming, and continuing students. Our scholarships are competitive and are only available to students who have been admitted to or declared a major in Dana. They supplement other YSU scholarships (http://cfweb.cc.ysu.edu/finaid/scholar/est_scholar.cfm) as well as any additional financial aid (http://cfweb.cc.ysu.edu/finaid/estimator/est_estimator.cfm). To be considered for as many YSU, YSU Foundation (https://cfweb.cc.ysu.edu/finaid/ysuf/ysuf_application.cfm), and Cliffe College scholarships (<https://academics.ysu.edu/cliffe-college-of-creative-arts/scholarships/>) as possible, it is recommended that students complete the Free Application for Federal Student Aid (FAFSA) (<https://ysu.edu/node/32/>). Scholarship recipients are required to maintain a cumulative GPA of 3.0 and enroll in an assigned ensemble during each term of their award (with the exception of the Student Teaching semester).

Musical Performances

Each year, the school presents over 150 concerts by students, faculty, and guests. In addition to individual pursuits, students have the opportunity to perform in our outstanding ensembles, including bands, choirs, jazz ensembles and combos, world and contemporary groups, orchestras, chamber music, opera productions and musicals, and more. Internationally renowned guest artists supplement performances by students and faculty, all of which provide the greater Youngstown community with the chance to hear some of the world's finest musicians. The majority of these outstanding concerts are free and open to the public.

Other performing arts programs presented by YSU include:

- Music at Noon (<https://explore.ysu.edu/cliffe-college-of-creative-arts-events-calendar/>)
- The Pipino Performing Arts Series (<https://academics.ysu.edu/cliffe-college-of-creative-arts/pipino/>)
- University Theatre Season (<https://ysu.edu/ccca/university-theatre/on-stage/>)

For a schedule of all Cliffe College of Creative Arts and Dana School of Music performances, visit Cliffe College Events (<https://exploreysu.com/cliffe-college-of-creative-arts-events-calendar/>) or call 330.941.2307.

Student Ensembles

DSM has numerous performing ensembles (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/ensembles/>). Students who are not music majors are invited to participate in most of the school's ensembles. For additional information, visit the *Course Catalog* or contact the Music Academic Advisor at 330.941.3728 or smholdridge@ysu.edu.

Admittance to the Dana School of Music

Admittance to DSM is granted upon acceptance to YSU and completion of a successful audition. Auditions (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/admission/>) are typically held during the spring of a prospective student's senior year.

For information about acceptance to YSU, please visit YSU Admissions (<https://ysu.edu/admissions/apply-to-ysu/>) or call the Admissions Office toll free 877.468.6978 or local 330.941.2000. For information about music auditions, visit the Admission to Dana (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/admission/>) page or contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu.

Major Requirements FOR ALL MUSIC MAJORS

Acceptance into a performance area is contingent upon an audition (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/audition/>). At the discretion of the applied instructor and DSM Director, a student who does not qualify for major-level lessons (e.g., PIAN 1501, FLUT 1501) may take the relevant minor-level lessons (e.g., PIAN 1500A, FLUT 1500A).

After an assessment of skills by members of the faculty, advanced standing in performance may be granted tentatively (e.g., for transfer students). The final classification is made at the end of the first semester of resident study. Enrollment in applied lessons is contingent upon the approval of the DSM Director, with priority given to full-time music majors and music minors participating in major ensembles.

APPLIED LESSONS

Assignment of students to teachers for applied music lessons is made by the area coordinator in consultation with the Director. Requests for a change of teacher should be addressed to the DSM Director in writing. To the extent possible, a student's choice of applied teacher will be taken into consideration, but the final assignment resides with the Director.

Students registered for 4 s.h. of applied lessons receive 50 minutes of individual instruction and one 50-minute seminar weekly; they are required to practice three hours daily. Students registered for 2 or 3 s.h. of applied lessons receive 50 minutes of individual instruction and one 50-minute seminar weekly; they are required to practice two hours daily. Students registered for minor-level lessons receive individual instruction for 30 minutes each week and are required to practice one hour daily.

If a student misses more than three lessons in any semester, no credit will be given in applied lessons. Lessons missed due to legal holidays or school closings will not be rescheduled. In the case of prolonged student illness, the lessons may be rescheduled at the discretion of the applied teacher.

DEGREE AND NON-DEGREE RECITALS

In partial fulfillment of graduation requirements, candidates for the Bachelor of Music degree are required to give a senior recital. Performance majors will present a half-hour recital their junior year and a one-hour recital their senior year. Music education majors will give a half-hour recital of music. Outstanding students may present non-degree recitals, subject to certain conditions. For more information, students should speak with their studio faculty. Student recitals should include a varied and balanced repertory, preparation of a printed program and program notes, and consideration of performance aspects such as attire, stage deportment, and marketing to an audience. A *minimum of 21 days prior to the projected recital date*, a recital hearing will be held. During that time, a student who plans to present a degree recital must be prepared to perform the recital program for faculty approval.

PERFORMANCE EXAMINATIONS

During examination week of each term, performance faculty members convene to determine if students may proceed to the next proficiency level of applied study. Frequency of required examinations differs among the various performance areas (for specifics, consult the syllabus of the performance area concerned). Transfer students are examined at the end of their first or second term of study, as established by the individual performance area. Students presenting an approved degree recital may be granted a waiver of examination for the term of the recital. Students who have earned a grade of C or lower, or with a grade of PR, may be retained in the same proficiency level. Students who fail to meet the standards of the examining faculty may be required to reduce the number of credits for which they register in subsequent terms or withdraw completely from the course sequence.

To meet certain needs, each applied area (e.g., piano, brass, strings) may vary the above requirements. For details, consult with your applied instructor.

PERFORMANCE ATTENDANCE

Recognizing that performing for an audience plays a vital role in musical and artistic growth, the Dana School of Music offers its students many opportunities to perform in public as a way to foster that development. All undergraduate music majors are required to attend 12 approved performances each semester for six consecutive semesters, beginning in the freshman year.

General Procedures and Policies

Students are responsible for knowing about degree requirements and university and Dana School of Music policies and procedures. This information may be found through the Dana office, from the Music Academic Advisor, or from several sections of this *Catalog*, including details in Academic Policies, Rights, and Responsibilities (p. 10).

Director

Joseph W. Carucci (<https://academics.ysu.edu/cliffe-college-of-creative-arts/leadership-administration/joseph-carucci/>), D.M.A., Professor

Professor

Kent J. Engelhardt (<https://ysu.edu/people/kent-engelhardt/>), Ph.D., Professor

Francois P. Fowler (<https://ysu.edu/people/francois-fowler/>), D.M., Professor

Daniel Keown (<https://ysu.edu/people/daniel-keown/>), Ph.D., Associate Professor

Christopher Krummel (<https://ysu.edu/people/christopher-krummel/>), D.M.A., Professor

J. Paul Louth (<https://ysu.edu/people/paul-louth/>), Ph.D., Professor

Andrew Mitchell (<https://ysu.edu/people/andrew-mitchell/>), D.M.A., Assistant Professor

David S. Morgan (<https://ysu.edu/people/dave-morgan/>), D.M.A., Professor

Caroline Oltmanns (<https://ysu.edu/people/caroline-oltmanns/>), D.M.A., Professor

Phyllis M. Paul (<https://academics.ysu.edu/cliffe-college-of-creative-arts/leadership-administration/phyllis-m-paul/>), Ph.D., Dean and Professor

Glenn Schaft (<https://ysu.edu/people/glenn-schaft/>), D.M.A., Professor

Alice M. Wang (<https://ysu.edu/people/alice-wang/>), D.M.A., Professor

Lecturer

Kate E. Ferguson (<https://ysu.edu/people/kate-ferguson/>), Ph.D., Lecturer

Bryan Helsel (<https://ysu.edu/people/bryan-helsel/>), Ph.D., Lecturer

Degrees, Majors, and Concentrations

- Bachelor of Music in Audio and Music Production (p. 250)
- Bachelor of Music in Music Education (p. 252)
 - Instrumental (p. 256)
 - Instrumental Jazz (p. 258)
 - Choral (p. 253)

- Bachelor of Music in Music Performance (p. 260)

- Instrumental (p. 262)
- Jazz (p. 265)
- Piano (p. 267)
- Voice (p. 269)

Certificates

- Audio and Music Production Certificate (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-creative-arts-communication/school-music/certificate-in-audio-and-music-production/>)
- Audio and Music Production Pedagogy Certificate (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-creative-arts-communication/school-music/certificate-in-audio-and-music-production-pedagogy/>)

Minors

- Minor in Interdisciplinary Game Studies (p. 412)
- Minor in Music (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-creative-arts-communication/school-music/music-minor/>)

Music Applied Classes

MUAC 1521 Keyboard Musicianship for Non-Music Majors 1 1 s.h.

Intended for the student with no previous music studies, this first-semester course develops fundamental piano playing, through the study of music fundamentals and repertoire.

MUAC 1522 Keyboard Musicianship for Non Music Majors 2 1 s.h.

Continuation of MUAC 1521. Intended for the student with no previous music studies, this second-semester course develops fundamental piano playing, through the study of music fundamentals and repertoire.

Prereq.: MUAC 1521 or permission of instructor.

MUAC 1556 Singer's Diction: English/German 1 s.h.

The prime objective of this course is to introduce students to the International Phonetic Alphabet (IPA), and apply it properly to the English and German languages in the service of adequate lyric diction for soloists, choristers, and music educators.

Prereq. or Coreq.: Two semesters of private voice lessons or permission of the instructor.

MUAC 1557 Singer's Diction: Italian/French 1 s.h.

The prime objective of this course is to introduce students to the International Phonetic Alphabet (IPA), and apply it properly to the Italian and French languages in the service of adequate lyric diction for soloists, choristers, and music educators.

Prereq. or Coreq.: MUAC 1556.

MUAC 1558 Singer's Diction: French 1 s.h.

Application of the principles of Lyric diction; utilization of the International Phonetic Alphabet in developing and reading phonetics transcriptions of French song texts.

MUAC 1581 Class Piano 1 1 s.h.

Intended for and required of all non-keyboard music majors, the first-semester course builds functional skills at the piano. Students develop techniques to perform all major scales and arpeggios, sight reading, triads and inversion, primary chords, harmonization of popular and/or folk tunes, and repertoire with both hands.

Coreq.: Major-level applied lessons (1501 or higher) or permission of coordinator.

MUAC 1582 Class Piano 2 1 s.h.

Continuation of MUAC 1581 and required of all non-keyboard music majors. Students hone piano techniques by performing major and minor scales and arpeggios, score analysis, transposition, harmonization of popular and/or folk tunes with extended chords, and solo/ensemble repertoire with both hands.

Prereq.: grade of "C" or better in MUAC 1581.

Coreq.: Major-level applied lessons (1501 or higher), placement test, or permission of coordinator.

MUAC 2667 Jazz Improvisation 1 3 s.h.

Jazz techniques with emphasis on analysis of harmonic progressions, form, style, and performance requirements of the jazz idiom.

Prereq.: MUTC 1531 or MUTC 1531N or permission of the instructor.

MUAC 2668 Jazz Improvisation 2 3 s.h.

Jazz techniques with emphasis on analysis of harmonic progressions, form, style, and performance requirements of the jazz idiom.

Prereq.: MUTC 1531 or MUTC 1531N or permission of the instructor.

MUAC 2681 Class Piano 3 1 s.h.

Continuation of MUAC 1581-1582 and required of all non-keyboard music majors. Students perform all technical requirements with fluidity and early intermediate repertoire with appropriate musical style. Emphasis on two- to three-part score reading involving transpositions, harmonization with secondary dominant chords and various accompanying patterns.

Prereq.: grade of "C" or better in MUAC 1582.

Coreq.: Major-level applied lessons (1501 or higher), placement test, or permission of coordinator.

MUAC 2682 Class Piano 4 1 s.h.

Final class piano required of all non-keyboard music majors that culminates in the Piano Proficiency Exam. The course emphasizes solo repertoire (including a patriotic selection for Music Education and Voice majors), three- and four-part score reading excerpts of choral, mixed-instruments repertoire, advanced accompanying, and introduction to piano pedagogy. 1 s.h.

Prereq.: grade of "C" or better in MUAC 2681.

Coreq.: Major-level applied lessons (1501 or higher), placement test, or permission of coordinator.

MUAC 2691 Professional Piano Skills 1 1 s.h.

The course consists of a combination of piano skills in addition to vocal and instrumental accompanying. These may include transposition, sight reading, improvisation, creation of piano accompaniment, reading of lead-sheets and numbered bass, playing basic piano accompaniments in a number of styles including gospel, country, classical, new age, and/or the knowledge of and ability to play excerpts of the major classical works for piano for medley play and demonstration in a teaching environment.

MUAC 2692 Professional Piano Skills 2 1 s.h.

The course consists of a combination of piano skills in addition to vocal and instrumental accompanying. These may include transposition, sight reading, improvisation, creation of piano accompaniment, reading of lead-sheets and numbered bass, playing basic piano accompaniments in a number of styles including gospel, country, classical, new age, and/or the knowledge of and ability to play excerpts of the major classical works for piano for medley play and demonstration in a teaching environment.

MUAC 2693 Professional Piano Skills 3 1 s.h.

The course consists of a combination of piano skills in addition to vocal and instrumental accompanying. These may include transposition, sight reading, improvisation, creation of piano accompaniment, reading of lead-sheets and numbered bass, playing basic piano accompaniments in a number of styles including gospel, country, classical, new age, and/or the knowledge of and ability to play excerpts of the major classical works for piano for medley play and demonstration in a teaching environment.

MUAC 2694 Professional Piano Skills 4 1 s.h.

The course consists of a combination of piano skills in addition to vocal and instrumental accompanying. These may include transposition, sight reading, improvisation, creation of piano accompaniment, reading of lead-sheets and numbered bass, playing basic piano accompaniments in a number of styles including gospel, country, classical, new age, and/or the knowledge of and ability to play excerpts of the major classical works for piano for medley play and demonstration in a teaching environment.

MUAC 3732 Brass Methods 1 s.h.

Designed to prepare students for instrumental music teaching relative to brass instruments. Emphasis on tone production, the harmonic series, technique development, ranges and transposition, pedagogy, troubleshooting, and arranging techniques for brass instruments. Meets 2 hours per week.

Prereq.: MUTC 1531 or MUTC 1531N or permission of the instructor.

MUAC 3733 Woodwind Methods 1 s.h.

Designed to prepare students for instrumental music teaching relative to woodwind instruments (flute, clarinet, oboe, bassoon, saxophone). Components include concepts of tone production, embouchure, articulation, and technique. Study material stresses common features as well as differences.

Prereq.: MUTC 1531 or MUTC 1531N or permission of instructor.

MUAC 3734 String Methods 1 s.h.

Designed to prepare students for instrumental music teaching relative to string instruments (violin, viola, cello, string bass). Components include concepts of tone production, bowing, fingering as well as appropriate evaluation of pedagogy. Study material stresses common features as well as differences.

Prereq.: MUTC 1531 or MUTC 1531N or permission of the instructor.

MUAC 3735 Jazz Methods 1 s.h.

Designed to prepare students for jazz teaching relative to instruments and voice. Components include fundamental techniques and approaches for directing small and large jazz ensembles, teaching of basic improvisation skills, rhythms section/soloist interaction, and stylistic interpretation. Students will demonstrate basic performance proficiencies in jazz on their applied instruments and/or voices. Meets 2 hours per week.

Prereq.: MUTC 1531 or MUTC 1531N or permission of the instructor.

MUAC 3755 Guitar Methods 1 s.h.

Study of the guitar at the beginning level to explore techniques and approaches appropriate to school music instruction. A minimum level of performance is required.

Prereq.: MUTC 1531 or MUTC 1531N or permission of instructor.

MUAC 3756 Marching Band Methods 1 s.h.

This course covers the organization, techniques, administration, and materials of the high school marching band as part of the total instrumental music program.

Prereq.: None.

MUAC 3759 Voice Methods 1 s.h.

A study of voice at the beginning level to explore techniques and approaches appropriate to school music instruction. A minimum level of performance is required. May be repeated.

Prereq.: EDFN 1501.

MUAC 3763 Percussion Methods 1 s.h.

Study of snare drum, marching percussion, timpani, jazz drum set, keyboard, Latin percussion, and orchestral accessories. Topics include instrument selection and maintenance techniques as well as pedagogical approaches. Designed to prepare students for instrumental music teaching careers.

Prereq.: MUTC 1531 or MUTC 1531N or permission of the instructor.

MUAC 3764 Instrumental Techniques for Vocal Educators 1 s.h.

Provides prospective choral educators with enough familiarity with instruments to enable them to rehearse mixed choral / instrumental groups competently and to work with or assist instrumental specialists. Includes a functional overview of all instruments and emphasizes basic teaching strategies for common brass, woodwind, and percussion instruments at a beginner to advanced beginner level.

Prereq.: MUED 2622 with a grade of "C" or better and sophomore standing.

MUAC 3781 Jazz Class Piano 1 1 s.h.

(For keyboard and non-keyboard majors). Class instruction and keyboard experience in jazz chordal voicing techniques including shell voicings and open voicings. Techniques will be applied to blues and jazz repertoire including performance of melodies, rhythmic accompaniments, and improvised comping. Classes must be taken in sequence. Meets two days per week.
Prereq.: grade of "B" or better in MUAC 1582 or permission of instructor.

MUAC 3782 Jazz Class Piano 2 1 s.h.

For keyboard and non-keyboard majors). Class instruction and keyboard experience in jazz chordal voicing techniques including a study of open voicings using altered dominants and quartal voicings. Techniques will be applied to blues and jazz repertoire including performance of melodies, rhythmic accompaniments, and improvised comping. Meets two days per week.

Prereq.: MUAC 3781, or permission of instructor.

MUAC 4867 Jazz Improvisation 3 3 s.h.

Advanced jazz techniques with emphasis on analysis of harmonic progressions, form, style, and performance requirements of the jazz idiom. Courses must be taken in sequence.

Prereq.: MUAC 2668.

MUAC 4868 Jazz Improvisation 4 3 s.h.

Advanced jazz techniques with emphasis on analysis of harmonic progressions, form, style, and performance requirements of the jazz idiom. Courses must be taken in sequence.

Prereq.: MUAC 2668.

Music Conducting

MUCO 3715 Beginning Conducting 2 s.h.

Conducting techniques for vocal and instrumental groups; experience in conducting through class laboratory situations.

Prereq.: MUTC 2631.

MUCO 3716 Advanced Instrumental Conducting 1 s.h.

Experience in selecting, conducting, and rehearsing instrumental music; emphasis on performance problems unique to instrumental ensembles.

Prereq.: MUCO 3715.

MUCO 3717 Advanced Choral Conducting 1 s.h.

Advanced Choral Conducting is a course designed to develop skills, hone competencies, and share conceptual knowledge relative to the art and pedagogy of choral conducting. Students develop skills in conducting, score analysis and preparation, rehearsal techniques, error detection, and create artistic interpretations with a peer-lab ensemble.

Prereq.: MUCO 3715.

Music Education

MUED 2611 Computer Applications in Music Education 2 s.h.

An overview of computer applications as they relate to the music educator. Specific hardware and software in music education will be discussed. Project topics: administrative software, music notation, MIDI, arranging and improvisation with computers, and designing multimedia. Meets two hours per week.

Prereq.: MUTC 1532 or MUTC 1532N.

MUED 2622 Introduction to Music Education 3 s.h.

This introductory course explores the purposes, organizations, and outcomes of schooling with special emphasis on the perspective of music education. Candidates undertake critical inquiry into teaching as a profession. Licensure requirements, teachers' legal responsibilities, and the accountability of public schools are also explored. Additionally, students are introduced to historical, philosophical, social, and political aspects of music education, and the unique challenges of public-school music instruction in the 21st Century. Includes 15 hours of exploratory fieldwork in which students observe and collect information on the structure, governance, socio-economic makeup, and culture of three different school districts while paying special attention to how their music programs are structured and delivered.

MUED 3722 Music in Early Childhood 3 s.h.

Fundamental skills, repertoire, materials, and techniques for teaching music to pre-kindergarten through third grade children. For non-music majors.

Prereq.: CHFM 2633.

MUED 4820 Teaching Music Students with Exceptionalities 2 s.h.

The purpose of this course is to further explore and develop the principles and practices for effective classroom procedures, strategies, methods, curriculum, and materials for teaching students with learning, emotional, and intellectual disabilities along with other areas of exceptional educational needs and quality learning experiences. Areas of focus will be to understand how to teach students with exceptionalities in music classrooms and through meaningful music experiences. In addition to learning the legal, ethical, and professional responsibilities of teaching students of varying needs, pre-service teachers will become more sensitive to the similarities, differences, and critical issues related to the education of students with exceptionalities, their families, and the community in a K-12 music setting. This course has five (5) hours of pre-clinical fieldwork.

Prereq.: MUED 2622 and upper-division status.

MUED 4821 Instrumental Music Education 2 s.h.

Materials, methods and literature for teaching elementary, middle school, and high school instrumental music programs. Emphasis on curriculum design, pedagogy, orchestration/arranging techniques, and learning theories related to jazz, concert, marching band, and orchestra. Requires 5 hours of field experience.

Prereq.: MUED 2622 and upper-division status in the College of Education.

MUED 4822 Teaching Choral Music 2 s.h.

Materials, methods and literature for school vocal ensembles. Additional emphasis is on vocal pedagogy, curriculum design, score study, adolescent voice, vocal literacy, arranging techniques, vocal improvisation, programming, designing and implementing choreography in vocal ensembles, and current issues in vocal music education. Requires 5 hours of field experience.

Prereq.: MUED 2622 and upper division status in the college of education.

MUED 4823 Teaching Elementary and General Music 3 s.h.

The prime objective of this course is to introduce and develop the fundamental skills, repertoire, materials, and methods for teaching music to pre-kindergarten through third grade children as well as general music in grades K-12. This course has 10 hours of pre-clinical fieldwork.

Prereq.: MUED 2622 and upper division status in the Music Education Program.

MUED 4824 Music Teaching in the Middle School 2 s.h.

Music materials and methods of instruction in middle schools with emphasis on understanding the physiological and psychological development of early adolescents in the context of general music classes. Course content includes managing the learning environment, motivating students, developing music curricula, planning musical experiences and assessing musical behaviors. Requires 12 hours of field experience.

Prereq.: MUED 4821 or MUED 4822 or concurrent enrollment, and upper division status in the college of education.

MUED 4825 Teaching Music in the Secondary School 4 s.h.

Methods of organizing, administering, teaching, and conducting music in the high schools; instruction methods, curriculum, technology, scheduling, philosophy, classroom management, and applying learning theories and research to practice. Special focus on designing and implementing standards-based music objectives in both choral and instrumental rehearsal settings. Secondary focus on methods and procedures for facilitating a choral and instrumental program in the secondary schools. This course has fifteen (15) hours of pre-clinical fieldwork.

Prereq.: MUED 4823 with a grade of a "C" or better and upper-division status in the Music Education program.

MUED 4828 Teaching Popular and Folk Music 2 s.h.

Students will explore the tenets of vernacular music making as it relates to teaching school music. Specifically, students will investigate various approaches to composing, improvising, and performing on a variety of folk and traditional instruments. Specific topics include song writing, cover tunes, teaching vernacular ensembles (e.g. rock band, ukulele), electronic music production/performance, and creative warm-ups for school ensembles. Students will investigate the organizing elements of music teaching, including assessment, lesson planning for diverse students, managing the learning environment, motivating students, development of contemporary curricula, communication skill development, and the fostering of critical thinking, all within the context of vernacular and some traditional forms of music teaching and learning. This course has five (5) hours of pre-clinical fieldwork.

Prereq.: MUED 2622 and upper-division status in the Music Education program.

MUED 4844 Supervised Student Teaching, Music (K-12) 10 s.h.

Sixteen weeks supervised student teaching experience in K-12 music settings. **Prereq.:** Passage of OAE Music Content Exam and APK, BCI/FBI background check, CCCAC Upper Division Status, completion of all other requirements in the program including graduation recital.

Coreq.: MUED 4842A.

MUED 5814 Selected Topics in Music Education 3 s.h.

This course will examine some of the major ideas about the value of music education that have been advanced by music education scholars and others, ranging from the ancient Greeks to contemporary philosophers and psychologists. May be repeated for credit with different topics.

Prereq.: MUED 4823 or MUED 4825 or permission of instructor.

MUED 5841 Music Workshop 1-3 s.h.

For students and teachers in service; topics may vary from year to year. Specific topics are announced each time the workshop is offered. May be repeated with different topic.

MUED 5841C CE Music Workshop 1-3 s.h.

For students and teachers in service; topics may vary from year to year. Specific topics are announced each time the workshop is offered. May be repeated with different topic.

MUED 5858 Piano Pedagogy 3 s.h.

Methods and materials involved in teaching piano in private and classroom settings. Fundamentals of technique as well as repertoire. Supervised practice teaching.

Prereq.: Two years of applied keyboard.

MUED 5880 Vocal Pedagogy 1 s.h.

A comparative study of physiological and psychological approaches to voice instruction and their application to private and class instruction.

Prereq.: Two years of applied voice classes.

Music Ensembles

MUEN 0002 Dana Chorale 1 s.h.

Dana Chorale.

MUEN 0004 University Chorus 1 s.h.

An entry-level ensemble designed for music majors and non-music students alike. Students are placed within the ensemble after an informal hearing with the conductor. Each singer must be devoted to producing their highest quality of performance through both individual study, and group rehearsals, of the music being prepared. Study, rehearsals (tutti, individual, and sectional), memorization and performances in public comprise the course of study.

MUEN 0004C CE University Chorus 1 s.h.

An entry-level ensemble designed for music majors and non-music students alike. Students are placed within the ensemble after an informal hearing with the conductor. Each singer must be devoted to producing their highest quality of performance through both individual study, and group rehearsals, of the music being prepared. Study, rehearsals (tutti, individual, and sectional), memorization and performances in public comprise the course of study.

MUEN 0005 Concert Band 1 s.h.

Concert Band.

MUEN 0006 Marching Band 1 s.h.

Marching Band.

MUEN 0007 Wind Ensemble 1 s.h.

Wind Ensemble.

MUEN 0008 Symphony Orchestra 1 s.h.

Symphony Orchestra.

MUEN 0009 Percussion Ensemble 1 s.h.

Percussion Ensemble.

MUEN 0010 String Ensemble 1 s.h.

String Ensemble.

MUEN 0011 Men's Chorus 1 s.h.

Men's Chorus.

MUEN 0012 Dana Opera Ensemble 1 s.h.

Opera Ensemble.

Prereq.: By audition and by permission of instructor and voice teacher only.

MUEN 0013 Contemporary Ensemble 1 s.h.

Contemporary Ensemble.

MUEN 0014 Women's Chorus 1 s.h.

Women's Chorus.

MUEN 0015 Early Music Ensemble 1 s.h.

Early Music Ensemble.

MUEN 0016 Woodwind Ensemble 1 s.h.

Woodwind Ensemble.

MUEN 0018 Horn Choir 1 s.h.

Horn Choir.

MUEN 0019 Trombone Ensemble 1 s.h.

Trombone Ensemble.

MUEN 0020 Tuba Ensemble 1 s.h.

Tuba Ensemble.

MUEN 0022 Trumpet Ensemble 1 s.h.

Trumpet Ensemble.

MUEN 0023 Jazz Ensemble 1 s.h.

Jazz Ensemble.

MUEN 0024 Composer's Ensemble 1 s.h.

Composer's Ensemble.

MUEN 0025 Gospel Choir 1 s.h.

A choral music performance group whose repertoire focuses on African American Gospel music and the culture in which it was created. Musical styles will encompass Spirituals through Contemporary Gospel. Meets 2 hours per week. Open to all YSU students.

MUEN 0026 Chamber Orchestra 1 s.h.

Chamber Orchestra.

MUEN 0027 Musical Theatre Ensemble 1 s.h.

Ensemble experience in staged musical productions including performance and pedagogy in ensemble precision, rhythm section techniques, and musical style.

Prereq.: Audition.

MUEN 0028 Chamber Winds 1 s.h.

Chamber Winds.

MUEN 0029 Guitar Ensemble 1 s.h.

Guitar Ensemble.

MUEN 0030 Jazz Combo 1 s.h.

Jazz Combo.

MUEN 0031 Chamber Music 1 s.h.

Mixed chamber music groups may be initiated by students and, pending final approval, run under this course code. Groups will be regularly coached by a faculty member and will also rehearse independently. Each member of the group must be prepared for rehearsals and coachings, through individual practice of his or her part and through score study. This course may fulfill in part the chamber ensemble requirement for music majors. "Mixed chamber" will be defined as any small, non-conducted group beyond those specific groups already listed in the undergraduate course catalogue. Such groups will typically be comprised of representatives of different instrument families (brass quartet or woodwind quintet, string trios, etc.), and occasionally comprised of different instruments within the same family, such as saxophone quartet. The course will be optional for vocal students. Vocal students taking the course must work collaboratively with piano students and/or other instrumental or mixed voice students.

Prereq.: Permission of the School of Music Chair/Chamber Music Coordinator; May be repeated for credit.

Coreq.: Major-applied lessons.

MUEN 0035 Saxophone Quartet 1 s.h.

Saxophone Quartet.

MUEN 0040 University Band 1 s.h.

University Band.

MUEN 0041 Basketball Pep Band 1 s.h.

Basketball Pep Band.

MUEN 0044 Barbershop Singers 1 s.h.

An a cappella vocal chamber ensemble designed for music majors, minors and non-music students. Students are placed within the ensemble after an informal hearing with the conductor. Each singer must be devoted to producing his/her highest quality of performance through individual study, quartet rehearsals and group rehearsals of the music being prepared. Study, rehearsals (tutti, individual, and quartet), memorization and performances in public comprise the course of study.

MUEN 0051 Piano Chamber 1 s.h.

Piano Chamber.

Music History and Literature

MUHL 2616 Survey of Jazz 3 s.h.

A historical survey of the origins, influences, and stylistic features of jazz from its beginnings to the present, with emphasis on performers, compositions, and innovations.

Gen Ed: Arts and Humanities.

MUHL 2616H Honors Survey of Jazz 3 s.h.

A historical survey of the origins, influences, and stylistic features of jazz from its beginnings to the present, with emphasis on performers, compositions, and innovations.

Gen Ed: Arts and Humanities.

MUHL 2617 Film Music 3 s.h.

A historical survey of the use of music in the motion picture. Examination of different styles in works by major composers.

Gen Ed: Arts and Humanities.

MUHL 2617H Honors Film Music 3 s.h.

A historical survey of the use of music in the motion picture. Examination of different styles in works by major composers.

Gen Ed: Arts and Humanities.

MUHL 2618 Rock n' Roll to Rock 3 s.h.

A historical survey of the evolution of rock n' roll into rock with emphasis on the interrelationships of the music and social and political influences and the interaction of rock with other musical styles.

Gen Ed: Arts and Humanities.

MUHL 2618H Honors Rock n Roll to Rock 3 s.h.

A historical survey of the evolution of rock n' roll into rock with emphasis on the interrelationships of the music and social and political influences and the interaction of rock with other musical styles.

Gen Ed: Arts and Humanities.

MUHL 2619 Music of Non-Western Societies 3 s.h.

A historical survey of music as it relates to the different cultures, with emphasis on the development of instruments, vocal practices and performance media within specific cultures.

Gen Ed: Arts and Humanities, International Perspectives, Social and Personal Awareness.

MUHL 2620 Music and the African-American Experience 3 s.h.

The study of African American musical genres from slavery to the present with focus on stylistic features, innovations, and the culture in which they were created. Topics may include Folk Music, Blues, Gospel, Ragtime, Jazz, Musical Theatre, Art/Classical Music, Rhythm & Blues, Funk, Disco and House, Techno, Hip-Hop, Rap, Gender Issues, Popular Music Industry, and Musical Agency.

Gen Ed: Arts and Humanities.

MUHL 2621 Music Literature and Appreciation 3 s.h.

The development of listening techniques applicable to Western and non-Western music through the comparison and contrast of the music of significant historical periods. For non-music majors.

Gen Ed: Arts and Humanities, International Perspectives, Social and Personal Awareness.

MUHL 2622 Popular Music in America 3 s.h.

The changing styles in American popular music from its origins to the present day studied through an examination of representative compositions and performers.

Gen Ed: Arts and Humanities.

MUHL 2623 Core Concepts of Music 1 s.h.

Introduction to the study of music and culture. Basic parameters of music and its function in society are explored. Two MUEN large ensembles other than Marching Band must be taken in addition to this course to satisfy the requirements for GER credit. 1 s.h.

MUHL 2624 Survey of Hip Hop 3 s.h.

An historical survey of Hip Hop music from its origins through the early 21st Century.

Gen Ed: Arts and Humanities.

MUHL 3771 Music History and Literature 1 3 s.h.

An introduction to the intersection of music and culture. Students will explore the cultural contexts and the social, economic, and technological forces that influence the creation and dissemination of music. In addition to the core content of the class, students will be introduced to parallel narratives in the visual arts, literature, and theater. Students will demonstrate, through examination and written assignments, their understanding of how music history is a function of cultural values and choices.

Prereq.: sophomore standing.

Gen Ed: International Perspectives, Social and Personal Awareness.

MUHL 3772 Music History and Literature 2 3 s.h.

An introductory history of musical culture in Europe from Antiquity to 1750 C.E. Students will study the important composers and musical genres and the cultural contexts and social forces that influence the creation and dissemination of music. In addition to the core content of the class, students will be introduced to parallel narratives in the visual arts, literature, and theater. Students will also demonstrate, through examination and written assignments, their understanding of how music history is a function of cultural values and choices.

Prereq.: sophomore standing and MUHL 3771 or permission of instructor.

Gen Ed: Arts and Humanities.

MUHL 3773 Music History and Literature 3 3 s.h.

An introductory history of musical culture in Europe from 1750 C. E. to the present. Students will study the important composers and musical genres and the cultural contexts and social forces that influence the creation and dissemination of music. In addition to the core content of the class, students will be introduced to parallel narratives in the visual arts, literature, and theater. Students will also demonstrate, through examination and written assignments, their understanding of how music history is a function of cultural values and choices.

Prereq.: sophomore standing and MUHL 3772 or permission of instructor.

Gen Ed: Arts and Humanities.

MUHL 3774 Music History and Literature 4 3 s.h.

A historical survey of music in America. Students will study the important composers and musical genres and the cultural contexts and social forces that influence the creation and dissemination of music. In addition to the core content of the class, students will be introduced to parallel narratives in the visual arts, literature, and theater. Students will also demonstrate, through examination and written assignments, their understanding of American musical styles and how they have developed within America's unique historical context, demographics, and social structures.

Prereq.: sophomore standing and MUHL 3773 or permission of instructor.

Gen Ed: Arts and Humanities.

MUHL 3775 Jazz History 3 s.h.

Students will study and develop an understanding of jazz origins, influences, performers, compositions, and stylistic features from the turn of the century to the present. This will include study of early jazz, the swing era, bebop, cool, hard bop, post bop, modal music, modal chromatic music, free jazz, and fusion.

Prereq.: sophomore standing or permission of the instructor.

MUHL 5860 Keyboard Literature 3 s.h.

An investigation of the solo keyboard works of major composers from the earliest times to the present day.

Prereq.: MUTC 2632.

MUHL 5878 Selected Topics in Music History 3 s.h.

A study of a specific topic to be announced each time the course is offered. May be repeated once with different topic.

Prereq.: MUTC 2632, MUHL 3771, MUHL 3772, MUHL 3773, and MUHL 3774.

MUHL 5879 Vocal Literature 3 s.h.

A study of vocal literature from all periods. Special emphasis on English language repertoire and on material especially suitable for high school students. Songs are prepared for performance in class.

Prereq.: MUTC 2632, MUHL 3771, MUHL 3772, MUHL 3773, and MUHL 3774.

Music Industry

MUIN 1561 Recording Workshop 3 s.h.

Introduction to the music recording process and the recording studio.

An overview of music recording grounded in history and the principles of acoustics. An exploration of analog and digital technology involved in music recording.

MUIN 1564 Microphone Techniques 3 s.h.

Investigation of the characteristics of different microphones, microphone design, microphone selection, and microphone placement. The accessories of various miking situations will be investigated. Experiments with different microphone techniques in both the analogue and digital domains.

Prereq.: MUIN 1561 or permission of instructor.

MUIN 2622 Studio Ear Training 1 s.h.

Studio ear training will feature active listening across the frequency spectrum. Students will examine EQ, delay, compression, and harmonic modulatory effects from an aural perspective through the lens of the listener to aid in the recording and mixing environment.

Prereq.: MUIN 1561 or permission of instructor.

MUIN 2662 Live Sound Production 3 s.h.

This course prepares students for how to configure, operate, and optimize live sound systems in order to amplify an ensemble of musicians in a variety of indoor and outdoor event productions.

Prereq.: MUIN 1561 or permission of instructor.

MUIN 3700 Survey of Music Industry 2 s.h.

A general overview of the major functional areas of the music industry, with attention to the theoretical foundations and practical application of current business practices in the music industry.

Prereq.: Junior standing or permission of instructor.

MUIN 3739 Dana Records 3 s.h.

This class meets once a week for the three credit hours to facilitate hosting in-person recording sessions, applying knowledge with clients in the studio. Other topics include marketing, branding, website, advertisement, pricing model, duplication, distribution, and other current topics. This course will create a collaborative project.

Prereq.: MUIN 1561 and MUIN 3765.

MUIN 3742 Video and Sound for Games and Film 3 s.h.

Basics of video editing for the recording engineer; synchronization of sound to video, foley engineering, theory of surround panning and mixing. Mixing audio and sound design for video games.

Prereq.: MUIN 1561.

MUIN 3762 Digital Sound Production 3 s.h.

An overview of MIDI and electronic musical instrument technology. Sequencers and mixing in the MIDI environment. Basic compositional techniques using MIDI and the computer and the application of MIDI in the music recording environment.

Prereq.: MUIN 1561.

MUIN 3763 Digital Recording and Editing 2 s.h.

A study of both linear and non-linear music recording and editing various hardware and software options, as well as the production of recording projects in both domains.

Prereq.: MUIN 1561.

MUIN 3764 Advanced Microphone Techniques 2 s.h.

Investigation of the characteristics of different microphones, microphone design, microphone selection, and microphone placement. The accessories of various miking situations will be investigated. Experiments with different microphone techniques in both the analogue and digital domains.

Prereq.: MUIN 3763.

MUIN 3765 Advanced Recording and Digital Editing 3 s.h.

Expertise in multiple DAW software with both linear and non-linear editing techniques joins an investigation in hybrid mixing with the SSL Origin 32 console and other analog gear; the course features advanced techniques in noise reduction and restoration techniques and a multitude of plug-in effects and outboard hardware gear. 3 s.h.

Prereq.: MUIN 1561.

MUIN 4833 Career Development in Music 3 s.h.

Development of the professional skills necessary for a sustainable career in music. Self-marketing, business and finance, networking, and interviewing topics will be explored. Creation of professional documents needed for personal promotion in the industry.

Prereq.: MUTC 3733 or MUTC 3712.

MUIN 4866 Recording Internship 3 s.h.

Practicum in appropriate music recording environments. Addresses all aspects of the music recording industry. Students communicate weekly with the professor to share and discuss experiences from the intern position. An average of 3-5 hours per week will be spent in the field.

Prereq.: MUIN 3765 and senior standing in music recording.

MUIN 4867 Senior Project 3 s.h.

Independent student project to showcase skills and techniques learned in the content courses. Presentation of project in a public exhibition required.

Prereq.: MUIN 3765 and senior standing in music recording.

MUIN 5878 Special Topics in Music Industry 3 s.h.

Topics in music industry and recording arts not covered in regular upper-division offerings. Topics may include event planning, copyright law and music publishing, grant writing and fundraising. May be repeated once with a different topic.

Prereq.: Junior or senior standing.

Music Theory and Composition

MUTC 1520 Materials of Music 3 s.h.

Musical styles, listening concepts, and harmonic techniques as they relate to the literature of music. For students who do not qualify for MUTC 1531 or MUTC 1531N.

MUTC 1531 Music Theory 1 2 s.h.

The first of four courses in the Music Theory sequence. Accelerated review of scales, intervals, and chords. Principles of harmonic progression with diatonic chords in common-practice and popular styles. Introduction to analysis and phrase structure. Two-part counterpoint. Introduction to four-voice writing with diatonic, root-position triads.

Prereq.: Music majors who have completed a successful audition for the Dana School of Music, and have achieved 80% or higher on the Theory Placement Exam, or permission of the instructor.

MUTC 1531N Music Theory 1 Intensive 3 s.h.

Intensive section of Music Theory 1. Music fundamentals, including pitch notation in treble and bass clefs, major and minor scales and key signatures, rhythm and meter, intervals and triads. Principles of harmonic progression with diatonic chords in common-practice and popular styles. Introduction to analysis and phrase structure.

Prereq.: Music major, having achieved a successful audition for the Dana School of Music.

MUTC 1532 Music Theory 2 2 s.h.

The second of four courses in the Music Theory sequence. Review of four-part writing and analysis. Non-harmonic tones, expanding harmonic functions with diatonic triads and seventh chords, six-four chord techniques.

Prereq.: grade of "C" or better in both MUTC 1531 and MUTC 1541.

MUTC 1532N Music Theory 2 Intensive 3 s.h.

Intensive section of Music Theory 2. Introduction to two-part counterpoint and four-voice writing with diatonic, root-position triads. Non-harmonic tones, expanding harmonic functions with diatonic triads and seventh chords, six-four chord techniques.

Prereq.: Grade of "C" or better in MUTC 1531N and MUTC 1541.

MUTC 1541 Aural Theory 1 2 s.h.

Dictation exercises including solfege patterns, bass line recognition, melody with simple rhythm, and 2-part counterpoint examples. Sight-singing including simple diatonic melodies, duets, chord-singing, and improvisation. Keyboard exercises including solfege patterns, play-and-sing, and transposition exercises. Solfege drills to build and maintain fluency with the solfege system.

Prereq.: Music majors who have completed a successful audition for the Dana School of Music.

MUTC 1542 Aural Theory 2 2 s.h.

Sight-sing diatonic and chromatic melodies. Aurally recognize and sing all diatonic triads and seventh chords. Diatonic and chromatic melodic dictation. Dictation and singing of diatonic chord progressions. Dictation of diatonic two-voice counterpoint in both strict species and free styles. Mastery of cadential patterns and voice-leading at the keyboard.

Prereq.: Grade of "C" or better in both MUTC 1531 (or MUTC 1531N) and MUTC 1541.

MUTC 2631 Music Theory 3 2 s.h.

The third of four courses in the Music Theory sequence. Continued mastery of basic voice-leading. Chromatic harmony including secondary dominants, modulations, modal mixture, and augmented sixths. Study of small and large classical forms.

Prereq.: Grade of "C" or better in both MUTC 1532 or MUTC 1532N and MUTC 1542.

MUTC 2632 Music Theory 4 2 s.h.

Advanced chromaticism, including chromatic and enharmonic modulation, extended tertian structures, chromatic mediants, altered dominants, and common tone diminished-sevenths. Early twentieth-century musical styles and model composition.

Prereq.: Grade of "C" or better in both MUTC 2631 and MUTC 2641.

MUTC 2633 Composition and Songwriting 2 s.h.

Students study the music of leading songwriters in the process of developing their craft and forming their own style. Assignments will include the creation of a portfolio of original compositions, as well as analysis of compositions by George Gershwin, Cole Porter, Harold Arlen, Duke Ellington, Woody Guthrie, Leadbelly, Bob Dylan, Joni Mitchell, Lennon/McCartney, Stevie Wonder, Donald Fagan, Franz Schubert, Robert Schumann, Antonio Carlos Jobim, Ivan Lins, Sara Bareilles, Kendrick Lamar, John Mayer, and many others.

Prereq.: MUTC 2631 with grade of a "C" or better.

MUTC 2641 Aural Theory 3 2 s.h.

Practice and mastery of advanced sight singing, aural recognition, and piano/instrumental skills. Dictation exercises including chromatic solfege patterns, chord progressions, contextual listening, and chromatic melodies. Sight-singing exercises including chromatic patterns, melodies, duets, chord-singing, and improvisation.

Prereq.: MUTC 1532 or MUTC 1532N and MUTC 1542 with grade of "C" or better.

MUTC 2642 Aural Theory 4 2 s.h.

Dictation exercises include melodies, melodic fragments, chord qualities, and harmonic progressions with enharmonic and chromatic modulations. Sight-singing exercises include melodies with advanced chromaticism and post-tonal melodies. Sight-singing repertoire including four-part chorales and music from the late nineteenth and early twentieth centuries. 2 s.h.

Prereq.: MUTC 2631 and MUTC 2641 with grades of "C" or better.

MUTC 3710 Orchestration and Arranging 3 s.h.

A hands-on course in which students develop and demonstrate fundamental skills in orchestration/arranging for wind band, orchestra, and choir. Topics include standard ranges, transpositions, clefs, timbres, playability/singability, tessituras, and common techniques and devices for scoring instruments and voices. Particular focus on arranging for school ensembles.

Prereq.: MUTC 2631 or permission of instructor.

MUTC 3712 Jazz Arranging 1 3 s.h.

Scoring in the jazz idiom with emphasis on harmonic concepts, voicing procedures, form, and stylistic trends developed by major jazz composer-arrangers. Detailed study of instrumental techniques with projects scored for various size ensembles. Student arrangements are performed in reading sessions and concerts. Classes must be taken in sequence.

Prereq.: MUTC 1532 and MUAC 2668 or permission of instructor.

MUTC 3713 Jazz Arranging 2 3 s.h.

Scoring in the jazz idiom with emphasis on harmonic concepts, voicing procedures, form, and stylistic trends developed by major jazz composer-arrangers. Detailed study of instrumental techniques with projects scored for various size ensembles. Student arrangements are performed in reading sessions and concerts. Classes must be taken in sequence.

Prereq.: MUTC 1532 and MUAC 2668 or permission of instructor.

MUTC 3733 Composition and Songwriting 2 s.h.

Students study the music of leading songwriters in the process of developing their craft and forming their own style. Assignments will include the creation of a portfolio of original compositions, as well as analysis of compositions by George Gershwin, Cole Porter, Harold Arlen, Duke Ellington, Woody Guthrie, Leadbelly, Bob Dylan, Joni Mitchell, Lennon/McCartney, Stevie Wonder, Donald Fagan, Franz Schubert, Robert Schumann, Antonio Carlos Jobim, Ivan Lins, Sara Bareilles, Kendrick Lamar, John Mayer, and many others.

Prereq.: MUTC 2631: Music Theory with a grade of 'C' or better.

MUTC 3750 Analytical Techniques 3 s.h.

Analysis of representative repertoire from the Renaissance, Baroque, Classical, Romantic, and Contemporary periods.

Prereq.: MUTC 2632 and MUTC 2642 with grades of "C" or better.

MUTC 5821 Composition for Minors 2 s.h.

Composition in two- and three-part forms, and other compositions of small scope, such as variation and sonatina. Works are composed both for piano alone, and in combination with other instruments or voice. May be repeated by composition majors to meet requirements for freshman and sophomore composition for majors.
Prereq.: MUTC 2632 with a grade of "C" or better, or permission of instructor for composition majors.

MUTC 5822 Composition for Minors 2 s.h.

Composition in two- and three-part forms, and other compositions of small scope, such as variation and sonatina. Works are composed both for piano alone, and in combination with other instruments or voice. May be repeated by composition majors to meet requirements for freshman and sophomore composition for majors.
Prereq.: MUTC 2632 with a grade of "C" or better, or permission of instructor for composition majors.

MUTC 5828 Music Technology 3 s.h.

An exploration of the use of computers and technology in music. Applications related to composition, performance, analysis, teaching, and research.
Prereq.: MUTC 2632 with grade of "C" or better or permission of instructor.

MUTC 5830 Materials of 20th Century Music 3 s.h.

Study of the various elements of 20th century compositions, including melody, harmony, rhythm, texture, and form.
Prereq.: MUTC 2632 with a grade of "C" or better.

MUTC 5831 Modal Counterpoint 3 s.h.

Sixteenth century contrapuntal style including introduction of species technique; analysis of liturgical and secular repertoire; writing of imitative counterpoint with stylistic rhythms and cadences.
Prereq.: MUTC 2632 with a grade of "C" or better.

MUTC 5832 Tonal Counterpoint 3 s.h.

Contrapuntal style of baroque music including an analysis of examples in imitative and invertible counterpoint; writing two- and three-part inventions and three- and four-part fugal expositions.
Prereq.: MUTC 2632 with a grade of "C" or better.

MUTC 5833 Theory Seminar 3 s.h.

Topics in music theory not covered in regular upper-division offerings. May be repeated once with different topic.
Prereq.: MUTC 2632 with a grade of "C" or better.

MUTC 5834 Electronic Music 3 s.h.

Techniques of analog and digital synthesis including tape composition, musique concrete; advanced MIDI applications such as sequencing and sampling; and digital audio editing. Composition in electronic and mixed media.
Prereq.: For composition majors, COMP 1502 or equivalent; for non-composition majors, MUTC 2632 with a grade of "C" or better; for non-majors, permission of instructor.

MUTC 5840 Instrumentation 3 s.h.

Ranges, transposition, technical characteristics, and tonal features of the instruments. Scoring for large and small ensembles which are available as laboratory reading groups.
Prereq.: MUTC 2632 with a grade of "C" or better.

Bachelor of Music in Audio and Music Production

Faculty

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About the Major

The Bachelor of (<https://academics.ysu.edu/cliffe-college-of-creative-arts/bm-audio-music-production/>) **Music (B.M.) in Audio and Music Production** (<https://academics.ysu.edu/cliffe-college-of-creative-arts/bm-audio-music-production/>) major provides students with the knowledge and experience to thrive in a dynamic and ever-evolving industry. The program gives our students opportunities to build skills through personal experiences that offer a competitive edge in the rapidly expanding fields of music business and industry. The investment bank and research firm Goldman Sachs estimates that revenue for the global music industry will be valued at over \$130 billion by 2030, offering countless opportunities to create a lifelong career (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/careers/>) in the field of music recording and sound production.

Our students learn by doing and are prepared to build enjoyable, productive careers as audio engineers in record production through engineering, producing, mixing, and mastering; in live sound as engineers or technicians; in media (e.g., TV, film, gaming) roles in composition, sound design, or Foley sound; as well as forensic audio, restoration, and more. The internship program places students in recording studios, live music venues, and other professional settings where they gain hands-on experience that will apply directly to their future while providing opportunities to network with industry professionals. Students gain additional experience working with faculty, students, and professionals to record, produce, and distribute music for our student-run record label, Dana Records. The outstanding academic programs at Youngstown State University and the world-class resources at the Dana School of Music allow our students to pursue their unique educational goals and prepare for a successful and fulfilling future.

The Dana Recording Studio utilizes a Solid-State Logic Origin 32-channel recording and mixing console that allows our students to work within hybrid analog-digital production environments. We have 64-channels of high-quality A-D conversion from Ferrofish in our Dante-equipped studio. Students have access to Kurzweil and Roland keyboards, controllers, and synths, as well as Reason and the Native Instruments Komplete software package. The studio features an iMac running Avid Pro-Tools, Ableton Live, MOTU Digital Performer, and Apple Logic Digital Audio Workstation software. The microphone inventory includes a selection of condenser, ribbon, and dynamic microphones from companies like AEA, Neumann, AKG, Shure, Audio Technica, Royer, Cascade, Electro-Voice, and more.

Contact Information

To learn more about our degree programs, audition information, scholarships, career and professional development, performances, faculty, and students, visit Dana School of Music (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/>) or contact us at 330.941.3635.

To schedule a personalized campus visit, contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu. We would love to hear about your interests, show you our school, and become an important part of your future.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT - STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
GENERAL EDUCATION REQUIREMENTS		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3

Any Gen Ed Math (Recommended MATH 2623)	3
Arts and Humanities (2 courses)	0
Satisfied by 3 SH of MUHL 3772 or 3773, and 3 SH of MUHL 26XX Art & Humanities Gen Ed Course, which are required in the major.	
Natural Sciences (2 courses, 1 with lab)	7
Social Science (2 courses)	6
General Education Electives	6
CMST 1545 (3 s.h.)	
MUHL 3771 (0 s.h.) *Included in major	
Any Gen Ed Course (3 s.h.)	
CORE MUSIC REQUIREMENTS	
Music Theory (17 hours). Music Theory and Aural Theory of the same level must be taken concurrently.	
MUTC 1531 Music Theory 1 & MUTC 1541 and Aural Theory 1	4
MUTC 1532 Music Theory 2 & MUTC 1542 and Aural Theory 2	4
MUTC 2631 Music Theory 3 & MUTC 2641 and Aural Theory 3	4
MUTC 2633 Composition and Songwriting	2
MUTC 3710 Orchestration and Arranging	3
or MUTC 3712 Jazz Arranging 1	
Keyboard Musicianship (4 hour)	
MUAC 1581 Class Piano 1	1
Keyboard majors will substitute MUAC 2691	
MUAC 1582 Class Piano 2	1
Keyboard majors will substitute MUAC 2692	
MUAC 3781 Jazz Class Piano 1	1
MUAC 3782 Jazz Class Piano 2	1
Music History and Literature (9 hours)	
MUHL 3771 Music History and Literature 1	3
MUHL 3775 Jazz History	3
MUHL 26XX Art & Humanities Gen Ed Course (lower division MUHL course)	3
Choose one from the following:	3
MUHL 3772	
MUHL 3773	
Conducting (3 hours)	
MUCO 3715 Beginning Conducting	2
MUCO 3716 Advanced Instrumental Conducting	1
or MUCO 3717 Advanced Choral Conducting	
Applied Lessons (Should be taken concurrently with an ensemble)	
Applied Lessons 1501	2
Applied Lessons 1502	2
Applied Lessons 2601	2
Applied Lessons 2602	2
Applied Lessons 3701	2
Applied Lessons 3702	2
Applied Lesson 4801 (with Senior Recital)	2
ENSEMBLES (7 hours)	
Large Ensembles (5 hours): Select from the following (guitar majors substitute Guitar Ensemble)	5
MUEN 0002, MUEN 0004, MUEN 0005, MUEN 0006 (May only be counted once as a Large Ensemble), MUEN 0007, MUEN 0008, MUEN 0023, MUEN 0025, MUEN 0027	
Small Ensembles (2 hours): Select from the following	2

MUEN 0009, MUEN 0012, MUEN 0013, MUEN 0014, MUEN 0015, MUEN 0016, MUEN 0018, MUEN 0019, MUEN 0020, MUEN 0022, MUEN 0024, MUEN 0026, MUEN 0028, MUEN 0029, MUEN 0030, MUEN 0031, MUEN 0035, MUEN 0044

AUDIO ENGINEERING and TECHNOLOGY FOCUS (31 hours)

MUIN 1561	Recording Workshop	3
MUIN 1564	Microphone Techniques	3
MUIN 2622	Studio Ear Training	1
MUIN 2662	Live Sound Production	3
MUIN 3762	Digital Sound Production	3
MUIN 3765	Advanced Recording and Digital Editing	3
MUIN 3742	Video and Sound for Games and Film	3
MUIN 3739	Dana Records	3
MUIN 5878	Special Topics in Music Industry	3
MUIN 4866	Recording Internship	3
MUIN 4867	Senior Project	3
MUSIC ELECTIVES (3 hours)		3
MUHL 26XX (lower division MUHL course)		0

Total Semester Hours

120-122

- All undergraduate music majors are required to attend 12 approved performances each semester for six consecutive semesters beginning in the freshman year.
- Applied lesson must be taken concurrently with an ensemble each semester.

Year 1

Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
Applied Lessons 1501		2
MUIN 1561	Recording Workshop	3
MUTC 1531	Music Theory 1	4
& MUTC 1541	and Aural Theory 1	
MUAC 1581	Class Piano 1	1
Keyboard majors will substitute MUAC 2691		
MUEN 00XX - Large Ensemble		1
Semester Hours		15-17

Spring

ENGL 1551	Writing 2	3
Applied Lessons 1502		2
MUIN 1564	Microphone Techniques	3
MUTC 1532	Music Theory 2	4
& MUTC 1542	and Aural Theory 2	
MUAC 1582	Class Piano 2	1
Keyboard majors will substitute MUAC 2692		
MUEN 00XX - Large Ensemble		1
Semester Hours		14

Year 2

Fall		
Applied Lessons 2601		2
MUIN 2662	Live Sound Production	3
MUIN 3762	Digital Sound Production	3
MUTC 2631	Music Theory 3	4
& MUTC 2641	and Aural Theory 3	

MUAC 3781	Jazz Class Piano 1	1
MUEN 00XX	- Large Ensemble	1
CMST 1545	Communication Foundations	3
Semester Hours		17

Spring

Applied Lessons 2602		2
MUTC 2633	Composition and Songwriting	2
MUIN 2622	Studio Ear Training	1
MUIN 3765	Advanced Recording and Digital Editing	3
MUAC 3782	Jazz Class Piano 2	1
MUHL 2618	Rock n' Roll to Rock (or Any Other MUHL 26xx Art & Humanities Gen Ed Course)	3
MUEN 00XX	- Large Ensemble	1
Any Gen Ed Math		3
Semester Hours		16

Year 3**Fall**

Applied Lessons 3701		2
MUCO 3715	Beginning Conducting	2
MUIN 3739	Dana Records	3
MUTC 3712	Jazz Arranging 1 (Or General Education Elective - Any Gen Ed Course if taking MUTC 3710 in spring semester)	3
MUHL 3771	Music History and Literature 1	3
MUEN 00XX	- Chamber Ensemble	1
Semester Hours		14

Spring

Applied Lessons 3702		2
MUCO 3716	Advanced Instrumental Conducting	1
or MUCO 3717	or Advanced Choral Conducting	
MUIN 3742	Video and Sound for Games and Film	3
MUHL 3775	Jazz History	3
*MUHL 3775 is offered Spring semester of odd years (e.g., 2021, 2023, 2025)		
MUEN 00XX	- Large Ensemble	1
General Education Elective - Social Science		3
General Education Elective - Any Gen Ed Course		3
Semester Hours		16

Year 4**Fall**

Applied Lessons 4801 (with Senior Recital)		2
MUIN 4866	Recording Internship	3
MUHL 3773	Music History and Literature 3	3
or MUHL 3772	or Music History and Literature 2	
MUEN 00XX	- Chamber Ensemble	1
General Education Elective - Natural Science + Lab		4
Semester Hours		13

Spring

MUIN 4867	Senior Project	3
MUIN 5878	Special Topics in Music Industry	3
MUHL 3775	Jazz History (3 credits) if not taken in Spring of year 3	
MUHL 26XX	(lower division MUHL course)	3
General Education Elective - Social Science		3
General Education Elective - Natural Science		3
Semester Hours		15
Total Semester Hours		120-122

- All undergraduate music majors are required to attend 12 approved performances each semester for six consecutive semesters beginning in the freshman year.
- Applied lesson must be taken concurrently with an ensemble each semester.

Learning Outcomes

The student learning outcomes for the major in audio and music production are as follows:

- Students will perform a public recital in their applied area.
- Students will analyze music, discriminate pitch, harmony, and rhythm, and perform harmonic progressions at the piano.
- Students will demonstrate critical thinking about the various historical periods, cultural contexts, and social forces that influence musical activity.
- Students will demonstrate basic keyboard proficiency, including scales, arpeggios, harmonization, repertoire, transpositions, and score reading.
- Students will record, edit, and produce music.

Bachelor of Music in Music Education

About the Major

*Our Music Education graduates who seek a teaching position enjoy a 100% placement rate.**

The Bachelor of Music (B.M.) in Music Education provides exceptional instruction that prepares students for licensure as music teachers in the public schools and careers as music educators in all learning environments. Music Education students are musicians who want to teach, and the comprehensive curriculum includes significant applied studio instruction and multiple opportunities as performers and conductors in diverse ensembles, as well as courses in composition and songwriting, popular and contemporary music, and musical theatre. Music Education students are encouraged to pursue the Certificate in Audio and Music Production Pedagogy (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-creative-arts-communication/school-music/certificate-in-audio-and-music-production-pedagogy/>) concurrently.

Students in all programs conduct extensive pre-clinical field experiences in K-12 music classrooms where they apply their newly acquired music pedagogy to offer quality and meaningful musical learning experiences to students. The knowledge that develops during this field work enhances their understanding of teaching in diverse educational settings and prepares the candidate for student teaching. Throughout pre-clinical and clinical work, music education students provide artistic experiences that further enrich the lives of K-12 students.

Upon completion of the B.M. in Music Education program, our students may be found teaching in public and private classrooms nationally and around the world. Students who choose to pursue advanced degrees have received funding and assistantships to attend some of the finest music institutions in the country. Graduates also pursue other career opportunities (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/careers/>), including as performers in professional ensembles; serving as composers, arrangers, and audio engineers; and working in university positions around the country and across the globe. Our graduates earn degrees in areas about which they are passionate, and their skills are applicable to careers in numerous professions. Your professional opportunities with a degree from the Dana School of Music (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/>) at Youngstown State University are greater than ever!

*Our alumni also pursue graduate studies, join Military Bands, enter the music industry profession, and other similar careers.

Contact Information

To learn more about our degree programs, audition information, scholarships, professional development and careers, performances, faculty, and students, visit Dana School of Music (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/>) or contact us at 330.941.3635.

To schedule a personalized campus visit, contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu. We would love to hear about your interests, show you our school, and become an important part of your future.

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Instrumental Music Education

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Professor

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Instrumental Jazz Music Education
Kent Engelhardt (<https://ysu.edu/people/kent-engelhardt/>), Ph.D.

Professor
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330.941.1543
kjengelhardt@ysu.edu

Learning Outcomes

The student learning outcomes for the major in music education are as follows:

- Students will perform a public recital in their applied area.
- Students will analyze music, discriminate pitch, harmony, and rhythm, and perform harmonic progressions at the piano.
- Students will demonstrate critical thinking about the various historical periods, cultural contexts, and social forces that influence musical activity.
- Students will demonstrate basic keyboard proficiency, including scales, arpeggios, harmonization, repertoire, transpositions, and score reading.
- Students will demonstrate effective planning, teaching, and assessment appropriate to K-12 students in music settings.

Bachelor of Music in Music Education, Choral Track

Faculty

Daniel Keown (<https://ysu.edu/people/daniel-keown/>), Ph.D.
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About the Major

The Bachelor of Music (B.M.) in Music Education (p. 252), Choral program provides hands-on experience at all levels that allows students to specialize in idioms that focus on choral and vocal music, including concert choirs, musical theatre, jazz and pop, contemporary, commercial, and chamber ensembles, and more. Through an interactive curriculum that includes courses from the Dana School of Music and YSU's Department of Teacher Education—along with extensive field experiences in local schools—choral music education students develop into reflective and passionate music educators. Teaching candidates from the Dana School of Music are dedicated to becoming culturally responsive music educators, reflective practitioners, and advocates for the arts who are informed by student-centered pedagogical practices, creativity, and a broad understanding about music and music education in society.

Contact Information

To learn more about our degree programs, audition information, scholarships, professional development and careers, performances, faculty, and students, visit Dana School of Music (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/>) or contact us at 330.941.3635.

To schedule a personalized campus visit, contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu. We would love to hear about your interests, show you our school, and become an important part of your future.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Any Gen Ed Math (Recommended MATH 2623)		3
Arts and Humanities (6 s.h.)		0
Requirement satisfied by 6 hours of MUHL 3772 and 3773		
Natural Sciences (2 courses, 1 with lab)		7
Social Science (6 s.h.)		
PSYC 1560	General Psychology	3
Social Science elective		3
General Education Electives		6
CMST 1545 (3 s.h.)		
MUHL 3771 (0 s.h.)	*Included in major	
Any Gen Ed Course (3 s.h.)		
Core Music Requirements		
Music Theory: 17 hours		
MUTC 1531	Music Theory 1	4
& MUTC 1541	and Aural Theory 1	
MUTC 1532	Music Theory 2	4
& MUTC 1542	and Aural Theory 2	
MUTC 2631	Music Theory 3	4
& MUTC 2641	and Aural Theory 3	
MUTC 2633	Composition and Songwriting	2
MUTC 3710	Orchestration and Arranging	3
Music History and Literature: 9 hours		
MUHL 3771	Music History and Literature 1	3
MUHL 3772	Music History and Literature 2	3
MUHL 3773	Music History and Literature 3	3
Keyboard Musicianship: 4 hours		
MUAC 1581	Class Piano 1	1
MUAC 1582	Class Piano 2	1
MUAC 2681	Class Piano 3	1
or MUAC 3781	Jazz Class Piano 1	
PIAN 1500A	Piano	1
Keyboard majors will substitute Professional Piano Skills 1 thru 4 (MUAC 2691, 2692, 2693, 2694).		
Conducting		
MUCO 3715	Beginning Conducting	2
MUCO 3717	Advanced Choral Conducting	1

Applied Lessons (Should be taken concurrently with an ensemble)

Primary Instrument Applied Lessons: 14 hours		
VOIC 1501	Voice	2
or MTVC 1501	Voice Musical Theatre 1	
VOIC 1502	Voice	2
or MTVC 1502	Voice Musical Theatre 2	
VOIC 2601	Voice	2
or MTVC 2601	Adv Voice Musical Theatre 1	
VOIC 2602	Voice	2
or MTVC 2602	Adv Voice Musical Theatre 2	
VOIC 3701	Voice	2
or MTVC 3701	Voice	
VOIC 3702	Voice	2
or MTVC 3702	Voice	
VOIC 4801	Voice (With Senior Recital))	2
or MTVC 4801	Voice	

Ensembles		
Large Ensembles (5 hours) Select from the following		5
MUEN 0002, MUEN 0004, MUEN 0005, MUEN 0006*, MUEN 0007, MUEN 0008, MUEN 0023, MUEN 0025, MUEN 0027 *May only be counted once as a Large Ensemble		
Chamber Ensembles (2 hours) Select from the following		2
MUEN 0009, MUEN 0012, MUEN 0013, MUEN 0014, MUEN 0015, MUEN 0016, MUEN 0018, MUEN 0019, MUEN 0020, MUEN 0022, MUEN 0024, MUEN 0026, MUEN 0028, MUEN 0029, MUEN 0030, MUEN 0031, MUEN 0035, MUEN 0044		

Methods: 5 hours		
MUAC 1556	Singer's Diction: English/German	1
MUED 5880	Vocal Pedagogy	1
THTR 2601	Singing Styles	1
MUAC 3764	Instrumental Techniques for Vocal Educators	1
MUAC 3755	Guitar Methods	1

Music Education: 26 hours		
MUED 2622	Introduction to Music Education	3
MUED 4820	Teaching Music Students with Exceptionalities	2
MUED 4823	Teaching Elementary and General Music	3
MUED 4825	Teaching Music in the Secondary School	4
MUED 4828	Teaching Popular and Folk Music	2
CCCA 4844	Supervised Student Teaching: Art/Music (K-12)	10
CCCA 4842A	Student Teaching Seminar for Art/Music (K-12)	2

**Prior to student teaching (CCCA 4844), students are required to complete the Senior Recital.

College of Education: 6 Hours		
TERG 3711	Reading Application in Content Areas, Secondary Years	3
EDFN 3708	Education and Society	3

Total Semester Hours **120-122**

- All undergraduate music majors are required to attend 12 approved performances each semester for six consecutive semesters beginning in the freshman year.
- Applied lesson must be taken concurrently with an ensemble each semester.

Year 1**Fall**

YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	S.H. 1-2
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
VOIC 1501 or MTVC 1501		2
MUED 2622	Introduction to Music Education	3
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
MUAC 1581	Class Piano 1	1
Keyboard majors will substitute MUAC 2691.		
MUEN XXXX Large Ensemble		1
Semester Hours		15-17

Spring

ENGL 1551	Writing 2	3
VOIC 1502 or MTVC 1502		2
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
MUAC 1582	Class Piano 2	1
Keyboard majors will substitute MUAC 2692.		
MUEN XXXX Large Ensemble		1
Any Gen Ed Math		3
Semester Hours		14

Year 2**Fall**

VOIC 2601 or MTVC 2601		2
MUAC 3764	Instrumental Techniques for Vocal Educators	1
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUAC 2681 or MUAC 3781	Class Piano 3 or Jazz Class Piano 1	1
Keyboard majors will substitute MUAC 2693.		
MUHL 3771	Music History and Literature 1	3
MUEN XXXX Large Ensemble		1
MUAC 1556	Singer's Diction: English/German	1
CMST 1545	Communication Foundations	3
Semester Hours		16

Spring

VOIC 2602 or MTVC 2602		2
MUTC 2633	Composition and Songwriting	2
MUAC 3755	Guitar Methods	1
THTR 2601	Singing Styles	1
TERG 3711	Reading Application in Content Areas, Secondary Years	3
PIAN 1500A	Piano	1
Keyboard majors will substitute MUAC 2694.		
MUHL 3772	Music History and Literature 2	3
MUEN XXXX Large Ensemble		1

Application for Upper Division must be completed by this semester.

Semester Hours **14**

Year 3**Fall**

VOIC 3701 or MTVC 3701		2
MUCO 3715	Beginning Conducting	2

MUED 4823	Teaching Elementary and General Music	3
MUHL 3773	Music History and Literature 3	3
MUEN XXXX Chamber Ensemble		1
General Education Elective - Natural Science		3

If students wish to student teach in the spring of 4th year, all convocation requirements must be completed by the end of 3rd year.

Semester Hours **14**

Spring

VOIC 3702 or MTVC 3702		2
MUTC 3710	Orchestration and Arranging	3
MUCO 3717	Advanced Choral Conducting	1
MUED 4820	Teaching Music Students with Exceptionalities	2
MUED 4828	Teaching Popular and Folk Music	2
MUEN XXXX Large Ensemble		1
PSYC 1560	General Psychology	3
General Education Elective - Social Science		3
Semester Hours		17

Year 4**Fall**

VOIC 4801 or MTVC 4801 (with Senior Recital)**		2
MUED 4825	Teaching Music in the Secondary School	4
EDFN 3708	Education and Society	3
MUED 5880	Vocal Pedagogy	1
MUEN XXXX Chamber Ensemble		1
General Education Elective - Natural Science + Lab		4
General Education Elective - Any Gen Ed Course		3

Senior Recital MUST be completed by the end of this semester. Application to student teach is due by September 15. Placement meeting with Music Education Coordinator must occur before September 15.

Semester Hours **18**

Spring

CCCA 4844	Supervised Student Teaching: Art/Music (K-12)	10
CCCA 4842A	Student Teaching Seminar for Art/Music (K-12)	2

**Prior to student teaching, students are required to complete the Senior Recital.

Semester Hours **12**

Total Semester Hours **120-122**

- All undergraduate music majors are required to attend 12 approved performances each semester for six consecutive semesters beginning in the freshman year.
- Applied lesson must be taken concurrently with an ensemble each semester.

Learning Outcomes

The student learning outcomes for the major in music are as follows:

- Students will perform a public recital in their applied area.
- Students will analyze music, discriminate pitch, harmony, and rhythm, and perform harmonic progressions at the piano.
- Students will demonstrate critical thinking about the various historical periods, cultural contexts, and social forces that influence musical activity.
- Students will demonstrate basic keyboard proficiency, including scales, arpeggios, harmonization, repertoire, transpositions, and score reading.

- Students will demonstrate effective planning, teaching, and assessment appropriate to K-12 students in music settings.

Bachelor of Music in Music Education, Instrumental Track

Faculty

Joseph Carucci (<https://academics.ysu.edu/cliffe-college-of-creative-arts/leadership-administration/joseph-carucci/>), D.M.A.

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About the Major

The Bachelor of Music (B.M.) in Music Education (p. 252), Instrumental program provides hands-on experience at all levels that allows students to specialize in idioms that focus on instrumental music, including concert band, orchestra, and marching band, as well as jazz, commercial, chamber ensembles, and more. Through an interactive curriculum that includes courses from the Dana School of Music and YSU's Department of Teacher Education—along with extensive field experiences in local schools—instrumental music education students develop into reflective and passionate music educators. Teaching candidates from the Dana School of Music are dedicated to becoming culturally responsive music educators, reflective practitioners, and advocates for the arts who are informed by student-centered pedagogical practices, creativity, and a broad understanding about music and music education in society.

Contact Information

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To schedule a personalized campus visit, contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu. We would love to hear about your interests, show you our school, and become an important part of your future.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2

or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Any Gen Ed Math (Recommended MATH 2623)		3
Arts and Humanities		0
Requirement satisfied by 6 hours of MUHL 3772 and MUHL 3773		
Natural Sciences (2 courses, 1 with lab)		7
Social Science (6 s.h.)		
PSYC 1560	General Psychology	3
Social Science elective		3
General Education Electives		6
CMST 1545 (3 s.h.)		
MUHL 3771 (0 s.h.)		*Included in major
Any Gen Ed Course (3 s.h.)		
Core Music Requirements		
Music Theory: 17 hours		
MUTC 1531	Music Theory 1	4
& MUTC 1541	and Aural Theory 1	
MUTC 1532	Music Theory 2	4
& MUTC 1542	and Aural Theory 2	
MUTC 2631	Music Theory 3	4
& MUTC 2641	and Aural Theory 3	
MUTC 2633	Composition and Songwriting	2
MUTC 3710	Orchestration and Arranging	3
Music History and Literature: 12 hours		
MUHL 3771	Music History and Literature 1	3
MUHL 3772	Music History and Literature 2	3
MUHL 3773	Music History and Literature 3	3
Keyboard Musicianship: 4 hours		
MUAC 1581	Class Piano 1	1
Keyboard majors will substitute MUAC 2691.		
MUAC 1582	Class Piano 2	1
Keyboard majors will substitute MUAC 2692.		
MUAC 2681	Class Piano 3	1
or MUAC 3781	Jazz Class Piano 1	
Keyboard majors will substitute MUAC 2693 for MUAC 2681 or may enroll in MUAC 3781.		
Conducting		
MUCO 3715	Beginning Conducting	2
MUCO 3716	Advanced Instrumental Conducting	1
Applied Lessons (Should be taken concurrently with an ensemble)		
Primary Instrument Applied Lessons: 14 hours		
Applied Lesson 1501		2
Applied Lesson 1502		2
Applied Lesson 2601		2
Applied Lesson 2602		2
Applied Lesson 3701		2
Applied Lesson 3702		2
Applied Lesson 4801 (with Senior Recital)**		2
Ensembles (7 hours)		
Large Ensemble (5 hours) Select from the following		5
MUEN 0002, MUEN 0004, MUEN 0005, MUEN 0006 *, MUEN 0007, MUEN 0008, MUEN 0023, MUEN 0025, MUEN 0027		*May only be counted once as a Large Ensemble
Chamber Ensemble (2 hours) Select from the following		2

MUEN 0009, MUEN 0012, MUEN 0013, MUEN 0014, MUEN 0015, MUEN 0016, MUEN 0018, MUEN 0019, MUEN 0020, MUEN 0022, MUEN 0024, MUEN 0026, MUEN 0028, MUEN 0029, MUEN 0030, MUEN 0031, MUEN 0035, MUEN 0044

Methods: 6 hours

MUAC 3735 Jazz Methods (Required)	1
MUAC 3756 Marching Band Methods (Required)	1
Select 4 methods courses from the following:	4
MUAC 3732 Brass Methods	
MUAC 3733 Woodwind Methods	
MUAC 3734 String Methods	
MUAC 3759 Voice Methods	
MUAC 3755 Guitar Methods	
MUAC 3763 Percussion Methods	

Music Education: 26 hours

MUED 2622	Introduction to Music Education	3
MUED 4820	Teaching Music Students with Exceptionalities	2
MUED 4823	Teaching Elementary and General Music	3
MUED 4825	Teaching Music in the Secondary School	4
MUED 4828	Teaching Popular and Folk Music	2
CCCA 4844	Supervised Student Teaching: Art/Music (K-12)	10
CCCA 4842A	Student Teaching Seminar for Art/Music (K-12)	2

**Prior to student teaching (CCCA 4844), students are required to complete the Senior Recital.

College of Education: 6 hours

EDFN 3708	Education and Society	3
TERG 3711	Reading Application in Content Areas, Secondary Years	3

Total Semester Hours **120-122**

- All undergraduate music majors are required to attend 12 approved performances each semester for six consecutive semesters beginning in the freshman year.
- Applied lesson must be taken concurrently with an ensemble each semester.

Different Emphases may vary slightly

Year 1

Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
Applied Lesson 1501		2
MUED 2622	Introduction to Music Education	3
MUTC 1531	Music Theory 1	4
& MUTC 1541	and Aural Theory 1	
MUAC 1581	Class Piano 1	1
Keyboard majors will substitute MUAC 2691.		
MUEN 00XX Large Ensemble		1
Semester Hours		15-17

Spring

ENGL 1551	Writing 2	3
Applied Lesson 1502		2
MUTC 1532	Music Theory 2	4
& MUTC 1542	and Aural Theory 2	
MUAC 1582	Class Piano 2	1

Keyboard majors will substitute MUAC 2692.

MUEN 00XX Large Ensemble	1
Any Gen Ed Math	3

Semester Hours**14****Year 2****Fall**

Applied Lesson 2601		2
MUTC 2631	Music Theory 3	4
& MUTC 2641	and Aural Theory 3	
MUAC 2681	Class Piano 3	1

Keyboard majors will substitute MUAC 2693 or may enroll in MUAC 3781.

MUHL 3771	Music History and Literature 1	3
MUEN 00XX Large Ensemble		1
MUAC 37XX Methods Course		1
MUAC 37XX Methods Course		1
CMST 1545	Communication Foundations (Core UD Gateway Course)	3

Semester Hours**16****Spring**

Applied Lesson 2602		2
MUTC 2633	Composition and Songwriting	2
TERG 3711	Reading Application in Content Areas, Secondary Years	3
MUHL 3772	Music History and Literature 2	3
MUEN 00XX Chamber Ensemble		1
MUAC 37XX Methods Course		1
General Education Elective - Social Science		3

Application for Upper Division must be completed by this semester.

Semester Hours**15****Year 3****Fall**

Applied Lesson 3701		2
MUCO 3715	Beginning Conducting	2
MUED 4823	Teaching Elementary and General Music	3
MUHL 3773	Music History and Literature 3	3
MUEN 00XX Large Ensemble		1
MUAC 3756	Marching Band Methods	1
General Education Elective - Natural Science		3

If students wish to student teach in the spring of 4th year, all convocation requirements must be completed by the end of 3rd year.

Semester Hours**15****Spring**

Applied Lesson 3702		2
MUCO 3716	Advanced Instrumental Conducting	1
MUTC 3710	Orchestration and Arranging	3
MUED 4820	Teaching Music Students with Exceptionalities	2
MUED 4828	Teaching Popular and Folk Music	2
MUEN 00XX Chamber Ensemble		1
MUAC 37XX Methods Course		1
PSYC 1560	General Psychology	3

Semester Hours**15****Year 4****Fall**

Applied Lesson 4801 (with Senior Recital)		2
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MUED 4825	Teaching Music in the Secondary School	4
EDFN 3708	Education and Society	3
MUEN 00XX	Large Ensemble	1
MUAC 3735	Jazz Methods	1
General Education Elective - Natural Science + Lab		4
General Education Elective - Any Gen Ed Course		3
Senior Recital MUST be completed by the end of this semester. Application to student teach is due by September 15. Placement meeting with Music Education Coordinator must occur before September 15.		
Semester Hours		18
Spring		
CCCA 4844	Supervised Student Teaching: Art/Music (K-12)	10
CCCA 4842A	Student Teaching Seminar for Art/Music (K-12)	2
**Prior to student teaching (CCCA 4844), students are required to complete the Senior Recital.		
Semester Hours		12
Total Semester Hours		120-122

- All undergraduate music majors are required to attend 12 approved performances each semester for six consecutive semesters beginning in the freshman year.
- Applied lesson must be taken concurrently with an ensemble each semester.

Learning Outcomes

The student learning outcomes for the major in music are as follows:

- Students will perform a public recital in their applied area.
- Students will analyze music, discriminate pitch, harmony, and rhythm, and perform harmonic progressions at the piano.
- Students will demonstrate critical thinking about the various historical periods, cultural contexts, and social forces that influence musical activity.
- Students will demonstrate basic keyboard proficiency, including scales, arpeggios, harmonization, repertoire, transpositions, and score reading.
- Students will demonstrate effective planning, teaching, and assessment appropriate to K-12 students in music settings.

Bachelor of Music in Music Education, Instrumental Jazz Track

Faculty

Kent Engelhardt (<https://ysu.edu/people/kent-engelhardt/>), Ph.D.

Professor

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About the Major

The Bachelor of Music (B. M.) in Music Education (p. 252), Instrumental Jazz program emphasizes collaborative interaction, individual creativity, musical proficiency, and pedagogy as well as historical and cultural perspectives through a unique jazz curriculum which is integrated into the Music Education degree. Through an interactive curriculum that includes courses from the Dana School of Music and YSU's Department of Teacher Education—along with extensive field experiences in local schools—instrumental jazz music education students develop into reflective and passionate music educators. Teaching candidates from the Dana School of Music are dedicated to becoming culturally responsive music educators, reflective practitioners, and advocates for the arts who are informed by student-centered pedagogical practices, creativity, and a broad understanding about music and music education in society.

Contact Information

To learn more about our degree programs, audition information, scholarships, professional development and careers, performances, faculty, and students, visit Dana School of Music (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/>) or contact us at 330.941.3635.

To schedule a personalized campus visit, contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu. We would love to hear about your interests, show you our school, and become an important part of your future.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Any Gen Ed Math (Recommended MATH 2623)		3
Arts and Humanities (3 hours satisfied by MUHL 3772 or MUHL 3773) *Included in major		
Arts and Humanities Elective		3
Natural Science (2 courses; one with lab)		7
Social Science elective		3
PSYC 1560	General Psychology	3
General Education Electives		6
CMST 1545 (3 s.h.)		
MUHL 3771 (0 s.h.)		*Included in major
Any Gen Ed Course (3 s.h.)		
Core Music Requirements		
Music Theory: 18 hours		
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUTC 3712	Jazz Arranging 1	3
MUAC 2667	Jazz Improvisation 1	3
Music History and Literature: 9 hours		
MUHL 3771	Music History and Literature 1	3

MUHL 3775	Jazz History	3
Choose one from the following:		3
MUHL 3772	Music History and Literature 2	
MUHL 3773	Music History and Literature 3	
Keyboard Musicianship: 4 hours		
MUAC 1581	Class Piano 1	1
Keyboard majors will substitute MUAC 2691.		
MUAC 1582	Class Piano 2	1
Keyboard majors will substitute MUAC 2692.		
MUAC 3781	Jazz Class Piano 1	1
MUAC 3782	Jazz Class Piano 2	1
Conducting		
MUCO 3715	Beginning Conducting	2
MUCO 3716	Advanced Instrumental Conducting	1
Applied Lessons (Should be taken concurrently with an ensemble)		
Primary Instrument Applied Lessons: 14 hours		
Applied Lesson 1501		2
Applied Lesson 1502		2
Applied Lesson 2601		2
Applied Lesson 2602		2
Applied Lesson 3701		2
Applied Lesson 3702		2
Applied Lesson 4801 (with Senior Recital)**		2
Ensembles		
Large Ensembles: 5 hours		
MUEN 0006	Marching Band	1
MUEN 0023	Jazz Ensemble	1
MUEN 0023	Jazz Ensemble	1
MUEN 0023	Jazz Ensemble	1
MUEN 0023	Jazz Ensemble	1
Chamber Ensembles: 2 hours		
MUEN 0030	Jazz Combo	1
or MUEN 0013 Contemporary Ensemble		
MUEN 0030	Jazz Combo	1
or MUEN 0013 Contemporary Ensemble		
Music Education		
Methods: 4 hours		
MUAC 3735	Jazz Methods	1
Select 3 methods courses from the following:		3
MUAC 3732	Brass Methods	
MUAC 3733	Woodwind Methods	
MUAC 3734	String Methods	
MUAC 3755	Guitar Methods	
MUAC 3756	Marching Band Methods	
MUAC 3759	Voice Methods	
MUAC 3763	Percussion Methods	
Music Education: 26 hours		
MUED 2622	Introduction to Music Education	3
MUED 4820	Teaching Music Students with Exceptionalities	2
MUED 4823	Teaching Elementary and General Music	3
MUED 4825	Teaching Music in the Secondary School	4
MUED 4828	Teaching Popular and Folk Music	2
CCCA 4844	Supervised Student Teaching: Art/Music (K-12)	10
CCCA 4842A	Student Teaching Seminar for Art/Music (K-12)	2
**Prior to student teaching (CCCA 4844), students are required to complete the Senior Recital.		
College of Education: 6 Hours		

TERG 3711	Reading Application in Content Areas, Secondary Years	3
EDFN 3708	Education and Society	3
Total Semester Hours		123-125
<ul style="list-style-type: none"> All undergraduate music majors are required to attend 12 approved performances each semester for six consecutive semesters beginning in the freshman year. <u>Applied lesson must be taken concurrently with an ensemble each semester.</u> 		
Students are required to complete the Senior Recital prior to student teaching (CCCA 4844).		
Year 1		
Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
Applied Lesson 1501		2
MUED 2622	Introduction to Music Education	3
MUTC 1531	Music Theory 1	4
& MUTC 1541	and Aural Theory 1	
MUAC 1581	Class Piano 1	1
Keyboard majors will substitute MUAC 2691.		
MUEN 0006	Marching Band	1
Semester Hours		15-17
Spring		
ENGL 1551	Writing 2	3
Applied Lesson 1502		2
MUTC 1532	Music Theory 2	4
& MUTC 1542	and Aural Theory 2	
MUAC 1582	Class Piano 2	1
Keyboard majors will substitute MUAC 2692.		
MUEN 0023	Jazz Ensemble	1
General Education Elective - Social Science		3
Any Gen Ed Math		3
Semester Hours		17
Year 2		
Fall		
Applied Lesson 2601		2
MUTC 2631	Music Theory 3	4
& MUTC 2641	and Aural Theory 3	
MUAC 3781	Jazz Class Piano 1	1
MUAC 2667	Jazz Improvisation 1	3
MUHL 3771	Music History and Literature 1	3
MUEN 0023	Jazz Ensemble	1
CMST 1545	Communication Foundations	3
Semester Hours		17
Spring		
Applied Lesson 2602		2
TERG 3711	Reading Application in Content Areas, Secondary Years	3
MUAC 3782	Jazz Class Piano 2	1
MUHL 3775	Jazz History	3
MUAC 3735	Jazz Methods	1
MUAC 37XX	Methods Course	1

MUEN 0030 or MUEN 0013	Jazz Combo or Contemporary Ensemble	1
PSYC 1560	General Psychology	3
Application for Upper Division must be completed by this semester.		
Semester Hours		15
Year 3		
Fall		
Applied Lesson 3701		2
MUCO 3715	Beginning Conducting	2
MUED 4823	Teaching Elementary and General Music	3
MUTC 3712	Jazz Arranging 1	3
MUHL 3773 or MUHL 3772	Music History and Literature 3 or Music History and Literature 2	3
MUEN 0023	Jazz Ensemble	1
MUAC 37XX	Methods Course	1
If students wish to student teach in the spring of 4th year, all convocation requirements must be completed by the end of 3rd year.		
Semester Hours		15
Spring		
Applied Lesson 3702		2
MUCO 3716	Advanced Instrumental Conducting	1
MUED 4820	Teaching Music Students with Exceptionalities	2
MUED 4828	Teaching Popular and Folk Music	2
MUEN 0023	Jazz Ensemble	1
MUAC 37XX	Methods Course	1
General Education Elective - Arts and Humanities		3
General Education Elective - Natural Science + Lab		4
Semester Hours		16
Year 4		
Fall		
Applied Lesson 4801 (with Senior Recital)**		2
MUED 4825	Teaching Music in the Secondary School	4
EDFN 3708	Education and Society	3
MUEN 0030 or MUEN 0013	Jazz Combo or Contemporary Ensemble	1
General Education Elective - Natural Science		3
General Education Elective - Any Gen Ed Course		3
Senior Recital MUST be completed by the end of this semester. Application to student teach is due September 15. Placement meeting with Music Education Coordinator must occur before September 15.		
Semester Hours		16
Spring		
CCCA 4844	Supervised Student Teaching: Art/Music (K-12)	10
CCCA 4842A	Student Teaching Seminar for Art/Music (K-12)	2
**Prior to student teaching, students are required to complete the Senior Recital.		
Semester Hours		12
Total Semester Hours		123-125

- All undergraduate music majors are required to attend 12 approved performances each semester for six consecutive semesters beginning in the freshman year.
- Applied lesson must be taken concurrently with an ensemble each semester.

Learning Outcomes

The student learning outcomes for the major in music are as follows:

- Students will perform a public recital in their applied area.
- Students will analyze music, discriminate pitch, harmony, and rhythm, and perform harmonic progressions at the piano.
- Students will demonstrate critical thinking about the various historical periods, cultural contexts, and social forces that influence musical activity.
- Students will demonstrate basic keyboard proficiency, including scales, arpeggios, harmonization, repertoire, transpositions, and score reading.
- Students will demonstrate effective planning, teaching, and assessment appropriate to K-12 students in music settings.

Bachelor of Music in Music Performance

About the Major

PURSUE YOUR PASSION + PREPARE FOR YOUR CAREER

The Bachelor of Music (B.M.) in Music Performance provides exceptional individualized applied studio instruction and offers comprehensive study in areas necessary to prepare for careers (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/careers/>) as performers, educators, arrangers, producers, and more. B.M. in Music Performance students work closely with a world-class faculty (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/faculty/>) of performers, composers, and scholars who support their students' personal aspirations through the development of strategic experiences, thus enabling them to pursue a variety of professional opportunities in multiple contexts. The curriculum includes diverse ensemble offerings, including large and chamber performance experiences and solo and collaborative opportunities, as well as avenues for students to diversify their studies with elective classes and professional skills that are relevant to their areas of interest, such as audio and music production (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-creative-arts-communication/school-music/certificate-in-audio-and-music-production/>), composition and songwriting, and career development in music.

Our B.M. in Music Performance focuses on the professional development and unique career goals of each student. The curriculum goes beyond traditional artistic training—incorporating a strong emphasis on innovation and an entrepreneurial mindset—and includes certificates or minors such as Non-Profit Leadership and Digital Market Strategy *within the degree program*. The dynamic and innovative B.M. in Music Performance at Youngstown State prepares students for careers (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/careers/>) in a myriad of fields and is dedicated to the success of our graduates in a competitive and diverse professional landscape.

Our alumni (<https://academics.ysu.edu/cliffe-college-of-creative-arts/alumni-giving/>) are Grammy® Award winning artists and routinely perform in various professional settings, including with national and international ensembles and companies, recording in Nashville and Hollywood studios, touring globally with diverse acts, and performing with the Jazz at Lincoln Center Orchestra. Graduates also pursue other career opportunities, including those as composers, arrangers, and audio engineers and as academic faculty and administrators around the country and across the globe. Our students earn degrees in areas about which they are passionate, and their skills are applicable to careers in numerous professions. A degree from the Dana School of Music (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/>) at Youngstown State University positions our graduates to

define future professional goals and equips them with exceptional skills for a successful career.

Contact Information

To learn more about our degree programs, audition information, scholarships, professional development and careers, performances, faculty, and students, visit Dana School of Music (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/>) or contact us at 330.941.3635.

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BRASS

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PIANO

Caroline Oltmanns (<https://ysu.edu/people/caroline-oltmanns/>), D.M.A.
Professor

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VOICE

Susan Foster (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/faculty/>)

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WOODWINDS

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Learning Outcomes

The student learning outcomes for the major in music performance are as follows:

- Students will perform a public recital in their applied area.
- Students will analyze music, discriminate pitch, harmony, and rhythm and perform harmonic progressions at the piano.
- Students will demonstrate critical thinking about the various historical periods, cultural contexts, and social forces that influence musical activity.
- Students will demonstrate basic keyboard proficiency including scales, arpeggios, harmonization, repertoire, transpositions, and score reading.

Bachelor of Music in Music Performance, Instrumental Track

Faculty

BRASS

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STRINGS

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WOODWINDS

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About the Major

Students pursuing the Bachelor of Music (B.M.) in Music Performance (p. 260), Instrumental program have a broad range of opportunities to perform in world-class ensembles (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/ensembles/>) that explore diverse repertoire and provide professional training as soloists and ensemble members. Examples of large and small Dana School of Music ensembles include Symphony and Chamber Orchestra, Wind Ensemble and Concert Band, Jazz Ensemble and Combos, and Contemporary Ensembles. Chamber Ensembles provide students the chance to form groups (e.g., brass quintets, multiple-instrument combos) that explore varied literature and entrepreneurship, and many groups actively play gigs and concerts throughout the region. Athletic Bands support YSU sports, including the Marching Pride and Basketball Pep Band, both on campus and traveling to regular season and playoff games.

Our students regularly win regional, national, and international recognition in performance and garner competition awards. They routinely perform as artists and chamber musicians at summer music festivals in the U.S. and abroad and

are accepted to prestigious graduate programs around the country and across the globe.

Contact Information

To learn more about our degree programs, audition information, scholarships, professional development and careers, performances, faculty, and students, visit Dana School of Music (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/>) or contact us at 330.941.3635.

To schedule a personalized campus visit, contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu. We would love to hear about your interests, show you our school, and become an important part of your future.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT - STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
GENERAL EDUCATION REQUIREMENTS		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Any Gen Ed Math (Recommended MATH 2623)		3
Arts and Humanities (2 courses)		0
Satisfied by 6 hours of MUHL 2772 and 2773, which are required in the major.		
Natural Sciences (2 courses, 1 with lab)		7
Social Science (2 courses)		6
General Education Electives (9 s.h.)		
CMST 1545	Communication Foundations	3
MUHL 2771	World Music (*Included in major)	0
Any Gen Ed Course		3
CORE MUSIC REQUIREMENTS		
Music Theory (17 hours). Music Theory and Aural Theory of the same level must be taken concurrently.		
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUTC 3733	Composition and Songwriting	2
MUTC 3710	Orchestration and Arranging	3
Keyboard Musicianship (4 hours)		
MUAC 1581	Class Piano 1	1
MUAC 1582	Class Piano 2	1
MUAC 2681	Class Piano 3	1
or MUAC 3781	Jazz Class Piano 1	
MUAC 2682	Class Piano 4	1
or MUAC 3782	Jazz Class Piano 2	
Music History and Literature (9 hours)		
MUHL 2771	World Music	3
MUHL 2772	Western Art Music	3
MUHL 2773	American Music	3
Conducting (3 hours)		
MUCO 3715	Beginning Conducting	2

MUCO 3716	Advanced Instrumental Conducting	1
APPLIED LESSONS (28 hours)		
Applied Lesson 1501		2
Applied Lesson 1502		2
Applied Lesson 2603		3
Applied Lesson 2604		3
Applied Lesson 3703		3
Applied Lesson 3704 (with Junior Recital)		3
Applied Lesson 4805		4
Applied Lesson 4806 (with Senior Recital)		4
ENSEMBLES (10 hours)		
MUEN 00XX Large Ensembles (guitar majors substitute Guitar Ensemble)		8
MUEN 00XX Chamber Ensembles		2
ELECTIVES (9 hours)		
MUTC/MUHL - Upper Division Theory and History Electives (must represent both areas)		9
Career Preparedness (3 hours)		
MUIN 4833	Career Development in Music	3
Certificate (12 hours, 7 hours upper division)		
Choose a certificate or minor. Options include, but are not limited to:		
Certificate in Nonprofit Leadership		
Certificate in Digital Market Strategy		
Certificate in Enterprise Resource Planning		
Total Semester Hours		120-122
<ul style="list-style-type: none"> All undergraduate music majors are required to attend 12 approved performances each semester for six consecutive semesters beginning in the freshman year. <u>Applied lesson must be taken concurrently with a large ensemble each semester.</u> 		
Year 1		
Fall		
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
ENGL 1550	Writing 1	
or ENGL 1549	or Writing 1 with Support	3-4
Applied Lessons 1501		2
MUTC 1531	Music Theory 1	4
& MUTC 1541	and Aural Theory 1	
MUAC 1581	Class Piano 1	1
MUEN 00XX Large Ensemble		1
General Education Elective - Social Science		3
Semester Hours		15-17
Spring		
ENGL 1551	Writing 2	3
Applied Lessons 1502		2
MUTC 1532	Music Theory 2	4
& MUTC 1542	and Aural Theory 2	
MUAC 1582	Class Piano 2	1
MUEN 00XX Large Ensemble		1
Any Gen Ed Math		3
Semester Hours		14
Year 2		
Fall		
Applied Lessons 2603		3

MUTC 2631	Music Theory 3	4
& MUTC 2641	and Aural Theory 3	
MUAC 2681	Class Piano 3	1
or MUAC 3781	or Jazz Class Piano 1	
MUHL 2771	World Music	3
MUEN 00XX Large Ensemble		1
CMST 1545	Communication Foundations	3
Semester Hours		15
Spring		
Applied Lessons 2604		3
MUAC 2682	Class Piano 4	1
or MUAC 3782	or Jazz Class Piano 2	
MUHL 2772	Western Art Music	3
MUTC 3733	Composition and Songwriting	2
MUEN 00XX Large Ensemble		1
General Education Elective - Social Science		3
Certificate Course 1		3
Semester Hours		16
Year 3		
Fall		
Applied Lessons 3703		3
MUCO 3715	Beginning Conducting	2
MUHL 2773	American Music	3
MUEN 00XX Large Ensemble		1
MUEN 00XX Chamber Ensemble		1
Certificate Course 2		3
General Education Elective - Natural Science + Lab		4
Semester Hours		17
Spring		
Applied Lessons 3704 (with Junior Recital)		3
MUTC 3710	Orchestration and Arranging	3
MUCO 3716	Advanced Instrumental Conducting	1
MUIN 4833	Career Development in Music	3
MUEN 00XX Large Ensemble		1
MUEN 00XX Chamber Ensemble		1
General Education Elective - Any Gen Ed Course		3
Semester Hours		15
Year 4		
Fall		
Applied Lessons 4805		4
MUEN 00XX Large Ensemble		1
MUTC/MUHL - Upper Division Electives		3
General Education Elective - Natural Science		3
Certificate Course 3		3
Semester Hours		14
Spring		
Applied Lessons 4806 (with Senior Recital)		4
MUEN 00XX Large Ensemble		1
MUTC/MUHL - Upper Division Electives		6
Certificate Course 4		3
Semester Hours		14
Total Semester Hours		120-122

- All undergraduate music majors are required to attend 12 approved performances each semester for six consecutive semesters beginning in the freshman year.

- Applied lesson must be taken concurrently with a large ensemble each semester.

Learning Outcomes

The student learning outcomes for the major in music are as follows:

- Students will perform a public recital in their applied area.
- Students will analyze music, discriminate pitch, harmony, and rhythm, and perform harmonic progressions at the piano.
- Students will demonstrate critical thinking about the various historical periods, cultural contexts, and social forces that influence musical activity.
- Students will demonstrate basic keyboard proficiency, including scales, arpeggios, harmonization, repertoire, transpositions, and score reading.

Bachelor of Music in Music Performance, Jazz Track

Faculty

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About the Major

The Bachelor of Music (B.M.) in Music Performance (p. 260), Jazz Track emphasizes collaborative interaction, individual creativity, musical proficiency, and pedagogy as well as historical and cultural perspectives through a unique and comprehensive curriculum. Collaborative interaction is encouraged and realized through five semesters of participation in the Jazz Combo or Contemporary Ensemble and five semesters of participation in the Jazz Ensemble, which creates a balanced approach between small and large ensemble experiences. Included in the ensemble experiences are on-campus concerts and off-campus performances throughout the region. Individual creativity is stressed in four semesters of Jazz Improvisation and two semesters of Jazz Arranging. In addition, musical proficiencies are part of both Jazz Improvisation and Jazz Arranging. Individual harmonic proficiency and keyboard skills are expected in two semesters of Class Jazz Piano. Jazz pedagogy is addressed in a specialized one semester Jazz Methods class, and historical and cultural perspectives are presented in the one semester Jazz History course. Many students in this degree choose to take 5000-level Selected Topics in Jazz History to fulfill their upper division history/theory elective. The Junior Recital and the Senior Recital include a jazz component and are the capstone experiences of the degree.

Contact Information

To learn more about our degree programs, audition information, scholarships, professional development and careers, performances, faculty, and students, visit Dana School of Music (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/>) or contact us at 330.941.3635.

To schedule a personalized campus visit, contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu. We would love to hear about your interests, show you our school, and become an important part of your future.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT - STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
GENERAL EDUCATION REQUIREMENTS		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Any Gen Ed Math (Recommended MATH 2623)		3
Arts and Humanities (2 courses)		0
Satisfied by 6 hours MUHL 2672 and 2673, which are required in the major.		
Natural Sciences (2 courses, 1 with a lab)		7
Social Science (2 courses)		6
General Education Electives (9 s.h.)		
CMST 1545	Communication Foundations	3
MUHL 2771	World Music (Included in major)	0
Any Gen Ed Course		3
CORE MUSIC REQUIREMENTS		
Music Theory (12 hours): Music Theory and Aural Theory of the same level must be taken concurrently.		
MUTC 1531	Music Theory 1	4
& MUTC 1541	and Aural Theory 1	
MUTC 1532	Music Theory 2	4
& MUTC 1542	and Aural Theory 2	
MUTC 2631	Music Theory 3	4
& MUTC 2641	and Aural Theory 3	
Keyboard Musicianship (4 hours)		
MUAC 1581	Class Piano 1	1
Keyboard majors will substitute MUAC 2691		
MUAC 1582	Class Piano 2	1
Keyboard majors will substitute MUAC 2692		
MUAC 3781	Jazz Class Piano 1	1
MUAC 3782	Jazz Class Piano 2	1
Music History and Literature (12 hours)		
MUHL 2771	World Music	3
MUHL 2772	Western Art Music	3
MUHL 3773	Music History and Literature 3	3
MUHL 3775	Jazz History	3
APPLIED LESSONS (20 hours)		
Applied Lesson 1501		2
Applied Lesson 1502		2
Applied Lesson 2601		2
Applied Lesson 2602		2
Applied Lesson 3703		3
Applied Lesson 3704 (with Junior Recital)		3

Applied Lesson 4803	3	MUHL 2771	World Music	3
Applied Lesson 4804 (with Senior Recital)	3	MUEN 0023	Jazz Ensemble	1
ENSEMBLES (10 hours)		MUAC 3735	Jazz Methods	1
MUEN 0023 Jazz Ensemble	5	MUAC 2667	Jazz Improvisation 1	3
MUEN 0030 Jazz Combo (or MUEN 0013 Contemporary Ensembles)	5	Semester Hours		15
JAZZ EMPHASIS (19 hours)		Spring		
MUAC 3735 Jazz Methods	1	Applied Lesson 2602		2
MUTC 3712 Jazz Arranging 1	3	MUAC 3782 Jazz Class Piano 2		1
MUTC 3713 Jazz Arranging 2	3	MUHL 2772 Western Art Music		3
MUAC 2667 Jazz Improvisation 1	3	MUEN 0023 Jazz Ensemble		2
MUAC 2668 Jazz Improvisation 2	3	& MUEN 0030 and Jazz Combo		
MUAC 4867 Jazz Improvisation 3	3	MUAC 2668 Jazz Improvisation 2		3
MUAC 4868 Jazz Improvisation 4	3	Certificate Course 1		3
Career Readiness (3 Hours)		Semester Hours		14
MUIN 4833 Career Development in Music	3	Year 3		
Certificate (12 Hours, including 6 hours of upper division)	12	Fall		
Choose a certificate or minor. Options include, but are not limited to:		Applied Lesson 3703		3
Certificate in Nonprofit Leadership		MUHL 2773 American Music		3
Certificate in Digital Market Strategy		MUEN 0030 Jazz Combo		1
Certificate in Enterprise Resource Planning		MUTC 3712 Jazz Arranging 1		3
Total Semester Hours	121-123	or MUAC 4867 or Jazz Improvisation 3		
• All undergraduate music majors are required to attend 12 approved performances each semester for six consecutive semesters beginning in the freshman year.		CMST 1545 Communication Foundations		3
• <u>Applied lesson must be taken concurrently with an ensemble.</u>		Certificate Course 2		3
Year 1		Semester Hours		16
Fall	S.H.	Spring		
YSU 1500 Success Seminar	1-2	Applied Lesson 3704 (with Junior Recital)		3
or YSU 1500S or Youngstown State University Success Seminar		MUTC 3713 Jazz Arranging 2		3
or HONR 1500 or Intro to Honors		or MUAC 4868 or Jazz Improvisation 4		
ENGL 1550 Writing 1	3-4	MUEN 0030 Jazz Combo		1
or ENGL 1549 or Writing 1 with Support		MUHL 3775 Jazz History		3
Applied Lesson 1501	2	General Education Elective - Social Science		3
MUTC 1531 Music Theory 1	4	MUIN 4833 Career Development in Music		3
& MUTC 1541 and Aural Theory 1		Semester Hours		16
MUAC 1581 Class Piano 1	1	Year 4		
Keyboard majors will substitute MUAC 2691		Fall		
MUEN 0023 Jazz Ensemble	1	Applied Lesson 4803		3
Semester Hours	12-14	MUTC 3712 Jazz Arranging 1		3
Spring		or MUAC 4867 or Jazz Improvisation 3		
ENGL 1551 Writing 2	3	MUEN 0023 Jazz Ensemble		2
Applied Lesson 1502	2	& MUEN 0030 and Jazz Combo		
MUTC 1532 Music Theory 2	4	General Education Elective - Natural Science		3
& MUTC 1542 and Aural Theory 2		Certificate Course 3		3
MUAC 1582 Class Piano 2	1	Semester Hours		14
Keyboard majors will substitute MUAC 2692		Spring		
MUEN 0023 Jazz Ensemble	1	Applied Lesson 4804 (with Senior Recital)		3
General Education Elective -- Social Science	3	MUTC 3713 Jazz Arranging 2		3
Any Gen Ed Math	3	or MUAC 4868 or Jazz Improvisation 4		
Semester Hours	17	MUEN 0030 Jazz Combo		1
Year 2		Certificate Course 4		3
Fall		General Education Elective - Natural Science + Lab		4
Applied Lesson 2601	2	General Education Elective - Any Gen Ed Course		3
MUTC 2631 Music Theory 3	4	Semester Hours		17
& MUTC 2641 and Aural Theory 3		Total Semester Hours		121-123
MUAC 3781 Jazz Class Piano 1	1			

- All undergraduate music majors are required to attend 12 approved performances each semester for six consecutive semesters beginning in the freshman year.
- Applied lesson must be taken concurrently with an ensemble.

Learning Outcomes

The student learning outcomes for the major in music are as follows:

- Students will perform a public recital in their applied area.
- Students will analyze music, discriminate pitch, harmony, and rhythm, and perform harmonic progressions at the piano.
- Students will demonstrate critical thinking about the various historical periods, cultural contexts, and social forces that influence musical activity.
- Students will demonstrate basic keyboard proficiency, including scales, arpeggios, harmonization, repertoire, transpositions, and score reading.
- Students will perform, improvise, compose, and arrange jazz music.

Bachelor of Music in Music Performance, Piano Track

Faculty

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About the Major

Students pursuing the Bachelor of Music (B.M.) in Music Performance (p. 260) in Piano have a broad range of world-class performance opportunities that include diverse repertoire and provide professional training as soloists and collaborators. Examples include solo recitals, concerto competitions, large and small ensembles, and contemporary ensembles. Chamber Ensembles provide students the chance to form groups that explore varied literature and entrepreneurship, and many groups actively play gigs and concerts throughout the region.

Our students regularly win regional, national, and international recognition as performers and garner competition awards. They routinely perform as artists and chamber musicians at summer music festivals in the U.S. and abroad and are accepted to prestigious graduate programs around the country and across the globe.

Contact Information

To learn more about our degree programs, audition information, scholarships, professional development and careers, performances, faculty, and students, visit Dana School of Music (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/>) or contact us at 330.941.3635.

To schedule a personalized campus visit, contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu. We would love to hear about your interests, show you our school, and become an important part of your future.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT - STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
GENERAL EDUCATION REQUIREMENTS		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Any Gen Ed Math (MATH 2623 recommended)		3
Arts and Humanities (2 courses)		0
Satisfied by 6 SH of MUHL 2672 and 2673, which are required in the major.		
Natural Sciences (2 courses, 1 with lab)		7
Social Science (2 courses)		6
General Education Electives		6
CMST 1545 (3 s.h.)		
MUHL 2771 (0 s.h.)	*Included in major	
Any Gen Ed Course (3 s.h.)		
CORE MUSIC REQUIREMENTS		
Music Theory (17 hours). Music Theory and Aural Theory of the same level must be taken concurrently.		
MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUTC 3733	Composition and Songwriting	2
MUTC 3710	Orchestration and Arranging	3
Keyboard Musicianship (4 hours)		
MUAC 2691	Professional Piano Skills 1	1
MUAC 2692	Professional Piano Skills 2	1
MUAC 2693	Professional Piano Skills 3	1
MUAC 2694	Professional Piano Skills 4	1
Music History and Literature (9 hours)		
MUHL 2771	World Music	3
MUHL 2772	Western Art Music	3
MUHL 2773	American Music	3
Conducting (3 hours)		
MUCO 3715	Beginning Conducting	2
MUCO 3716	Advanced Instrumental Conducting	1
or MUCO 3717	Advanced Choral Conducting	
ENSEMBLES (8 hours)		
Large or Chamber Ensembles		8
MUEN 0002, MUEN 0004, MUEN 0005, MUEN 0007, MUEN 0008, MUEN 0013, MUEN 0023, MUEN 0027, MUEN 0031		
*Please consult with your applied teacher regarding ensemble participation.		
*Please consult with your applied teacher regarding piano chamber ensemble participation.		
PIANO EMPHASIS		
Piano Applied Lessons and Support Courses (26 hours)		
PIAN 1501	Piano	2
PIAN 1502	Piano	2
PIAN 2603	Piano	3
PIAN 2604	Piano	3
PIAN 3705	Piano	4

PIAN 3706	Piano (with Junior Recital)	4
PIAN 4805	Piano	4
PIAN 4806	Piano (with Senior Recital)	4
MUTC/MUHL - Upper Division Theory and History Electives (must represent both areas) (6 hours)		6
Career Preparedness (6 hours)		
MUIN 4833	Career Development in Music	3
MUIN 1561	Recording Workshop	3
Certificate (12 hours, 8 hours upper division)		12
Choose a certificate or minor. Options include, but are not limited to:		
Certificate in Nonprofit Leadership		
Certificate in Digital Market Strategy		
Certificate in Enterprise Resource Planning		
Total Semester Hours		120-122

- All undergraduate music majors are required to attend 12 approved performances each semester for six consecutive semesters beginning in the freshman year.

- Applied lesson must be taken concurrently with ensemble each semester.

Year 1

Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
ENGL 1550	Writing 1	
or ENGL 1549	or Writing 1 with Support	3-4
PIAN 1501	Piano	2
MUTC 1531	Music Theory 1	4
& MUTC 1541	and Aural Theory 1	
MUAC 2691	Professional Piano Skills 1	1
MUEN 00XX (Ensemble)		1
Semester Hours		12-14

Spring

ENGL 1551	Writing 2	3
MUAC 2692	Professional Piano Skills 2	1
PIAN 1502	Piano	2
MUTC 1532	Music Theory 2	4
& MUTC 1542	and Aural Theory 2	
MUEN 00XX (Ensemble)		1
General Education Elective - Social Science		3
Any Gen Ed MATH		3
Semester Hours		17

Year 2

Fall		
PIAN 2603	Piano	3
MUAC 2693	Professional Piano Skills 3	1
MUTC 2631	Music Theory 3	4
& MUTC 2641	and Aural Theory 3	
MUHL 2771	World Music	3
MUEN 00XX (Ensemble)		1
CMST 1545	Communication Foundations	3
Semester Hours		15

Spring

MUAC 2694	Professional Piano Skills 4	1
PIAN 2604	Piano	3
MUHL 2772	Western Art Music	3

MUTC 3733	Composition and Songwriting	2
Certificate Course 1		3
MUEN 00XX (Ensemble)		1
General Education Elective - Natural Science		3
Semester Hours		16

Year 3**Fall**

PIAN 3705	Piano	4
MUCO 3715	Beginning Conducting	2
MUHL 2773	American Music	3
MUIN 1561	Recording Workshop	3
MUEN 00XX (Ensemble)		1
Certificate Course 2		3
Semester Hours		16

Spring

PIAN 3706	Piano (with Junior Recital)	4
MUTC 3710	Orchestration and Arranging	3
MUCO 3716	Advanced Instrumental Conducting	1
or MUCO 3717	or Advanced Choral Conducting	
MUEN 00XX (Ensemble)		1
MUIN 4833	Career Development in Music	3
General Education Elective - Natural Science + Lab		4
Semester Hours		16

Year 4**Fall**

PIAN 4805	Piano	4
MUEN 00XX (Ensemble)		1
Music Upper Division MUHL or MUTC Elective		3
Certificate Course 3		3
General Education Elective - Social Science		3
General Education Elective - Any Gen Ed Course		3
Semester Hours		17

Spring

PIAN 4806	Piano (with Senior Recital)	4
Music Upper Division MUTC or MUHL Elective		3
MUEN 00XX (Ensemble)		1
Certificate Course 4		3
Semester Hours		11

Total Semester Hours 120-122

- All undergraduate music majors are required to attend 12 approved performances each semester for six consecutive semesters beginning in the freshman year.
- Applied lesson must be taken concurrently with ensemble each semester.

Learning Outcomes

The student learning outcomes for the major in music are as follows:

- Students will perform a public recital in their applied area.
- Students will analyze music, discriminate pitch, harmony, and rhythm, and perform harmonic progressions at the piano.
- Students will demonstrate critical thinking about the various historical periods, cultural contexts, and social forces that influence musical activity.
- Students will demonstrate basic keyboard proficiency, including scales, arpeggios, harmonization, repertoire, transpositions, and score reading.

Bachelor of Music in Music Performance, Voice Track

Faculty

Susan Foster (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/faculty/>)

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About the Major

Students pursuing the Bachelor of Music (B.M.) in Music Performance (p. 260) in Voice have a broad range of opportunities to participate in diverse coursework and world-class performances that provide professional training as soloists and ensemble members. Examples include multiple annual opera productions with live ensembles, solo recitals, concerto competitions, Dana Chorale, Musical Theatre productions, Jazz Ensemble and Combos, and Contemporary Ensembles. Chamber ensembles provide students the chance to form groups that explore varied literature and entrepreneurship, and many groups actively play gigs and concerts throughout the region.

Our students regularly win regional, national, and international recognition in performance and garner competition awards. They routinely perform as artists and chamber musicians at summer music festivals in the U.S. and abroad and are accepted to prestigious graduate programs around the country and across the globe.

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COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT - STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
GENERAL EDUCATION REQUIREMENTS		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3

Any Gen Ed Math (Recommended MATH 2623)	3
Arts and Humanities (2 courses)	0
Satisfied by 6 hours of MUHL 2672 and 2673, which are required in the major.	
Natural Sciences (2 courses, 1 with lab)	7
Social Science (2 courses)	6
General Education Electives	6
CMST 1545 (3 s.h.)	
MUHL 2771 (0 s.h.)	*Included in major
Any Gen Ed Course (3 s.h.)	

CORE MUSIC REQUIREMENTS

Music Theory (17 hours). Music Theory and Aural Theory of the same level must be taken concurrently.

MUTC 1531 & MUTC 1541	Music Theory 1 and Aural Theory 1	4
MUTC 1532 & MUTC 1542	Music Theory 2 and Aural Theory 2	4
MUTC 2631 & MUTC 2641	Music Theory 3 and Aural Theory 3	4
MUTC 3733	Composition and Songwriting	2
MUTC 3710	Orchestration and Arranging	3

Keyboard Musicianship (4 hours)

MUAC 1581	Class Piano 1	1
MUAC 1582	Class Piano 2	1
MUAC 2681	Class Piano 3	1
or MUAC 3781	Jazz Class Piano 1	
MUAC 2682	Class Piano 4	1
or MUAC 3782	Jazz Class Piano 2	

Music History and Literature (9 hours)

MUHL 2771	World Music	3
MUHL 2772	Western Art Music	3
MUHL 2773	American Music	3

Conducting (3 hours)

MUCO 3715	Beginning Conducting	2
MUCO 3717	Advanced Choral Conducting	1

VOICE EMPHASIS REQUIREMENTS

Applied Lessons and Related Courses (Should be taken concurrently with an ensemble)

VOIC 1501	Voice	2
VOIC 1502	Voice	2
VOIC 2605	Voice	2
VOIC 2606	Voice	2
VOIC 3703	Voice	3
VOIC 3706	Voice (with Junior Recital)	4
VOIC 4805	Voice	4
VOIC 4806	Voice (with Senior Recital)	4
MUED 5880	Vocal Pedagogy	1
MUAC 1556	Singer's Diction: English/German	1
MUAC 1557	Singer's Diction: Italian/French	1

ENSEMBLES (8 hours)

Large Ensembles 8

Select from the following (8 hours)

MUEN 0002, MUEN 0004, MUEN 0005, MUEN 0006*, MUEN 0007, MUEN 0008, MUEN 0023, MUEN 0025, MUEN 0027 *May only be counted once as a Large Ensemble

Career Preparedness (3 hours)

MUIN 4833	Career Development in Music	3
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Upper Division MUHL and MUTC Electives

MUTC/MUHL Upper Division Theory/History Electives (must represent both areas)	9
Certificate or Foreign Language/Theatre Package (12 hours, 6 hours upper division)	12
Choose a certificate or minor. Options include, but are not limited to:	
Certificate in Nonprofit Leadership	
Certificate in Digital Market Strategy	
Certificate in Enterprise Resource Planning	
Or Foreign Language/Theatre Package:	
THTR 1585 Acting 1: Fundamentals	
THTR 2601 Singing Styles	
ITAL 1505 Elementary Italian 1	
ITAL 1506 Elementary Italian 2	
One 3-credit upper division course	
Total Semester Hours	120-122

- All undergraduate music majors are required to attend 12 approved performances each semester for six consecutive semesters beginning in the freshman year.

- Applied lesson must be taken concurrently with an ensemble each semester.

Year 1

Fall	S.H.
YSU 1500 Success Seminar or YSU 1500S or Youngstown State University Success Seminar or HONR 1500 or Intro to Honors	1-2
ENGL 1550 Writing 1 or ENGL 1549 or Writing 1 with Support	3-4
VOIC 1501 Voice	2
MUTC 1531 Music Theory 1 & MUTC 1541 and Aural Theory 1	4
MUAC 1581 Class Piano 1	1
MUEN 00XX Large Ensemble	1
MUAC 15XX Diction Elective	1
Semester Hours	13-15

Spring

ENGL 1551 Writing 2	3
VOIC 1502 Voice	2
MUTC 1532 Music Theory 2 & MUTC 1542 and Aural Theory 2	4
MUAC 1582 Class Piano 2	1
MUEN 00XX Large Ensemble	1
Certificate Course 1	3
Any Gen Ed Math	3

Semester Hours **17**

Year 2

Fall	
VOIC 2605 Voice	2
MUTC 2631 Music Theory 3 & MUTC 2641 and Aural Theory 3	4
MUAC 2681 Class Piano 3 or MUAC 3781 or Jazz Class Piano 1	1
MUHL 2771 World Music	3
MUEN 00XX Large Ensemble	1
General Education Elective - Social Science	3
CMST 1545 Communication Foundations	3
Semester Hours	17

Spring

VOIC 2606 Voice	2
MUAC 2682 Class Piano 4 or MUAC 3782 or Jazz Class Piano 2	1
MUHL 2772 Western Art Music	3
MUTC 3733 Composition and Songwriting	2
MUEN 00XX Large Ensemble	1
MUAC 15XX Diction Elective	1
Certificate Course 2	3
General Education Elective - Natural Science	3

Semester Hours **16**

Year 3**Fall**

VOIC 3703 Voice	3
MUCO 3715 Beginning Conducting	2
MUHL 2773 American Music	3
MUEN 00XX Large Ensemble	1
Certificate Course 3	3
General Education Elective - Social Science	3

Semester Hours **15**

Spring

VOIC 3706 Voice (with Junior Recital)	4
MUTC 3710 Orchestration and Arranging	3
MUCO 3717 Advanced Choral Conducting	1
MUEN 00XX Large Ensemble	1
MUIN 4833 Career Development in Music	3
General Education Elective - Natural Science + Lab	4

Semester Hours **16**

Year 4**Fall**

VOIC 4805 Voice	4
MUEN 00XX Large Ensemble	1
MUHL or MUTC Upper Division Elective	3
General Education Elective - Any Gen Ed Course	3
Certificate Course 4	3

Semester Hours **14**

Spring

VOIC 4806 Voice (with Senior Recital)	4
MUED 5880 Vocal Pedagogy	1
MUEN 00XX Large Ensemble	1
MUHL or MUTC Upper Division Elective	6

Semester Hours **12**

Total Semester Hours **120-122**

- All undergraduate music majors are required to attend 12 approved performances each semester for six consecutive semesters beginning in the freshman year.

- Applied lesson must be taken concurrently with an ensemble each semester.

Learning Outcomes

The student learning outcomes for the major in music are as follows:

- Students will perform a public recital in their applied area.
- Students will analyze music, discriminate pitch, harmony, and rhythm, and perform harmonic progressions at the piano.

- Students will demonstrate critical thinking about the various historical periods, cultural contexts, and social forces that influence musical activity.
- Students will demonstrate basic keyboard proficiency, including scales, arpeggios, harmonization, repertoire, transpositions, and score reading.

University Theatre

Introduction

Welcome to University Theatre (<https://ysu.edu/ccca/university-theatre/>) at Youngstown State University! For over 60 years, University Theatre has offered degrees and high-quality productions that critically and creatively serve Youngstown State University, the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>), and the region. Our world-class faculty and staff (<https://ysu.edu/ccca/university-theatre/faculty/>) provide outstanding training for the theatre professionals of tomorrow. Through coursework and hands-on experiences on stage (<https://ysu.edu/ccca/university-theatre/on-stage/>) and behind the scenes, our students explore all aspects of the theatre arts. Students receive individualized attention and one-on-one mentoring from our faculty and staff, and our program prepares them with the skills needed for numerous careers (<https://ysu.edu/ccca/university-theatre/careers/>) in the theatre arts and beyond. Each year, they're engaged in multiple fully produced mainstage theatre and musical theatre productions, cabarets, the Festival of New Works, conferences, masterclasses with internationally acclaimed guest directors and actors, and more. Theatre majors routinely win coveted internships and seats in acclaimed workshops—including those with Netflix, the Open Jar Institute, Disney's Animal Kingdom, the London Academy of Music and Dramatic Art, Cedar Point, and others—and perform and win awards at the Kennedy Center American College Theater Festival (KCACTF).

University Theatre offers the professional Bachelor of Fine Arts (B.F.A.) degree, where students may pursue either Theatre (p. 281) or a Musical Theatre (p. 279) concentration, and the Bachelor of Arts (B.A.) degree in Theatre Studies (p. 276) as well as a Film/Video concentration (p. 277). The department also supports minors in dance, (p. 283) film studies (p. 284), musical theatre (p. 284), puppetry (p. 285), and theatre (p. 286).

Our alumni (<https://academics.ysu.edu/cliffe-college-of-creative-arts/alumni-giving/>) may be seen regionally, nationally, and internationally across the theatre and entertainment industries. Our graduates are found on stage and screen—from Tony Award-winning *Hadestown* to *Days of Our Lives*—and receiving nominations and awards from The Tonys to The GRAMMYS®. Our dynamic programs also empower our alumni to become successful directors, designers, choreographers, and more at the national level, including at the Great Lakes Theatre Festival and similar venues. Our students hone their artistic and technical abilities and also develop a range of other valuable transferable proficiencies. They earn degrees in areas about which they are passionate, and their skills are applicable to careers (<https://ysu.edu/ccca/university-theatre/careers/>) in numerous professions across the theatre and entertainment industries and more.

Contact Information

To learn more about our degree programs, audition information, scholarships, professional development and careers, performances, faculty, and students, visit University Theatre (<https://ysu.edu/ccca/university-theatre/>) or contact us at 330.941.3810.

To schedule a personalized campus visit, contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu. We would love to hear about your interests, show you our school, and become an important part of your future.

Dr. Joseph Carucci (<https://academics.ysu.edu/cliffe-college-of-creative-arts/leadership-administration/joseph-carucci/>), Director

Dana School of Music (<https://ysu.edu/academics/college-creative-arts-and-communication/dana-school-of-music/>) and University Theatre (<https://ysu.edu/ccca/university-theatre/>)

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Degrees, Majors, Concentrations, and Minors

Bachelor's

- Theatre (B.F.A.) (p. 281)
 - Musical Theatre (B.F.A.) (p. 279)
- Theatre Studies (B.A.) (p. 276)
 - Film/Video Track (B.A.) (p. 277)

Minors

- Minor in Dance (p. 283)
- Minor in Film Studies (p. 284)
- Minor in Musical Theatre (p. 284)
- Minor in Puppetry for Non-Theatre Majors (p. 285)
- Minor in Puppetry for Theatre Majors (p. 285)
- Minor in Theatre (p. 286)

Learning Outcomes

The student learning outcomes for University Theatre majors are as follows:

- **Public Performances** – Students demonstrate competence in applying discipline-specific skills to the creation of theatrical performance.
- **Knowledge of History and Cultural Dimensions** – Students demonstrate knowledge of the history and cultural influences of and upon the institution of theatre throughout the ages and analyze and critique the social significance and cultural resonances of theatrical endeavor as reflected in theatre history and dramatic literature.
- **Informed Assessments of Quality** – Students demonstrate the ability to critically evaluate the multi-faceted nature of the production process and demonstrate comprehension of the variety of artistry and skills that contribute to a finished theatrical production.
- **Critical Thinking** – Students demonstrate problem-solving skills in the creation of artistic work by identifying and articulating goals and assessing and applying necessary processes to achieve said goals.
- **Collaboration** – Students implement the communication skills, creativity, and organizational skills required to develop effective teamwork and achieve a unified goal. Individual accountability to the team is fostered as part of the collaborative effort. Students will assimilate multiple views to deepen knowledge and promote critical thinking.

In addition to the above outcomes, learning outcomes in Musical Theatre include:

- **Musical Knowledge** – Students demonstrate an understanding of music theory, the keyboard, and the ability to read music.
- **Vocal Competence** – Students demonstrate an ability to sing and act a musical selection in the musical theatre style.
- **Movement** – Students demonstrate ability in the dance disciplines of ballet, tap, and jazz.

Academic Advising

The Cliffe College of Creative Arts Academic Advising Office (<https://academics.ysu.edu/cliffe-college-of-creative-arts/advising-student-success/>) provides optimum assistance to help our students navigate through their undergraduate years and prepare them for academic and future career endeavors! Our advisors can provide advice about staying on track with your degree program, combining your major with a supporting minor, finding resources to enhance your coursework with study abroad or other student enrichment experiences, and more. [Our goal is to see you succeed!](#) For additional information, visit the *Course Catalog* or contact the Theatre Academic Advisor at 330.941.3623 or crbyrne@ysu.edu.

Career and Professional Development

The dedicated University Theatre faculty (<https://ysu.edu/ccca/university-theatre/faculty/>) are actively engaged in helping students successfully transition into a wide range of careers (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/careers/>) regionally, nationally, and across the globe. Our students hone exceptional artistic and technical abilities, and their education gives them one of the most competitive skills in today's job market: **creativity**. They also develop a range of other valuable transferable proficiencies, including critical thinking, interpersonal skills, and a strong work ethic. Our graduates earn degrees in areas about which they are passionate, and their skills are applicable to careers in numerous professions. Your professional opportunities with a degree from University Theatre (<https://ysu.edu/ccca/university-theatre/>) at Youngstown State University are greater than ever!

On Stage

Each year, YSU's University Theatre presents a vibrant season (<https://ysu.edu/ccca/university-theatre/on-stage/>) of plays, musicals, cabarets, student-produced events, and special projects. Events are selected with thoughtful consideration to provide a diverse portfolio for our students. Our annual seasons include original works and student projects, which allow our students to explore all facets of performance and contribute within their areas of focus.

Facilities

University Theatre is located in Bliss Hall, home of the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) and the performing arts complex that houses University Theatre. Whether rehearsing, building scenes, studying, designing and making costumes, or performing, our facilities (<https://ysu.edu/ccca/university-theatre/facilities/>) augment our students' educational and artistic endeavors. University Theatre students utilize two theaters and multiple design studios, scenic and costume shops, makeup and dressing rooms, and other spaces where they work and perform. They also present productions in a variety of exquisite and historic spaces in the region, ranging from intimate settings to venues for large-scale productions, including The Butler Institute of American Art and Butler North (<https://butlerart.com/>) and the B & O Station (<https://banquetatthebno.com/banquet-hall-information/>).

As a theatre student, you'll be able to take full advantage of our state-of-the-art production and performance facilities. Along with spacious studios, your studies will be further enhanced by:

- Ford Theater, a 390-seat proscenium stage where major University Theatre productions are presented; the theater also allows for dance recitals and ensembles
- Spotlight Arena Theater, a 135-seat flexible capacity arena theater that accommodates small-scale productions and also serves as an experimental space for student-directed plays and various workshops and classroom activities
- Lab theater and rehearsal spaces
- Theater design studio

- Film screening room
- Television production studio (affiliated with PBS channels 45/49 in Northeastern Ohio)
- Scene and costume shops
- Makeup and dressing rooms
- Greenroom
- Box Office
- Front-of-house facilities
- Spacious dance studio

Admittance to the B.F.A. in Theatre and the B.F.A. in Musical Theatre

Admittance to the B.F.A. in Theatre (p. 281) and the B.F.A. in Musical Theatre (p. 279) programs is granted upon acceptance to YSU and completion of a successful audition. Auditions (<https://ysu.edu/ccca/university-theatre/admission/>) are typically held during the spring of a prospective student's senior year. Students not qualifying for the standard course of study may take preparatory work until sufficiently prepared. *NOTE:* Admittance to the B.A. in Theatre Studies (p. 276) and the B.A. in Film/Video (p. 277) programs does not require an audition.

For information about acceptance to YSU, please visit YSU Admissions (<https://ysu.edu/admissions/apply-to-ysu/>) or call the Admissions Office toll free 877.468.6978 or local 330.941.2000. For information about theatre auditions, visit the Admission to the B.F.A. in Theatre or Musical Theatre (<https://ysu.edu/ccca/university-theatre/admission/>) page or contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu.

Scholarships and Awards

University Theatre scholarships reward academic and artistic merit and reduce financial need for both incoming and continuing students. Our scholarships are competitive and are only available to students who have been admitted to or declared a Theatre major. They supplement other YSU scholarships (http://cfweb.cc.ysu.edu/finaid/scholar/est_scholar.cfm) as well as any additional financial aid (http://cfweb.cc.ysu.edu/finaid/estimator/est_estimator.cfm). To be considered for as many YSU, YSU Foundation (https://cfweb.cc.ysu.edu/finaid/ysuf/ysuf_application.cfm), and Cliffe College scholarships (<https://academics.ysu.edu/cliffe-college-of-creative-arts/scholarships/>) as possible, it is recommended that students complete the Free Application for Federal Student Aid (FAFSA) (<https://ysu.edu/node/32/>). Scholarship recipients are required to maintain a cumulative GPA of 3.0 and remain in good standing as a Theatre major.

Student Organizations

Alpha Psi Omega

University Theatre is a member of Alpha Psi Omega, the National Honorary Dramatics Fraternity. Students may become members of the local chapter by:

- achieving the prescribed cumulative grade average
- earning a prescribed number of points through participation in dramatic activities

Membership requires sophomore standing.

Musical Theatre Student Organization

The Musical Theatre Student Organization (MTSO) promotes University Theatre events by fundraising, hosting events and receptions, arranging guest artists and speakers, and more. MTSO membership is open to all YSU students.

General Procedures and Policies

Students are responsible for knowing about degree requirements and university and Theatre area policies and procedures. This information may be found through the Theatre office, from the Theatre Academic Advisor (crbyrne@ysu.edu), or from several sections of this Catalog, including the Academic Policies, Rights, and Responsibilities section.

DIRECTOR

Joseph W. Carucci (<https://academics.ysu.edu/cliffe-college-of-creative-arts/leadership-administration/joseph-carucci/>), D.M.A., Professor

Professor

Katherine N. Garlick (<https://ysu.edu/people/katherine-garlick/>), M.F.A., Associate Professor

Lecturer

Todd Dicken (<https://ysu.edu/people/todd-dicken/>), M.F.A., Senior Lecturer

Adam Day Howard (<https://ysu.edu/people/adam-howard/>), M.F.A., Lecturer

Degrees, Majors, and Concentrations

- Bachelor of Arts in Theatre Studies (p. 276)
 - Film/Video (p. 277)
- Bachelor of Fine Arts in Theatre (p. 281)
 - Musical Theatre (p. 279)

Minors

- Minor in Dance (p. 283)
- Minor in Film Studies (p. 284)
- Minor in Musical Theatre (p. 284)
- Minor in Puppetry for Non-Theatre Majors (p. 285)
- Minor in Puppetry for Theatre Majors (p. 285)
- Minor in Theatre (p. 286)

Dance

DNCE 1540 Modern Dance 1 1 s.h.

The theory and practice of modern dance technique at the beginning level. No previous dance experience is expected. Coursework includes body mechanics, axial and locomotor movement, and improvisation.

DNCE 1550 Conditioning and Wellness for the Performing Artist 1 s.h.

A supplement to the study of dance technique and performance, this course will help students increase their strength, flexibility, and stamina. Coursework will include various somatic systems such as Pilates and Yoga and wellness issues such as nutrition, physical and mental health, and injury prevention and treatment.

DNCE 1570 Jazz Dance 1 1 s.h.

The theory and practice of jazz dance technique at the beginning level. No previous dance experience is expected. Coursework includes body mechanics, rhythmic fundamentals, and movement exercises relating to various pop, street, and musical theatre styles.

DNCE 1571 Tap Dance 1 1 s.h.

The theory and practice of tap dance technique at the beginning level. No previous dance experience is expected. Coursework includes vocabulary and movement exercises in both Buck and Wing and Rhythm styles.

DNCE 1572 Ballet 1 1 s.h.

The theory and practice of ballet technique at the beginning level. No previous dance experience is expected. Coursework includes fundamentals of vocabulary, placement, and execution at the barre, center, and across the floor.

DNCE 1575 Hip Hop Dance 1 s.h.

An introduction to hip hop dance and its relationship to other aspects of hip hop culture, music, and media. Coursework includes street styles, breaking, and various regional forms.

DNCE 2641 Modern Dance 2 2 s.h.

The theory and practice of modern dance technique at the intermediate level. Increased technical and artistic accomplishment is expected. Course may be repeated twice for up to six hours credit.

Prereq.: DNCE 1540 or permission of the instructor.

DNCE 2667 Musical Comedy 1 s.h.

This course will supplement the dance technique track specifically in support of the study of musical theatre. Students will practice various social, world, and theatrical dance forms, learn selections from iconic choreography, experience mock dance auditions, and explore the skill of dance composition in musical theatre repertory.

Prereq.: One course in either ballet or jazz dance.

DNCE 2670 Jazz Dance 2 2 s.h.

The theory and practice of Jazz dance technique at the intermediate level. Course may be repeated twice for up to six hours credit.

Prereq.: DNCE 1570 or permission of the instructor.

DNCE 2671 Tap Dance 2 2 s.h.

The theory and practice of tap dance technique at the intermediate level. Course may be repeated twice for up to six hours credit.

Prereq.: DNCE 1571 or permission of the instructor.

DNCE 2673 Ballet 2 2 s.h.

The theory and practice of ballet technique at the intermediate level. Increased technical and artistic accomplishment is expected. Course may be repeated twice for up to six hours credit.

Prereq.: DNCE 1572 or permission of the instructor.

DNCE 2698 Survey of Dance 3 s.h.

The role of dance in culture and history, tracing the evolution of various folk, social, and concert forms. Structural and stylistic elements important for the appreciation of movement and dance.

Gen Ed: Arts and Humanities.

DNCE 3751 Modern Dance 3 2 s.h.

The theory and practice of modern dance technique at the advanced level. Increased technical and artistic accomplishment is expected. Course may be repeated twice for up to six hours credit.

Prereq.: DNCE 2641 or permission of the instructor.

DNCE 3770 Jazz Dance 3 2 s.h.

The theory and practice of Jazz dance technique at the advanced level. Course may be repeated twice for up to six hours credit.

Prereq.: DNCE 2670 or permission of the instructor.

DNCE 3771 Tap Dance 3 2 s.h.

The theory and practice of tap dance technique at the advanced level. Increased physical dexterity and rhythmic nuance are expected. Course may be repeated twice for up to six hours credit.

Prereq.: DNCE 2671 or permission of the instructor.

DNCE 3781 Ballet 3 2 s.h.

The theory and practice of ballet technique at the advanced level. Increased technical and artistic accomplishment is expected. Course may be repeated twice for up to six hours credit.

Prereq.: DNCE 2673 or consent of the instructor.

DNCE 3791 Dance Participation 1 s.h.

Involvement with the Dance Ensemble rehearsal process and performance. Must be taken at least four times during the time a student is a dance major. Course may be repeated up to seven times. By audition only.

Coreq.: With any dance technique course or permission of the instructor.

DNCE 4851 Modern Dance 4 2 s.h.

The theory and practice of modern dance technique at the pre-professional level. A high level of technical achievement, artistry, and professionalism is expected. Pre-professional level courses will include composition and pedagogy. Course may be repeated for credit.

Prereq.: DNCE 3751 or permission of the instructor.

DNCE 4881 Ballet 4 2 s.h.

The theory and practice of ballet technique at the pre-professional level. A high level of technical achievement, artistry, and professionalism is expected. Pre-professional level courses will include composition and pedagogy. Course may be repeated for credit.

Prereq.: DNCE 3781 or permission of instructor.

DNCE 4893 Independent Study in Dance 1-3 s.h.

Independent work in dance practice, pedagogy, composition, or theory under faculty guidance. Intended to allow the student to broaden their experience and expertise in an artistic or academic area of dance beyond the published coursework. May substitute for DNCE 3765 OR 4865 in the dance major, should the student propose an appropriate topic and demonstrate equivalent relevance and rigor.

Prereq.: Permission of the instructor.

DNCE 4898 Senior Project 3 s.h.

Capstone experience expected of all students in the major. Significant demonstration of practical or scholarly ability in Dance choreography and/or pedagogy.

Prereq.: Senior standing.

Theater

THTR 1512 Survey of Broadway: The American Musical 3 s.h.

Learn how musicals and American history both dovetail and intersect to give a reflection of who we are as Americans. In this course, students will reclaim knowledge of 20th-century American history, centered around New York City, circa 1900 to the present. Through lenses of cultural trends, government, economy, identity, and technology, the art forms that developed into the American musical will be surveyed, while discovering how the genre itself, is affected by society.

Gen Ed: Arts and Humanities.

THTR 1559 Production Design for Stage and Screen 3 s.h.

An introduction to design for theatrical and film production, and the creative processes used by designers to make choices. Topics include script analysis, director and designer communication, and the integration of design elements into a unified production.

THTR 1560 Introduction to Theatre 3 s.h.

The theory, history, cultural role, and physical characteristics of the theatre as an institution in human society.

Gen Ed: Arts and Humanities.

THTR 1561 Stagecraft 3 s.h.

The technical elements of play production, with emphasis on stage mechanics, set construction, and scene painting.

THTR 1563 Costume Construction and Craft 3 s.h.

Introduction to stage costuming through the study and application of costume construction techniques and costume crafts, the use of appropriate equipment, and costume maintenance through various projects involving the special techniques used for stage costuming.

THTR 1585 Acting 1: Fundamentals 3 s.h.

The fundamental theories and techniques of acting. Through a combination of classroom exercises, laboratory performances, readings and written assignments, will learn the fundamentals of Stanislavsky's acting theory. This course will include a holistic approach to acting whereby the students will develop their physical and vocal instruments, their emotional intelligence, their ability to research and analyze the actor's text, and to reawaken their creative intuition. One hour lecture/three hours lab.

THTR 1590 History of Motion Pictures 3 s.h.

The history of the motion picture from its beginnings to the present, with emphasis on the milestones of film as a performing art. Viewing of significant films from various periods and countries.

Gen Ed: Arts and Humanities.

THTR 2600 Theatre Participation 1 s.h.

Expected involvement in the main stage productions of the department. Students will audition for all main stage productions, or accept a significant assignment in stage management, costume, scenery, lighting or other technical elements of production. Must be taken once each semester during the time that a student is in residence as a theatre major, for a minimum of 3, or its equivalent. Course may be repeated up to three times.

Prereq.: a declared major in theatre, and faculty permission.

THTR 2601 Singing Styles 1 s.h.

Students designated BFA in Musical Theatre will audition for all main stage musicals, as well as audition for participation in all other vocal/singing opportunities within the department. This course serves as the training, support, workshop, and lab for these activities. Students will train in multiple singing styles to achieve higher marketability as versatile performers. Must be taken once during the time each student is in residence as a musical theatre major but may be taken multiple times. Open to minors and non-majors by audition.

THTR 2607 Introduction to Puppetry 3 s.h.

An overview of the history of puppets in world drama, combined with practical exercises in making inanimate objects come to "life" for the purpose of creating works of theater. Includes puppet construction and performance. One hour lecture/three hours lab.

Prereq.: Sophomore standing or permission of the instructor.

THTR 2640 Theatre History 3 s.h.

Survey of the history of the Western theatre and dramatic literature from its earliest recorded beginnings through the early Realism movement. Course examines the place of theatre in society and its potential as a cultural force.

THTR 2661 Introduction to Stage Management 3 s.h.

Introduction to Stage Management will focus on the skills and mechanics necessary to contribute to the production process as a stage manager with a focus on organization, leadership and communication.

Prereq.: THTR 1559.

THTR 2667 Acting 2: Character Creation & Scene Work 3 s.h.

This course builds upon Acting I: Fundamentals. Students explore their developing understanding of the processes and discipline in creating works of dramatic art. The unique dynamics and discovery potential of acting both personally and collaboratively is experienced through recognized acting techniques (i.e. Stanislavsky, Alexander, Hagen, Spolin), methodologies (i.e. The Method, Linklater), and practices (i.e. Lessac). 1 hr lecture/3 hrs lab.

Prereq.: THTR 1585.

THTR 2672 Bodyvoice for Actors 3 s.h.

This course will engage organic-sensory learning of the voice and human body movement through a multimodal approach, imparting deep structure knowledge and skills both dynamic and specific (One hour lecture/three hours lab).

THTR 2690 The Art of Motion Pictures 3 s.h.

Analysis of the structure of the motion picture, the development of the script, the function of editing, the approach to acting in film production, and the problems faced by a director in film production. Criteria of artistic film making. Examples from motion pictures are screened and discussed.

Prereq.: Sophomore standing.

Gen Ed: Arts and Humanities.

THTR 3700 Theatre Participation 2 1 s.h.

Expected involvement in the main stage productions of the department. Students will audition for all main stage productions, or accept a significant assignment in stage management, costume, scenery, lighting or other technical elements of production. Must be taken once each semester during the time that a student is in residence as a theatre major for a minimum of 4, or it's equivalent. Course may be repeated up to four times.

Prereq.: a declared major in theater and faculty permission.

THTR 3701 Professional Preparation 3 s.h.

Preparation for careers in the theatre industry through lecture and discussion addressing business concerns for the theatre professional. Course content covers contracts, taxes, marketing and social media, resumes, e-portfolios, auditioning/interviewing, representation, unions, and general industry legal considerations.

Prereq.: Junior standing as theatre major.

THTR 3707 Topics in Puppetry 3 s.h.

Studio/ lecture course designed to provide students with an opportunity to further explore the work of the puppeteer as story-teller and creative artist. Students will receive training in design, manipulation, script writing/ adaptation, and puppet performance. Students will develop understanding and skills through lecture, demonstration, laboratory exercise and independent work conducted outside of class. Students will also be involved in group project work leading to a public performance. Course can be taken multiple times if the topic is different. (One hour lecture/three hours lab).

Prereq.: Junior standing or permission of instructor.

THTR 3761 Stage Makeup 3 s.h.

Design and application of makeup for the stage including techniques for character and age makeup, making and applying facial hair, and other specialized makeup procedures.

Prereq.: THTR 1559 or permission of instructor.

THTR 3762 Directing 1 3 s.h.

An intensive study of the process of directing plays. Whenever possible, students direct the equivalent of a one-act play for public presentation. Lab hours by arrangement.

Prereq.: THTR 1559 and THTR 3768 or concurrently or permission of instructor.

THTR 3763 Scene Design 3 s.h.

The history of design in terms of stage scenery; an investigation of current trends, techniques, and media; practical execution of models and sketches by the student.

Prereq.: THTR 1559 and THTR 1561 or consent of the instructor.

THTR 3764 History of Stage Costume 3 s.h.

A survey of stage costumes based on western styles from the ancient Egyptians to the present with emphasis on periods in which the theatre flourished.

Prereq.: THTR 1559 or permission of instructor.

THTR 3765 Lighting Design 3 s.h.

A study of historical development, basic electrical theory, switch boards and lighting instruments; color theory, principles and practices in stage lighting. Lab hours to be arranged.

Prereq.: THTR 1559 and THTR 1561 or consent of instructor.

THTR 3766 Stage Combat 3 s.h.

Applied skills class specializing in armed and unarmed combat for the stage. Safety factors in stage fighting, including safe use of rapier and dagger. Performance in public required. (One hour lecture, three hours lab).

Prereq.: THTR 1585 or MUEN 0012 or KSS 1514 or permission of instructor.

THTR 3768 Script Analysis for Stage and Screen 3 s.h.

An introduction to various critical approaches to dramatic literature utilized by actors, directors, designers, dramaturgs, and other artists in theatre and film. Special attention is given to the text as a foundation for realized production and the author's use of dramatic structure, action, subtext, and symbolism.

Prereq.: THTR 1560 or permission of instructor.

THTR 3769 Costume Design 3 s.h.

Costume design for the stage through a study of script analysis, design concepts and principles, and costume rendering techniques.

Prereq.: THTR 1559 or permission of instructor.

THTR 3771 Introduction to Dialects 3 s.h.

Introduction to vocal expression as an actor by way of speech and accent/ dialect. Content will address vocal heritage of a character in an acting role, speech sounds, patterns, and physiology. Identification of sound symbols of the International Phonetic Alphabet will form a bridge to vocal transformation into character accents. Whole-body exercises will be used to cultivate organic and physical relationship to speaking. Speaking with intention, meaning, and feeling will be explored through the vocal dynamics of volume, pitch, rhythm and resonance (One hour lecture/three hours Lab).

Prereq.: THTR 2667 or permission of instructor.

THTR 3772 Acting 3: Advanced Character Study & Repertoire Acquisition 3 s.h.

This course builds upon all prior courses in acting. Students concretize and habituate an analytical approach to their broadening knowledge of character development, while applying learned skills experienced through recognized acting techniques (i.e. Stanislavsky, Alexander, Hagen, Spolin), methodologies (i.e. The Method, Linklater), and practices (i.e. Lessac). One hour lecture/three hours lab.

Prereq.: THTR 2667 or permission of instructor.

THTR 3774 Musical Theatre Studio 3 s.h.

Performance-based training and coaching, lecture, and media merge to clarify the styles and techniques of musical theatre. This course explores the many musical theatre genres, as well as the historic and stylistic differences therein. Students study, analyze, coach, and rehearse music from the MT canon (1893-present). One hour lecture/three hours lab.

Prereq.: Prerequisite: THTR 2667 and MTVC 1501 or other evidence of vocal training; and junior standing or permission of the instructor.

THTR 4860 Theatre History after 1700 3 s.h.

History of the physical theatre and representative dramatic texts from 1700 to the modern era.

Prereq.: 9 s.h. of THTR coursework, 3 of which must be upper division.

THTR 4870 Acting 4: Acting on Camera 3 s.h.

An exploration of the theory and technique of film and video performance, and the special demands they make upon an actor. (One hour lecture, three hours lab).

Prereq.: THTR 1585 and THTR 2667 and junior standing, or consent of instructor.

THTR 4880 Shakespeare and Period Styles 3 s.h.

Experimentation and experience with classical dramatic literature, analysis and performance with a focus on Shakespeare. Students will develop their performance skills through text analysis, scene study, vocal work, and acting exercises. In addition to the work of Shakespeare, period material may draw from Greek, Commedia, Neoclassical and Restoration. 1 hour lecture/3 hours lab.

Prereq.: THTR 2667 and THTR 3768 or permission of the instructor.

THTR 4891 Theatre History Before 1700 3 s.h.

History of the physical theatre and representative dramatic texts from the Classical period through the Renaissance.

Prereq.: 9 s.h. of THTR coursework, 3 of which must be upper division.

THTR 4893 Independent Study in Theatre 1-3 s.h.

Independent work in theatre production under faculty/staff guidance. Intended as a continuation of individualized creative work beyond THTR 3791 or THTR 3792. Project dependent upon approval of the evaluating faculty member and the student. May be repeated with different topics for a total of 9 s.h.

Prereq.: THTR 3791 or THTR 3792.

THTR 4898 Senior Project 3 s.h.

Capstone experience expected of all seniors in the degree programs of the department. Significant demonstration of practical or scholarly ability in one of the sub-disciplines comprising the disciplines of theatre or dance, and showing evidence of solid writing, speaking, and critical thinking skills. Grading is A,B,C,NC/PR.

Prereq.: Senior standing with the expectation of graduating by the end of the following semester.

Gen Ed: Capstone.

THTR 4899 Topics in Theatre 3 s.h.

In-depth study of selected aspects in theatre scholarship, theory or practice. May be repeated if the topic changes.

Prereq.: Junior standing or permission of instructor.

Bachelor of Arts in Theatre Studies Faculty

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About the Major

YSU's Bachelor of Arts (B.A.) in Theatre Studies is a professional and flexible course of study that combines a major emphasis in theatre, grounded in theory and practice, with a traditional liberal arts education. The comprehensive curriculum offers courses in acting, directing, stage management and production, design technology, film studies, video production, and playwriting. The curriculum allows students to explore the world of professional theatre from multiple perspectives and to augment their studies with a Minor or Certificate in a field of their choice (e.g., Graphic + Interactive Design Minor (p. 238), Certificate in Audio and Music Production (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-creative-arts-communication/school-music/certificate-in-audio-and-music-production/>), Entrepreneurship Minor (p. 541)).

Students may pursue a multi-faceted curriculum, choose an established emphasis within the B.A. in Theatre Studies—which includes Acting/Directing or Tech/Design—or combine interests through the flexibility that the liberal arts degree offers. Students may also choose to enroll in the separate Film/Video Studies Track of the B.A. in Theatre Studies, which has its own dedicated curriculum that prepares students for careers as film makers, video game designers, videographers, and more in a variety of industries. Students learn actively through multiple experiences with filming production and editing. These highly engaged internship opportunities augment a creative and progressive curriculum.

Our alumni (<https://academics.ysu.edu/cliffe-college-of-creative-arts/alumni-giving/>) may be seen regionally, nationally, and internationally across the theatre and entertainment industries. Our graduates are found on stage and screen—from Tony Award-winning *Hadestown* to *Days of Our Lives*—and receiving nominations and awards from The Tonys to The GRAMMYS®. Our dynamic programs also empower our alumni to become successful directors, designers, choreographers, and more at the national level, including at the Great Lakes Theatre Festival and similar venues. Our students hone their artistic and technical abilities and also develop a range of other valuable transferable proficiencies. They earn degrees in areas about which they are passionate, and their skills are applicable to careers (<https://ysu.edu/ccca/university-theatre/careers/>) in numerous professions across the theatre and entertainment industries and more.

Contact Information

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University Theatre (<https://ysu.edu/ccca/university-theatre/>) or contact us at 330.941.3810.

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Grade of "C" or better is required for all major and minor courses. Courses cannot be taken "CR/NC".

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Any Gen Ed Math (Recommended MATH 2623)		3
Art and Humanities (2 courses) ^{Included in Major}		0
Natural Science (2 courses, 1 with lab)		7
Social Science (2 courses)		6
General Education Electives		9
Any Gen Ed Course (3 s.h.)		
Any Gen Ed Course (3 s.h.)		
Any Gen Ed Course (3 s.h.)		
Foreign Language Requirement		
FNLG 1501	Conversational Foreign Language 1	3
FNLG 1502	Conversational Foreign Language 2	3
Major Requirements		
THTR 1512	Survey of Broadway: The American Musical ^{*Art and Humanities Requirement}	3
THTR 1559	Production Design for Stage and Screen	3
THTR 1560	Introduction to Theatre ^{*Art and Humanities Requirement}	3
THTR 1561	Stagecraft	3
THTR 1563	Costume Construction and Craft	3
THTR 1585	Acting 1: Fundamentals	3
THTR 2600	Theatre Participation (must be repeated 3 times for a total of 3 s.h.)	3
THTR 2640	Theatre History	3
THTR 2661	Introduction to Stage Management	3
THTR 3700	Theatre Participation 2 (must be repeated four times for a total of 4 s.h.)	4
THTR 3701	Professional Preparation	3
THTR 3768	Script Analysis for Stage and Screen	3
THTR 4898	Senior Project	3
Theatre Electives: Select 24 s.h. (21 s.h. must be 3700 or above)		24
Select from THTR 2607, THTR 2667, THTR 2672, THTR 3707, THTR 3761, THTR 3762, THTR 3763, THTR 3765, THTR 3766, THTR 3769, THTR 3771, THTR 3772, THTR 4870, THTR 4880, THTR 4893, THTR 4899		
Movement Elective		1
Select One (DNCE 1540, DNCE 1570, DNCE 1571, DNCE 1572, KSS 1514, KSS 1550, KSS 1552)		
Minor (12 s.h. total, 4 s.h. of which must be 2600 or above, 6 s.h. of which must be 3700 or above)		12

Electives to reach 120	5
Total Semester Hours	120-122

Year 1

Fall	S.H.	
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
THTR 1559	Production Design for Stage and Screen	3
THTR 1560	Introduction to Theatre	3
THTR 1585	Acting 1: Fundamentals	3
THTR 2600	Theatre Participation	1
Semester Hours		14-16

Spring

ENGL 1551	Writing 2	3
THTR 1561	Stagecraft	3
THTR 2600	Theatre Participation	1
Minor Course		3
Minor Course		3
Any Gen Ed Math		3
Semester Hours		16

Year 2

Fall		
THTR 1563	Costume Construction and Craft	3
THTR 2600	Theatre Participation	1
THTR 3768	Script Analysis for Stage and Screen	3
FNLG 1550	Elementary Foreign Language	4
Minor Course		3
General Education Elective - Social Science		3
Semester Hours		17

Spring

THTR 2640	Theatre History	3
THTR 3700	Theatre Participation 2	1
Select 1 Theatre Elective		3
Select 1 Theatre Elective		3
FNLG 2600	Intermediate Foreign Language	4
Semester Hours		14

Year 3

Fall		
THTR 2661	Introduction to Stage Management	3
THTR 3700	Theatre Participation 2	1
Select 1 Theatre Elective		3
Select 1 Theatre Elective		3
Minor Course		3
General Education Elective - Any Gen Ed Course		3
Semester Hours		16

Spring

THTR 3700	Theatre Participation 2	1
Select 1 Theatre Elective		3
General Education Elective - Natural Science + Lab		4
General Education Elective - Social Science		3
General Education Elective - Any Gen Ed Course		3
Semester Hours		14

Year 4**Fall**

THTR 1512	Survey of Broadway: The American Musical	3
THTR 3700	Theatre Participation 2	1
THTR 3701	Professional Preparation	3
Select 1 Theatre Elective		3
Movement Elective		1
General Education Elective - Natural Science		3
Semester Hours		14

Spring

THTR 4898	Senior Project	3
Select 1 Theatre Elective		3
Select 1 Theatre Elective		3
Minor Course		3
General Education Elective - Any Gen Ed Course		3
Semester Hours		15

Total Semester Hours**120-122**

Learning Outcomes

1. Public Performances: Students will competently create and present public theatre events, either as performers, designers, or technicians.
2. Knowledge of History and Cultural Dimensions: Students will explain the history and cultural influences of and upon the institution of theatre throughout the ages.
3. Informed Assessments of Quality: Students will critically evaluate works of theatre.
4. Critical Thinking: Students will define a desired goal in creating a work of theatre and devise a plan to achieve that goal.

Bachelor of Arts in Theatre Studies, Film/Video Track

Faculty

Jennifer Walker (jwalker04@ysu.edu)
330.941.3810

About the Major

The Bachelor of Arts (B.A.) in Theatre Studies, Film/Video Concentration combines extensive practical training in the techniques of theatre, film, and video production with an array of liberal arts coursework. Students work closely with their Film/Video faculty in classroom and laboratory settings and also take specialty courses in the Theatre, Telecommunications, and English areas. Students pursuing this degree program select one of three areas on which to focus: Production, Visual Media and Design, or Critical Studies.

Our alumni (<https://academics.ysu.edu/cliffe-college-of-creative-arts/alumni-giving/>) may be seen regionally, nationally, and internationally across the theatre and entertainment industries. Our graduates are found on stage and screen—from Tony Award-winning *Hadestown* to *Days of Our Lives*—and receiving nominations and awards from The Tonys to The GRAMMYS®. Our dynamic programs also empower our alumni to become successful directors, designers, choreographers, and more at the national level, including at the Great Lakes Theatre Festival and similar venues. Our students hone their artistic and technical abilities and also develop a range of other valuable transferable proficiencies. They earn degrees in areas about which they are passionate, and their skills are applicable to careers (<https://ysu.edu/ccca/>

university-theatre/careers/) in numerous professions across the theatre and entertainment industries and more.

Contact Information

To learn more about our degree programs, scholarships, professional development and careers, performances, faculty, and students, visit University Theatre (<https://ysu.edu/ccca/university-theatre/>) or contact us at 330.941.3810.

To schedule a personalized campus visit, contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu. We would love to learn about your interests, talk with you about our programs, and become an important part of your future.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Any Gen Ed Math (Recommended MATH 2623)		3
Arts and Humanities (6 s.h. Met by THTR 1590 and 1512 in major)		0
THTR 1590	History of Motion Pictures	
THTR 1512	Survey of Broadway: The American Musical	
Natural Sciences (2 courses, 1 with lab) (7 s.h.)		7
Social Science (6 s.h.)		6
General Education Electives		9
Any Gen Ed Course (3 s.h.)		
Any Gen Ed Course (3 s.h.)		
Any Gen Ed Course (3 s.h.)		
Foreign Language Requirement		
FNLG 1501	Conversational Foreign Language 1	3
FNLG 1502	Conversational Foreign Language 2	3
Core Courses		
Grade of "C" or better is required. Courses cannot be taken "CR/NC"		
THTR 2600	Theatre Participation (Must be repeated 3 times for a total of 3 s.h.)	3
THTR 1512	Survey of Broadway: The American Musical	3
THTR 1559	Production Design for Stage and Screen	3
THTR 1590	History of Motion Pictures	3
THTR 3700	Theatre Participation 2 (Must be repeated 4 times for a total of 4 s.h.)	4
THTR 2661	Introduction to Stage Management	3
DNCE 2698	Survey of Dance	3
THTR 3768	Script Analysis for Stage and Screen	3
THTR 4891	Theatre History Before 1700	3
THTR 4860	Theatre History after 1700	3
THTR 4898	Senior Project	3
Interdisciplinary Film/Video Studies		
THTR 1561	Stagecraft	3
CMST 2650	Rhetoric of Film	3
ENGL 2665	Introduction to Film Study	3
ENGL 3748	Screenwriting	3

THTR 3701	Professional Preparation	3
THTR 3762	Directing 1	3
or THTR 4870	Acting 4: Acting on Camera	
THTR 3763	Scene Design	3
or THTR 3765	Lighting Design	
or THTR 3769	Costume Design	
ENGL 3765	Film Genres	3
THTR 4893	Independent Study in Theatre	3
37/48XX Film/Video Studies Elective		3
Choose one Specialization (18-21 s.h)		18-21
Production (21 s.h.)		
TCOM 1580	Introduction to Telecommunication Studies	
TCOM 1581	Telecommunication Technologies	
TCOM 2682	Scriptwriting for Electronic Media	
MCOM 2624	Communication Technology - Photo and Video	
MCOM 2625	Communication Technologies: Aesthetics and Design	
JOUR 3790	Documentary Storytelling	
Visual Media and Design (18 s.h.)		
ART 1501	Fundamentals of 2D Design	
ART 2691	Introduction to Digital Media	
ART 3792	Video and Animation Studio	
ART 3796	Ideation	
ART 4891	Multimedia Design	
Art Upper Division Elective		
Critical Studies (18 s.h.)		
THTR 2690	The Art of Motion Pictures	
ENGL 3700	Literary Study	
ENGL 3765	Film Genres	
ENGL 4865	Selected Topics in Film	
Select 2 Courses (6 credit hours) in Critical Studies Upper Division Elective THTR or ENGL 3700 or higher		
Total Semester Hours		120-125
Year 1		
Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
THTR 1559	Production Design for Stage and Screen	3
THTR 2600	Theatre Participation	1
ENGL 2665	Introduction to Film Study	3
TCOM 1580	Introduction to Telecommunication Studies	3
or ART 1501	or Fundamentals of 2D Design	
or THTR 2690	or The Art of Motion Pictures	
Semester Hours		14-16
Spring		
ENGL 1551	Writing 2	3
THTR 1561	Stagecraft	3
THTR 1590	History of Motion Pictures	3
THTR 2600	Theatre Participation	1
Specialization Course: TCOM 1581, or ART 2691, or Critical Studies Upper Division Elective		3
General Education Elective - Any Gen Ed Course		3
Semester Hours		16

Year 2**Fall**

THTR 1512	Survey of Broadway: The American Musical	3
THTR 2600	Theatre Participation	1
CMST 2650	Rhetoric of Film	3
TCOM 2682 or ART 3792 or ENGL 3700	Scriptwriting for Electronic Media or Video and Animation Studio or Literary Study	3
General Education Elective - Natural Science + Lab		4
Any Gen Ed Math		3
Semester Hours		17

Spring

THTR 2661	Introduction to Stage Management	3
THTR 3700	Theatre Participation 2	1
THTR 3768	Script Analysis for Stage and Screen	3
DNCE 2698	Survey of Dance	3
General Education Elective - Social Science		3
General Education Elective - Natural Science		3
Semester Hours		16

Year 3**Fall**

THTR 3700	Theatre Participation 2	1
THTR 4891	Theatre History Before 1700	3
ENGL 3765	Film Genres	3
FNLG 1501	Conversational Foreign Language 1	3
Specialization Course: MCOM 2624 or ART 3796 or Critical Studies Upper Division Elective		3
General Education Elective - Any Gen Ed Course		3
Semester Hours		16

Spring

THTR 3700	Theatre Participation 2	1
THTR 3701	Professional Preparation	3
THTR 3763 or THTR 3765 or THTR 3769	Scene Design or Lighting Design or Costume Design	3
THTR 4860	Theatre History after 1700	3
ENGL 3748	Screenwriting	3
FNLG 1502	Conversational Foreign Language 2	3
Semester Hours		16

Year 4**Fall**

THTR 3700	Theatre Participation 2	1
THTR 3762 or THTR 4870	Directing 1 or Acting 4: Acting on Camera	3
THTR 4893	Independent Study in Theatre	3
Specialization Course: MCOM 2625 or ART 4891 or ENGL 3765 (second time)		3
General Education Elective - Social Science		3
Semester Hours		13

Spring

THTR 4898	Senior Project	3
37XX/48XX Film/Video Studies Elective		3
Specialization Course: JOUR 3790 or ART Upper Division Elective or ENGL 4865		3
Specialization Course		0-3

General Education Elective - Any Gen Ed Course	3
Semester Hours	12-15
Total Semester Hours	120-125

Bachelor of Fine Arts in Musical Theatre Track

Faculty

Charles Dugan (<https://ysu.edu/ccca/university-theatre/faculty/>), D.M.A.

Part-time Faculty

Bliss Hall 3031
330.941.3810
chdugan@ysu.edu

Adam Howard (<https://ysu.edu/people/adam-howard/>), M.F.A.

Lecturer

Bliss Hall 1250
330.941.1837
adhoward05@ysu.edu

About the Major

The Bachelor of Fine Arts (B.F.A.) in Musical Theatre (<https://academics.ysu.edu/cliffe-college-of-creative-arts/bfa-musical-theatre/>) is a professional degree for students who are interested in pursuing a career as an actor and singer. Admission to this program is available by audition only (<https://ysu.edu/ccca/university-theatre/admission/>). The broad, yet comprehensive, curriculum is based in theatre as a means of creative expression and a vehicle for public engagement. Students learn about theatre and performance from multiple perspectives. Practical application and theoretical investigation, as it relates to professional theatre, are balanced through required coursework. Students graduate from this program prepared for careers (<https://ysu.edu/ccca/university-theatre/careers/>) as broadly employable theatre professionals.

Musical Theatre is one of the most demanding performing arts professions within the theatre industry. The rigorous B.F.A. program requires coursework in three areas of performance—singing, dancing, and acting—as well as foundations in liberal arts and theatre history. Individualized instruction promotes focus and results in mature, talented, and energetic performers who are prepared for a career in the professional musical theatre field. Our students routinely win coveted internships and seats in acclaimed workshops—including those with Netflix, the Open Jar Institute, Disney's Animal Kingdom, the London Academy of Music and Dramatic Art, Cedar Point, and others. They also perform and win awards at the Kennedy Center American College Theater Festival (KCACTF) and participate in Study Abroad programs (<https://academics.ysu.edu/cliffe-college-of-creative-arts/events-news/cliffe-college-of-creative-arts-news/university-theatre-news/university-theatre-students-make-international-debut-edinburgh/>), including performances at the Edinburgh Festival Fringe.

The co-curricular theatre season (<https://ysu.edu/ccca/university-theatre/on-stage/>) includes four mainstage productions, and all B.F.A. Musical Theatre students are required to audition and participate. Additional performance opportunities are made possible through semi-annual cabarets, the annual Festival of New Work, and An Evening of 10-Minute Plays. Performance opportunities focus on students and their professional growth in real-world situations. In addition, all B.F.A. Musical Theatre students complete a senior capstone in which they meet with their instructor individually as well as in small groups that facilitate deeper discussions and refine and prepare final showcase material for performance.

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YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Any Gen Ed Math (Recommended MATH 2623)		3
Art and Humanities (2 courses) <small>Included in majors</small>		0
Natural Sciences (2 courses, 1 with lab)		7
Social Science (2 courses)		6
General Education Electives		9
KSS 1500 (1 s.h.)		
KSS 1550 (1 s.h.)		
KSS 1552 (1 s.h.)		
Any Gen Ed Course (3 s.h.)		
Any Gen Ed Course (3 s.h.)		
Major Requirements		
THTR 1512	Survey of Broadway: The American Musical <small>*Art and Humanities Requirement</small>	3
THTR 1559	Production Design for Stage and Screen	3
THTR 1560	Introduction to Theatre <small>*Art and Humanities Requirement</small>	3
THTR 1561	Stagecraft	3
Theatre Participation 1 (THTR 2600) must be taken 3 times for a total of 3 s.h.		3
THTR 1585	Acting 1: Fundamentals	3
THTR 2601	Singing Styles	1
THTR 2640	Theatre History	3
THTR 2667	Acting 2: Character Creation & Scene Work	3
THTR 2672	Bodyvoice for Actors	3

Theatre Participation 2 (THTR 3700) Must be taken 4 times for a total of 4 s.h. 4

THTR 3701	Professional Preparation	3
THTR 3761	Stage Makeup	3
THTR 3762	Directing 1	3
THTR 3768	Script Analysis for Stage and Screen	3
THTR 3774	Musical Theatre Studio	3
THTR 4898	Senior Project	3
MTVC 1501	Voice Musical Theatre 1	2
MTVC 1502	Voice Musical Theatre 2	2
MTVC 2601	Adv Voice Musical Theatre 1	2
MTVC 2602	Adv Voice Musical Theatre 2	2
MTVC 3701	Voice	2
MTVC 3702	Voice	2
MTVC 4801	Voice	2
MUAC 1521	Keyboard Musicianship for Non-Music Majors 1	1
MUAC 1522	Keyboard Musicianship for Non Music Majors 2	1
DNCE 1570	Jazz Dance 1	1
DNCE 1571	Tap Dance 1	1
DNCE 1572	Ballet 1	1
DNCE 2667	Musical Comedy	1
DNCE 2670	Jazz Dance 2	2
DNCE 2671	Tap Dance 2	2
DNCE 2673	Ballet 2	2
DNCE 3770	Jazz Dance 3	2
DNCE 3771	Tap Dance 3	2
DNCE 3781	Ballet 3	2

Upper Division Theatre Electives 3700 and above - select two: 6

THTR 3707, THTR 3763, THTR 3764, THTR 3765, THTR 3766, THTR 3769, THTR 3771, THTR 3772, THTR 4870, THTR 4880, THTR 4893, THTR 4899

Total Semester Hours 120-122

Year 1

Fall		S.H.
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
THTR 1560	Introduction to Theatre	3
THTR 1585	Acting 1: Fundamentals	3
THTR 2600	Theatre Participation	1
MTVC 1501	Voice Musical Theatre 1	2
MUAC 1521	Keyboard Musicianship for Non-Music Majors 1	1
DNCE 1571	Tap Dance 1	1
DNCE 1572	Ballet 1	1

Semester Hours 16-18

Spring

ENGL 1551	Writing 2	3
THTR 1561	Stagecraft	3
THTR 2600	Theatre Participation	1
MTVC 1502	Voice Musical Theatre 2	2
MUAC 1522	Keyboard Musicianship for Non Music Majors 2	1
DNCE 1570	Jazz Dance 1	1

DNCE 2673	Ballet 2	2
Semester Hours		13
Year 2		
Fall		
THTR 1559	Production Design for Stage and Screen	3
THTR 2600	Theatre Participation	1
THTR 2601	Singing Styles	1
THTR 3768	Script Analysis for Stage and Screen	3
MTVC 2601	Adv Voice Musical Theatre 1	2
DNCE 2671	Tap Dance 2	2
DNCE 3781	Ballet 3	2
Semester Hours		14
Spring		
THTR 2667	Acting 2: Character Creation & Scene Work	3
THTR 2672	Bodyvoice for Actors	3
THTR 3700	Theatre Participation 2	1
THTR 3761	Stage Makeup	3
MTVC 2602	Adv Voice Musical Theatre 2	2
DNCE 2670	Jazz Dance 2	2
General Education Elective - Any Gen Ed Course		3
Semester Hours		17
Year 3		
Fall		
THTR 1512	Survey of Broadway: The American Musical	3
THTR 3700	Theatre Participation 2	1
THTR 3762	Directing 1	3
MTVC 3701	Voice	2
DNCE 3771	Tap Dance 3	2
Any Gen Ed Math		3
General Education Elective - Any Gen Ed Course		3
Semester Hours		17
Spring		
THTR 2640	Theatre History	3
THTR 3700	Theatre Participation 2	1
THTR 3774	Musical Theatre Studio	3
MTVC 3702	Voice	2
DNCE 3770	Jazz Dance 3	2
Upper Division Theatre Elective		3
Semester Hours		14
Year 4		
Fall		
THTR 3700	Theatre Participation 2	1
THTR 3701	Professional Preparation	3
MTVC 4801	Voice	2
Upper Division Theatre Elective		3
General Education Elective - Natural Science + Lab		4
General Education Elective - Social Science		3
Semester Hours		16
Spring		
THTR 4898	Senior Project	3
DNCE 2667	Musical Comedy	1
KSS 1500	Physical Activity Core Concepts	1
KSS 1550	Pilates	1
KSS 1552	Yoga	1
General Education Elective - Social Science		3

General Education Elective - Natural Science	3
Semester Hours	13
Total Semester Hours	120-122

Learning Outcomes

1. Demonstrate the ability to act, i.e., to project one's self believably, in work and action, into imaginary circumstances and roles in a wide variety of styles and formats.
2. Demonstrate a flexible, strong, and controlled voice with trained breath support; appropriate vocal range and freedom from vocal and postural tension in rehearsal and performance; the student will also demonstrate the ability to project the voice effectively in theater spaces of varying sizes.
3. Demonstrate musicianship by learning accurate rhythm, pitch, phrasing, tempi, and appropriate vocal style that is consistent with performance practice in their vocal repertoire.
4. Demonstrate physical competence in dance and movement with a focus on ballet, tap, and jazz technique.
5. Demonstrate a knowledge and understanding of basic production elements, including stage make-up.
6. Demonstrate knowledge of musical theatre repertory, the history of its development, and the relationship of this history to styles of performance.
7. Demonstrate effective audition techniques.

Bachelor of Fine Arts in Theatre Faculty

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Katherine Garlick (<https://ysu.edu/people/katherine-garlick/>), M.F.A.
Associate Professor
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Adam Howard (<https://ysu.edu/people/adam-howard/>), M.F.A.
Lecturer
 Bliss Hall 1250
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 adhoward05@ysu.edu

About the Major

The Bachelor of Fine Arts (B.F.A.) in Theatre is a professional degree for students interested in pursuing a career as an actor, director, and/or theatre technician/designer. The program is defined by an experiential, collaborative curricular model that promotes discipline and artistic agency through broad-based foundational learning that encourages critical thinking, creative problem-solving, and risk-taking at all levels, from introductory to advanced coursework. The results are refined skill sets that prepare students to be successful theatre professionals across all areas of the entertainment industry. Admission to the program is available by audition only (<https://ysu.edu/ccca/university-theatre/admission/>).

The co-curricular theatre season (<https://ysu.edu/ccca/university-theatre/on-stage/>) includes four mainstage productions, and all B.F.A. Theatre students are required to audition and participate. Additional performance opportunities are made possible through semi-annual cabarets, the annual Festival of

New Work, and An Evening of 10-Minute Plays. Performance opportunities focus on students and their professional growth in real-world situations. In addition, all B.F.A. Theatre students complete a senior capstone in which they meet with their instructor individually, as well as in small groups, to facilitate deeper discussion and refine and prepare their final showcase material for performance. Our students routinely win coveted internships and seats in acclaimed workshops—including those with Netflix, the Open Jar Institute, Disney's Animal Kingdom, the London Academy of Music and Dramatic Art, Cedar Point, and others—and perform and win awards at the Kennedy Center American College Theater Festival (KCACTF).

Our alumni (<https://academics.yzu.edu/cliffe-college-of-creative-arts/alumni-giving/>) may be seen regionally, nationally, and internationally across the theatre and entertainment industries. Our graduates are found on stage and screen—from Tony Award-winning *Hadestown* to *Days of Our Lives*—and receiving nominations and awards from The Tonys to The GRAMMYS®. Our dynamic programs also empower our alumni to become successful directors, designers, choreographers, and more at the national level, including at the Great Lakes Theatre Festival and similar venues. Our students hone their artistic and technical abilities and also develop a range of other valuable transferable proficiencies. They earn degrees in areas about which they are passionate, and their skills are applicable to careers (<https://ysu.edu/ccca/university-theatre/careers/>) in numerous professions across the theatre and entertainment industries and more.

Contact Information

To learn more about our degree programs, audition information, scholarships, professional development and careers, performances, faculty, and students, visit University Theatre (<https://ysu.edu/ccca/university-theatre/>) or contact us at 330.941.3810.

To schedule a personalized campus visit, contact the Cliffe College of Creative Arts (<https://academics.yzu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu. We would love to learn about your interests, talk with you about our programs, and become an important part of your future.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Any Gen Ed Math (Recommended MATH 2623)		3
Arts and Humanities (2 courses)	Included in Major	0
Natural Sciences (2 courses, 1 with lab)		7
Social Science (1 course)		3
PSYC 1560	General Psychology	3
General Education Electives		9
KSS 1500	Physical Activity Core Concepts (1 s.h.)	
KSS 1514	Fencing 1 (1 s.h.)	
KSS 1552	Yoga (1 s.h.)	
or KSS 1550	Pilates	
Any Gen Ed Course (3 s.h.)		
Any Gen Ed Course (3 s.h.)		
Theatre Core		
THTR 1512	Survey of Broadway: The American Musical ^{*Art and Humanities Requirement}	3

THTR 1559	Production Design for Stage and Screen	3
THTR 1560	Introduction to Theatre ^{*Art and Humanities Requirement}	3
THTR 1561	Stagecraft	3
THTR 1563	Costume Construction and Craft	3
THTR 1585	Acting 1: Fundamentals	3
Theatre Participation (THTR 2600) must be taken 3 times for a total of 3 s.h.		3
THTR 2607	Introduction to Puppetry	3
THTR 2640	Theatre History	3
THTR 2661	Introduction to Stage Management	3
Theatre Participation 2 (THTR 3700) must be taken 4 times for a total of 4 s.h.		4
THTR 3701	Professional Preparation	3
THTR 3768	Script Analysis for Stage and Screen	3
THTR 4898	Senior Project	3
Major Concentration		
THTR 2667	Acting 2: Character Creation & Scene Work	3
THTR 2672	Bodyvoice for Actors	3
THTR 3761	Stage Makeup	3
THTR 3762	Directing 1	3
THTR 3766	Stage Combat	3
THTR 3772	Acting 3: Advanced Character Study & Repertoire Acquisition	3
THTR 4899F	Topics Thtr Improv Sketch Com	3
THTR 4899M	Topics in Theatre: Costume Specialty Crafts	3
Select two of the following courses:		6
THTR 4880	Shakespeare and Period Styles	
THTR 3771	Introduction to Dialects	
THTR 4870	Acting 4: Acting on Camera	
Select three of the following courses:		9
THTR 3763	Scene Design	
THTR 3765	Lighting Design	
THTR 3769	Costume Design	
THTR 4899	Topics in Theatre (THTR 4899A, THTR 4899B, THTR 4899C, THTR 4899Q, THTR 4899R)	
Select one of the following courses:		3
THTR 3707	Topics in Puppetry	
THTR 4899K	Topics in Theatre Playwriting	
Movement Electives		3-4
DNCE 1540	Modern Dance 1 (1 s.h.)	
Select 2 of the following courses:		
DNCE 2641	Modern Dance 2 (2 s.h.)	
DNCE 1570	Jazz Dance 1 (1 s.h.)	
DNCE 1571	Tap Dance 1 (1 s.h.)	
DNCE 1572	Ballet 1 (1 s.h.)	
Total Semester Hours		120-123
Year 1		
Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
THTR 1559	Production Design for Stage and Screen	3
THTR 1560	Introduction to Theatre	3
THTR 1585	Acting 1: Fundamentals	3

THTR 2600	Theatre Participation	1
Semester Hours		14-16
Spring		
ENGL 1551	Writing 2	3
THTR 1561	Stagecraft	3
THTR 2600	Theatre Participation	1
THTR 2667	Acting 2: Character Creation & Scene Work	3
DNCE 1540	Modern Dance 1	1
PSYC 1560	General Psychology	3
Any Gen Ed Math		3
Semester Hours		17
Year 2		
Fall		
THTR 1563	Costume Construction and Craft	3
THTR 2600	Theatre Participation	1
THTR 3768	Script Analysis for Stage and Screen	3
THTR 3772	Acting 3: Advanced Character Study & Repertoire Acquisition	3
Movement Elective		1
General Education Elective - Social Science		3
Semester Hours		14
Spring		
THTR 2607	Introduction to Puppetry	3
THTR 2640	Theatre History	3
THTR 2672	Bodyvoice for Actors	3
THTR 3700	Theatre Participation 2	1
THTR 3761	Stage Makeup	3
General Education Elective - Natural Science		3
Semester Hours		16
Year 3		
Fall		
THTR 2661	Introduction to Stage Management	3
THTR 3700	Theatre Participation 2	1
THTR 3762	Directing 1	3
THTR 4899	Topics in Theatre	3
or THTR 3763	or Scene Design	
or THTR 3765	or Lighting Design	
or THTR 3769	or Costume Design	
KSS 1500	Physical Activity Core Concepts	1
Movement Elective		1-2
General Education Elective - Any Gen Ed Course		3
Semester Hours		15-16
Spring		
THTR 3700	Theatre Participation 2	1
THTR 3707	Topics in Puppetry	3
or THTR 4899K	or Topics in Theatre Playwriting	
THTR 3766	Stage Combat	3
or THTR 4899F	or Topics Thtr Improv Sketch Com	
THTR 4880	Shakespeare and Period Styles	3
or THTR 3771	or Introduction to Dialects	
or THTR 4870	or Acting 4: Acting on Camera	
THTR 4899M	Topics in Theatre: Costume Specialty Crafts	3
General Education Elective - Any Gen Ed Course		3
Semester Hours		16
Year 4		
Fall		
THTR 1512	Survey of Broadway: The American Musical	3
THTR 3700	Theatre Participation 2	1

THTR 3701	Professional Preparation	3
THTR 3763	Scene Design	3
or THTR 3765	or Lighting Design	
or THTR 3769	or Costume Design	
or THTR 4899	or Topics in Theatre	
KSS 1514	Fencing 1	1
General Education Elective - Natural Science + Lab		4
Semester Hours		15
Spring		
THTR 3765	Lighting Design	3
or THTR 3763	or Scene Design	
or THTR 3769	or Costume Design	
or THTR 4899	or Topics in Theatre	
THTR 3771	Introduction to Dialects	3
or THTR 4870	or Acting 4: Acting on Camera	
or THTR 4880	or Shakespeare and Period Styles	
THTR 4898	Senior Project	3
THTR 4899F	Topics Thtr Improv Sketch Com	3
or THTR 3766	or Stage Combat	
KSS 1552	Yoga (or KSS 1550 Pilates)	1
Semester Hours		13
Total Semester Hours		120-123

Learning Outcomes

1. Public Performances: Students demonstrate competence in the creation and presentation of public theatre events as performers and demonstrate the ability to act, i.e. to project one's self believably, in work and action, into imaginary circumstances and roles in a wide range of styles and formats.
2. Knowledge of History and Cultural Dimensions: Students demonstrate knowledge of the history and cultural influences of and upon the institution of theatre throughout the ages.
3. Informed Assessments of Quality: Students demonstrate the ability to critically evaluate works of theatre.
4. Critical Thinking: Students demonstrate the ability to define a desired goal in creating a work of theatre and find solutions to achieve that goal.

Minor in Dance

Faculty

Ruth Balestra (<https://ysu.edu/ccca/university-theatre/faculty/>)
330.941.3910
rmbalestra@ysu.edu

Virginia Hale (<https://ysu.edu/ccca/university-theatre/faculty/>)
330.941.3910
vmhartman@ysu.edu

About the Minor

The Minor in Dance is designed for students who wish to gain or augment their understanding of the art of dance and provides a broad understanding of the field of dance from the perspective of the performer and choreographer. It also expands students' understanding of how dance can intersect with other fields of study and allows them to develop additional skills that complement the marketable competencies and knowledge they acquire in their majors.

Students who earn a Minor in Dance often pursue careers in fields such as arts administration, teaching, acting, fitness, and other similar professions.

Contact Information

To learn more about our degree programs, scholarships, professional development and careers, performances, faculty, and students, visit University Theatre (<https://ysu.edu/ccca/university-theatre/>) or contact us at 330.941.3810.

To schedule a personalized campus visit, contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu. We would love to learn about your interests, talk with you about our programs, and become an important part of your future.

To complete a minor in dance, a student must complete a minimum of 18 hours of coursework as described below:

COURSE	TITLE	S.H.
Required Courses		
DNCE 1540	Modern Dance 1	1
DNCE 2641	Modern Dance 2	2
DNCE 1570	Jazz Dance 1	1
DNCE 1571	Tap Dance 1	1
DNCE 1572	Ballet 1	1
DNCE 2673	Ballet 2	2
DNCE 2667	Musical Comedy	1
DNCE 2698	Survey of Dance	3
Select a minimum of 6 s.h from the following:		6
DNCE 3771	Tap Dance 3	
DNCE 3751	Modern Dance 3	
DNCE 3770	Jazz Dance 3	
DNCE 3781	Ballet 3	
DNCE 4881	Ballet 4	
Total Semester Hours		18

Minor in Film Studies

Faculty

Jennifer Walker (jawalker04@ysu.edu)
330.941.3810

About the Minor

If you're a movie buff, the Minor in Film Studies is designed for you. This minor allows students to discover different approaches to cinema by examining everything from the classics to new cinema and their influence on culture and society. Students will explore film genres and emerging media, develop critical awareness, and gain a greater understanding of themselves and the world around us.

Students who earn the Minor in Film Studies often pursue careers in fields such as English, media production, film, advertising, and other similar professions.

Contact Information

To learn more about our degree programs, scholarships, professional development and careers, performances, faculty, and students, visit University

Theatre (<https://ysu.edu/ccca/university-theatre/>) or contact us at 330.941.3810.

To schedule a personalized campus visit, contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu. We would love to learn about your interests, talk with you about our programs, and become an important part of your future.

COURSE	TITLE	S.H.
Required Courses		
THTR 1590	History of Motion Pictures	3
THTR 2690	The Art of Motion Pictures	3
CMST 2650	Rhetoric of Film	3
ENGL 2665	Introduction to Film Study	3
THTR 3768	Script Analysis for Stage and Screen	3
ENGL 3748	Screenwriting	3
or ENGL 3765	Film Genres	
Total Semester Hours		18

Minor in Musical Theatre

Faculty

Charles Dugan (<https://ysu.edu/ccca/university-theatre/faculty/>), D.M.A.
Part-time Faculty
Bliss Hall 3031
330.941.3810
chdugan@ysu.edu

Adam Howard (<https://ysu.edu/people/adam-howard/>), M.F.A.
Lecturer
Bliss Hall 1250
330.941.1837
adhoward05@ysu.edu

About the Minor

The Minor in Musical Theatre allows students with a background, interest, or passion in musical theatre to continue their studies and further explore their craft. Our minor—which includes courses in singing, acting, and dancing—is designed to help students develop skills through performance-based, small-group classes and private instruction. It also includes the study of theoretical and historical elements of music and theatre, expands students' understanding of how musical theatre can intersect with other fields of study, and allows them to develop additional skills that complement the marketable competencies and knowledge they acquire in their majors.

**Admission to this minor is available by audition only. For questions, see Contact Information below.*

Students who earn a Minor in Musical Theatre often pursue careers in fields such as theatre, film, television, arts administration, acting, teaching, and other similar professions.

Contact Information

To learn more about our degree programs, audition information, scholarships, professional development and careers, performances, faculty, and students, visit University Theatre (<https://ysu.edu/ccca/university-theatre/>) or contact us at 330.941.3810.

To schedule a personalized campus visit, contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu. We would love to learn about your interests, talk with you about our programs, and become an important part of your future.

To complete a minor in Musical Theatre, students must complete the below courses for a total of 19 s.h.

COURSE	TITLE	S.H.
THTR 1585	Acting 1: Fundamentals	3
THTR 2672	Bodyvoice for Actors	3
THTR 3768	Script Analysis for Stage and Screen	3
THTR 3774	Musical Theatre Studio	3
MTVC 1500A	Voice	1
MTVC 1500B	Voice	1
MTVC 2600A	Voice	1
MTVC 2600B	Voice	1
DNCE 1570	Jazz Dance 1	1
DNCE 1572	Ballet 1	1
DNCE 2667	Musical Comedy	1
Total Semester Hours		19

Minor in Puppetry for Non-Theatre Majors

Faculty

Todd Dicken (<https://ysu.edu/people/todd-dicken/>), M.F.A.
Senior Lecturer
 Bliss Hall 1026
 330.941.1857
twdicken@ysu.edu

Katherine Garlick (<https://ysu.edu/people/katherine-garlick/>), M.F.A.
Associate Professor
 Bliss Hall 1016
 330.941.1852
kngarlick@ysu.edu

About the Minor

The Puppetry Minor for Non-Theatre Majors provides a broad understanding of the field of puppetry in terms of puppet design, build, and manipulation, scriptwriting or adaption, and puppet performance. Through project-based coursework, students will study and practice the core forms of puppet arts and develop capacities for designing and fabricating new puppets, producing puppet-related projects, and creating puppet plays. Our minor also expands students' understanding of how puppetry can intersect with other fields of study, and allows them to develop additional skills that complement the marketable competencies and knowledge they acquire in their majors.

Students who earn a Puppetry Minor for Non-Theatre Majors often pursue careers in fields such as teaching, social work, drama therapy, and other similar professions.

Contact Information

To learn more about our degree programs, scholarships, professional development and careers, performances, faculty, and students, visit University

Theatre (<https://ysu.edu/ccca/university-theatre/>) or contact us at 330.941.3810.

To schedule a personalized campus visit, contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu. We would love to learn about your interests, talk with you about our programs, and become an important part of your future.

Non-theatre majors who wish to complete a minor in Puppetry must take a minimum of 12 semester hours as described below.

COURSE	TITLE	S.H.
THTR 1563	Costume Construction and Craft	3
THTR 2607	Introduction to Puppetry	3
THTR 3707	Topics in Puppetry	3
THTR 4899	Topics in Theatre (Students may select from any of the THTR 4899 Topics in Theatre offered)	3
Total Semester Hours		12

Minor in Puppetry for Theater Majors

Faculty

Todd Dicken (<https://ysu.edu/people/todd-dicken/>), M.F.A.
Senior Lecturer
 Bliss Hall 1026
 330.941.1857
twdicken@ysu.edu

Katherine Garlick (<https://ysu.edu/people/katherine-garlick/>), M.F.A.
Associate Professor
 Bliss Hall 1016
 330.941.1852
kngarlick@ysu.edu

About the Minor

The Puppetry Minor for Theatre Majors provides a broad understanding of the field of puppetry in terms of puppet design, build, and manipulation, scriptwriting or adaption, and puppet performance. Through project-based coursework, students will study and practice the core forms of puppet arts and develop capacities for designing and fabricating new puppets, producing puppet-related projects, and creating puppet plays. Our minor also expands students' understanding of how puppetry can intersect with other fields within the theatre arts, and allows them to develop additional skills that complement the marketable competencies and knowledge they acquire in their majors.

Students who earn a Puppetry Minor for Theatre Majors often pursue careers in fields such as acting, film, television, directing, design, teaching, drama therapy, and other similar professions.

Contact Information

To learn more about our degree programs, scholarships, professional development and careers, performances, faculty, and students, visit University Theatre (<https://ysu.edu/ccca/university-theatre/>) or contact us at 330.941.3810.

To schedule a personalized campus visit, contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346

or sawaltman@ysu.edu. We would love to learn about your interests, talk with you about our programs, and become an important part of your future.

Theatre majors who wish to complete a minor in Puppetry must take a minimum of 12 semester hours as described below.

COURSE	TITLE	S.H.
THTR 2607	Introduction to Puppetry	3
THTR 3707	Topics in Puppetry	3
Select 6 s.h. from the following:		6
THTR 4899	Topics in Theatre	
THTR 3763	Scene Design	
THTR 3765	Lighting Design	
THTR 3769	Costume Design	
Total Semester Hours		12

Minor in Theatre Studies Faculty

Todd Dicken (<https://ysu.edu/people/todd-dicken/>), M.F.A.
Senior Lecturer
 Bliss Hall 1026
 330.941.1857
 twdicken@ysu.edu

Katherine Garlick (<https://ysu.edu/people/katherine-garlick/>), M.F.A.
Associate Professor
 Bliss Hall 1016
 330.941.1852
 kngarlick@ysu.edu

About the Minor

The Theatre Studies Minor provides a broad understanding of the field of theatre from the perspective of the actor and designer. Our minor provides experiences that enhance students' abilities to tell a story through performance and visual design, explore their creativity as directors, expand their knowledge of areas such as box office management and the many technical aspects of a fully realized theatre production, and more. Our minor also expands students' understanding of how theatre studies can intersect with other fields within the theatre arts and allows them to develop additional skills that complement the marketable competencies and knowledge they acquire in their majors.

Students who earn a Theatre Studies Minor often pursue careers in law, arts administration, fundraising, teaching, management, marketing, and other similar professions.

Contact Information

To learn more about our degree programs, scholarships, professional development and careers, performances, faculty, and students, visit University Theatre (<https://ysu.edu/ccca/university-theatre/>) or contact us at 330.941.3810.

To schedule a personalized campus visit, contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu. We would love to learn about your interests, talk with you about our programs, and become an important part of your future.

To complete a minor in Theatre Studies, a student must take a minimum of 15 hours as described below:

COURSE	TITLE	S.H.
THTR 1560	Introduction to Theatre	3
THTR 1561	Stagecraft	3
THTR 1585	Acting 1: Fundamentals	3
THTR 3768	Script Analysis for Stage and Screen	3
Choose one Upper Division THTR Elective (3700 or above) from the following THTR 3707, THTR 3761, THTR 3762, THTR 3763, THTR 3765, THTR 3766, THTR 3769, THTR 3771, THTR 3772, THTR 4870, THTR 4880, THTR 4899		3
Total Semester Hours		15

The Dr. Dominic A. and Helen M. Bitonte College of Health and Human Services

Sara Michaliszyn, Interim Dean

For more information, visit The Bitonte College of Health and Human Services (<http://www.ysu.edu/academics/bitonte-college-health-and-human-services/>).

Overview

In support of the University mission to provide a wide range of educational opportunities in higher education, the Dr. Dominic A. and Helen M. Bitonte College of Health and Human Services assumes a broad focus. That focus entails preparing students for competent practice in positions in both the health and human service professions. The College is committed to excellence in education through the quality programs it provides. To assure continuity and opportunity for health and human service majors, the College has encouraged the development of two-plus-two curricula in several majors that allow students to efficiently progress from associate to baccalaureate degree program completion. Master's degrees, two professional doctorate degree programs and a Ph.D. in Health Sciences further expand and advance the competencies of graduates in the delivery and administration of health care and human services.

Vision Statement

The Bitonte College of Health and Human Services produces graduates who provide exceptional health and human services to enhance quality of life in regional, national, and global communities.

Mission Statement

The Bitonte College of Health and Human Services will continue to impart knowledge, develop critical thinking, and serve society through holistic, integrative, and quality educational programs. Graduates will achieve a high level of professional competence through scholarly inquiry and transformative experiences to address society's ever-changing demands for healthcare and human services.

Living Learning Community

The Health and Human Services Interdisciplinary Learning Community enhances the Youngstown State experience and promotes success for first-year students by supporting academic success, facilitating professional development and encouraging student engagement among faculty and peers in a supportive environment. Students in their first year of the HHS Interdisciplinary LLC will participate in shared coursework, guaranteed placement in core courses tailored to the LLC experience, residential experience with a cohort and access to a variety of programming, including but not limited to:

- Live together in Lyden House
- Volunteering Experiences

- Social Events
- Training Opportunities
- Study Sessions with Tutors
- Shared Classes
- Begin Building Your Resume Your First Year
- Priority Advising in Lyden House
- Connect with Faculty Outside of the Classroom

Accreditation

- The dental hygiene program is accredited by the American Dental Association Commission on Dental Accreditation (CODA).
- The medical laboratory technology program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).
- The Bachelor of Science in respiratory care program is accredited by the Commission on Accreditation for Respiratory Care (COARC).
- The Bachelor of Science in respiratory care program degree advancement online completion program is provisionally accredited through the Commission on Accreditation for Respiratory Care (COARC).
- The Master of Respiratory Care online program is provisionally accredited through the Commission on Accreditation for Respiratory Care (COARC).
- The Didactic Program in Dietetics is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND).
- The Bachelor of Science in Applied Science in Exercise Science is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP).
- The Masters of Athletic Training program is accredited by the Commission on Accreditation of Athletic Training Education (CAATE).
- The Entry-level BSN and the online RN-BSN Completion programs are accredited by the Accreditation Commission for Education in Nursing (ACEN) - <https://www.acenursing.org>.
- The Entry-level BSN, the online RN-BSN program, the MSN program, the Post-Graduate APRN and Post-Master's certificates are accredited by the Commission on Collegiate Nursing Education (CCNE) - <https://www.aacnnursing.org/CCNE> (<https://www.aacnnursing.org/CCNE/>).
- The DNP nurse anesthesia program is accredited by the Council on Accreditation of Nurse Anesthesia Education Programs (COA) - <https://www.coacna.org>.
- The entry-level BSN and ADN programs are approved by the Ohio Board of Nursing - <https://www.nursing.ohio.gov>.
- The physical therapy program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE).
- The Long Term Care Administration is accredited by the National Association of Long-Term Care Administrator Boards (NAB).
- The social work program is accredited by the Council on Social Work Education (CSWE).

Unique Requirements of the College

Incoming freshmen entering the College as an undetermined major or pre-major student or requires extensive remedial/developmental course work, or is a student returning to the College after a suspension, the student must complete YSU 1500, Success Seminar, within the student's first 30 semester hours of coursework.

Students need to be aware that many of the programs in the College require a criminal background check. Some require drug testing and a physical fitness examination. In a few cases, there may be a requirement for a psychological evaluation. In addition to programs requiring some or all of the checks/evaluations listed above, some of the agencies where students complete clinical training, internships, or other related activities may also require these checks/evaluations. If you are concerned that you may not be able to complete a program or one of its requirements due to any of these checks/evaluations, please speak with an academic advisor or the chairperson of the department. Students wanting to pursue Nursing, Pre-Dental Hygiene, Exercise Science

and Medical Laboratory Science need to complete high school Chemistry and Biology with "C" or better.

Organization/Majors

The Bitonte College of Health and Human Services consists of six departments:

- Criminal Justice and Consumer Sciences
- Graduate Studies in Health and Rehabilitation Sciences
- Health Professions
- Military Science
- The James and Coralie Centofanti School of Nursing
- Social Work

A variety of graduate programs are offered by the five Departments of Criminal Justice and Consumer Sciences, Graduate Studies in Health and Rehabilitation Sciences, Health Professions, Nursing and Social Work. The Northeastern Ohio Universities Master of Public Health program operates through a partnership of YSU, The University of Akron, Cleveland State University, Kent State University, and Northeast Ohio Medical University (NEOMED).

The six departments are listed below with their associate, baccalaureate, master's and doctoral offerings. Students whose needs are not completely met by existing conventional programs may wish to investigate and apply for the Individualized Curriculum Program (see the Academic Policies and Procedures section).

Department of Criminal Justice and Consumer Sciences

- Behavioral Health (Certificate)
- Corrections (Certificate)
- Criminology (Certificate)
- Cybersecurity (Certificate)
- Homeland Security (Undergraduate and Graduate) (Certificate)
- Ohio Peace Officer Training Academy (Certificate)
- Police Science (Certificate)
- Criminal Justice (AAS, BSAS, MS) (MS in Criminal Justice Face-to-Face and Online)
- 3 + 3 Law Degree Program⁵
- Undergraduate to Master's Degree in Criminal Justice⁶
- Corrections (Minor)
- Criminal Behavior (Minor)
- Criminal Justice Ethics (Minor)
- Criminal Justice System (Minor)
- Criminal/Legal Processes (Minor)
- Juvenile Justice System (Minor)
- Law Enforcement (Minor)
- Security Studies (Minor)

Department of Health Professions

- Allied Health (BSAS)¹ (Online)
- Community Health and Safety (minor only)
- Dental Hygiene (BSDH)
- Dietetics (BSAS)
- Exercise Science (BSAS)
- Exercise Science - Graduate Degree Preparation Track (BSAS)
- Exercise Science - 4 + 1 MPH Track (BSAS)
- Exercise Science - 4 + 1 MAT Accelerated Program
- Health Services (AAS)

- Health Administration (AAS)
- Wellness (minor only)
- Medical Laboratory Technology (AAS)²
- Medical Laboratory Science (BSAS)²
- Polysomnography (Certificate)
- Public Health (Online) (BSAS)³
- Public Health (Minor Only)
- Public Health, 4 + 1 MPH Track (Online) (BSAS)
- Respiratory Care (BSRC)
- Respiratory Care Degree Advancement Online Completion
- Respiratory Care (MRC) (Online)

Department of Social Work

- Social Work (AAS, BSW, MSW)²

Department of Graduate Studies in Health and Rehabilitation Sciences

- Athletic Training (MAT)²
- Health and Human Services (MHHS)
- Health Sciences (Ph.D.)²
- Health Informatics (Graduate Certificate)
- Healthcare Management (Graduate Certificate)
- Physical Therapy (DPT)²
- Public Health (MPH)
- Public Health (Graduate Certificate)
- Public Health Administration (Graduate Certificate)
- Public Health Research (Graduate Certificate)
- Long Term Care Administration Track (MHHS)
- Applied Aging and Life-Course Studies (Undergraduate Certificate)

Department of Military Science

- Military Science (minor only)
- Military Science History Track (minor only)
- Military Science Political Science Track (minor only)
- Army ROTC program⁴

Aerospace Studies Program

Air Force ROTC Program

ROTC students are allowed certain modifications of the requirements, as explained in the Military Science section. ROTC programs are offered in agreement with Kent State University.

The James and Coralie Centofanti School of Nursing

Undergraduate Nursing Programs (BSN)²:

- Associate Degree in Nursing (ADN)
- Entry-level (BSN) (For Entry-Level Students, non-RN)
- RN-BSN Completion Program for licensed RN's only (BSN) (Online)

Master of Science in Nursing Programs (MSN)² (Online Only):

- Adult-Gerontology Acute Care Nurse Practitioner (AG-ACNP) (Online)
- Family Nurse Practitioner (FNP) (Online)
- Nursing Education (Online)

Doctor of Nursing Practice (DNP)²:

- Nurse Anesthesia (in collaboration with St. Elizabeth Health Center School for Nurse Anesthetists, Inc.)

Certificates²:

- Nursing Education (Post Master's) (Online)
- Adult-Gerontology Acute Care Nurse Practitioner (Post Master's) (Online)
- Family Nurse Practitioner (Post Master's) (Online)

It is the student's responsibility to satisfy all of the graduation requirements for the degree sought. These consist of:

- The pre-college or preparatory courses for each degree as covered in the Academic Policies and Procedures section.
- The courses and other requirements to be completed in the University as explained in the Academic Policies and Procedures section.
- The specific curriculum requirements of a given program.

Course descriptions can be found in a separate section in the *Undergraduate Catalog*.

¹ This degree is made available at Cuyahoga Community College and Lorain County Community College in addition to the YSU campus offerings.
² Restricted admission; see department for further information.
³ For the Institutional Report on the Quality of Teacher Preparation, Title II, Higher Education Act, please see Appendix C of the *Undergraduate Catalog*.
⁴ ROTC students are allowed certain modifications of the requirements, as explained in the Military Science section. ROTC programs are offered in agreement with Kent State University.
⁵ 3+3 Law Degree Program in partnership with the University of Akron.
⁶ 4 + 1 Undergraduate to Master's Degree in Criminal Justice

Associate of Applied Science in Criminal Justice

The Associate of Applied Science (AAS) degree in Criminal Justice is considered appropriate for persons preparing for employment in many municipal, state, and private police agencies as well as persons considering employment in local, state, federal, and private correctional facilities. The associate degree also is a stepping stone for those students who plan to go on for a bachelor's degree.

The program requires 60 semester hours:

- 26-28 hours in general degree requirements
- 18 hours in Criminal Justice core courses
- 12 hours in criminal justice electives
- 4 hours of electives.

The Associate of Applied Science degree can be completed in four semesters if students average 15 hours per semester.

Transfer students must take at least 20 hours of YSU courses. Sixteen (16) semester hours of Criminal Justice and Forensic Sciences course work must be taken at Youngstown State University.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	

ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Arts and Humanities		
PHIL 2625	Introduction to Professional Ethics	3
or PHIL 2627	Law and Criminal Justice Ethics	
One other Arts and Humanities non-ethics course		
SOC 1500	Introduction to Sociology	3
PSYC 1560	General Psychology	3
Natural Science with lab	(FSCI 1510 Recommended)	4
Major Requirements		
CRJS 1500	Introduction to Criminal Justice	3
CRJS 2601	Policing	3
CRJS 2602	Criminal Courts	3
CRJS 2603	Corrections	3
CRJS 3719	Criminal Law	3
CRJS 3735	Crime and Delinquency	3
Select 12 s.h. from any CRJS or FSCI courses		12
Electives (any nondevelopmental courses)		4
Total Semester Hours		60-62

Learning Outcomes

1. Students can discriminate the influence of the CJ system at the subsystem levels (policing, courts, and corrections).
2. Students can apply CJ theories.
3. Students can analyze legal situations.

Bachelor of Science in Applied Science in Criminal Justice

A Bachelor of Science in Applied Science (BSAS) degree in Criminal Justice requires a minimum of 120 semester hours. All Bachelor of Science in Applied Science students must complete a minimum of 57 semester hours of Criminal Justice courses of which 36 semester hours or more must be taken from upper-division courses. The courses are listed as CRJS courses. This degree can be earned in eight semesters if students average 15 hours per semester.

Transfer students must complete a minimum of 18 hours in Criminal Justice courses at YSU.

A grade of C or better must be received in each required Criminal Justice and Forensic Sciences course in order to satisfy the departmental requirements for the degree.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Any Gen Ed Math course		3-5
Social Science		
PSYC 1560	General Psychology (required for major)	3
SOC 1500	Introduction to Sociology (required for major)	3
Art & Humanities		
PHIL 2625	Introduction to Professional Ethics (required for major)	3

or PHIL 2627	Law and Criminal Justice Ethics	
Arts and Humanities Elective		3
Natural Science		
Natural Science (2 courses of which FSCI 1510* is recommended, 1 with lab)		6-7
General Education Electives (9 s.h.)		
CRJS 1500 in major counts as General Edu elective		
CMST 1545	Communication Foundations	3
Any General Education course		3
Major Requirements		
CRJS 1500	Introduction to Criminal Justice	3
CRJS 2601	Policing	3
CRJS 2602	Criminal Courts	3
CRJS 2603	Corrections	3
CRJS 3710	Social Statistics	3
CRJS 3712	Criminal Justice Research	3
CRJS 3715	Criminal Justice Management Concepts	3
CRJS 3719	Criminal Law	3
CRJS 3735	Crime and Delinquency	3
CRJS 4800	Senior Seminar	3
Criminal Justice Upper Division Electives, (CRJS or FSCI) 3 s.h. must be 4800 or higher		27
Electives and/or (Optional) Minor		29
Total Semester Hours		120-125

* Anyone planning to take the Forensic Science classes must take FSCI 1510 as one of their NS.

Year 1		
Fall		
YSU 1500	Success Seminar	S.H. 1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
CRJS 1500	Introduction to Criminal Justice	3
Any GER MATH course (3-5 S.H)		3-5
SOC 1500	Introduction to Sociology	3
Semester Hours		13-17
Spring		
ENGL 1551	Writing 2	3
CRJS 2602	Criminal Courts	3
CRJS 2601	Policing	3
PSYC 1560	General Psychology	3
Natural Science Elective with Lab		4
Semester Hours		16
Year 2		
Fall		
CMST 1545	Communication Foundations	3
CRJS 2603	Corrections	3
CRJS 3719	Criminal Law	3
CRJS 3700 or higher-Level Elective		3
Arts and Humanities Elective 15XX		3
Semester Hours		15
Spring		
CRJS 3715	Criminal Justice Management Concepts	3
CRJS 3735	Crime and Delinquency	3

CRJS 3700 or higher-Level Elective	3
CRJS 3700 or higher-Level Elective	3
PHIL 2625 Introduction to Professional Ethics	3
Semester Hours	15
Year 3	
Fall	
CRJS 3700 or higher Elective	3
CRJS 3710 Social Statistics	3
CRJS 3700 or higher-Level Elective	3
Natural Science	3-4
Elective	3
Semester Hours	15-16
Spring	
CRJS 3700 or higher-Level Elective	3
CRJS 3712 Criminal Justice Research	3
CRJS 3700 or higher-Level Elective	3
General Education Elective	3
Elective	3
Semester Hours	15
Year 4	
Fall	
CRJS 4800 Senior Seminar	3
Elective	3
Elective	3
Elective	4
Elective	3
Semester Hours	16
Spring	
Elective	3
Elective	3
Elective	3
Elective	3
Elective	3
Semester Hours	15
Total Semester Hours	120-125

in order to have the list of courses below count for both the undergraduate and graduate degree.

Admission to take part in the 4 plus 1 program includes: 78 hours completed as an undergraduate student majoring with a BSAS in Criminal Justice; an undergraduate GPA of 3.0; and admission into the YSU College of Graduate Studies.

Nine hours from a special menu of courses can be applied to the graduate program from a student's undergraduate program. Of these 9 hours, 2 courses (6 hours) must be core courses. The special menu includes the selection of one CRJS swing (5800-level) course or CRJS 6925 and 2 out of these 9 6900-level courses (CRJS 6910, CRJS 6915, CRJS 6920, CRJS 6942, CRJS 6940, CRJS 6945, CRJS 6950, CRJS 6975, and CRJS 6990). After completing the required 120-124 hours of the undergraduate program, 4+1 students then choose a completion path involving either a thesis or a graduate project in the same manner as a non-accelerated student except the 4+1 students get to carry over 9 of the their graduate hours earned in their 4th year.

For the the thesis path, students need 21 more hours given they are starting with 9 hours and therefore should take the following courses:

1-6 hours of CRJS 6999 Thesis

3 hours of law/policy core CRJS 6910 or CRJS 6990

3 hours of theory/core CRJS 6915 or CRJS 6920

3-6 hours of methods/core CRJS 6942 or both CRJS 6940 and CRJS 6945

3 hours of management/core CRJS 6975 or CRJS 6950

0-8 hours of electives.

Students can use only 9 hours of 5800 level courses for students who choose the thesis option.

For the non-thesis option (i.e. the Graduate Project path), students need 26 hours to accompany the 9 hours of carry over from the 4th year in the form of these guidelines:

2 hours of CRJS 6998 Graduate Project

3 hours of law/policy core CRJS 6910 or CRJS 6990

3 hours of theory/core CRJS 6915 or CRJS 6920

3-6 hours of methods/core CRJS 6942 or both CRJS 6940 and CRJS 6945

3 hours of management/core CRJS 6975* or CRJS 6950 and

9-12 hours of electives.

Students can use only 12 hours of 5800 level courses if they choose the non-thesis (Graduate Project) option.

Learning Outcomes

1. Students can discriminate the influence of the CJ system at the subsystem levels (policing, courts, and corrections)
2. Students can apply CJ theories.
3. Students can analyze legal situations.
4. Students can assess public policy as it relates to the CJ system.

Bachelor of Science in Applied Science in Criminal Justice 4+1 Graduate Track

After 78 credit hours students interested in the 4 plus 1 in the Masters in CRJS Program should contact the Graduate Coordinator about registering for three courses (nine credit hours), in their senior year. They should complete an "intent to complete the 4 plus 1 form" indicating what courses they plan to register for each term, so that they can apply those courses toward their future graduate degree in the Master of Science in Criminal Justice program at YSU. Students already in the graduate program cannot retroactively count courses toward their graduate degree. You must be accepted into the 4 plus 1 program

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Any Gen Ed MATH course		3-6
Social Science (6 s.h.)		
PSYC 1560	General Psychology	3
SOC 1500	Introduction to Sociology	3

Art and Humanities (6 s.h.)		
PHIL 2625	Introduction to Professional Ethics	3
or PHIL 2627	Law and Criminal Justice Ethics	
Arts and Humanities Gen Ed (1 non-ethics course)		
Natural Science (7 s.h.)		
Natural Sciences (2 courses--FSCI 1510 recommended as one, 1 with lab)		
General Education Electives (9 s.h.)		
CMST 1545	Communication Foundations	3
CRSJ 1500 meets 3 credit hours in major		
Any Gen Ed Course		
Major Requirements		
CRJS 1500	Introduction to Criminal Justice	3
CRJS 2601	Policing	3
CRJS 2602	Criminal Courts	3
CRJS 2603	Corrections	3
CRJS 3710	Social Statistics	3
CRJS 3712	Criminal Justice Research	3
CRJS 3715	Criminal Justice Management Concepts	3
CRJS 3719	Criminal Law	3
CRJS 3735	Crime and Delinquency	3
CRJS 4800	Senior Seminar	3
Upper Division Electives		
Select 18 hours from any CRJS or FSCI electives.		18
FSCI 1510	Survey of Forensic Science	
FSCI 3714	Forensic Science: Crime Scene Investigation	
FSCI 3714L	Forensic Science CSI Lab	
FSCI 3716	Forensic Science Evidence Analysis	
FSCI 3716L	Forensic Science Evidence Analysis Laboratory	
FSCI 3720	Forensic Fire and Explosion Investigation	
FSCI 4853	Forensic Firearms Examination	
FSCI 4854	Death Investigation	
FSCI 5814	Practice and Ethics in Forensic Science	
CRJS 3702	Correctional Strategies	
CRJS 3702L	Correctional Strategies Practicum	
CRJS 3718	Family Law	
CRJS 3720	Legal Research	
CRJS 3721	Evidence	
CRJS 3736	Criminal Victimization	
CRJS 3740	Criminal Justice Information Systems	
CRJS 3751	Prevention Strategies	
CRJS 3752	Race, Ethnicity and Crime in America	
CRJS 3765	Human Relations	
CRJS 3777	Ohio Police Officer Basic Training	
CRJS 3799	Directed Individual Study	
CRJS 4803	Correctional Case Management and Treatment	
CRJS 4807	Criminal Justice Internship	
CRJS 4848	Loss Prevention and Assets Protection Administration	
CRJS 4850	Special Topics in Criminal Justice	
CRJS 4851	Women and Justice	
CRJS 4870	Law Enforcement Administration	
CRJS 4890	Judicial Administration	
CRJS 5802	Corrections Law and Liability	
CRJS 5825	Criminal Procedures and Constitutional Issues	
CRJS 5831	Violence in America	
CRJS 5840	Critical Incidents and Homeland Security	
CRJS 5841	Terrorism and Countersurveillance	
CRJS 5865	Gathering and Using Information in Criminal Justice	

CRJS 5872	Drugs and Crime	
CRJS 5875	Juvenile Justice System	
4+1 Graduate Level Course Requirement		
Select 3 hours from any of these following graduate level courses		3
CRJS 5802	Corrections Law and Liability	
CRJS 5825	Criminal Procedures and Constitutional Issues	
CRJS 5831	Violence in America	
CRJS 5840	Critical Incidents and Homeland Security	
CRJS 5841	Terrorism and Countersurveillance	
CRJS 5865	Gathering and Using Information in Criminal Justice	
CRJS 5872	Drugs and Crime	
CRJS 5875	Juvenile Justice System	
FSCI 5814	Practice and Ethics in Forensic Science	
Select 6 hours from any CRJS or FSCI 6900 level courses		6
Select other undergraduate electives (any non-developmental courses)		28
In the Final Year (i.e. after all requirements for BSAS in CRJS have been met), choose Thesis option or non-Thesis Graduate Paper option.		
Total Semester Hours		120-125
Year 1		
Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
CRJS 1500	Introduction to Criminal Justice	3
Any GER MATH course		3-6
SOC 1500	Introduction to Sociology	3
Semester Hours		13-18
Spring		
ENGL 1551	Writing 2	3
CRJS 2602	Criminal Courts	3
CRJS 2601	Policing	3
PSYC 1560	General Psychology	3
Gen Ed NS Requirement		4
Semester Hours		16
Year 2		
Fall		
CMST 1545	Communication Foundations	3
CRJS 2603	Corrections	3
CRJS 3719	Criminal Law	3
CRJS 3700:4800 Elective		3
Arts and Humanities Gen Ed		3
Semester Hours		15
Spring		
CRJS 3715	Criminal Justice Management Concepts	3
CRJS 3735	Crime and Delinquency	3
CRJS 3700:4800 Elective		3
CRJS 3700:4800 Elective		3
PHIL 2625	Introduction to Professional Ethics	3
or PHIL 2627	or Law and Criminal Justice Ethics	
Semester Hours		15
Year 3		
Fall		
CRJS 3710	Social Statistics	3
Gen Ed NS Elective		3

Gen Ed Elective		3
CRJS 3700:4800 Elective		3
Elective or Minor		3
Semester Hours		15
Spring		
CRJS 3712	Criminal Justice Research	3
Gen Ed Elective		3
Elective or Minor		3
Elective or Minor		3
Elective or Minor		3
Semester Hours		15
Year 4		
Fall		
CRJS 4800	Senior Seminar	3
CRJS 5800		3
CRJS 6900		3
Elective or Minor		4
Elective or Minor		3
Semester Hours		16
Spring		
CRJS 5800		3
CRJS 6900		3
Elective or Minor		6
Elective or Minor		3
Semester Hours		15
Total Semester Hours		120-125

The Masters of Criminal Justice has the following three Learning Outcomes:

SL01: Students will demonstrate knowledge on how to evaluate programs, policies, theories, and research related to the CJ system.

SL02: Students will demonstrate knowledge on how to use key CJ concepts to administrate programs and lead others.

SL03: Students will demonstrate knowledge on how to perform their own research related to the CJ system.

Minor in Security Studies

COURSE	TITLE	S.H.
CRJS 1500	Introduction to Criminal Justice	3
CRJS 2601	Policing	3
Select 4 courses (12 hours) from those below:		12
CRJS 3715	Criminal Justice Management Concepts	
CRJS 3740	Criminal Justice Information Systems	
CRJS 3751	Prevention Strategies	
CRJS 4807	Criminal Justice Internship (at a security studies related agency)	
CRJS 4848	Loss Prevention and Assets Protection Administration	
CRJS 5840	Critical Incidents and Homeland Security	
CRJS 5841	Terrorism and Countersurveillance	
CRJS 5865	Gathering and Using Information in Criminal Justice	
FSCI 1510	Survey of Forensic Science	
FSCI 3720	Forensic Fire and Explosion Investigation	
Total Semester Hours		18

Department of Health Professions

330-941-3327

The department offers certificate, associate, baccalaureate, and master's degree programs for future members of the health care delivery and public health professions.

Associate programs are offered in:

- Medical Laboratory Technology*

Baccalaureate programs are offered in:

- Dental Hygiene*
- Didactic Program in Dietetics
- Exercise Science
- Medical Laboratory Science*
- Respiratory Care*

Online Undergraduate Degree Programs

- Allied Health Completion Program (BSAS)
- Public Health (BSAS)
- Respiratory Care Completion Program (BSRC)

Certificate programs are offered in:

- Polysomnography

Minors are offered in:

- Minor in Public Health
- Minor in Wellness

Master's degree programs are offered in:

- Respiratory Care

* There is a restriction on the number of students that can be accepted into the following programs since only a limited number of students can be accommodated: Medical Laboratory Science and Medical Lab Technology, Dental Hygiene, and Respiratory Care. Detailed information on admission criteria and closing dates for applications are available in the Department of Health Professions, the Bitonte College of Health and Human Services Dean's Office, or the Admissions Office.

Important Notice

Fingerprinting, a criminal background check, record of up to date immunizations, and drug testing may be required as a condition for working with a variety of sites used by programs offered in this department. Some sites used by programs offered in the department require that a person have no felony convictions, have certain immunizations, and have passed a drug test within the past year. Students unable to meet these site requirements may not be able to complete their degree from the department. If you have questions concerning these requirements, please see an advisor in the department.

Chair

Joan O'Connell, M.S., Associate Professor, Chair

Professor

Kelly Colwell, Ed.D., Associate Professor

Debbie Juruaz, D.D.S., Professor

Diane P. Kandray, Ed.D., Professor

Sara Michaliszyn, Ph.D., Associate Professor

Matthew R. O'Dell, M.B.A., Assistant Professor

Ruth Palich, M.H.H.S., Assistant Professor

Jennifer Pintar, Ph.D., Professor

Nicolette Powe, Dr.P.H., Associate Professor

Amanda Roby, M.H.H.S., Associate Professor

Salvatore Sanders, Ph.D., Professor

Tyler J. Singer, Ph.D., Assistant Professor

Suzanne Smith, M.Ed., Associate Professor

Silvia Stefan, Ed.D., Assistant Professor

Daniel J. Van Dussen, Ph.D., Professor

Lecturer

Kathleen Compton, B.S., Lecturer

Ida Fusillo, M.P.H., Senior Lecturer

Lisa Galich, B.S., Lecturer

Lauren Iagulli, M.P.H., Lecturer

Tracy Laverick-Miller, M.S., Lecturer

Farhana Mueez, M.H.A., Lecturer

Meri Surdoval-Fetkovich, M.S., Lecturer

Associate Programs

- Healthcare Administration (p. 305)
- Health Information Management (p. 305)
- Health Services (p. 306)
- Medical Laboratory Technician (MLT-AAS) (p. 306)
- Radiologic Technology (p. 308)

Baccalaureate Programs

- Allied Health - Completion Program (p. 309)
- Dental Hygiene (p. 309)
- Dietetics (p. 312)
- Dietetics -MHHS 4+1 Graduate Track (p. 314)
- Exercise Science (p. 316)
- Exercise Science Graduate Track (p. 319)
- Exercise Science MAT Graduate Track (p. 321)
- Exercise Science 4+1 MPH Graduate Track (p. 323)
- Food and Nutrition - Graduate Track (p. 325)
- Public Health (p. 327)
- Public Health 4+1 MPH Track (p. 329)
- Medical Laboratory Science (p. 331)
- Medical Laboratory Science, Advanced Placement Option (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-health-human-services/department-health-professions/medical-laboratory-science-advanced-placement-option/>)
- Respiratory Care (p. 334)
- Respiratory Care Completion Track (p. 337)

- Respiratory Care Completion Track Advanced Placement to Grad Track (p. 338)

- Respiratory Care Advanced Placement to Grad Track (p. 339)

Certificates

- Dental Assisting (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-health-human-services/department-health-professions/certificate-in-dental-assisting/>)
- Medical Assistant (p. 342)
- Medical Coding Specialist (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-health-human-services/department-health-professions/certificate-in-medical-coding-specialist/>)
- Medical Scribe Specialist (p. 342)
- Patient Health Navigator (p. 342)

Minors

- Minor Nutrition and Health (p. 341)
- Minor in Public Health (p. 341)
- Minor in Wellness (p. 341)

Allied Health

AHLT 1501 Medical Terminology 3 s.h.

This course will provide a basic understanding of the origin and components of medical terms needed to reach the goal of learning the language of health care. Included in the content will be definitions, pronunciation, spelling and proper abbreviations. Inherent in comprehending medical terminology would be the review of anatomical structures and systems involved in the functioning of the human body; as well as, diagnoses, surgeries, diagnostic tests and pharmaceutical terms needed to understand patient medical care. This is an online course.

Prereq.: None.

AHLT 1502 Applied Pathophysiology 4 s.h.

Introduction to clinical anatomy, physiology, and pathophysiology with application to acute and chronic illness.

AHLT 2605 Introduction to Pharmacology 3 s.h.

Identification and interactions of drugs used in patient care including the pharmacological action and effects on the patient. Various modes of administration and patient education regarding the effects of common drugs. This is an online course.

Prereq.: Basic knowledge anatomy and physiology.

AHLT 3704 Quantitative Methods in Health Sciences 3 s.h.

This course is designed to provide the Health Care Professional with the ability to read and critically evaluate published research results and reports. Also, to become an educated consumer of medical/dental research and apply evidence based decision making. Critique research results to make judgments regarding the relevance, creditably and usefulness to clinical decision making. Allows for application of research results in the clinical setting.

AHLT 3711 Health Care Information Systems 3 s.h.

The course is comprehensive analysis of the concepts and applications of medical informatics. Relevant technologies and "real world" skills are presented in the field of Medical Informatics using data and medical software.

AHLT 3740 Pathology of Infectious Diseases 3 s.h.

Pathology, prevention, transmission, and treatment of infectious disease; emphasis on nosocomial, opportunistic, and emerging bacterial, fungal, parasitic, and viral organisms.

AHLT 3755 Principles of Occupational Health and Safety 3 s.h.

Contemporary concepts of occupational health and safety as they apply to health-related environments. Includes development of elements needed to implement comprehensive health and safety plans.

AHLT 4801 Special Topics 1-3 s.h.

The directed study and research of a special problem or issue related to the health field. The topic of interest allows the student to participate in the investigation of aspects of administration, education, business, or research as these pertain to the particular health specialty. May be repeated for a total of 6 semester hours.

AHLT 4804 Stress and the Health Care Professional 3 s.h.

Personal reactions of those involved in health education or the delivery of health care to patients, families, and their health environment. Indicators of stress and coping strategies, organizational systems, communication theory, conflict resolution, problem solving, and burnout.

AHLT 4805 Health Education for Allied Health 3 s.h.

University as well as hospital-based programs reviewed in regard to accreditation, clinical vs didactic instruction, use of simulations, and evaluation techniques. Public health education and the role of the Allied Health professional. A major learning unit and/or research project required.

AHLT 4806 Research Methods 3 s.h.

Measurement and interpretation of health data and their application in the research process. Research design considerations, data collection methods, and data analysis of health care research projects.

AHLT 4810 Management Skills for Health Professionals 3 s.h.

A study of the conceptual framework of supervision in Health Care Organizations with emphasis on managerial skills, formulation of policies, principles of budgeting, performance appraisals, and community relations.

AHLT 4820 Directed Research 3 s.h.

Individual study of an issue related to the health care field. Students must present research at a faculty and student forum.

Prereq.: Senior standing and AHLT 4806 or a research methods course approved by the course instructor.

Gen Ed: Capstone.

AHLT 5807 Epidemiology 3 s.h.

A study of the interrelationships of the host, agent, and environment in determining the causation, frequency, and distribution of disease.

Prereq.: AHLT 3708, AHLT 5840, AHLT 4806, or permission of instructor.

AHLT 5816 Environmental Regulations 3 s.h.

Structure and function of federal, state, and local agencies responsible for implementing environmental legislation. Emphasis on the duties and authority of different health and environmental agencies and specific legislation dealing with environmental impacts.

AHLT 5831 Industrial Hygiene 3 s.h.

Basic concepts of industrial hygiene including anticipation, recognition, and evaluation of environmental and safety hazards as they pertain to the workplace.

AHLT 5840 Comparative Health Systems 3 s.h.

Problems and issues facing global health care systems including access to care, financing and rationing of services. A major project is included.

Dental Hygiene

DHYG 1514L Clinical Dental Hygiene Remediation 1 s.h.

This course is designed to improve the dental hygiene student's clinical skills, and to develop the basic competencies essential for performing invasive dental hygiene procedures. The student's individual clinic deficiencies will be addressed, along with patient management and time utilization. This course may be repeated one time. Four hours of clinic per week for twelve weeks.

Prereq.: Unsatisfactory progress in clinical dental hygiene and/or recommendation of the clinic coordinator.

DHYG 2601 Dental Hygiene 1 3 s.h.

An introduction to providing dental hygiene care. Theories and principles of patient assessment, prevention of disease transmission, instrumentation, instrument sharpening, and coronal polishing. Application of risk assessment as it relates to the treatment plan through case studies.

Prereq.: Admission to the Dental Hygiene Program.

DHYG 2601L Clinical Dental Hygiene 1 2 s.h.

Precinical dental hygiene instruction in a simulation laboratory. Introduction of basic dental hygiene procedures and equipment operation. Six hours of lab per week.

Prereq.: Admission to the Dental Hygiene Program.

DHYG 2602 Dental Hygiene 2 2 s.h.

Discussion of appropriate preventive dental agents and devices to improve various dental conditions and implementation techniques. Development of individualized patient education instruction and a tobacco cessation program as part of the dental hygiene care plan.

Prereq.: DHYG 2601.

DHYG 2602L Clinical Dental Hygiene 2 2 s.h.

Continuation of pre-clinical dental hygiene instruction in the clinical setting. Includes comprehensive patient care planning and implementation techniques. Twelve hours of lab per week.

Prereq.: DHYG 2601L.

DHYG 2620 Head and Neck Anatomy 2 s.h.

A study of the anatomy of the head and neck, oral structures and tooth morphology.

Prereq.: Admission to the Dental Hygiene program.

DHYG 2620L Head and Neck Anatomy Lab 1 s.h.

Applied study of the anatomy of the head and neck, oral structures and tooth morphology. Three hours of lab per week.

Prereq.: Admission to the Dental Hygiene program.

DHYG 2630 Management of Medical/Dental Emergencies 2 s.h.

Instruction in the prevention, recognition, and management of medical emergencies in the dental office. Emphasis on case studies to develop critical thinking and decision-making skills in patient management.

Prereq.: Admission to the Dental Hygiene Program.

DHYG 2640 Oral Histology 2 s.h.

A study of the tissues of the human body and embryological development.

Prereq.: DHYG 2620.

DHYG 3703 Dental Hygiene 3 3 s.h.

Advanced dental hygiene instrumentation and techniques. Patient cases, problem identification, and strategies. Fundamentals of sonic and ultrasonic instrumentation.

Prereq.: DHYG 2602.

DHYG 3703L Clinical Dental Hygiene 3 3 s.h.

Clinic application of dental hygiene techniques on student partners and clinic patients. Emphasis on applied preventive measures and patient education.

Nine hours of clinic per week.

Prereq.: DHYG 2602L.

DHYG 3704 Dental Hygiene 4 3 s.h.

Concepts of nutrition science as they relate to the evaluation and education of dental hygiene patients with emphasis on caries risk assessment.

Prereq.: DHYG 3703.

DHYG 3704L Clinical Dental Hygiene 4 3 s.h.

Clinical application of dental hygiene techniques. Emphasis on the interpretation of patient assessment and evidence based research to evaluate patients' oral health and to develop effective treatment plans. Nine hours of clinic per week.

Prereq.: DHYG 3703L.

DHYG 3750 Oral Pathology 2 s.h.

The cause and nature of disease, together with anatomical, histological and functional changes. Observation and evaluation of the patients' systemic and oral health status as it relates to treatment planning. Special emphasis is given to oral pathology and case studies.

Prereq.: DHYG 2640.

DHYG 3760 Dental Radiology 3 s.h.

History and development of radiographs, radiographic theory and techniques, hazardous effects of radiation, and methods of protection. Emphasis on interpretation of normal anatomic structures and pathologic entities; and the use of diagnosis in prevention of dental and related diseases.

Prereq.: DHYG 2602L.

DHYG 3760L Dental Radiology Lab 1 s.h.

The techniques necessary to expose, develop, and mount dental films with emphasis in radiographic interpretation. Three hours of lab per week.

Prereq.: DHYG 2602L.

DHYG 3770 Periodontology 3 s.h.

The study of prevention, diagnosis, and treatment of diseases affecting the gingival and supporting structures of the teeth, as well as implant placement and maintenance. Emphasis is on acquisition of knowledge of the histopathology of disease and the biologic basis for periodontal therapy.

Prereq.: DHYG 2640.

DHYG 3780 Pharmacology 2 s.h.

Importance of pharmacological aspects of those drugs and drug groups with which the dentist and dental hygienist are directly and indirectly concerned. Application of pharmacology in treatment planning.

Prereq.: DHYG 2630.

DHYG 3790 Local Anesthesia and Pain Control for Dental Hygienists 2 s.h.

Instruction in the anatomy, physiology, pharmacology, and administration of local anesthesia and other pain control methods.

Prereq.: DHYG 3703L or permission of the Program Director.

DHYG 3790L Local Anesthesia and Pain Control Clinic 1 s.h.

Application of the techniques of local anesthetic administration and pain control on anatomical models and clinical partners. Three hours of clinic per week.

Prereq.: DHYG 3703L or permission of the Program Director.

DHYG 4805 Dental Hygiene 5 3 s.h.

The role of the dental hygienist in providing care for special needs patients by recognizing the necessary treatment plan modifications due to physical, mental, medical, and social factors.

Prereq.: DHYG 3704.

DHYG 4805L Clinical Dental Hygiene 5 4 s.h.

Advanced clinical application of dental hygiene techniques with emphasis on patient management and radiographic assessment resulting in an individualized and comprehensive treatment plan for periodontal patients. Twelve hours of clinic per week.

Prereq.: DHYG 3704L.

DHYG 4806 Dental Hygiene 6 2 s.h.

A study of dental specialties enhancing students' knowledge, and understanding. Indications for referral, specialized instruments, diagnostic tests, and specific oral hygiene instructions will be discussed.

Prereq.: DHYG 4805.

DHYG 4806L Clinical Dental Hygiene 6 4 s.h.

Continued application of dental hygiene techniques with emphasis on professionalism and competency in private practice. Twelve hours of clinic per week.

Prereq.: DHYG 4805L.

DHYG 4830 Dental Materials 1 s.h.

The sources, physical properties, methods of manufacturing, and uses of various dental materials. Emphasis on the newest products, and interpretation of research supporting product effectiveness.

Prereq.: DHYG 3704L.

DHYG 4830L Dental Materials Lab 1 s.h.

Clinical application of selected dental materials and four-handed dentistry enhancing the students' understanding of dental procedures. Technical procedures and delegated responsibilities will be completed on manikins, and student partners. Three hours of lab per week.

Prereq.: DHYG 3704L.

DHYG 4840 Directed Dental Hygiene Research 3 s.h.

Development of research skills including problem identification, development of a hypothesis, research design, data collection, analysis, and interpretation. Approved dental hygiene topics will be completed as a group under faculty supervision.

Prereq.: AHLT 4806.

Gen Ed: Capstone.

DHYG 4845 Expanded Functions for the Dental Hygienist 3 s.h.

Review of tooth morphology, properties and manipulation of dental restorative material, and techniques and procedures for restoring teeth with amalgam and tooth colored direct restorations. Concepts of four-handed dentistry and knowledge to perform as an Expanded Functions Dental Auxiliary (EFDA).

Prereq.: DHYG 2620, DHYG 2620L and junior standing or consent of instructor.

DHYG 4845L Expanded Functions for the Dental Hygienist Lab 1 s.h.

Laboratory application of restorative techniques utilizing the principles and skills of restorative four-handed dentistry. Preparation of the dental hygiene student to perform the duties of an expanded function dental auxiliary. Three hours of lab per week.

Prereq.: DHYG 2620, DHYG 2620L and junior standing or consent of instructor.

Coreq.: DHYG 4845.

DHYG 4850 Dental Public Health 2 s.h.

An introduction to public health dentistry, a study of the epidemiology of dental disease, writing grant proposals, and implementation of health promotion theories. Preventing and controlling dental disease through organized community efforts is addressed.

Prereq.: DHYG 4805.

DHYG 4850L Community Clinicals 1 s.h.

Oral health care services provided by senior dental hygiene students at community sites. Culturally competent care to underserved populations is the primary course emphasis. Forty-five hours of community clinical experience throughout the semester.

Prereq.: DHYG 4805L.

DHYG 4855L Expanded Functions Clinical 2 s.h.

Clinical implementation of expanded functions dental auxiliary skills gained in DHYG 4845L. Planned, evaluated and supervised clinical experience. Ninety hours of clinical experience throughout the semester.

Prereq.: DHYG 2620, DHYG 2620L, and DHYG 4845L or consent of instructor.

DHYG 4860 Ethics and Practice Concepts 2 s.h.

The historical, professional, legal, and ethical aspects of dental hygiene. Study of practice management topics relevant to the changing roles of hygienists with emphasis on quality care in a patient centered practice.

Prereq.: DHYG 4805.

Emergency Medical Services

EMS 1500 Emergency Medical Technician 4 s.h.

Provides the basic knowledge and skills to be an Emergency Medical Technician. Meets all National Highway and Safety administration National Emergency Medical Services Education Standards and the State of Ohio Approved Emergency Medical Services Curriculum Standards for the Emergency Medical Technician. Must be taken concurrently with EMS 1500L and EMS 1500C.

EMS 1500C Emergency Medical Technician Clinical and Field Internship 1 s.h.

Clinical and Field Internship experience necessary to acquire the skills required to be an Emergency Medical Technician. Meets all national and state curriculum standards for the EMT. Must be taken concurrently with EMS 1500 and EMS 1500L. Ten hours per week after week 12.

EMS 1500L Emergency Medical Technician Laboratory 2 s.h.

Laboratory experience necessary to acquire skills required to be an Emergency Medical Technician. Meets all National and State curriculum standards for the EMT. Six hour lab. Must be taken concurrently with EMS 1500 and EMS 1500C.

EMS 1501 Introduction to Prehospital Medicine 1 s.h.

Introduction to the roles, responsibilities, EMS systems, and medical and legal considerations of the EMS profession.

Prereq.: Admission to the EMS program.

EMS 1502 General Pathophysiology for the Paramedic 3 s.h.

Study of general lifespan development of the body, how pathophysiologic changes affect it. Provides a foundational basis for viewing the body as a system, understanding its functions, anticipated reaction to injury, illness and intervention.

Prereq.: Admission to EMS program or permission of instructor.

EMS 1503 Patient Assessment and Airway Management 3 s.h.

Intensive course designed to prepare the student in the methodology of advanced patient assessment, and the relevance of clinical signs and symptoms identified. Airway anatomy, equipment, procedures as they pertain to advanced airway management.

Prereq.: Admission to EMS program or permission of instructor.

EMS 1504 Principles of Trauma 3 s.h.

Study of traumatic emergencies normally encountered prehospitally with emphasis on pathophysiology, etiology, symptomatology, and management.

Prereq.: Admission to EMS program or permission of Program Director.

EMS 1505 Emergency Medical Techniques 1 Lab 1 s.h.

Includes simulated emergency traumatic situations and actual patient contact emphasizing physical assessment, patient interviewing, and management techniques. Meets 3 hours per week. Must be taken concurrently with EMS 1501, EMS 1502, EMS 1503, and EMS 1504.

Prereq.: Admission to the EMS program or special permission of program director.

EMS 1506 Emergency Medical Services Clinical 1 1 s.h.

Clinical experiences in the emergency department and in the operating room allowing the student to work on various skills necessary for the paramedic. Total of 90 clinical hours. Must be taken concurrently with EMS 1503 and EMS 1505.

Prereq.: Admission to EMS program or permission of instructor.

EMS 1507 Cardiovascular Emergencies 3 s.h.

Intense study of the etiology, pathophysiology, symptomatology, and management principles for cardiovascular emergencies. Includes electrophysiological principles of EKG interpretation. Must be taken concurrently with EMS 1508.

Prereq.: Admission to EMS program or permission of instructor.

EMS 1508 Cardiovascular Techniques Lab 1 s.h.

Performance of fundamental techniques employed in the management of cardiovascular emergencies. Three hours lab per week. Must be taken concurrently with EMS 1507.

Prereq.: EMS 1502, EMS 1503, and EMS 1504.

EMS 1512 Medical Conditions and Management Techniques 3 s.h.

Study of pathophysiology, symptomatology, etiology, and management techniques of commonly encountered medical emergencies. Must be taken concurrently with EMS 1513.

Prereq.: EMS 1502, EMS 1503, EMS 1504.

EMS 1513 Emergency Medical Techniques 2 Lab 1 s.h.

Simulated situations and actual patient contact emphasizing performance of emergency medical techniques utilized to manage common medical emergencies. Must be taken concurrently with EMS 1512.

Prereq.: EMS 1505.

EMS 1514 Emergency Medical Services Operations 1 s.h.

Introduction to common rescue tools and techniques utilized in basic victim disentanglement and extrication.

Prereq.: Admission to EMS program or permission of instructor.

EMS 1515 Clinical Experience 2 1 s.h.

Hospital clinical experience to include rotations through the following: Adult emergency department, critical and intensive care units. Total of 95 hours. Must be taken concurrently with EMS 1508 and EMS 1513.

Prereq.: EMS 1506.

EMS 1516 Prehospital Field Experience 1 1 s.h.

Field experience with an approved advanced life support unit under the direct supervision of a selected paramedic field preceptor. Total of 200 hours. To be taken concurrently with EMS 1507 and EMS 1512.

Prereq.: EMS 1504.

EMS 2600 Emergency Medical Services Special Populations 3 s.h.

Study of etiology, pathophysiology, symptomatology and management of special needs patients. Includes gynecology, obstetrics, neonatology, pediatrics, geriatrics, behavioral, abuse/assault, infectious and communicable diseases, and chronic care. Must be taken concurrently with EMS 2601.

Prereq.: EMS 1507 and EMS 1512 or permission of instructor.

EMS 2601 Emergency Medical Techniques 3 Lab 1 s.h.

Techniques necessary to effectively manage conditions in EMS 2600. Three hour lab. Must be taken concurrently with EMS 2600 and EMS 2605.

Prereq.: Admission to the EMS program or permission by program director.

EMS 2603 Clinical Experience 3 2 s.h.

Precepted hospital clinical in the adult and pediatric emergency department; obstetrics, labor and delivery; and, psychiatric department. Total of 120 hours of clinical experience. Must be taken concurrently with EMS 2600.

Prereq.: EMS 1515.

EMS 2604 Prehospital Field Experience 2 1 s.h.

Performance of advanced life support procedures under the direct supervision of a selected paramedic field preceptor. Total of 150 hours.

Prereq.: EMS 1516.

EMS 2605 Pulmonary Emergencies 3 s.h.

Intense study of the etiology, pathophysiology, symptomatology, and management principles of pulmonary emergencies. Must be taken concurrently with EMS 2601.

Prereq.: EMS 1507 and EMS 1512.

EMS 2606 EMS Special Certifications 1 s.h.

Provides the Paramedic with certifications beneficial to prehospital care. These certifications are nationally recognized and commonly sought after by paramedics, and desired by employers. Include PALS, PHTLS, NRP, and EMPACT. To be taken concurrently with EMS 2607.

Prereq.: Admission to EMS program or special permission of instructor.

EMS 2607 EMS Special Certifications Lab 1 s.h.

Focus on skills and competencies required for PALS, PHTLS, NRP. To be taken concurrently with EMS 2606.

Prereq.: Admission to the EMS program or special permission by the program director.

EMS 2609 EMS Prehospital Field Internship 3 s.h.

Capstone Field Internship experience requiring the paramedic student to perform successfully as a team leader on an advanced life support unit in the prehospital setting. A minimum of 30 team leads is required with an assigned field preceptor. Approximately 22 hours of field internship per week.

Prereq.: EMS 2604.

Gerontology

GERO 1501 Introduction to Gerontology 3 s.h.

Basic introduction to the interdisciplinary study of aging. Includes social, psychological, economic, cultural, health, and policy issues. Discussion of normal vs. abnormal (disease-related) aspects of aging.

Gen Ed: Social Science.

GERO 3703 Aging and Society 3 s.h.

An interdisciplinary introduction to studies in aging. Examines the impact of population aging and its effect on society at large. Also examines individual aging processes and social significance of aging. Listed also as SOC 3703.

Prereq.: SOC 1500 or GERO 1501.

Gen Ed: Social Science, Well Being, Social and Personal Awareness.

GERO 3703H Honors Aging and Society 3 s.h.

An interdisciplinary introduction to studies in aging. Examines the impact of population aging and its effect on society at large. Also examines individual aging processes and social significance of aging. Listed also as SOC 3703.

Prereq.: SOC 1500 or GERO 1501.

Gen Ed: Social Science, Well Being, Social and Personal Awareness.

GERO 3745 Sociology of Health, Illness, and Healthcare 3 s.h.

Social attitudes toward illness. Cultural and social factors in disease definition of illness, and organization of the health professions and health facilities. Listed also as SOC 3745.

Prereq.: SOC 1500, GERO 1501, or admission to NEOMED-YSU program.

Gen Ed: Well Being, Social and Personal Awareness.

GERO 4850 Research Methods 3 s.h.

An introduction to methods employed in social research. Attention is given to (1) the logic of scientific inquiry and the relationship between theory and methods; (2) the various qualitative and quantitative methods; (3) research design, data collection, organization, analysis, interpretation and application; (4) the social, cultural, political, and ethical context of social research; and (5) computer skills employed in data analysis. Listed also as ANTH 4850 or SOC 4850.

Prereq.: SOC 3701, ANTH 3701.

GERO 4851 Capstone in Gerontology 3 s.h.

A capstone experience for the interdisciplinary study of aging. Students will complete a major research project.

Prereq.: Senior status in Gerontology and SOC 4850.

Gen Ed: Capstone.

GERO 7090 Field Practicum 1-9 s.h.

Students will complete a 200-hour placement in an aging-related workplace. Variable credit 1-6 s.h. May be repeated for up to 9 s.h.

GERO 7094 Selected Topics 3 s.h.

An examination of contemporary topics in the field of gerontology. Examples of subject areas that may be covered: Nutrition, Pharmacology, Legal, etc. variable credit 1-3 hours may be repeated for up to 6 credit hours.

Kinesiology and Sport Science

KSS 1500 Physical Activity Core Concepts 1 s.h.

Essential concepts that document the relationship between physical activity and maintaining optimal health. Personal and social implications of physical inactivity are also explored. Two KSS activity courses must be taken in addition to this course to satisfy the requirements for GER credit.

Gen Ed: Well Being, Social and Personal Awareness.

KSS 1502 Volleyball 1 s.h.

Basic rules and fundamental skills of volleyball including serves, bump, overhead pass, and block.

KSS 1503 Flight: 1st Year Student-Athlete Experience 2 s.h.

An introduction to the student-athlete development model through development research, NCAA programming, and practical application to prepare student-athletes for life after athletics as they develop the necessary skills to be engaged citizens and prepared professionals.

KSS 1504 Life After Sports 2 s.h.

Life After Sports is a continuation of the student-athlete development model through development research, NCAA programming, and practical application to prepare student-athletes for life after athletics as they develop the necessary skills to be engaged citizens and prepared professionals.

KSS 1508 Group Cycling 1 s.h.

Introduction to improving fitness levels through group cycling. The emphasis in this class will be on improving cardiovascular fitness through indoor stationary cycling bicycles. All fitness levels are welcomed and will acquire fitness benefits.

KSS 1509 Meditation 1 s.h.

Overview of practical meditation theory, with diverse practices culled from the world's wisdom inheritance presented as guided meditation experiences. Historical perspective, along with relevant findings of current neuroscience research which support the efficacy of meditation are considered. The practices develop heightened awareness skills, whether practiced sitting, standing, walking, or supine.

KSS 1512 Bowling 1 s.h.

Fundamentals of bowling the straight ball. Equipment selection, correction of errors, and scoring. For beginning bowlers. The bowling lanes are located off campus. Transportation to the lanes is not provided.

KSS 1514 Fencing 1 1 s.h.

Fundamentals of foil fencing. Methods of attack and parry, and elementary bouting and judging.

KSS 1516 Boxing for Beginners 2 s.h.

This course consists of learning how to properly workout like a boxer. Students will be trained to use the proper equipment, and how to stand, move, punch, and train like a boxer preparing to competitively box. Students will NOT be actually boxing another competitor.

KSS 1517L Horseback Riding 1 Lab 1 s.h.

This course provides students with a fun way to enjoy recreational horseback riding while learning important riding skills. This course is off campus.

Coreq.: KSS 1517.

KSS 1519 Racquetball 1 s.h.

Racquetball rules and techniques for singles and doubles play. Basic strategy and skill development.

KSS 1520 Golf 1 1 s.h.

Fundamental skills of golf. Includes grip, stance, swing patterns, and putting as well as rules of course play.

KSS 1522 Tennis 1 1 s.h.

Fundamental skills of tennis including forehand and backhand drives and service. Basic rules, strategy, and method.

KSS 1524 Physical Fitness and Exercise Program 1 s.h.

Discussion and participation in activities designed to develop and improve the health-related aspects of physical fitness including weight and stress control.

KSS 1526 Marksmanship 1 s.h.

The safety and practice of handling firearms. Target shooting in prone, kneeling and standing positions.

KSS 1530 Learn to Swim 1 s.h.

Introduction to swimming and survival skills, floating, drown-proofing, basic swim strokes (side, elementary back, and front crawl), beginning diving, and simple aquatic games. This course is designed for the student who cannot swim; it is not open to swimmers.

KSS 1534 Fitness Swimming 1 s.h.

Utilization of freestyle swimming stroke to improve/maintain fitness across the lifespan. Content includes stroke mechanics, turning technique, and swim training program design to meet individual fitness and health goals.

Prereq.: Ability to swim for 250 yards.

KSS 1547 Flexibility and Core Training 1 s.h.

When performed properly, flexibility can reduce injuries, help recover from injuries, correct muscle imbalances, and recover from exercise. Stretching has also been shown to promote relaxation and stress reduction. This course will cover flexibility utilizing flexbands. In addition, core work and light resistance training will be explored.

KSS 1549 Varsity Competition 1 s.h.

Credit may be obtained through competition in varsity athletic programs.

Prereq.: Consent of coach.

KSS 1550 Pilates 1 s.h.

Instruction in principles of body alignment and posture and participation as it pertains to fundamental Pilates techniques.

KSS 1552 Yoga 1 s.h.

Instruction in principles of meditation, body alignment and posture, and participation as it pertains to fundamental yoga techniques.

KSS 1553 Yoga 2 1 s.h.

Builds on the groundwork of fundamental postures, breathing, present moment awareness practices, and various methods for removal of mental and physical tensions introduced in KSS 1552. Practices are drawn from the inheritance of Yoga (Hatha and Raja), for further skill development for managing health and vitality of mind and body.

Prereq.: KSS 1552 or consent of instructor.

KSS 1554 Fitness Walking 1 s.h.

Information on the benefits of walking for fitness. Health advantages, appropriate conditioning, pace, warm-up and cool-down. Practical experience in the skills needed to achieve success in developing and adhering to a walking program.

KSS 1555 Jogging 1 s.h.

Holistic approach to the theory and practice of jogging with emphasis on the physiological benefits.

KSS 1557 Weight Training 1 s.h.

Introduction to progressive resistive exercise for men and women. Topics include strength training, types of equipment, exercise techniques, circuit training, competitive weightlifting, body building, and injury prevention.

KSS 1559 Aerobic Conditioning Activities 1 s.h.

Practical experience in activities that improve cardiovascular endurance. Such activities include, but are not limited to, aquatics, fitness walking and jogging.

Prereq.: Exercise science major.

KSS 1560 Resistance Training 2 s.h.

Concepts and applications of progressive resistance exercise. Emphasis on advanced principles and techniques for developing muscular strength and endurance for fitness and athletic performance. Two hours lab.

Prereq.: major in exercise science or permission of instructor.

KSS 1563 Rock Climbing 1 s.h.

Instruction and participation in fundamental rock climbing techniques that include safely constructing anchor systems, employing belay methods, equipment selection, and beginning climbing skills.

KSS 1565 Self Defense 1 s.h.

The defensive techniques of Judo and Aikido designed to counter attacks with a knife, club, gun or bare fist. Balance, control, safety, falling.

KSS 1568 Taekwondo/Karate 1 s.h.

An introduction to the history, philosophy and techniques of taekwondo/karate. Fundamental techniques include: stances, kicks, punches, and forms.

KSS 1588 Selected Activities in Kinesiology and Sport Science 1 s.h.

Knowledge of and practice in a particular area of dance, fitness, or sport. Activity is announced each time the course is offered. May be repeated up to 4 s.h. with change in topic.

KSS 1590 Foundations of Fitness 3 s.h.

Students will learn the fundamentals of fitness as it relates to lifestyle choices and health. Discussion and participation in activities designed to develop and improve the health-related aspects of physical fitness including weight and stress control will be used to develop a personal fitness program through personal goals.

KSS 1595 Introduction to Kinesiology and Sport Science 2 s.h.

Introduction to physical education, exercise science and related professions. Includes exploration of the general concepts, goals, aims, objectives, professional organizations, scholarly literature, sub-disciplines within the field, and career employment opportunities.

KSS 2605 Sports First Aid and Injury Prevention 3 s.h.

Basic injury prevention, evaluation, and emergency care. Certification in ARC Standard First Aid and Adult CPR. Basic wrapping and strapping techniques used with common sports injuries. Two hours lecture, two hours lab.

Prereq.: Exercise science major, Wellness minor, or consent of instructor.

KSS 2625 Pedagogical Aspects of Exercise Science 3 s.h.

Effective instructional practices and development of organizational skills and characteristics required for teaching in exercise programs. Two hours lecture, two hours lab.

KSS 2699 Sport in American Culture 3 s.h.

Sport in American culture from the colonial period to the present as it relates to such areas as education, literature, film and drama, minorities, politics, professional sport, religion and urbanization.

KSS 3700 Exercise Evaluation and Testing 4 s.h.

Theory and practice of pre-exercise evaluation, exercise testing, and results interpretation for generally healthy populations, according to American College of Sports Medicine (ACSM) guidelines. Includes a minimum of 30 hours of field experience.

Prereq.: Major, KSS 3710 and KSS 3710L.

KSS 3710 Physiology of Exercise 4 s.h.

Acute responses and chronic adaptations of the body to physiological demands of physical activity. Topics related to the optimization of performance in sport and exercise include neuromuscular and cardiorespiratory function, energy production and utilization, and environmental influences.

Prereq.: Exercise Science major.

KSS 3710L Physiology of Exercise Laboratory 1 s.h.

Experiments and basic laboratory procedures in the field of exercise physiology. Concurrent with: KSS 3710.

KSS 3720 Kinesiology and Applied Anatomy 4 s.h.

Muscular structure and function in relation to physical movement; analysis of fundamental movements.

Prereq.: KSS 1595.

KSS 3725 Mindfulness 2 s.h.

Mindfulness is a state of active, open attention on the present and the practice of being aware moment-to-moment. Students will learn techniques of mindfulness. Topics include breath awareness, sitting meditation, body scanning, walking meditation, eating meditation, yoga, loving kindness and yoga nidra.

Prereq.: PSYC 1560 or KSS 1590.

KSS 3730 Exercise Prescription 4 s.h.

Theory and practice of exercise prescription based on metabolic calculations for apparently healthy populations, older adults, children/adolescents, pregnant women, and those with obesity, dyslipidemia, and hypertension. Includes approximately 18 hours of field experience. Content based on American College of Sports Medicine objectives.

Prereq.: KSS 3700.

KSS 3750 Principles of Coaching 2 s.h.

The scientific, psychological, and management aspects of coaching. Includes ethics and management responsibilities, personnel management, community relations, conditioning, and other related topics.

Prereq.: Junior standing.

KSS 3760 Strength Training and Conditioning 3 s.h.

Scientific principles, concepts, and adaptations to resistance exercise. Practical application of lifting and spotting technique, testing procedures, program design, and organization and administration of the strength and conditioning facility. Two hours lecture, two hours lab.

Prereq.: KSS 1560 and KSS 3710.

KSS 3765 Athletic Training 1 2 s.h.

Practical and theoretical aspects of the prevention of athletic injuries. Includes supplies, wrapping and strapping, protective equipment. Emphasizes prevention, evaluation, and emergency care. One hour lecture, two hours lab.

Prereq.: KSS 1595 and KSS 2605.

KSS 4805 Administration of Exercise Programs 3 s.h.

Provides an overview of legal, management, and marketing skills necessary to implement exercise related wellness programs. Requires development of business plan including facility design and equipment selection.

Prereq.: KSS 3700.

KSS 4810 Clinical Exercise Testing and Prescription 4 s.h.

Theory and practice of clinical exercise testing, including electrocardiography, and prescription, for those with cardiovascular disease, pulmonary disease, diabetes, kidney disease, diabetes, and cancer. Includes approximately 36 hours of field experience. Content based on American College of Sports Medicine objectives.

Prereq.: KSS 3730.

KSS 4865 Athletic Training 2 2 s.h.

Advanced techniques of athletic training with emphasis on evaluation, treatment and rehabilitation of athletic injuries. Topics include application of therapeutic modalities, reconditioning programs, and the role of the athletic trainer in sports medicine. One hour lecture, two hours lab.

Prereq.: KSS 3765.

KSS 4870 Exercise and Aging for Health Professions 3 s.h.

For majors in Gerontology/Health Professions who work with older adults in exercise/physical activity programs. Emphasis on physical aspects/limitations of aging, exercise testing, prescription, and programs for the elderly. Not applicable to the major in Exercise Science.

Prereq.: Senior standing or permission of instructor.

KSS 4875 Exercise Counseling and Behavioral Strategies 4 s.h.

Exercise Counseling and Behavioral Strategies Evidence-based theories and domains geared toward fostering change, growth, and self-actualization in exercise. The scientific foundations of basic exercise counseling and behavioral strategies that enable effective wellness coaching are explored.

Prereq.: Junior standing.

KSS 4880 Internship 8 s.h.

A culminating experience in an approved fitness or sports-related setting under the direct supervision of a qualified individual and coordinated by a supervising faculty member. Requires 400 hours to obtain 8 s.h. May be taken concurrently with KSS 4875.

Prereq.: Completion of Exercise Science core requirements through KSS 4810.

KSS 4888 Selected Topics in Kinesiology and Sport Science 1-3 s.h.

In-depth study of special subject matter within the field of physical education. Topic announced each time course is offered. May be repeated for a maximum of 6 s.h. with change in topic.

Prereq.: 72 s.h. or consent of instructor.

KSS 4890 Undergraduate Research 1-3 s.h.

Research participation under the direction and guidance of a full-time faculty member. Provides the advanced student with research experience in HPES. May be repeated to a maximum of six s.h. Junior standing or permission of instructor.

Medical Laboratory Science

MLS 1501 Introduction to the Medical Laboratory Profession 2 s.h.

Overview of the medical laboratory profession, ethics, responsibilities and clinical relevance of laboratory procedures. Concurrent with: MLS 1501L.

Prereq.: MATH 1504 or level 20 on Math Placement Test, high school chemistry or CHEM 1501, high school biology or BIOL 1505.

MLS 1501L Introduction to the Medical Laboratory Profession Laboratory 1 s.h.

Phlebotomy, specimen collection and processing; basic medical laboratory exercises. Three hours lab per week. Concurrent with: MLS 1501.

Prereq.: MATH 1504 or level 20 on Math Placement Test, high school chemistry or CHEM 1501, high school biology or BIOL 1505.

MLS 1502 Urinalysis and Body Fluids 2 s.h.

Theory, clinical correlation and techniques in the analysis of urine and body fluids. Coreq: MLS 1502L.

Prereq.: MLS 1501 and MLS 1501L.

Cross-Listed: MLT 1502.

MLS 1502L Urinalysis and Body Fluid Laboratory 1 s.h.

Chemical and microscopic analysis of urine and body fluids.

Prereq.: MLS 1501/L.

Cross-Listed: MLT 1502L.

MLS 1503 Immunohematology 3 s.h.

Fundamental theories and techniques in immunohematology and blood banking.

Prereq.: MLS 1501/L; BIO 2601/L.

Coreq.: MLS 1503L.

Cross-Listed: MLT 1503.

MLS 1503L Immunohematology Laboratory 1 s.h.

ABO and RH typing, direct and indirect antiglobulin testing, compatibility testing. Three hours lab per week.

Prereq.: MLS 1501/L; BIO 2601/L.

Coreq.: MLS 1503.

Cross-Listed: MLT 1503L.

MLS 2601 Clinical Chemistry 1 2 s.h.

This course provides an introduction to the principles, procedures, and significance of tests performed in the clinical chemistry laboratory. Theory and principles of test methodologies are discussed and data are correlated to physiological processes.

Prereq.: MLS 1501/L; CHEM 1510/L.

Cross-Listed: MLT 2601.

MLS 2601L Clinical Chemistry 1 Laboratory 1 s.h.

This course will apply principles of semi-automated and automated analysis including Spectrophotometry and various techniques for analysis of glucose, electrolytes, enzymes, and other chemical constituents of serum and body fluid.

Prereq.: MLS 1501/L, CHEM 1510/L.

Coreq.: MLS 2601.

Cross-Listed: MLT 2601L.

MLS 2603L Advanced Immunohematology Laboratory 1 s.h.

Clinical application of advanced Immunohematology procedures. Three hours of laboratory per week. 1 s.h.

Prereq.: MLS 1503/L (Minimum grade "C").

Cross-Listed: MLT 2603L.

MLS 2605 Molecular Diagnostics 2 s.h.

This course focuses on the newest medical laboratory discipline known as molecular diagnostics. The content will include principles of molecular biology (nucleic acid) tools and their application to aid in identification, diagnosis, and prognosis of conditions and disease states.

Prereq. or Coreq.: BIO 2601/2601L, MLS or MLT 1501/L.

Cross-Listed: MLT 2605.

MLS 3700 Clinical Chemistry 2 4 s.h.

This course will explore the principles and procedures of routine clinical chemistry analysis, including correlation of test results with pathophysiology, testing criteria and variables that impact accuracy.

Prereq.: MLS 2601/L.

MLS 3701 Clinical Hematology 1 2 s.h.

Hematopoiesis; theory and laboratory application of manual procedures in hematology including cell counts, hemoglobin, hematocrit, and differentials; introductory hemostasis and laboratory applications. Two hours of lecture per week.

Prereq.: MLS 1501, MLS 1501L, BIOL 2601 with a minimal grade of "C".

MLS 3701L Clinical Hematology 1 Laboratory 1 s.h.

Laboratory application of manual procedures in hematology including cell counts, hemoglobin, hematocrit, and differentials; introductory hemostasis and laboratory applications. Three hours of laboratory per week.

Prereq.: MLS 1501, MLS 1501L, BIOL 2601 with a minimal grade of "C".

Coreq.: MLS 3701.

MLS 3702 Clinical Hematology 2 2 s.h.

Advanced theory and laboratory procedures in hematology and hemostasis, including leukemia, anemia, hematopathology and coagulation disorders; abnormal differentials and automated methods. Two hours of lecture week.

Prereq.: MLS 3701, MLS 3701L with a minimal grade of "C".

MLS 3702L Clinical Hematology 2 Laboratory 1 s.h.

Laboratory procedures in hematology and hemostasis, including leukemia, anemia, hematopathology and coagulation disorders; abnormal differentials and automated methods. Three hours of laboratory per week.

Prereq.: MLS 3701, MLS 3701L with a minimal grade of "C".

Coreq.: MLS 3702.

MLS 3704 Clinical Immunology and Serology 3 s.h.

A study of the diagnostic applications of immunology and methods of serological testing. The immunology and diagnosis of infectious disease, autoimmunity, immunodeficiency, and immunoproliferative disease will be discussed.

Coreq.: MLS 3704L.

Cross-Listed: MLT 3704.

MLS 3704L Clinical Immunology and Serology 1 s.h.

A study of the diagnostic applications of immunology and methods of serological testing. The immunology and diagnosis of infectious disease, autoimmunity, immunodeficiency, and immunoproliferative disease will be discussed.

Coreq.: MLS 3704.

Cross-Listed: MLT 3704L.

MLS 3787 Diagnostic Microbiology 3 s.h.

Clinical applications of human pathogenic microorganisms; infections, frequency, isolation, identification, and treatment of bacteria, fungi, viruses, and parasites. Case studies, problem solving, and quality assurance in clinical microbiology. Three hours lecture per week.

Prereq.: MLS 1501/L.

Coreq.: MLS 3787L.

MLS 3787L Diagnostic Microbiology Laboratory 2 s.h.

A clinical approach to the study of bacteria, fungi, viruses, and parasites. Methods to isolate and identify clinically significant pathogens from clinical specimens; case studies in clinical microbiology. Six hours lab per week. Identical with MLT 3787L.

Prereq.: MLS 1501/L.

Coreq.: MLS 3787.

MLS 4800 MLS Chemistry Clinical Experience 7 s.h.

Didactics and critical analysis of clinical chemistry provided at the clinical site. 7 semester hours. Grading is Traditional or PR.

Prereq.: Acceptance into an MLS 3+1 clinical internship.

MLS 4801 MLS Hematology Clinical Experience 7 s.h.

Diagrams and clinical analysis of clinical hematology. 7 semester hours. Grading is Traditional or PR.

Prereq.: Acceptance into the 3+1 clinical internship year.

MLS 4802 MLS Immunohematology Clinical Experience 7 s.h.

Didactics and critical analysis of blood banking, Immunohematology, and Transfusion Medicine. Seven semester hours. Grading is Traditional or PR.

Prereq.: Acceptance into a 3+1 clinical internship.

MLS 4803 MLS Microbiology Clinical Experience 7 s.h.

Didactics and critical analysis of bacteriology, mycology, virology and Parasitology. Seven semester hours. Grading is Traditional or PR.

Prereq.: Acceptance into an MLS 3+1 clinical internship year.

MLS 4804 Miscellaneous Clinical Experience 7 s.h.

Didactic and clinical analysis of specimen collection and processing. Management, education, molecular diagnostics, hemostasis, clinical immunology, and urinalysis and body fluids. Seven semester hours. Grading is Traditional or PR.

Prereq.: Acceptance into an MLS 3+1 clinical internship year.

MLS 4807 Advanced Clinical Chemistry 4 s.h.

The study of fundamental principles of chemical analysis in the laboratory and correlation to pathological disease states. Web based lecture.

Prereq.: Acceptance into the MLS Advanced placement online completion program.

MLS 4807L Advanced Clinical Chemistry Lab Competency 2 s.h.

Laboratory procedures in clinical chemistry. Students may submit verified competency and receive experiential credit. Students who do not meet required competency must register for and engage in clinical training at an affiliated clinical site.

Prereq.: Acceptance into the MLS Advanced Placement online completion program.

MLS 4808 Advanced Hematology 4 s.h.

Advanced study of human blood and laboratory analysis and correlation to hematological and hematopoietic disorders. Web based lecture.

Prereq.: Acceptance into the MLS Advanced Placement Online Completion Program.

MLS 4808L Advanced Hematology Clinical Competency 2 s.h.

Laboratory application of hematological and hematopoietic analysis.

Prereq.: Admission to the MLS Advanced Placement Online Completion Program.

MLS 4809 Advanced Immunohematology 4 s.h.

Didactic and critical analysis of bloodbanking, immunohematology, and transfusion medicine. Web based lecture.

Prereq.: Admission to the MLS Advanced Placement Online Completion Program.

MLS 4809L Advanced Immunohematology Clinical Competency 2 s.h.

Clinical application of IH procedures in the laboratory.

Prereq.: Admission to the MLS Advanced Placement Online Completion Program.

MLS 4810 Advanced Diagnostic Microbiology 5 s.h.

Didactics and critical analysis of host/Microbial interaction and laboratory identification of medically significant bacteria, fungi, parasites, and viruses. Correlation to disease states and analysis of laboratory techniques utilized in the diagnosis of infections and disease. Web based lecture.

Prereq.: Admission to the MLS Advanced Placement Online Completion Program.

MLS 4810L Advanced Microbiology Competency 3 s.h.

Clinical competency in Microbiological procedures utilized in the Medical Laboratory.

Prereq.: Admission to the MLS Advanced Placement Online Completion Program.

MLS 4811 Advanced Immunology and Urinalysis 4 s.h.

Didactics and Critical analysis of Immunological and Serological principles and analysis in the clinical laboratory and correlation to disease states. Web based lecture.

Prereq.: Admission to the MLS Advanced Placement Online Completion Program.

MLS 4811L Adv Immuno/Sero, Urinalysis, and Molecular Competency 2 s.h.

Competent application of Immunological and Serological techniques utilized in the medical laboratory. Competent application of techniques in Urinalysis and Molecular Diagnostics.

Prereq.: Admission to the MLS Advanced Placement Online Completion Program.

MLS 4812 Advanced Laboratory Operations 2 s.h.

Didactics and critical analysis of laboratory management, regulations, safety, quality control and quality assurance in the clinical laboratory. Web based lecture.

Prereq.: Acceptance in MLS Advanced Placement Online Completion Program.

MLS 4813 Advanced Placement Seminar 1 s.h.

Certification preparation.

Prereq.: Admission to MLS advanced placement program and instructor approval.

Medical Laboratory Technology

MLT 1501 Introduction to the Medical Laboratory Profession 2 s.h.

Overview of the medical laboratory profession, ethics, responsibilities and clinical relevance of laboratory procedures.

Prereq.: Level 20 on Math Placement Test, high school chemistry or CHEM 1501, high school biology or BIOL 1505. h.

Coreq.: h.

MLT 1501L Introduction to the Medical Laboratory Profession Laboratory 1 s.h.

Phlebotomy, specimen collection and processing; basic medical laboratory exercises. Three hours lab per week. Concurrent with: MLT 1501.

Prereq.: MATH 1504 or level 20 on Math Placement Test, high school chemistry or CHEM 1501, high school biology or BIOL 1505.

MLT 1502 Urinalysis and Body Fluids 2 s.h.

Theory and techniques in the analysis of urine and body fluids. Concurrent with: MLT 1502L.

Prereq.: MLT 1501, MLT 1501L, BIOL 2601.

MLT 1502L Urinalysis and Body Fluids Laboratory 1 s.h.

Chemical and microscopic analysis of urine. Concurrent with: MLT 1502. Three hours lab per week.

Prereq.: MLT 1501, MLT 1501L, BIOL 2601.

MLT 1503 Immunohematology 3 s.h.

Fundamental theories and techniques of immunohematology and blood banking; genetic theories, problem solving, and case studies. Three hours of lecture per week.

Prereq.: MLT 1501.

Prereq. or Coreq.: BIOL 2601.

Coreq.: MLT 1503L.

Cross-Listed: MLS 1503.

MLT 1503L Immunohematology Laboratory 1 s.h.

ABO and RH typing, direct and indirect antiglobulin testing, compatibility testing. Three hours lab per week. **Coreq.:** MLT 1503.1 s.h.

Prereq.: MLT 1501, MLT 1501L, BIOL 2601.

Cross-Listed: MLS 1503L.

MLT 2601 Clinical Chemistry 1 2 s.h.

This course provides an introduction to the principles, procedures, and significance of tests performed in the clinical chemistry laboratory. Theory and principles of test methodologies are discussed and data are correlated to physiological processes.

Prereq.: MLT 1501, MLT 1501L, CHEM 1510/L.

Coreq.: MLT 2601L.

Cross-Listed: MLS 2601.

MLT 2601L Clinical Chemistry 1 Laboratory 1 s.h.

Application of the procedures and techniques utilized in the clinical chemistry laboratory. 3 hours of lab per week.

Prereq.: MLT 1501, MLT 1501L, CHEM 1510/L.

Coreq.: MLT 2601.

MLT 2603 Immunohematology Laboratory 2 1 s.h.

Clinical Laboratory theory and application of Immunohematology procedures. Three hours laboratory per week.

Prereq.: MLT 1502/L and MLT 1503/L with a minimal grade of "C".

MLT 2603L Advanced Immunohematology Laboratory 1 s.h.

Application of advanced theories in Immunohematology. Three hours of laboratory per week.

Prereq.: MLT 1502 and 1502L with a "C" or better.

Cross-Listed: MLS 2603L.

MLT 2605 Molecular Diagnostics 2 s.h.

This course focuses on the newest medical laboratory discipline known as molecular diagnostics. The content will include principles of molecular biology (nucleic acid) tools and their application to aid in identification, diagnosis, and prognosis of conditions and disease states.

Prereq.: BIOL 2601/L.

Cross-Listed: MLS 2605.

MLT 3700 Clinical Chemistry 2 4 s.h.

This course will explore the principles and procedures of routine clinical chemistry analysis, including correlation of test results with pathophysiology, testing criteria and variables that impact accuracy. Cross-Listed: MLS 3700.

MLT 3701 Clinical Hematology 1 2 s.h.

Hematopoiesis; theory and laboratory application of manual procedures in hematology including cell counts, hemoglobin, hematocrit, and differentials; introductory hemostasis and laboratory applications. Two hours of lecture per week.

Prereq.: MLT 1501, MLT 1501L, BIOL 2601 with a minimal grade of "C".

MLT 3701L Clinical Hematology 1 Laboratory 1 s.h.

Laboratory application of manual procedures in hematology including cell counts, hemoglobin, hematocrit, and differentials; introductory hemostasis and laboratory applications. Three hours of laboratory per week.

Prereq.: MLT 1501, MLT 1501L, BIOL 2601 with a minimal grade of "C".

Coreq.: MLT 3701.

MLT 3702 Clinical Hematology 2 2 s.h.

Advanced theory and laboratory procedures in hematology and hemostasis, including leukemia, anemia, hematopathology and coagulation disorders; abnormal differentials and automated methods. Two hours of lecture week.

Prereq.: MLT 3701, MLT 3701L with a minimal grade of "C".

MLT 3702L Clinical Hematology 2 Laboratory 1 s.h.

Laboratory procedures in hematology and hemostasis, including leukemia, anemia, hematopathology and coagulation disorders; abnormal differentials and automated methods. Three hours of laboratory per week.

Prereq.: MLT 3701, MLT 3701L with a minimal grade of "C".

Coreq.: MLT 3702.

MLT 3704 Clinical Immunology and Serology 3 s.h.

A study of the diagnostic applications of immunology and methods of serological testing. The immunology and diagnosis of infectious disease, autoimmunity, immunodeficiency, and immunoproliferative disease will be discussed.

Coreq.: MLT 3704L.

Cross-Listed: MLS 3704.

MLT 3704L Clinical Immunology/Serology Laboratory 1 s.h.

The immunology and diagnosis of infectious disease, autoimmunity, immunodeficiency, and immunoproliferative disease will be discussed. 2 hours of lab per week.

Coreq.: MLT 3704.

Cross-Listed: MLS 3704L.

MLT 3706 Medical Laboratory Seminar 3 s.h.

Internship evaluation, special topics in the clinical laboratory. Case studies and interpretation of laboratory results.

Prereq.: Acceptance into 3716 or instructor permission.

Coreq.: MLT 3716.

MLT 3716 Clinical Internship 6 s.h.

Students will be placed at clinical sites for 40 hours per week for 7 weeks during the semester.

Prereq.: Permission of instructor.

Coreq.: MLT 3706 and MLT 3717.

MLT 3717 Clinical Microbiology Interpretation 1 s.h.

A study of the diagnostic procedures and interpretation of microbiological cultures relevant to the clinical laboratory.

Prereq.: Instructor Permission.

Coreq.: 3716 and 3706.

MLT 3787 Diagnostic Microbiology 3 s.h.

Clinical applications of human pathogenic microorganisms; infections, frequency, isolation, identification, and treatment of bacteria, fungi, viruses, and parasites. Case studies, problem solving, and quality assurance in clinical microbiology. Three hours lecture per week.

Prereq.: MLT 1501/L.

Coreq.: MLT 3787L.

MLT 3787L Diagnostic Microbiology Laboratory 2 s.h.

A clinical approach to the study of bacteria, fungi, viruses, and parasites. Methods to isolate and identify clinically significant pathogens from clinical specimens; case studies in clinical microbiology. Six hours lab per week. Identical with BIOL 3787L, MLS 3787L.

Prereq.: MLT 1501/L.

Coreq.: MLT 3787.

Public Health

PHLT 1513 Introduction to Environmental Health and Safety 3 s.h.

Provides an introduction to and overview of the key areas of environmental health, one of the core areas of public health. Using the perspectives of the population and community, the course will cover factors associated with the development of environmental health problems.

Gen Ed: Environmental Sustainability, Social Science, Social and Personal Awareness.

PHLT 1531 Fundamentals of Public Health 3 s.h.

Provides an introduction to public health concepts and practice by examining the philosophy, purpose, history, organization, functions, tools, activities, and results of public health at the national, state, and community levels. Introduces the core disciplines of public health, and current events and issues in the field.

Gen Ed: Social Science, Well Being, Social and Personal Awareness.

PHLT 1550 Public Health Advocacy and Policy 2 s.h.

Provide interdisciplinary education through the lens of public health to empower generations of educated citizens to create innovative solutions to 21st century health problems.

PHLT 1568 Healthy Lifestyles 3 s.h.

Personal and consumer health issues and prevention of premature death analyzed from physical, emotional, social and spiritual perspectives. Plans for disease prevention and healthful living. Importance of health promotion to the individual, region, nation and world.

Gen Ed: Social Science, Well Being, Social and Personal Awareness.

PHLT 1568H Honors Healthy Lifestyles 3 s.h.

Personal and consumer health issues and prevention of premature death analyzed from physical, emotional, social and spiritual perspectives. Plans for disease prevention and healthful living. Importance of health promotion to the individual, region, nation and world.

Gen Ed: Well Being, Social and Personal Awareness.

PHLT 2607 Ethical Issues in Public Health 3 s.h.

Examines practical aspects of ethics and public health. This course will help students develop the analytical skills necessary for evaluating ethical issues related to public health policy and public health prevention, treatment, and research.

PHLT 2692 Human Sexuality 3 s.h.

An interdisciplinary approach to the study of human sexuality.

Cross-Listed: PSYC 2692.

Gen Ed: Social Science, Well Being, Social and Personal Awareness.

PHLT 3702 Health Education Theory and Methods 3 s.h.

Overview of health education theory, history, ethics, and methods for the community, school, workplace and health care setting. Provides a foundation in teaching methods. Also listed as HEPE 3702.

PHLT 3708 Preventive Public Health Care 3 s.h.

Application of current health care philosophies in disease prevention. In-depth case study of a specific public health problem and its prevention. This is an online course.

Prereq.: None.

PHLT 3709 Elements of Urban Environmental Health Practices 3 s.h.

Focus on development and implementation issues of environmental and public health programs necessary for urban and rural communities to meet acceptable public health standards at the local health department level with emphasis on resources and staffing. This is an online course.

Prereq.: none.

PHLT 3715 Health Education for Grades PreK-6 3 s.h.

Comprehensive School Health Education curricula, methods and materials for teaching pre-kindergarten through sixth grade students. Also listed as HEPE 3715.

Prereq.: PHLT 1568, PHLT 3702 and BIOL 1545 or AHLT 1500 and AHLT 1501.

PHLT 3716 Health Education for Grades 7-12 3 s.h.

Comprehensive School Health Education curricula, methods and materials for teaching seventh through twelfth grade students.

Prereq.: PHLT 1568, PHLT 3702 and BIOL 1545 or AHLT 1500 and AHLT 1501.

PHLT 3725 Topics in Public Health 3 s.h.

Examines topics of relevance to public health. Specific topics include current issues and emerging research findings, with a focus on health behavior and health promotion, epidemiology, public health administration, environmental health, biostatistics, through analysis of public health problems, and application of principles and practices of public health.

PHLT 3731 Drug Use and Abuse 3 s.h.

Alcohol, tobacco, and other drug use and their relationship to behavior and society. Emphasis on prevention, early intervention, and treatment in the behavioral medicine, health care, educational and criminal justice systems.

PHLT 3757 Health and Disease 4 s.h.

Study of the major chronic and communicable diseases affecting humans. Emphasis on etiology, prevention through health education and health promotion methods, and materials.

Prereq.: BIOL 1545 or AHLT 1500 and AHLT 1501 or permission of the instructor.

PHLT 3791 Community Health 3 s.h.

Study of the need for organized community health efforts: problems of chronic and communicable diseases, environmental health, world health, and the public and private agencies involved in their solutions.

PHLT 4801 Field Work in Health Education 1-3 s.h.

Provides the public health major with a supervised teaching or agency experience. Three to twelve hours per week.

Prereq.: PHLT 3791.

PHLT 4808 Environmental Health Concerns 3 s.h.

Industrial hygiene, hazardous and infectious waste, air and quality, and sanitation policies in health care facilities. Pertinent federal, state, and local legislation.

Prereq.: none.

PHLT 4826 Community Health Planning and Promotion 4 s.h.

Fundamental techniques for assessing needs, planning, marketing and implementing health promotion programs in the workplace and community.

Prereq.: none.

PHLT 4827 Evaluation of Health Promotion Programs 3 s.h.

Theories and methods of program evaluation for assessing the quality of health promotion programs.

Prereq.: PHLT 4826.

PHLT 4828 Grant Writing 3 s.h.

Methods and techniques for writing grant proposals related to health.

Emphasis on competence in development of narrative, program plan, evaluation design, time line, identifying grant sources and managing funded projects.

PHLT 4891 Public Health Internship 8 s.h.

Supervised experience designed to provide an opportunity to enable students to apply entry-level competencies acquired in the classroom setting to public health practice through experiential activities. The student will be required to be at the internship approximately 23-24 hours per week in a 15 week semester, for a total of 350 hours.

Prereq.: senior standing and consent of instructor.

PHLT 4892 Environmental Health and Safety Internship 8 s.h.

Supervised experience designed to provide an opportunity to enable students to apply entry-level competencies acquired in the classroom setting to environmental health practice through experiential activities. The student will be required to be at the internship approximately 23-24 hours per week in a 15 week semester, for a total of 350 hours.

Prereq.: senior standing and consent of instructor.

PHLT 4898 Environmental Health and Safety Senior Seminar 3 s.h.

Synthesis of professional course work. Development of resume and professional portfolio; preparation for internship; administration of outcome assessment instruments for public health majors.

Prereq.: senior standing and consent of instructor.

PHLT 4899 Public Health Senior Seminar 3 s.h.

Synthesis of professional course work. Development of resume and professional portfolio; preparation for internship; administration of outcome assessment instruments for public health majors; preparation for the CHES certification exam.

Prereq.: Senior standing and consent of instructor.

Gen Ed: Capstone.

PHLT 5804 Multicultural Health 3 s.h.

Explore multicultural models of health, illness, and treatments or therapies to increase understanding of various approaches to prevention, health promotion, healing, and maintenance of health and well-being.

Prereq.: Junior standing.

PHLT 5807 Epidemiology 3 s.h.

A study of the interrelationships of the host, agent, and environment in determining the causation, frequency, and distribution of disease. This is an online course.

Prereq.: None.

PHLT 5810 Agents of Mass Casualty 3 s.h.

Explorations of biological agents, chemical agents or radiological and nuclear devices, terrorism, security, emergency planning, and community and public health roles in the event of a deployment of these agents. Increase understanding through case analysis of how to apply course concepts to real world scenarios.

Prereq.: Junior standing.

PHLT 5812 Crisis Management in Public Health 3 s.h.

Exploration of roles, thought processes and actions of public health professionals during crisis situations, by understanding the anatomy of crises. Increase knowledge through case analysis of how to apply course concepts to real world scenarios.

Prereq.: Junior standing.

PHLT 5893 Workshop in Health Education 1-3 s.h.

Concentrated study of a selected topic related to health education. The department will select and announce the topic and determine the credit hours based on the frequency and duration of workshop meetings. May be repeated for a maximum of 6 s.h. with change in topic.

Prereq.: PHLT 3701, PHLT 3791 or permission of instructor.

PHLT 5893C CE Public Health Workshop 1-3 s.h.

Concentrated study of a selected topic related to health education. The department will select and announce the topic and determine the credit hours based on the frequency and duration of workshop meetings. May be repeated for a maximum of 6 s.h. with change in topic.

Prereq.: PHLT 3701, PHLT 3791 or permission of instructor.

Respiratory Care

RESC 1503 Respiratory Procedures 1 3 s.h.

Appropriate use of selected respiratory care procedures. Three hours lecture.

Coreq.: RESC 1503L.

RESC 1503L Respiratory Procedures 1 Lab 1 s.h.

Appropriate use of selected respiratory care procedures. Three hours lab.

Coreq.: RESC 1503.

RESC 1520 Respiratory Care Assessment 1 2 s.h.

Diagnostic techniques used in evaluating patients with cardiopulmonary disorders. Two hour lecture.

Coreq.: RESC 1520L.

RESC 1520L Respiratory Assessment 1 Lab 1 s.h.

Diagnostic techniques used in evaluating patients with cardiopulmonary disorders. Two hour lab.

Coreq.: RESC 1520.

RESC 1530 Foundations of Respiratory Care 3 s.h.

Review of the professional scope of practice for a respiratory therapist including key organizational roles within the profession. Basic application of scientific gas laws and theories will be examined along with basic description and function of oxygen delivery equipment related to respiratory care. Includes applied anatomy and physiology of the respiratory system and basic patient assessment. 3 hour lecture.

Prereq.: Acceptance into the respiratory care program or by a special permission from the program director.

RESC 2620 Respiratory Assessment 2 2 s.h.

Advanced techniques in the assessment of cardiopulmonary disorders. Two hours lecture.

Coreq.: RESC 2620L.

RESC 2620L Respiratory Assessment 2 Lab 1 s.h.

Advanced techniques in the assessment of cardiopulmonary disorders, Two hours lab.

Coreq.: RESC 2620.

RESC 2621 Cardiopulmonary Disease 3 s.h.

Comprehensive overview of cardiopulmonary disorders encountered by respiratory therapists. Includes applications to clinical protocols and evidence based practices.

Prereq.: RESC 2620.

RESC 2699 Clinical Practice 1 1 s.h.

Orientation to hospital and department policies, including exposure to and practice with basic respiratory care procedures. Five hours a week in clinics.

Prereq.: RESC 2621.

RESC 3706 Respiratory Procedures 2 2 s.h.

Airway management techniques and other critical care procedures. Two hours lecture.

Prereq.: acceptance into the respiratory care program.

Coreq.: RESC 3706L.

RESC 3706L Respiratory Procedures 2 Lab 1 s.h.

Airway management techniques and other critical care procedures. Three hours lab.

Prereq.: Acceptance into the respiratory therapy program.

Coreq.: RESC 3706.

RESC 3708 Respiratory Clinical Specialties 3 s.h.

Fundamentals of hemo-dynamic monitoring, management of burn patients, and assessment of neuro-trauma. Three hours lecture.

Prereq.: RESC 3706.

RESC 3709 Neonatal/Pediatric Respiratory Care 3 s.h.

Respiratory care applications in neonatal/pediatric settings. Three hours lecture.

Prereq.: Acceptance into the Respiratory Care Program.

Coreq.: RESC 3709L.

RESC 3709L Neonatal/Pediatric Respiratory Care Lab 1 s.h.

Respiratory care applications in neonatal/pediatric settings. Three hours lab.

Prereq.: Acceptance into the Respiratory Care program.

Coreq.: RESC 3709.

RESC 3710 Respiratory Care Pharmacology 3 s.h.

This course will review the therapeutic effects, side effects, indications and contraindications along with dosages, drug delivery routes as well as standard and modified delivery absorption methods of pulmonary related pharmacological agents and medications for aspects of pulmonary related medicine. 3 hour lecture.

Prereq.: none.

RESC 3720 Mechanical Ventilation 1 2 s.h.

Basic theory and application of mechanical ventilation in critical care areas. Two hours lecture.

Prereq.: Acceptance into the respiratory care program.

Coreq.: RESC 3720L.

RESC 3720L Mechanical Ventilation 1 Lab 1 s.h.

Basic theory and application of mechanical ventilation in critical care areas. Three hours lab.

Prereq.: Acceptance into the Respiratory Care Program.

Coreq.: RESC 3720.

RESC 3725 Mechanical Ventilation 2 2 s.h.

Advanced theory and application of mechanical ventilation. Includes home care ventilators. Two hours lecture to be taken concurrently with RESC 3720L.

Prereq.: RESC 3720.

RESC 3725L Mechanical Ventilation 2 Lab 1 s.h.

Advanced theory and application of mechanical ventilation. Includes home care ventilators. Three hours lab.

Prereq.: RESC 3720.

Coreq.: RESC 3725.

RESC 3731 Respiratory Care Management 3 s.h.

A study of the basic managerial process, organizational concepts, budgeting, quantitative planning, decision-making, and issues of control as they relate to the manager of a hospital-based respiratory care department.

Prereq.: RESC 3725.

RESC 3740 Clinical Practice 2 3 s.h.

Application of basic and advanced respiratory care modalities in the clinical hospital setting.

Prereq.: RESC 2699.

RESC 3741 Clinical Practice 3 3 s.h.

Application of basic and advanced respiratory care modalities for pediatric and adult patients. Twenty hours a week.

Prereq.: RESC 3740.

RESC 3765 Advanced Respiratory Care Diagnostics 3 s.h.

The study of the fundamentals of advanced respiratory care diagnostics. Three hour lecture.

Prereq.: none.

RESC 4801 Special Topics in Respiratory Care 1-3 s.h.

Focused research of a special problem/issue related to respiratory care. The topic of interest allows the student to participate in focused investigation of aspects of administration, clinical specialization, or research. May be repeated up to a total of 3 s.h.

Prereq.: acceptance in BSRC completion program, junior standing, or permission of instructor.

RESC 4813 Adult Cardiac and Pediatric Advanced Life Support 3 s.h.

This course is designed for healthcare providers who will participate in the management of cardio pulmonary resuscitation and will focus on advanced cardiopulmonary resuscitation modalities and hands on procedures for the adult and pediatric patient populations. Cardiovascular pharmacology, advanced airway management, vascular access, and resuscitation techniques used in the management of adult and pediatric cardiac emergencies will be explored. Successful completion of the course will result in AHA, ACLS and AHA PALS certifications. 3hour lecture.

Prereq.: Students need basic cardiac life support certification to take this course.

RESC 4831 Pulmonary Care Management 3 s.h.

Pathology as it relates to care of patients with pulmonary-related disorders.

Prereq.: RESC 3725.

RESC 4835 Clinical Practice 4 3 s.h.

Application of advanced respiratory modalities and diagnostics for pediatric and adult patients. Capstone course for RC program. Fifteen hours a week.

Prereq.: RESC 3741.

RESC 4838 Respiratory Seminar 1 1 s.h.

Review of current aspects of clinical respiratory care. A content analysis of the updated NBRC Entry-Level exam will be included.

Prereq.: RESC 3741.

RESC 4842 Respiratory Seminar 2 1 s.h.

Review of current aspects of clinical respiratory care. A content analysis of the updated NBRC Advanced Practitioner exam will be included.

Prereq.: RESC 4838.

RESC 4846 Sleep Diagnostics 1 3 s.h.

This course will explore Scientific theory and clinical techniques needed to perform polysomnography. The course is asynchronous web based.

RESC 4848 Sleep Diagnostics 2 3 s.h.

This course will explore theory, clinical techniques and interpretation of testing results related to polysomnography. The course is delivered asynchronous web-based.

RESC 4867 Fundamentals of Leader Development 3 s.h.

This course will form the necessary core of self-awareness in relation to leader development. Through introducing concepts and examples of leadership and awareness of how one leads as an expression of self, RCPs will enhance leadership awareness and personal expression within their discipline.

RESC 4870 Advanced Cardiopulmonary Case Management 3 s.h.

This course is designed to strengthen the student's knowledge of C-P disorders by incorporating evidence-based practices into C-P case management. The student will learn to apply these strategies in acute care, transitional and long-term care settings. Current protocols will also be discussed.

Prereq.: none.

RESC 5820 The Respiratory Care Profession 3 s.h.

Study of origins, current role, and future directions of respiratory care profession within the framework of the current health care environment. Examination of professional resources is also included.

Prereq.: Active membership in American Association for Respiratory Care and acceptance in MRC program.

RESC 5860 Technology Applications for Health and Human Services 3 s.h.

Exploration of technology applications for education, presentations, communications and management in Health and Human Service disciplines. Creation of digital media such as audio and/or video files, spreadsheet macros, e-portfolios and Web-based applications of various technologies will be required. Application of technology to education, supervision or management will be evaluated through completion of a technology-enhanced project.

Prereq.: Acceptance in MRC program.

Prereq. or Coreq.: Permission from program director if outside of the respiratory care program.

RESC 5880 Advanced Management of the Ventilator Patient 3 s.h.

Course will present current classifications, evidence-based research and application of mechanical ventilator concepts in critical care areas. Technical capabilities of modes will be described along with optimal settings. Current protocols in RC will also be discussed.

Prereq.: Acceptance in the BSRC, BSRC degree advancement/completion program or Master of respiratory care program, junior standing, or permission of program director.

Associate of Applied Science in Healthcare Administration

The Healthcare Administration Program is designed to provide the educational background to enable graduates to pursue careers in healthcare management and administration. Healthcare administrators and managers plan, direct, and coordinate medical and health services. They might manage an entire facility, a specific clinical area or department, or a medical practice for a group of physicians. Healthcare administrators and managers must direct changes that conform to changes in healthcare laws, regulations, and technology. Most healthcare administrators and managers work in offices in healthcare facilities, including hospitals and nursing homes, and group medical practices. Students in the healthcare administration program will study courses in healthcare management, marketing, human resources, healthcare finance, and medical law and ethics. This knowledge will make the healthcare administrator or manager a valuable member of the healthcare management team. Graduates are employed in career areas such as hospitals, clinics, nursing homes, physician offices, and a variety of other healthcare facilities.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT - STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
GENERAL EDUCATION REQUIREMENTS		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
MATH 2623	Quantitative Reasoning	3-5
or MATH 2623C	Quantitative Reasoning with Co-Requisite Support	
or STAT 2601	Introductory Statistics	
PSYC 1560	General Psychology	3
PHIL 2628	Business Ethics	3
MAJOR REQUIREMENTS		
CMST 1545	Communication Foundations	3
or CMST 2655	Communication in Groups	
BUS 1500	Foundations of Business	3
BUS 2610	Collaborating, Writing, & Presenting in Business	3
ECON 2610	Principles 1: Microeconomics	3
CSIS 1514	Business Computer Systems (Business Computer Systems)	3
MGT 3725	Fundamentals of Management	3
MKTG 3703	Marketing Concepts and Practice	3
MGT 2604	Legal and Social Responsibilities of Business	3
MATC 2614	Medical Office Procedures (Medical Office Procedures)	3
POL 1560	American Government	3
POL 3717	Health Care Policy	3
AHLT 1502	Applied Pathophysiology	4
AHLT 4804	Stress and the Health Care Professional	3
AHLT 4810	Management Skills for Health Professionals	3
PHLT 1550	Public Health Advocacy and Policy	2
Electives to reach 60 hours (if needed)		
PHLT 1531	Fundamentals of Public Health	
AHLT 3711/4805	Health Care Information Systems	
MATC 1502	Medical Law and Ethics	
Total Semester Hours		61-65

Associate of Applied Science in Health Information Management

The Health Information Management Program prepares the student for a variety of job opportunities including medical coder, department manager/supervisor, data analyst, and clerks who process records verifying accuracy and completeness. This program blends knowledge and skills from health information and business management, with computer applications and medicine to provide the necessary foundation for success. The student will be eligible to sit for the Registered Health Information Technician (RHIT) certification upon successful completion of the program.

Topics of study include medical coding (ICD-10-CM/PCS and CPT-4), legal and ethical issues in health care, quality and performance improvement, health care statistics, reimbursement concepts, indexes and registries related to health care, and the management aspects of health information.

This associate's degree program incorporates both the Medical Scribe Certificate and Medical Coding Specialist Certificate program as the first year. Completion of that portion of the program, along with relevant work experience, can prepare a person to take the certification examination offered by the American Health Information Management Association to become a Certified Coding Associate (CCA) and after further experience, the Certified Coding Specialist (CCS). Individuals skilled in clinical coding are employed as coders for hospitals, physician's offices, peer review organizations, clinics, consulting firms, and/or insurance companies.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT - STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
GENERAL EDUCATION REQUIREMENTS		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
MATH 2623	Quantitative Reasoning	3
General Education Elective (2 courses from 2 different domains)		6
MAJOR REQUIREMENTS		
HIM 1500	Introduction to Health Records (Intro to Health Records)	3
HIM 1510	Reimbursement Methodologies (Reimbursement Methodologies)	3
HIM 2600	CPT Coding	4
HIM 2610	ICD-10 CM Coding	4
HIM 2620	Advanced Coding (Advanced Coding)	3
HIM 2625	Professional Practicum I (Professional Practicum 1)	1
HIM 2630	Legal/Ethical Concepts in HIM (Legal and Ethical Concepts)	3
HIM 2635	Healthcare Indexes and Registries (Healthcare Indexes/Registries)	2
HIM 2640	Management of Health Information Services (Management of Health information services)	3
HIM 2645	Health Information Management Practicum II (HIM Practicum 2)	2
HIM 2650	Health Information Management Capstone & Seminar (HIM capstone and seminar)	2
Additional Required Courses for the Major		
ENGL 3743	Introduction to Public, Professional and Technical Writing	3
BIOL 1545	Allied Health Anatomy and Physiology	5

CSIS 1514	Business Computer Systems (Business Computer Systems)	3
AHLT 1501	Medical Terminology	3
AHLT 2605	Introduction to Pharmacology	3
Total Semester Hours		63-65

Associate of Applied Science in Health Services

Associate of Applied Science Health Professions is a composite of courses offered at Youngstown State University. It is designed for students interested in entering a healthcare profession. A curriculum guide will assist those students who are undecided health majors and those who are preparing for a select health program admission toward a terminal degree with an employable skill set. Preparing students with cross-training in more than one healthcare profession offers a health generalist degree.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT - STUDENT SUCCESS		
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar Youngstown State University Success Seminar Intro to Honors	1-2
GENERAL EDUCATION REQUIREMENTS		
ENGL 1550 or ENGL 1549	Writing 1 Writing 1 with Support	3-4
ENGL 1551	Writing 2	3
BIOL 1551 & 1551L	Anatomy and Physiology 1 and Anatomy and Physiology 1 Laboratory	4
STAT 2601 or STAT 2625 or STAT 2625C	Introductory Statistics Statistical Literacy and Critical Reasoning Statistical Literacy and Critical Reasoning with Co-Requisite Support	3-6
FNUT 1551	Normal Nutrition	3
SOC 2601	Social Problems	3
MAJOR REQUIREMENTS		
BIOL 1552 & 1552L	Anatomy and Physiology 2 and Anatomy and Physiology 2 Laboratory	4
BIOL 1560 & 1560L	Microbiology for the Health Professions and Microbiology Laboratory for Health Professions	3
MATC 1502	Medical Law and Ethics	3
AHLT 1501	Medical Terminology	3
AHLT 1502	Applied Pathophysiology	4
AHLT 4810	Management Skills for Health Professionals	3
AHLT 3711	Health Care Information Systems	3
POL 3717	Health Care Policy	3
BUS 2610	Collaborating, Writing, & Presenting in Business	3
CMST 2656	Interpersonal Communication	3
PHLT 1531	Fundamentals of Public Health	3
PHLT 1550	Public Health Advocacy and Policy	2
PSYC 1560	General Psychology	3
Elective		3
Total Semester Hours		63-68

Associate of Applied Science in Medical Laboratory Technician

Medical Laboratory Programs

Laboratory analysis plays a vital role in the detection, diagnosis, and treatment of disease. Laboratory professionals perform moderate to highly complex analysis and provide data to assist physicians and other healthcare practitioners in identification and treatment of disease.

For more information regarding program policies, procedures, and essential functions or to obtain a copy of the Medical Laboratory program handbook, please contact Dr. Joan O'Connell at (330) 941-1761 Joconnell02@ysu.edu

Medical Laboratory Technician (MLT-AAS) Curriculum

The medical laboratory technician program is a two-year program leading to the Associate of Applied Science degree. The curriculum focuses on the knowledge and basic skills necessary to understand and master the procedures performed in the medical laboratory. Coursework includes in-depth study of the principles, methods, calculations, and interpretation of laboratory procedures, analysis of quality control data, instrument calibration techniques, professional communication, and interpersonal skills. Technical instruction includes procedures in hematology, microbiology, immunohematology, clinical chemistry, and body fluids. This program requires five semesters of study including one summer semester.

Medical laboratory technicians (MLT) may work in hospital laboratories, private laboratories, clinics, public health facilities, or pharmaceutical laboratories. The MLT performs laboratory tests under the supervision or direction of the Pathologist or Medical laboratory scientist. Physicians and other health care professionals rely on accurate laboratory test data to assist in the determination of disease states and the effectiveness of prescribed treatments.

The Medical laboratory technician may collect samples from patients and performs testing on blood, tissues, and body fluids using a variety of methodologies. Medical laboratory technicians interpret data to discriminate between related items, correct errors using preset strategies, and recognize and correct factors that impact the accuracy of laboratory data. The MLT curriculum provides specific knowledge related to the correlation of disease processes and the impact on data.

Graduates are eligible to take the MLT certification examination offered through ASCP and become certified as an MLT (ASCP).

Students must have a minimal Math Placement of Level 3 or its equivalent to be considered for the MLT program.

Program admission is based on the applicant's overall GPA and performance in pre-requisite coursework including Math, Biology, and Chemistry. All MLT, BIOL, & CHEM courses must be completed with a minimum grade of a "C". Students in the MLT program must maintain an overall minimum GPA of 2.75. Developmental courses do not count toward degree requirements.

Course substitutions may be approved only by the program director. There will be no course substitutions for MLT coursework. Students are permitted a total of two course repetitions for recalculation of GPA. Courses must be taken in the proper sequence, failure to do so may invalidate clinical placement and delay graduation, students are required to meet with the MLT program director each semester for advisement. Students must complete a background check, and immunizations record as program requirements.

Medical laboratory technicians are expected to function with a maximum degree of effectiveness in professional attitude, patient relations, and integrity. The capacity for competent performance at all levels must be assured before the student will be assigned to a clinical internship. The student must be

competent in the didactic (knowledge), psychomotor (laboratory skills), and affective realm (attitude and responsibility) prior to clinical placement.

Program Accreditation

The MLT program is accredited through the National Accrediting Agency for Clinical Laboratory Sciences and meets the standards developed by the American Society of Clinical Pathologists (ASCP).

The National Accrediting Agency for Clinical Laboratory Sciences
5600 N. River Rd., Suite 720
Rosemont, IL 60018-5119
phone (773) 714-8886
<http://www.nacls.org>

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Gen Ed Math		
STAT 2625	Statistical Literacy and Critical Reasoning	4-6
or STAT 2625C	Statistical Literacy and Critical Reasoning with Co-Requisite Support	
Social Science or A&H domains (Select 1 course)		3
Natural Science Requirements		
BIOL 2601	General Biology 1: Molecules and Cells	3
BIOL 2601L	General Biology I: Molecules and Cells Laboratory	1
CHEM 1510	Chemistry for the Allied Health Sciences	4
CHEM 1510L	Chemistry for the Allied Health Sciences Laboratory	0
BIOL 1545	Allied Health Anatomy and Physiology	5
BIOL 1545L	Allied Health Anatomy and Physiology Laboratory	0
Major Requirements		
MLT 1501	Introduction to the Medical Laboratory Profession	2
MLT 1501L	Introduction to the Medical Laboratory Profession Laboratory	1
MLT 1502	Urinalysis and Body Fluids	2
MLT 1502L	Urinalysis and Body Fluids Laboratory	1
MLT 1503	Immunohematology	3
MLT 1503L	Immunohematology Laboratory	1
MLT 2601	Clinical Chemistry 1	2
MLT 2601L	Clinical Chemistry 1 Laboratory	1
MLT 2603	Immunohematology Laboratory 2 (Immunohematology Laboratory 2)	1
MLT 2605	Molecular Diagnostics	2
MLT/MLS 3700	Clinical Chemistry 2	4
MLT 3701	Clinical Hematology 1	2
MLT 3701L	Clinical Hematology 1 Laboratory	1
MLT 3702	Clinical Hematology 2	2
MLT 3702L	Clinical Hematology 2 Laboratory	1
MLT 3704	Clinical Immunology and Serology	3
MLT 3704L	Clinical Immunology/Serology Laboratory	1
MLT 3787	Diagnostic Microbiology	3
MLT 3787L	Diagnostic Microbiology Laboratory	2
MLT 3706	Medical Laboratory Seminar	3
MLT 3716	Clinical Internship	6

MLT 3717	Clinical Microbiology Interpretation	1
Total Semester Hours		72-76
Year 1		
Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
MLT 1501	Introduction to the Medical Laboratory Profession	2
MLT 1501L	Introduction to the Medical Laboratory Profession Laboratory	1
CHEM 1510	Chemistry for the Allied Health Sciences	4
CHEM 1510L	Chemistry for the Allied Health Sciences Laboratory	0
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
BIOL 2601	General Biology 1: Molecules and Cells	3
BIOL 2601L	General Biology I: Molecules and Cells Laboratory	1
Semester Hours		15-17
Spring		
MLT 1502	Urinalysis and Body Fluids	2
MLT 1502L	Urinalysis and Body Fluids Laboratory	1
MLT 1503	Immunohematology	3
MLT 1503L	Immunohematology Laboratory	1
MLT 2601	Clinical Chemistry 1	2
MLT 2601L	Clinical Chemistry 1 Laboratory	1
ENGL 1551	Writing 2	3
BIOL 1545	Allied Health Anatomy and Physiology	5
BIOL 1545L	Allied Health Anatomy and Physiology Laboratory	0
Semester Hours		18
Summer		
MLT 3700	Clinical Chemistry 2	4
MLT 3701	Clinical Hematology 1	2
MLT 3701L	Clinical Hematology 1 Laboratory	1
Semester Hours		7
Year 2		
Fall		
MLT 3702	Clinical Hematology 2	2
MLT 3702L	Clinical Hematology 2 Laboratory	1
MLT 3787	Diagnostic Microbiology	3
MLT 3787L	Diagnostic Microbiology Laboratory	2
MLT 3704	Clinical Immunology and Serology	3
MLT 3704L	Clinical Immunology/Serology Laboratory	1
STAT 2625	Statistical Literacy and Critical Reasoning	4-6
or STAT 2625C	or Statistical Literacy and Critical Reasoning with Co-Requisite Support	
MLT 2603	Immunohematology Laboratory 2 (Immunohematology Laboratory 2)	1
Semester Hours		17-19
Spring		
MLT 3706	Medical Laboratory Seminar	3
MLT 3716	Clinical Internship	6
MLT 2605	Molecular Diagnostics	2
MLT 3717	Clinical Microbiology Interpretation	1

AH or Social Science Elective course	3
Semester Hours	15
Total Semester Hours	72-76

Students are considered pre-MLT during the first semester. Following successful completion of MLT 1501 Introduction to the Medical Laboratory Profession / MLT 1501L Introduction to the Medical Laboratory Profession Laboratory and BIOL 2601 General Biology 1: Molecules and Cells / BIOL 2601L General Biology I: Molecules and Cells Laboratory with a grade of C or better students are officially admitted to the MLT program and begin the second semester in the sequence.

Learning Outcomes

- Graduates will be prepared to function as entry-level health care professionals in the medical laboratory as medical laboratory technicians and medical laboratory scientists. At entry level, the medical laboratory graduate will be able to demonstrate the ability to comprehend, apply and evaluate information relative to the medical laboratory profession.
- These learning outcomes include comprehension of the theory and the ability to apply and evaluate the didactics of hematology, clinical chemistry, immunohematology, microbiology, immunology, coagulation, molecular diagnostics, and other emerging diagnostics.
- Graduates will be prepared to function as entry-level health care professionals in the medical laboratory as medical laboratory technicians and medical laboratory scientists. Upon completion of the program, graduates will demonstrate technical proficiency in laboratory applications.
- These psychomotor learning outcomes include the performance of laboratory procedures in hematology, clinical chemistry, immunohematology, microbiology, immunology, coagulation, molecular diagnostics, and other emerging diagnostics. The graduate will demonstrate proficiency in the functions of all phases of laboratory analysis (pre-analytical, analytical, and post-analytical processes).
- Graduates will demonstrate professional conduct and interpersonal communication skills consistent with the medical laboratory profession.
- Students will exhibit the ability to think critically across all 3700-level courses through the application of fundamental didactic and psychomotor skills to assess the medical relevance and significance of specific aspects of laboratory testing.

Associate of Applied Science in Radiologic Technology

The Radiologic Technology Program provides students the opportunity to earn an Associate of Applied Science Degree in Radiologic Technology and are eligible to take the national certification exam offered by the American Registry of Radiologic Technologists. Certification of a national credential exam through the A.R.R.T. is required to practice as a radiologic technologist.

A minimum of sixty-two (62) credits are required to receive an Associate of Applied Science Degree in Radiologic Technology. The program consists of 22 months of combined academic and clinical education. The curriculum is based on five (5) semesters including one (1) summer session of full-time study.

COURSE	TITLE	S.H.
FIRST YEAR EXPERIENCE - STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
GENERAL EDUCATION REQUIREMENTS		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3

STAT 2601	Introductory Statistics	3-6
or STAT 2625	Statistical Literacy and Critical Reasoning	
or STAT 2625C	Statistical Literacy and Critical Reasoning with Co-Requisite Support	
SOC 2601	Social Problems	3
BIOL 1551 & 1551L	Anatomy and Physiology 1 and Anatomy and Physiology 1 Laboratory	4
General Education Elective		3
Major Requirements		
RAD 1502 & 1502L	Radiographic Procedures I and Radiographic Procedures I Lab	4
RAD 1503	Directed Practice I	1
RAD 1504 & 1504L	Methods of Patient Care with an Introduction to Radiology and Methods of Patient Care with an Intro to Radiology	3
RAD 1505 & 1505L	Radiography I and Radiography I Lab	4
RAD 1506 & 1506L	Radiographic Procedures II and Radiographic Procedures II Lab	5
RAD 1507	Directed Practice II	2
RAD 1508	Directed Practice III	1
RAD 2601 & 2601L	Radiography II and Radiography II Lab	3
RAD 2602	Radiologic Physics	2
RAD 2603	Directed Practice IV	3
RAD 2604	Radiography III	3
RAD 2605	Directed Practice V	3
OTHER REQUIRED COURSES		
BIOL 1552 & 1552L	Anatomy and Physiology 2 and Anatomy and Physiology 2 Laboratory	4
AHLT 1501	Medical Terminology	3
Total Semester Hours		61-66

Year 1

Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
RAD 1502 & 1502L	Radiographic Procedures I and Radiographic Procedures I Lab	4
RAD 1503	Directed Practice I	1
RAD 1504 & 1504L	Methods of Patient Care with an Introduction to Radiology and Methods of Patient Care with an Intro to Radiology	3
BIOL 1551 & 1551L	Anatomy and Physiology 1 and Anatomy and Physiology 1 Laboratory	4
AHLT 1501	Medical Terminology	3
Semester Hours		16-17

Spring

RAD 1505 & 1505L	Radiography I and Radiography I Lab	4
RAD 1506 & 1506L	Radiographic Procedures II and Radiographic Procedures II Lab	5
RAD 1507	Directed Practice II	2
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	

BIOL 1552 & 1552L	Anatomy and Physiology 2 and Anatomy and Physiology 2 Laboratory	4
Semester Hours		18-19
Summer		
RAD 1508	Directed Practice III	1
STAT 2601 or STAT 2625 or STAT 2625C	Introductory Statistics or Statistical Literacy and Critical Reasoning or Statistical Literacy and Critical Reasoning with Co-Requisite Support	3-6
Semester Hours		4-7
Year 2		
Fall		
ENGL 1551	Writing 2	3
RAD 2601 & 2601L	Radiography II and Radiography II Lab	3
RAD 2602	Radiologic Physics	2
RAD 2603	Directed Practice IV	3
Semester Hours		11
Spring		
SOC 2601	Social Problems	3
General Education Elective		3
RAD 2604	Radiography III	3
RAD 2605	Directed Practice V	3
Semester Hours		12
Total Semester Hours		61-66

Bachelor of Science in Applied Science in Allied Health Completion Program

Program Director

Dr. Silvia Stefan
(330) 941-7157
sastefan@ysu.edu

Overview

Graduates with an associate degree in dental hygiene, emergency medical services, respiratory care, medical assisting technology, medical laboratory technology, or in any medical/health related discipline (for example, radiological technology, physical therapy assistant, or dietetics) will be admitted to the BSAS in allied health program as juniors.

Graduates of non-accredited or diploma-based programs will be admitted provisionally and placed at a level determined by an evaluation of their program academic transcripts.

COURSE	TITLE	S.H.
General Education Requirements		
General Education Block Credit from Associate Degree		15-16
ENLG 1550 (3 s.h.)		
Arts and Humanities (3 s.h.)		
Social Science (3 s.h.)		
Natural Science (6-7 s.h.)		
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Arts and Humanities (3 s.h.)		3
Any Math General Education Course		3
Social Science (3 s.h.)		3

General Education Elective (2 courses)		6
Major Requirements		
AHLT 3704	Quantitative Methods in Health Sciences	3
PHLT 3708	Preventive Public Health Care	3
AHLT 3711	Health Care Information Systems	3
AHLT 3740	Pathology of Infectious Diseases	3
AHLT 4805	Health Education for Allied Health	3
AHLT 4806	Research Methods	3
AHLT 4810	Management Skills for Health Professionals	3
AHLT 4820	Directed Research	3
AHLT 5807	Epidemiology	3
AHLT 5840	Comparative Health Systems	3
9 hours of Any Upper Division Electives		9
Additional credit hours to meet 120sh requirement for Bachelor Degree.		45
Previous General Education and Associate degree coursework may be applied to meet the 120 sh requirement		
Total Semester Hours		120-121

Pre-admission counseling is required for students seeking entry to the BSAS in Allied Health. For greater detail on program content or admissions, students should contact the Department of Health Professions.

Learning Outcomes

The student learning outcomes for the major in allied health are as follows:

- Students will conduct a quantitative, qualitative, or mixed method research project involving data collection and analysis.
- Students will utilize current technologies such as computer and online systems/services to access and communicate information.
- Students will be able to analyze health care-related issues.
- Students will demonstrate effective written and verbal communication skills.

Bachelor of Science in Dental Hygiene

Program Administrator

Bryn Hartman
(330) 941-2009
bktaylor@ysu.edu

Overview

The Bachelor of Science in Dental Hygiene (BSDH) degree requires nine semesters of study including three semesters of coursework in the basic sciences and general education, which precede admission into the program. In the spring semester of the second year, students will begin taking the dental hygiene courses. The program is designed to prepare students as clinical dental hygienists and to pursue other possible career options such as education, public health, and research. Prospective students complete educational requirements that provide a broad academic background while attaining comprehensive dental hygiene knowledge and clinical experience.

At the end of the fourth year of the program, students are eligible to take state, regional and national board examinations. Upon successful completion of these comprehensive written and clinical examinations, the graduate may apply for a license to practice dental hygiene in the state as a registered dental hygienist.

The registered dental hygienist is a licensed professional who provides dental hygiene treatment and related preventive services. Clinical skills of the hygienist include:

- the administration of local anesthesia and nitrous oxide
- recording medical and dental histories
- exposing and interpreting radiographs
- making study models
- performing extra-oral and intra-oral examinations which include cancer screenings; preliminary dental charting and periodontal evaluations
- scaling and root planning
- polishing
- patient education and dietary management
- placing sealants
- administering fluoride therapy

Many states permit the hygienist to perform additional duties such as placing temporary restorative materials.

The dental hygienist also functions as a dental health educator and is responsible for the preventive dental health program in private dental practices as well as in other settings. The hygienist teaches patients proper oral health care in order to reduce oral diseases and disorders.

The hygienist's role in service to the community may include increasing public awareness of oral health, serving as a resource person to school systems, providing screenings to children or various groups, and making visits to nursing homes, hospitals and/or schools for the mentally or physically handicapped.

Accreditation

The dental hygiene program is accredited by the Commission on Dental Accreditation (CODA)

Current accreditation standing: Approval without Reporting Requirements.

Date of last campus visit: 2017

Next campus visit: 2025

The Commission on Dental Accreditation
211 East Chicago Avenue
Chicago, IL 60611
(312) 440-2500

<https://coda.ada.org/en> (<https://coda.ada.org/en/>)

Admission to the Program

Admission to the University provides students with the opportunity to complete a core of pre-dental hygiene courses. All students must complete and/or be registered for all of the pre-dental hygiene courses (the first year fall semester, the first year spring semester, and the second year fall semester) after which they may apply and compete for a position in the Bachelor of Science in Dental Hygiene program. *Please note that due to limited clinical capacity and available resources, admission to the university and completion of the pre-dental hygiene courses does not guarantee admission to the program.* The courses in **BOLD** on the Admission Policy document will be used in the calculation of the student's pre-dental hygiene GPA which will be used in ranking students.

Admitted students who voluntarily withdraw from the Dental Hygiene Program will be allowed to reapply only one additional time. This is enforced in fairness to other applicants.

A criminal background check which includes fingerprinting for the Ohio Bureau of Criminal Identification and Investigation (BCI & I) and the Federal Bureau of Investigation (FBI) is required for licensure in Ohio. If a student has been convicted of a felony or misdemeanor related to substance abuse or a crime involving moral turpitude, licensure may be denied by the Ohio State Dental

Board. For further information regarding licensure and the results of finger printing call the Ohio State Dental Board at (614) 466-2580.

Students can access Transferology (<https://www.transferology.com/>), a free web-based source where they can find accurate information regarding courses that transfer and apply to a degree program.

Prospective students must complete a minimum of 12 hours of observation of a registered dental hygienist in two separate dental offices or clinics. Observation forms are available on the Dental Hygiene website. Each prospective student must print the form, fill it out and return it by September 1 of the year of application. Mail with appropriate signatures to:

Youngstown State University
Dental Hygiene Program
1 Tressel Way
Youngstown, OH 44555

New, Current, Former, and Transfer Students

Students must apply and compete for conditional acceptance into the dental hygiene program by September 1 for spring semester admittance. Rankings for admission will include a minimum GPA of 2.70, in the bolded courses (see Admissions Policy) and a cumulative grade point average of 2.50 or greater. ALL pre-dental hygiene courses must be completed with a "C" or better at the end of the fall semester of the second year (as outlined below).

For more information, visit the **Dental Hygiene** (<http://www.ysu.edu/academics/bitonte-college-health-and-human-services/dental-hygiene-major/>) major website.

Pre-Dental Hygiene Courses

Year 1

Fall		S.H.
YSU 1500	Success Seminar	1
ENGL 1550	Writing 1	3
BIOL 1545 & 1545L	Allied Health Anatomy and Physiology and Allied Health Anatomy and Physiology Laboratory	5
CHEM 1510 & 1510L	Chemistry for the Allied Health Sciences and Chemistry for the Allied Health Sciences Laboratory	4
Semester Hours		13

Spring

ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
BIOL 1560	Microbiology for the Health Professions	2
BIOL 1560L or MLT 2687L	Microbiology Laboratory for Health Professions or	1
PSYC 1560	General Psychology	3
MATH 2623 or STAT 2625	Quantitative Reasoning or Statistical Literacy and Critical Reasoning	3
Semester Hours		15

Year 2

Fall		
PHIL 2625	Introduction to Professional Ethics	3
SOC 1500	Introduction to Sociology	3
Arts and Humanities		3

Social and Personal Awareness Elective	3
Semester Hours	12
Total Semester Hours	40

Current Students

Current students must apply by September 1 for spring semester admittance. Application packets are in the Dean's office, Bitonte College of Health and Human Services, Cushwa Hall, Room 2104. All necessary reports and transcripts must be received by September 1. No applications will be considered after this deadline.

New, Transfer, and Former YSU Students

New, transfer, and former YSU students must first apply and be admitted to the University by completing the undergraduate admissions form and indicating dental hygiene as the intended major.

Submit transcripts from each of the post secondary institutions and high school(s) attended. Transcripts of any academic work being completed during the academic year of the requested admission date must be submitted to YSU Admissions Office by September 1. No applications will be considered after this deadline.

Observation Requirement

All prospective students must complete a minimum of 12 hours of observation of a registered dental hygienist in at least two separate dental offices or dental clinics. Students must dress appropriately. Do not wear shorts, jeans, tennis shoes, flip-flops or other unprofessional clothing. Hair must be pulled away from the face, and make-up and perfume should be moderately applied. Observation forms are available on the dental hygiene (<http://www.ysu.edu/academics/bitonte-college-health-and-human-services/dental-hygiene-major/>) website. Each prospective student must print the form and fill it out. The forms with the appropriate signatures must be mailed to:

Youngstown State University
Dental Hygiene Program
1 Tressel Way
Youngstown, OH 44555

Factors affecting admission will include:

1. Pre-Dental Hygiene G.P.A.
2. Cumulative G.P.A.
3. All Pre-Dental Hygiene courses completed with a "C" or better by the end of the fall semester.
4. Number of repetitions of **BOLD** pre-dental hygiene courses (as indicated in Section A).
5. As the number of repetitions increases, the likelihood of being admitted decreases. Applicants will have within the last five years, no more than two repeated classes in all the pre-dental hygiene courses. A repeated course must be completed with a grade of "C" or better and all incompletes must be removed before beginning the dental hygiene curriculum.
6. Satisfactory completion of the dental hygiene observation forms.

Upon receiving admission to the Dental Hygiene Program, and as a condition of admission, students must show satisfactory evidence of the following:

1. Current CPR/BLS certification
2. Completed physical and dental exams
3. Proof of required immunization requirements

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	

or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
Mathematics Requirement		
MATH 2623	Quantitative Reasoning	3-4
or STAT 2625	Statistical Literacy and Critical Reasoning	
Arts and Humanities (6 s.h.)		
PHIL 2625	Introduction to Professional Ethics (required for major)	3
Arts and Humanities Elective		3
Natural Sciences		
CHEM 1510 & 1510L	Chemistry for the Allied Health Sciences and Chemistry for the Allied Health Sciences Laboratory	4
BIOL 1545	Allied Health Anatomy and Physiology	5
BIOL 1545L	Allied Health Anatomy and Physiology Laboratory	
Social Science (6 s.h.)		
PSYC 1560	General Psychology (required for major)	3
SOC 1500	Introduction to Sociology (required for major)	3
General Education Elective (9 s.h.)		
CMST 1545	Communication Foundations	3
Suggested courses to meet the 6 s.h. requirement		6
FNUT 1551	Normal Nutrition	
PHLT 1568	Healthy Lifestyles	
Required Support Courses		
BIOL 1560	Microbiology for the Health Professions	2
BIOL 1560L	Microbiology Laboratory for Health Professions	1
Major Requirements		
DHYG 2601	Dental Hygiene 1	3
DHYG 2601L	Clinical Dental Hygiene 1	2
DHYG 2620	Head and Neck Anatomy	2
DHYG 2620L	Head and Neck Anatomy Lab	1
DHYG 2630	Management of Medical/Dental Emergencies	2
DHYG 2602	Dental Hygiene 2	2
DHYG 2602L	Clinical Dental Hygiene 2	2
DHYG 2640	Oral Histology	2
DHYG 3703	Dental Hygiene 3	3
DHYG 3703L	Clinical Dental Hygiene 3	3
DHYG 3750	Oral Pathology	2
DHYG 3760	Dental Radiology	3
DHYG 3760L	Dental Radiology Lab	1
DHYG 3770	Periodontology	3
AHLT 4805	Health Education for Allied Health	3
DHYG 3704	Dental Hygiene 4	3
DHYG 3704L	Clinical Dental Hygiene 4	3
DHYG 3780	Pharmacology	2
DHYG 3790	Local Anesthesia and Pain Control for Dental Hygienists	2
DHYG 3790L	Local Anesthesia and Pain Control Clinic	1
AHLT 4806	Research Methods	3
DHYG 4805	Dental Hygiene 5	3
DHYG 4805L	Clinical Dental Hygiene 5	4
DHYG 4830	Dental Materials	1
DHYG 4830L	Dental Materials Lab	1
DHYG 4840	Directed Dental Hygiene Research	3
DHYG 4845	Expanded Functions for the Dental Hygienist	3

DHYG 4845L	Expanded Functions for the Dental Hygienist Lab	1
DHYG 4806	Dental Hygiene 6	2
DHYG 4806L	Clinical Dental Hygiene 6	4
DHYG 4850L	Community Clinicals	1
DHYG 4850	Dental Public Health	2
DHYG 4860	Ethics and Practice Concepts	2
DHYG 4855L	Expanded Functions Clinical	2

Total Semester Hours 120-122

Year 1

Fall		S.H.
ENGL 1550	Writing 1	3
CHEM 1510 & 1510L	Chemistry for the Allied Health Sciences and Chemistry for the Allied Health Sciences Laboratory	4
BIOL 1545 & 1545L	Allied Health Anatomy and Physiology and Allied Health Anatomy and Physiology Laboratory	5
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2

Semester Hours 13-14

Spring

ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
BIOL 1560	Microbiology for the Health Professions	2
BIOL 1560L	Microbiology Laboratory for Health Professions	1
PSYC 1560	General Psychology	3
MATH 2623 or STAT 2625	Quantitative Reasoning or Statistical Literacy and Critical Reasoning	3-4

Semester Hours 15-16

Year 2

Fall		
PHIL 2625	Introduction to Professional Ethics	3
SOC 1500	Introduction to Sociology	3
Arts and Humanities Elective		3
General Education Elective		3

Semester Hours 12

Spring

DHYG 2601	Dental Hygiene 1	3
DHYG 2601L	Clinical Dental Hygiene 1	2
DHYG 2620	Head and Neck Anatomy	2
DHYG 2620L	Head and Neck Anatomy Lab	1
DHYG 2630	Management of Medical/Dental Emergencies	2
General Education Elective		3

Semester Hours 13

Summer

DHYG 2602	Dental Hygiene 2	2
DHYG 2602L	Clinical Dental Hygiene 2	2
DHYG 2640	Oral Histology	2

Semester Hours 6

Year 3

Fall		
DHYG 3703	Dental Hygiene 3	3

DHYG 3703L	Clinical Dental Hygiene 3	3
DHYG 3750	Oral Pathology	2
DHYG 3760	Dental Radiology	3
DHYG 3760L	Dental Radiology Lab	1
DHYG 3770	Periodontology	3
AHLT 4805	Health Education for Allied Health	3

Semester Hours 18

Spring

DHYG 3704	Dental Hygiene 4	3
DHYG 3704L	Clinical Dental Hygiene 4	3
DHYG 3780	Pharmacology	2
DHYG 3790	Local Anesthesia and Pain Control for Dental Hygienists	2
DHYG 3790L	Local Anesthesia and Pain Control Clinic	1
AHLT 4806	Research Methods	3

Semester Hours 14

Year 4

Fall

DHYG 4805	Dental Hygiene 5	3
DHYG 4805L	Clinical Dental Hygiene 5	4
DHYG 4830	Dental Materials	1
DHYG 4830L	Dental Materials Lab	1
DHYG 4840	Directed Dental Hygiene Research	3
DHYG 4845	Expanded Functions for the Dental Hygienist	3
DHYG 4845L	Expanded Functions for the Dental Hygienist Lab	1

Semester Hours 16

Spring

DHYG 4806	Dental Hygiene 6	2
DHYG 4806L	Clinical Dental Hygiene 6	4
DHYG 4850L	Community Clinicals	1
DHYG 4850	Dental Public Health	2
DHYG 4860	Ethics and Practice Concepts	2
DHYG 4855L	Expanded Functions Clinical	2

Semester Hours 13

Total Semester Hours 120-122

Learning Outcomes

The student learning outcomes for the dental hygiene program are as follows:

- The graduates will be competent in resolving professional and ethical issues utilizing effective communication and critical thinking skills.
- The graduates will be competent in providing patient education programs and community service to diverse populations.
- The graduates will be competent in performing clinical skills necessary to achieve and maintain the oral health of their patients.
- The graduates will be competent in analyzing current research and in conducting original research.

Bachelor of Science in Applied Science in Dietetics

Dr. Zara Rowlands, Program Director

(330) 941-2021
zcshah@ysu.edu

The Program is ACEND accredited 01/2021 - 01/2028. Contact: ACEND, 120 South Riverside Plaza, Suite 2190, Chicago, IL 60606-6995; Phone: 1-800-872-5327

Students may select the Dietetic major as a Freshman or transfer student. Majors must earn a C or better grade in the following courses within the first year of enrollment in the major (or transfer equivalent courses).

COURSE	TITLE	S.H.
FNUT 1551	Normal Nutrition	3
BIOL 1545	Allied Health Anatomy and Physiology	5
BIOL 1545L	Allied Health Anatomy and Physiology Laboratory	0
CHEM 1510	Chemistry for the Allied Health Sciences	4
CHEM 1510L	Chemistry for the Allied Health Sciences Laboratory	0
FNUT 2600	Orientation to Dietetics Major	1

Upon satisfactory completion of the dietetic degree, students are issued a Didactic Program in Dietetics verification statement confirming eligibility to apply for an ACEND accredited Dietetic Internship (DI) or other pre-professional practice program such as an Individualized Supervised Practice Program (ISPP) or a Graduate-Dietetics Future Education program.

Completion of Supervised Pre-professional Practice and a graduate degree (master's level or above) establish eligibility for the Commission on Dietetic Registration (CDR) credentialing examination for dietitians. Candidates who pass the exam, earn the Registered Dietitian Nutritionist (RDN) credential, which makes one eligible for State Licensure to practice as a Licensed, Registered Dietitian in the State of Ohio. Licensure and Certification requirements differ from State to State.

Dietetic graduates may also take the registration examination for dietetic technicians and become Nutrition and Dietetic Technicians, Registered (NDTR).

Both credentials (RDN and NDTR) require completion of continuing education and maintenance of an electronic Portfolio covering 5 year periods, to document CEUs, on the Commission on Dietetic Registration credential management portal.

For more information, contact Dr. Zara Rowlands at zcshah@ysu.edu or call (330) 941-2021

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	

General Education Requirements

ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
STAT 2625	Statistical Literacy and Critical Reasoning	4

Natural Science

BIOL 1545	Allied Health Anatomy and Physiology	5
BIOL 1545L	Allied Health Anatomy and Physiology Laboratory	0
CHEM 1510	Chemistry for the Allied Health Sciences	4
CHEM 1510L	Chemistry for the Allied Health Sciences Laboratory	0
PSYC 1560	General Psychology	3
SOC 1500	Introduction to Sociology	3
Arts and Humanities (6 s.h. Select 2 courses)		6
CMST 1545	Communication Foundations	3

Gen Ed Elective met BIOL 1560 and L

Gen Ed Elective Course Met with FNUT 1551 in major

Major Requirements

FNUT 1512	Food Safety and Sanitation	2
FNUT 1551	Normal Nutrition	3
FNUT 1553	Food Science and Management Principles	3
FNUT 1553L	Food Science and Management Principles Laboratory	1
FNUT 2600	Orientation to Dietetics Major	1
FNUT 2612	Food Systems: Operation, Production, and Service	3
FNUT 2612L	Food Systems: Operations, Production, and Service Laboratory	2
FNUT 2640	Nutrition Counseling and Education Skills Development for Dietetics	3
FNUT 2641	Diet Prescriptions and Intervention Planning	2
FNUT 2652L	Nutrition Assessment Laboratory	1
FNUT 3735	Nutritional Biochemistry	2
FNUT 3759	Advanced Nutrition	3
FNUT 3760	Medical Nutrition Therapy 2	3
FNUT 3761	Science of Nutrition in Exercise	3
FNUT 4802	Research Methods in Dietetics	2
FNUT 4802L	Research Methods in Dietetics Laboratory	1
FNUT 4810	Experimental Foods	2
FNUT 4810L	Experimental Foods Laboratory	1
FNUT 4858	Food Service Systems Management	4
FNUT 4860	Medical Nutrition Therapy 3	3
FNUT 4872	Maternal and Child Nutrition	2
FNUT 4873	Nutrition and Aging	2
FNUT 4874	Community Nutrition and Wellness	3
FNUT 4895	DPD Capstone	3
FNUT 5862	Food and Culture	2
FNUT 5862L	Food and Cultures Laboratory	1

Additional Accreditation Required Courses

ACCT 1503	Essentials of Accounting	3
or HMG 2603	Hospitality Managerial Accounting 1	
AHLT 4810	Management Skills for Health Professionals	3
or MGT 3725	Fundamentals of Management	
BIOL 1560	Microbiology for the Health Professions	2
BIOL 1560L	Microbiology Laboratory for Health Professions	1
HAHS 5875	Interprofessional Education for Health Professions	3
AHLT 1501	Medical Terminology	3
AHLT 2605	Introduction to Pharmacology	3
SOC 3745	Sociology of Health, Illness, and Healthcare	3
Any Elective to met 120		6

Total Semester Hours 120-122

Year 1

Fall		S.H.
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2
ENGL 1550 or ENGL 1549	Writing 1 (F,S,X) or Writing 1 with Support	3-4
FNUT 1551	Normal Nutrition (F,S,X)	3
BIOL 1545 & 1545L	Allied Health Anatomy and Physiology and Allied Health Anatomy and Physiology Laboratory	5
CHEM 1510	Chemistry for the Allied Health Sciences	4
CHEM 1510L	Chemistry for the Allied Health Sciences Laboratory	0

Semester Hours

16-18

Spring			Elective	3	
ENGL 1551	Writing 2 (F,S,X)	3	Semester Hours	13	
PSYC 1560	General Psychology (F,S,X)	3	Spring		
FNUT 2600	Orientation to Dietetics Major	1	FNUT 4872	Maternal and Child Nutrition (S)	2
AHLT 1501	Medical Terminology	3	FNUT 4873	Nutrition and Aging	2
A & H course		3	FNUT 4874	Community Nutrition and Wellness (F)	3
Semester Hours			FNUT 5862	Food and Culture	2
13			FNUT 5862L	Food and Cultures Laboratory	1
Year 2			SOC 3745	Sociology of Health, Illness, and Healthcare	3
Fall			Semester Hours		
ACCT 1503	Essentials of Accounting	3	13		
CMST 1545	Communication Foundations	3	Total Semester Hours		
FNUT 1512	Food Safety and Sanitation	2	120-122		
FNUT 1553	Food Science and Management Principles (F,S)	3	Sophomore, Junior and Senior level Dietetics core courses are offered once per year. Please attend an advising session with your program advisor so you can sequence your courses to complete the program efficiently.		
FNUT 1553L	Food Science and Management Principles Laboratory	1	YSU-DPD Program Goals & Objectives 2022-2024		
STAT 2625	Statistical Literacy and Critical Reasoning	4	Goal 1. The program will prepare graduates for supervised practice programs, advanced degrees or employment.		
Semester Hours			<ul style="list-style-type: none">• 01: At least 80% of program students complete program/degree requirements within 3 years (150% of the program length).• 02: At least 35 percent of program graduates apply for admission to a supervised practice program prior to or within 12 months of graduation• 03: Of program graduates who apply to a supervised practice program, at least 50 percent are admitted within 12 months of graduation• 04: The program's one-year pass rate (graduates who pass the registration exam within one year of first attempt) on the CDR credentialing exam for dietitian nutritionists is at least 80%.• 05: At least 70% of program graduates who do not complete supervised practice programs will report employment in a nutrition-related field. (Program Specific Goal)		
16			Goal 2. The program will prepare graduates perform adequately in a supervised practice program.		
Spring			<ul style="list-style-type: none">• 01: At least 80% of graduates admitted to supervised practice will rate their preparation by the program to be satisfactory or better.• 02: At least 80% of graduates will receive "satisfactory" ratings or better on their preparation and performance from their supervised practice program (DI) director and/or preceptors.• 03: At least 80% of program graduates will rate program quality as satisfactory or better in preparing them for advanced studies or employment. (Program Specific Goal)		
FNUT 2612	Food Systems: Operation, Production, and Service (F,S)	3	Bachelor of Science in Applied Science in Dietetics - MHHS 4+1 Graduate Track		
AHLT 2605	Introduction to Pharmacology	3	Zara C. Rowlands, PhD, RDN, Director, Didactic Program in Dietetics. (zcsah@ysu.edu; 330-941-2021, Cushwa 1114)		
FNUT 2612L	Food Systems: Operations, Production, and Service Laboratory (F,S)	2	Dan Van Dussen, PhD, Director, Master's in Health & Human Services (djvandussen@ysu.edu; 330-941-1683, Cushwa 1026)		
FNUT 2640	Nutrition Counseling and Education Skills Development for Dietetics	3	The baccalaureate program is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics (AND). The Dietetic program at YSU is currently accredited, 2021-2028.		
FNUT 2641	Diet Prescriptions and Intervention Planning	2			
FNUT 3735	Nutritional Biochemistry (S)	2			
FNUT 2652L	Nutrition Assessment Laboratory	1			
Semester Hours					
16					
Year 3					
Fall					
FNUT 3759	Advanced Nutrition (F)	3			
FNUT 3760	Medical Nutrition Therapy 2 (F)	3			
FNUT 3761	Science of Nutrition in Exercise	3			
FNUT 4802	Research Methods in Dietetics (F)	2			
SOC 1500	Introduction to Sociology	3			
A & H Elective		3			
Semester Hours					
17					
Spring					
AHLT 4810	Management Skills for Health Professionals	3			
FNUT 4860	Medical Nutrition Therapy 3 (S)	3			
FNUT 4802L or FNUT 4890	Research Methods in Dietetics Laboratory or Directed Individual Study in Dietetics	1			
FNUT 4810	Experimental Foods	2			
FNUT 4810L	Experimental Foods Laboratory	1			
BIOL 1560	Microbiology for the Health Professions	2			
BIOL 1560L	Microbiology Laboratory for Health Professions	1			
Elective		3			
Semester Hours					
16					
Year 4					
Fall					
FNUT 4858	Food Service Systems Management (F)	4			
FNUT 4895	DPD Capstone	3			
HAHS 5875	Interprofessional Education for Health Professions	3			

Email: ACEND@eatright.org; Phone: 800/877-1600, ext. 5400; Mail: Academy of Nutrition and Dietetics - ACEND, 120 South Riverside Plaza, Suite 2190, Chicago, IL 60606-6995

Students may select the Dietetics program as a major as freshmen or transfer. A GPA of 2.0 and the following courses must be successfully completed (or transferred) within the first year enrolled in the program.

MHHS courses (2) are scheduled with undergrad coursework in the Senior year of the DPD program, selected with input from the Director of the MHHS program, Dr. Dan Van Dussen.

Upon satisfactory completion of the dietetic program, students are issued a verification statement confirming eligibility to apply for an ACEND accredited Dietetic Internship (DI) or other pre-professional practice program such as an Individualized Supervised Practice Program (ISPP). Completion of the DI, or an approved pre-professional practice program, establishes eligibility for the Commission on Dietetic Registration (CDR) credentialing examination for dietitians. Passing the examination results in nationally recognized credential as a Registered Dietitian (RD) and eligibility for Licensure (or Certification) in states that require State-based credentials for professional practice.

Dietetic graduates may also take the registration examination for dietetic technicians and become Dietetic Technicians, Registered (DTR).

For more information, contact Dr. Zara Rowlands at zcshah@ysu.edu or call (330) 941-2021

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
STAT 2625	Statistical Literacy and Critical Reasoning	3-6
or STAT 2601	Introductory Statistics	
or STAT 2625C	Statistical Literacy and Critical Reasoning with Co-Requisite Support	
Natural Science		
CHEM 1510 & 1510L	Chemistry for the Allied Health Sciences and Chemistry for the Allied Health Sciences Laboratory	4
BIOL 1545 & 1545L	Allied Health Anatomy and Physiology and Allied Health Anatomy and Physiology Laboratory	5
Social Science		
PSYC 1560	General Psychology	3
SOC 1500	Introduction to Sociology	3
Arts and Humanities (6 s.h.)		
General Education Electives		
General Education Elective		3
FNUT 1551	Normal Nutrition	3
CMST 1545	Communication Foundations	3
Major Requirements		
FNUT 1512	Food Safety and Sanitation	2
FNUT 1553 & 1553L	Food Science and Management Principles and Food Science and Management Principles Laboratory	4
FNUT 2600	Orientation to Dietetics Major	1
FNUT 2612 & 2612L	Food Systems: Operation, Production, and Service and Food Systems: Operations, Production, and Service Laboratory	5

FNUT 2652L	Nutrition Assessment Laboratory	1
FNUT 2640	Nutrition Counseling and Education Skills Development for Dietetics	3
FNUT 2641	Diet Prescriptions and Intervention Planning	2
FNUT 3735	Nutritional Biochemistry	2
FNUT 3759	Advanced Nutrition	3
FNUT 3760	Medical Nutrition Therapy 2	3
FNUT 3761	Science of Nutrition in Exercise	3
FNUT 4802	Research Methods in Dietetics	2
FNUT 4802L	Research Methods in Dietetics Laboratory	1
or FNUT 4890	Directed Individual Study in Dietetics	
FNUT 4810 & 4810L	Experimental Foods and Experimental Foods Laboratory	3
FNUT 4858	Food Service Systems Management	4
FNUT 4860	Medical Nutrition Therapy 3	3
FNUT 4874	Community Nutrition and Wellness	3
FNUT 4872	Maternal and Child Nutrition	2
FNUT 4873	Nutrition and Aging	2
FNUT 4895	DPD Capstone	3
FNUT 5825	Current Nutrition Concepts	3
FNUT 5862 & 5862L	Food and Culture and Food and Cultures Laboratory	3

Additional Required Courses

ACCT 1503	Essentials of Accounting	3
BIOL 1560 & 1560L	Microbiology for the Health Professions and Microbiology Laboratory for Health Professions	3
AHLT 1501	Medical Terminology	3
AHLT 2605	Introduction to Pharmacology	3
ALCS 1503	Aging and Society	3

Must choose one set of the transitory courses below

Master's in HHS Health Promotion Track		
HAHS 5875	Interprofessional Education for Health Professions	
HHS 6953	Health Behavior	
HHS 6949	Community Health Practice	

Master's in HHS Health Informatics Track		
HAHS 5875	Interprofessional Education for Health Professions	
HHS 6962	Health Care Policy	
HHS 6960	Health Education and Promotion	

Master's in HHS Health Care Admin Track		
HAHS 5875	Interprofessional Education for Health Professions	
HHS 6971	Human Resource Management for Healthcare Administration	
HHS 6962	Health Care Policy	

Total Semester Hours

122-127

Year 1

Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
ENGL 1550	Writing 1	
or ENGL 1549	or Writing 1 with Support	3-4
FNUT 1551	Normal Nutrition	3
FNUT 1553 & 1553L	Food Science and Management Principles and Food Science and Management Principles Laboratory	4

STAT 2625 or STAT 2601 or STAT 2625C	Statistical Literacy and Critical Reasoning or Introductory Statistics or Statistical Literacy and Critical Reasoning with Co-Requisite Support	3-6
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Semester Hours	14-19
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Spring

ENGL 1551	Writing 2	3
PSYC 1560	General Psychology	3
BIOL 1545 & 1545L	Allied Health Anatomy and Physiology and Allied Health Anatomy and Physiology Laboratory	5
FNUT 2600	Orientation to Dietetics Major	1
AHLT 1501	Medical Terminology	3

Semester Hours	15
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Year 2**Fall**

ACCT 1503	Essentials of Accounting	3
FNUT 1512	Food Safety and Sanitation	2
CMST 1545	Communication Foundations	3
Arts & Humanities Gen Ed Elective		3
CHEM 1510	Chemistry for the Allied Health Sciences	4

Semester Hours	15
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Spring

FNUT 2612 & 2612L	Food Systems: Operation, Production, and Service and Food Systems: Operations, Production, and Service Laboratory	5
FNUT 2652L	Nutrition Assessment Laboratory	1
FNUT 2640	Nutrition Counseling and Education Skills Development for Dietetics	3
FNUT 2641	Diet Prescriptions and Intervention Planning	2
FNUT 3735	Nutritional Biochemistry	2
AHLT 2605	Introduction to Pharmacology	3

Semester Hours	16
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Year 3**Fall**

FNUT 3759	Advanced Nutrition	3
FNUT 3760	Medical Nutrition Therapy 2	3
FNUT 3761	Science of Nutrition in Exercise	3
FNUT 4802	Research Methods in Dietetics	2
FNUT 5825	Current Nutrition Concepts	3
SOC 1500	Introduction to Sociology	3

Semester Hours	17
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Spring

FNUT 4860	Medical Nutrition Therapy 3	3
FNUT 4802L or FNUT 4890	Research Methods in Dietetics Laboratory or Directed Individual Study in Dietetics	1
FNUT 4810 & 4810L	Experimental Foods and Experimental Foods Laboratory	3
FNUT 4873	Nutrition and Aging	2
ALCS 1503	Aging and Society	3
BIOL 1560 & 1560L	Microbiology for the Health Professions and Microbiology Laboratory for Health Professions	3

Semester Hours	15
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Year 4**Fall**

FNUT 4858	Food Service Systems Management	4
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FNUT 4895	DPD Capstone	3
Master's in HHS Course Selection		3
Master's in HHS Course Selection		3
General Education Elective		3

Semester Hours	16
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Spring

FNUT 4872	Maternal and Child Nutrition	2
FNUT 4874	Community Nutrition and Wellness	3
FNUT 5862 & 5862L	Food and Culture and Food and Cultures Laboratory	3
Arts & Humanities Gen Ed Elective		3
Master's in HHS Course Selection		3

Semester Hours	14
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Total Semester Hours	122-127
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Goal 1. The program will prepare graduates for supervised practice programs, advanced degrees or employment.

- **01:** At least 80% of program students complete program/degree requirements within 3 years (150% of the program length).
- **02:** At least 35 percent of program graduates apply for admission to a supervised practice program prior to, or within 12 months of graduation
- **03:** Of program graduates who apply to a supervised practice program, at least 50 percent are admitted within 12 months of graduation
- **04:** The program's one-year pass rate (graduates who pass the registration exam within one year of first attempt) on the CDR credentialing exam for dietitian nutritionists is at least 80%.
- **05:** At least 70% of program graduates who do not complete supervised practice programs will report employment in a nutrition-related field. **(Program Specific Goal)**

Goal 2. The program will prepare graduates to perform adequately in a supervised practice program.

- **01:** At least 80% of graduates admitted to supervised practice will rate their preparation by the program to be satisfactory or better.
- **02:** At least 80% of graduates will receive "satisfactory" ratings or better on their preparation and performance from their supervised practice program (DI) director and/or preceptors.
- **03:** At least 80% of program graduates will rate program quality as satisfactory or better in preparing them for advanced studies or employment. **(Program Specific Goal)**

Bachelor of Science in Applied Science in Exercise Science

Program Director

Garrett Kellar
ggekellar@ysu.edu

Overview

The Department of Health Professions offers a Bachelor of Science in Applied Science degree with a major in exercise science. This program prepares students for certification through the American College of Sports Medicine (ACSM) as a Certified Exercise Physiologist (EP) and the National Strength & Conditioning Association (NSCA) as a Certified Strength and Conditioning Specialist (CSCS).

As such, graduates will be able to design safe and effective exercise prescriptions and conduct individual exercise programs, fitness testing, and health education for low- to moderate-risk individuals, individuals with

controlled diseases, and individuals in special populations (e.g. pregnancy, hypertension, and osteoporosis).

Graduates are employed in a wide variety of settings that include:

- medically based wellness programs
- corporate wellness programs
- strength and conditioning
- clinical rehabilitation programs such as cardiac rehabilitation
- public and private fitness clubs

In addition, the program serves as a strong foundation for students wishing to pursue advanced degrees in the field of exercise science or enter professional schools such as:

- Athletic Training
- Physical Therapy
- Occupational Therapy
- Physician Assistant
- Medical school
- Graduate degree in Exercise Science/Physiology

Accreditation

The Bachelor of Science in Applied Science in Exercise Science is accredited by Commission on Accreditation of Allied Health Education Programs (CAAHEP). Accreditation Link (<http://www.coaes.org/>).

Current accreditation standing: Active Good Standing

Date of last campus visit: 2018

Date of next campus visit: 2023

Admission

Application forms and other information about this program can be obtained through the Department of Health Professions or by contacting Dr Garrett Kellar, ggkellar@ysu.edu. This program can be completed in eight semesters if students average 16 hours per semester.

For more information, visit **Exercise Science - B.S. in Applied Science** (<http://www.ysu.edu/academics/bitonte-college-health-and-human-services/exercise-science-major/>).

The following are KSS courses required in the major for this degree:

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
MATH 1513	Algebra and Transcendental Function	4-6
or MATH 1510	College Algebra	
or MATH 1510C	College Algebra with Co-requisite Support	
Gen Ed NS		
BIOL 1551 & 1551L	Anatomy and Physiology 1 and Anatomy and Physiology 1 Laboratory	4
BIOL 1552 & 1552L	Anatomy and Physiology 2 and Anatomy and Physiology 2 Laboratory	4
Social Science (1 Course)		3
PSYC 1560	General Psychology	3

Arts and Humanities (2 Courses)		6
General Education Elective -Met in major with KSS classes, PHYS or CHEM		
FNUT 1551	Normal Nutrition	3
Major Requirements		
KSS 1595	Introduction to Kinesiology and Sport Science (FYE course)	2
KSS 1559	Aerobic Conditioning Activities	1
KSS 1560	Resistance Training	2
KSS 1500 Activity Elective		1
KSS 2605	Sports First Aid and Injury Prevention	3
STAT 2625	Statistical Literacy and Critical Reasoning	3-6
or STAT 2601	Introductory Statistics	
or STAT 2625C	Statistical Literacy and Critical Reasoning with Co-Requisite Support	
KSS 2625	Pedagogical Aspects of Exercise Science	3
KSS 3700	Exercise Evaluation and Testing	4
KSS 3710 & 3710L	Physiology of Exercise and Physiology of Exercise Laboratory	5
KSS 3720	Kinesiology and Applied Anatomy	4
KSS 3730	Exercise Prescription	4
KSS 3760	Strength Training and Conditioning	3
KSS 4805	Administration of Exercise Programs	3
KSS 4810	Clinical Exercise Testing and Prescription	4
KSS 4875	Exercise Counseling and Behavioral Strategies	4
KSS 4880	Internship	8
Additional Required Courses		
PHYS 1506	Physics for Health Care	3
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
CMST 1545	Communication Foundations	3
Electives		22
Total Semester Hours		120-127
Year 1		
Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
KSS 1559	Aerobic Conditioning Activities	1
MATH 1513	Algebra and Transcendental Function	4-6
or MATH 1510	or College Algebra	
or MATH 1510C	or College Algebra with Co-requisite Support	
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
BIOL 1551 & 1551L	Anatomy and Physiology 1 and Anatomy and Physiology 1 Laboratory	4
Semester Hours		13-17
Spring		
KSS 1560	Resistance Training	2
KSS 1595	Introduction to Kinesiology and Sport Science	2
ENGL 1551	Writing 2	3
Arts & Humanities Elective		3
BIOL 1552 & 1552L	Anatomy and Physiology 2 and Anatomy and Physiology 2 Laboratory	4
CMST 1545	Communication Foundations	3
Semester Hours		17

Year 2**Fall**

KSS 2625	Pedagogical Aspects of Exercise Science	3
KSS 2605	Sports First Aid and Injury Prevention	3
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
PSYC 1560	General Psychology	3

Semester Hours 13

Spring

KSS Activity Elective		1
FNUT 1551	Normal Nutrition	3
KSS 3710 & 3710L	Physiology of Exercise and Physiology of Exercise Laboratory	5
STAT 2625 or STAT 2601 or STAT 2625C	Statistical Literacy and Critical Reasoning or Introductory Statistics or Statistical Literacy and Critical Reasoning with Co-Requisite Support	3-6
PHYS 1506	Physics for Health Care	3

Semester Hours 15-18

Year 3**Fall**

KSS 3700	Exercise Evaluation and Testing	4
KSS 3720	Kinesiology and Applied Anatomy	4
KSS 4805	Administration of Exercise Programs	3
Elective		3

Semester Hours 14

Spring

KSS 3730	Exercise Prescription	4
KSS 3760	Strength Training and Conditioning	3
Arts & Humanities Elective		3
Social Science Elective		3
Elective		3

Semester Hours 16

Year 4**Fall**

KSS 4810	Clinical Exercise Testing and Prescription	4
Elective		3
Elective		3
Elective		3
Elective		1

Semester Hours 14

Spring

KSS 4880	Internship	8
KSS 4875	Exercise Counseling and Behavioral Strategies	4
Elective		3
Elective		3

Semester Hours 18

Total Semester Hours 120-127

Student Learning Outcomes**Student Learning Outcome #1:**

- Students will demonstrate knowledge and skills in health, fitness, and performance assessment.

DESIRED LEARNING OUTCOME

- Students will conduct physical fitness assessments for healthy participants and those with controlled disease.
- Students will interpret cardiorespiratory fitness assessments.

Student Learning Outcome #2

- Students will demonstrate skills in risk factor and health risk identification and the ability to prescribe and implement exercise safely in healthy individuals, special populations (i.e. older adults, youth, and pregnant women), individuals with controlled cardiovascular, pulmonary, and metabolic diseases, and other clinical populations.

DESIRED PERFORMANCE OUTCOME

- Students will prescribe and implement Exercise Rx, using FITT-VP principles, for healthy participants, special populations (i.e. older adults, youth, and pregnant women), participants with controlled cardiovascular, pulmonary, and metabolic diseases, and other clinical populations based on health status and goals.
- Students will establish progression guidelines for resistance, aerobic and flexibility exercises to achieve the goals of the participant.
- Students will determine safe and effective exercise programs to achieve desired outcomes and goals.
- Students will demonstrate knowledge regarding the implementation of a weight management program as indicated by personal goals that are supported by pre-participation health screening, health history, and body composition/anthropometric
- The student will demonstrate skill in modifying exercise prescriptions based on environmental conditions.

Student Learning Outcome #3

- Students will demonstrate competency in effectively educating, exercise counseling and using behavioral strategies regarding lifestyle modification for individuals.

DESIRED PERFORMANCE OUTCOME

- Optimize adoption and adherence to exercise programs and other healthy behaviors by applying effective communication techniques, behavioral and motivational strategies.
- Students will demonstrate their knowledge by providing educational resources to support clients in the adoption and maintenance of healthy lifestyle behaviors.
- Students will demonstrate their knowledge by providing support within the scope of practice of an ACSM Certified Exercise Physiologist and refer to other health professionals as indicated.

Student Learning Outcome #4:

- Students will demonstrate competency in the legal and professional tasks related to the discipline

DESIRED PERFORMANCE OUTCOME

- Students will create and disseminate risk management guidelines for a health/fitness facility, department or organization to reduce member, employee and business risk
- Students will create an effective injury prevention program and ensure that emergency policies and procedures are in place.
- Students will demonstrate knowledge in establishing policies and procedures for the management of health fitness facilities based on accepted safety and legal guidelines, standards and regulations

Student Learning Outcome #5

- Students will demonstrate knowledge of implementing management policies related to the discipline.

DESIRED PERFORMANCE OUTCOMES

- Students will demonstrate knowledge in developing and executing a marketing plan to promote programs, services and facilities
- Students will demonstrate knowledge in managing human resources in accordance with leadership, organization, and management techniques.
- Students will demonstrate knowledge in managing fiscal resources in accordance with leadership, organization, and management techniques.

Bachelor of Science in Applied Science Exercise Science - Graduate Track

Program Director: Garrett Kellar (ggekellar@ysu.edu)

Exercise Science is a growing field with job opportunities upon graduation in areas such as cardiac rehabilitation, pulmonary rehabilitation, worksite or corporate wellness, strength and conditioning from youth sports to elite athlete levels, campus and park recreation as well as personal training.

Many students who select Exercise Science as their major do so because they are interested in working in the health care field but do not know specifically what they want to be when they graduate from a 4 year program. Exercise Science is a great major that allows flexibility in a post-graduate career because the undergraduate work focuses so much on the human body. Because of this, many of our students in Exercise Science find themselves able to apply to a wide variety of graduate study programs such as Athletic Training, Physical Therapy, Occupational Therapy, Chiropractic School, Physician Assistant Programs, and Medical School.

These graduate programs typically require advanced sciences as prerequisites. For that reason, we offer a second track for Exercise Science majors who know graduate school is for them. This track heavily emphasizes the sciences, requiring 4 Biology, 2 Chemistry and 2 Physics courses. While science prerequisites will vary from graduate program to graduate program and even from state to state, the courses in this track have successfully prepared many of our previous students for entry to graduate school. We strongly suggest, however, that the student aligns their courses with the prerequisites of graduate program of their choice. Such prerequisites can typically be found on the graduate program website or by calling the graduate program director of the respective program.

Program Director: Garrett Kellar (ggekellar@ysu.edu)

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
MATH 1513	Algebra and Transcendental Function	5-10
or MATH 1510	College Algebra	
& MATH 1511	and Trigonometry	
or MATH 1510C	College Algebra with Co-requisite Support	
& MATH 1511C	and Trigonometry with Co-requisite Support	
Arts and Humanities (2 courses)		6
Social Science Elective (1 course)		3
PSYC 1560	General Psychology	3

CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
PHYS 1501 & 1501L	Fundamentals of Physics 1 and Fundamentals of Physics Laboratory 1	5
General Education Elective		3
CMST 1545	Communication Foundations	3
FNUT 1551	Normal Nutrition	3

Major Required Courses

KSS 1595	Introduction to Kinesiology and Sport Science (FYE course)	2
KSS 1559	Aerobic Conditioning Activities	1
KSS 1560	Resistance Training	2
KSS 15XX Activity Elective		1
KSS 2605	Sports First Aid and Injury Prevention	3
KSS 2625	Pedagogical Aspects of Exercise Science	3
STAT 2625	Statistical Literacy and Critical Reasoning	3-6
or STAT 2601	Introductory Statistics	
or STAT 2625C	Statistical Literacy and Critical Reasoning with Co-Requisite Support	
KSS 3700	Exercise Evaluation and Testing	4
KSS 3710 & 3710L	Physiology of Exercise and Physiology of Exercise Laboratory	5
KSS 3720	Kinesiology and Applied Anatomy	4
KSS 3730	Exercise Prescription	4
KSS 3760	Strength Training and Conditioning	3
KSS 4805	Administration of Exercise Programs	3
KSS 4810	Clinical Exercise Testing and Prescription	4
KSS 4875	Exercise Counseling and Behavioral Strategies	4
KSS 4880	Internship	8

Required additional courses (9 s.h.)

BIOL 3705 & 3705L	Introduction to Human Gross Anatomy and Introduction to Human Gross Anatomy Laboratory	4
BIOL 3730 & 3730L	Human Physiology and Human Physiology Laboratory	5

Additional recommended graduate prep courses. Check your specific graduate program requirements.

BIOL 2601 & 2601L	General Biology 1: Molecules and Cells and General Biology I: Molecules and Cells Laboratory	4
BIOL 2602 & 2602L	General Biology 2: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
PHYS 1502 & 1502L	Fundamentals of Physics 2 and Fundamentals of Physics Laboratory 2	4

Total Semester Hours **121-131**

Course	Title	S.H.
Year 1		
Fall		
YSU 1500	Success Seminar	1
KSS 1559	Aerobic Conditioning Activities	1
MATH 1513	Algebra and Transcendental Function	5
ENGL 1550	Writing 1	3
CMST 1545	Communication Foundations	3
A&H Elective		3
Semester Hours		16

Spring			KSS 4875	Exercise Counseling and Behavioral Strategies	4
KSS 1560	Resistance Training	2	Semester Hours		12
KSS 1595	Introduction to Kinesiology and Sport Science	2	Total Semester Hours		122
ENGL 1551	Writing 2	3	Student Learning Outcome #1:		
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4	<ul style="list-style-type: none"> Students will demonstrate knowledge and skills in health, fitness, and performance assessment. 		
BIOL 2601 & 2601L	General Biology 1: Molecules and Cells and General Biology I: Molecules and Cells Laboratory	4	DESIRED LEARNING OUTCOME		
Semester Hours		15	<ul style="list-style-type: none"> Students will conduct physical fitness assessments for healthy participants and those with controlled disease. Students will interpret cardiorespiratory fitness assessments. 		
Year 2			Student Learning Outcome #2		
Fall			<ul style="list-style-type: none"> Students will demonstrate skills in risk factor and health risk identification and the ability to prescribe and implement exercise safely in healthy individuals, special populations (i.e. older adults, youth, and pregnant women), individuals with controlled cardiovascular, pulmonary, and metabolic diseases, and other clinical populations. 		
KSS 15XX Level Activity Elective		1	DESIRED PERFORMANCE OUTCOME		
KSS 2605	Sports First Aid and Injury Prevention	3	<ul style="list-style-type: none"> Students will prescribe and implement Exercise Rx, using FITT-VP principles, for healthy participants, special populations (i.e. older adults, youth, and pregnant women), participants with controlled cardiovascular, pulmonary, and metabolic diseases, and other clinical populations based on health status and goals. 		
KSS 2625	Pedagogical Aspects of Exercise Science	3	<ul style="list-style-type: none"> Students will establish progression guidelines for resistance, aerobic and flexibility exercises to achieve the goals of the participant. 		
BIOL 2602 & 2602L	General Biology 2: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4	<ul style="list-style-type: none"> Students will determine safe and effective exercise programs to achieve desired outcomes and goals. 		
PSYC 1560	General Psychology	3	<ul style="list-style-type: none"> Students will demonstrate knowledge regarding the implementation of a weight management program as indicated by personal goals that are supported by pre-participation health screening, health history, and body composition/anthropometric 		
FNUT 1551	Normal Nutrition	3	<ul style="list-style-type: none"> The student will demonstrate skill in modifying exercise prescriptions based on environmental conditions. 		
Semester Hours		17	Student Learning Outcome #3		
Spring			<ul style="list-style-type: none"> Students will demonstrate competency in effectively educating, exercise counseling and using behavioral strategies regarding lifestyle modification for individuals. 		
KSS 3700	Exercise Evaluation and Testing	4	DESIRED PERFORMANCE OUTCOME		
STAT 2601 or STAT 2625	Introductory Statistics or Statistical Literacy and Critical Reasoning	3	<ul style="list-style-type: none"> Optimize adoption and adherence to exercise programs and other healthy behaviors by applying effective communication techniques, behavioral and motivational strategies. 		
BIOL 3730	Human Physiology	4	<ul style="list-style-type: none"> Students will demonstrate their knowledge by providing educational resources to support clients in the adoption and maintenance of healthy lifestyle behaviors. 		
BIOL 3730L	Human Physiology Laboratory	1	<ul style="list-style-type: none"> Students will demonstrate their knowledge by providing support within the scope of practice of an ACSM Certified Exercise Physiologist and refer to other health professionals as indicated. 		
PHYS 1501	Fundamentals of Physics 1	4	Student Learning Outcome #4:		
PHYS 1501L	Fundamentals of Physics Laboratory 1	1	<ul style="list-style-type: none"> Students will demonstrate competency in the legal and professional tasks related to the discipline 		
Semester Hours		17	DESIRED PERFORMANCE OUTCOME		
Year 3			<ul style="list-style-type: none"> Students will create and disseminate risk management guidelines for a health/fitness facility, department or organization to reduce member, employee and business risk 		
Fall					
KSS 3710	Physiology of Exercise	4			
KSS 3710L	Physiology of Exercise Laboratory	1			
KSS 3720	Kinesiology and Applied Anatomy	4			
KSS 4805	Administration of Exercise Programs	3			
BIOL 3705	Introduction to Human Gross Anatomy	4			
BIOL 3705L	Introduction to Human Gross Anatomy Laboratory	0			
Semester Hours		16			
Spring					
KSS 3730	Exercise Prescription	4			
KSS 3760	Strength Training and Conditioning	3			
A&H Elective		3			
SS Elective		3			
SPA Elective		3			
Semester Hours		16			
Year 4					
Fall					
KSS 4810	Clinical Exercise Testing and Prescription	4			
Elective		3			
Elective		3			
Elective		3			
Semester Hours		13			
Spring					
KSS 4880	Internship	8			

- Students will create an effective injury prevention program and ensure that emergency policies and procedures are in place.
- Students will demonstrate knowledge in establishing policies and procedures for the management of health fitness facilities based on accepted safety and legal guidelines, standards and regulations

Student Learning Outcome #5

- Students will demonstrate knowledge of implementing management policies related to the discipline.

Student Learning Outcomes

DESIRED PERFORMANCE OUTCOMES

- Students will demonstrate knowledge in developing and executing a marketing plan to promote programs, services and facilities
- Students will demonstrate knowledge in managing human resources in accordance with leadership, organization, and management techniques.
- Students will demonstrate knowledge in managing fiscal resources in accordance with leadership, organization, and management techniques.

Bachelor of Science in Applied Science Exercise Science - MAT Track

Program Director: Garrett Kellar (ggkellar@ysu.edu)

YSU offers an accelerated-track opportunity for students to complete a Bachelor's degree in Exercise Science and the Master of Athletic Training program in five years. Accelerated track students will complete one year of MAT courses at the undergraduate level and one year at the graduate level.

Program Director: Garrett Kellar (ggkellar@ysu.edu)

Standard Curriculum:

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
MATH 1513	Algebra and Transcendental Function	5-10
or MATH 1510	College Algebra	
& MATH 1511	and Trigonometry	
or MATH 1510C	College Algebra with Co-requisite Support	
& MATH 1511C	and Trigonometry with Co-requisite Support	
Arts and Humanities (2 courses)		6
Natural Sciences		
PHYS 1501	Fundamentals of Physics 1	5
& 1501L	and Fundamentals of Physics Laboratory 1	
CHEM 1515	General Chemistry 1	4
& 1515L	and General Chemistry 1 Laboratory	
Social Sciences		
PSYC 1560	General Psychology	3
Social Science (1 course)		3
General Education Electives (9 s.h.)		
CMST 1545	Communication Foundations	3
FNUT 1551	Normal Nutrition	3
General Education Elective		3

Major Required Courses

KSS 1595	Introduction to Kinesiology and Sport Science	2
KSS 1559	Aerobic Conditioning Activities	1
KSS 1560	Resistance Training	2
KSS 15XX	Activity Elective	1
KSS 2605	Sports First Aid and Injury Prevention	3
KSS 2625	Pedagogical Aspects of Exercise Science	3
STAT 2625	Statistical Literacy and Critical Reasoning	3-6
or STAT 2601	Introductory Statistics	
or STAT 2625C	Statistical Literacy and Critical Reasoning with Co-Requisite Support	
KSS 3700	Exercise Evaluation and Testing	4
KSS 3710	Physiology of Exercise	5
& 3710L	and Physiology of Exercise Laboratory	
KSS 3720	Kinesiology and Applied Anatomy	4
KSS 3730	Exercise Prescription	4
KSS 3760	Strength Training and Conditioning	3
KSS 4810	Clinical Exercise Testing and Prescription	4
KSS 4875	Exercise Counseling and Behavioral Strategies	4

Required additional courses. Credit hours do not count as part of the major. Hrs do count toward degree (13 s.h.)

BIOL 2601	General Biology 1: Molecules and Cells	4
& 2601L	and General Biology I: Molecules and Cells Laboratory	
BIOL 2602	General Biology 2: Organisms and Ecology	4
& 2602L	and General Biology: Organisms and Ecology Laboratory	
BIOL 3705	Introduction to Human Gross Anatomy	4
& 3705L	and Introduction to Human Gross Anatomy Laboratory	
BIOL 3730	Human Physiology	5
& 3730L	and Human Physiology Laboratory	

Courses Counted as Dual-Credit

MAT 6901	Emergency and Acute Care	3
MAT 6902	Foundations of Therapeutic Interventions	3
MAT 6903	Foundations of Athletic Training Clinical Practice	3
MAT 6908	Functional Human Gross Anatomy	4
MAT 6915	Evaluation of Lower Extremity Pathologies	4
MAT 6916	Therapeutic Interventions 1	3
MAT 6910	Clinical Practice 1	2
MAT 6946	General Medical Conditions Evaluation and Management	3
MAT 6925	Evaluation of Upper Extremity Pathologies	4
MAT 6926	Therapeutic Interventions 2	3
MAT 6930	Clinical Practice 2	2
MAT 6950	Evidence-Based Practice/Research	3

Students Graduate with their BSAS degree in Exercise Science

Total Semester Hours **139-149**

Curriculum

Year 1

Fall	S.H.	
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success	
or HONR 1500	Seminar	
	or Intro to Honors	
KSS 1500-Level Activity Elective		1

MATH 1513 or MATH 1510 and MATH 1511 or MATH 1510C and MATH 1511C	Algebra and Transcendental Function or College Algebra and Trigonometry or College Algebra with Co-requisite Support and Trigonometry with Co-requisite Support	5-10	SS Elective	3
			Gen Ed Elective	3
	Semester Hours			17
Summer				
Graduate level courses take for dual-credit will begin now				
MAT 6901	Emergency and Acute Care			3
MAT 6902	Foundations of Therapeutic Interventions			3
MAT 6903	Foundations of Athletic Training Clinical Practice			3
MAT 6908	Functional Human Gross Anatomy			4
	Semester Hours			13
Year 4				
Fall				
MAT 6915	Evaluation of Lower Extremity Pathologies			4
MAT 6916	Therapeutic Interventions 1			3
MAT 6910	Clinical Practice 1			2
MAT 6946	General Medical Conditions Evaluation and Management			3
	Semester Hours			12
Spring				
MAT 6925	Evaluation of Upper Extremity Pathologies			4
MAT 6926	Therapeutic Interventions 2			3
MAT 6930	Clinical Practice 2			2
MAT 6950	Evidence-Based Practice/Research			3
	Semester Hours			12
	Total Semester Hours			139-149

ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4		
CMST 1545	Communication Foundations	3		
	Semester Hours	13-20		
Spring				
KSS 1560	Resistance Training	2		
ENGL 1551	Writing 2	3		
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4		
KSS 2625	Pedagogical Aspects of Exercise Science	3		
BIOL 2601 & 2601L	General Biology 1: Molecules and Cells and General Biology I: Molecules and Cells Laboratory	4		
KSS 1559	Aerobic Conditioning Activities	1		
KSS 1595	Introduction to Kinesiology and Sport Science	2		
	Semester Hours	19		
Year 2				
Fall				
BIOL 2602 & 2602L	General Biology 2: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4		
PHYS 1501 & 1501L	Fundamentals of Physics 1 and Fundamentals of Physics Laboratory 1	5		
KSS 3700	Exercise Evaluation and Testing	4		
PSYC 1560	General Psychology	3		
A&H Elective		3		
	Semester Hours	19		
Spring				
BIOL 3730 & 3730L	Human Physiology and Human Physiology Laboratory	5		
KSS 3720	Kinesiology and Applied Anatomy	4		
FNUT 1551	Normal Nutrition	3		
KSS 2605	Sports First Aid and Injury Prevention	3		
STAT 2625 or STAT 2601 or STAT 2625C	Statistical Literacy and Critical Reasoning or Introductory Statistics or Statistical Literacy and Critical Reasoning with Co-Requisite Support	3-6		
	Semester Hours	18-21		
Year 3				
Fall				
KSS 3710 & 3710L	Physiology of Exercise and Physiology of Exercise Laboratory	5		
A&H Elective		3		
KSS 4875	Exercise Counseling and Behavioral Strategies	4		
KSS 3730	Exercise Prescription	4		
	Semester Hours	16		
Spring				
KSS 4810	Clinical Exercise Testing and Prescription	4		
KSS 3760	Strength Training and Conditioning	3		
BIOL 3705 & 3705L	Introduction to Human Gross Anatomy and Introduction to Human Gross Anatomy Laboratory	4		

Learning Outcomes

Student Learning Outcome #1:

- Students will demonstrate knowledge and skills in health, fitness, and performance assessment.

DESIRED LEARNING OUTCOME

- Students will conduct physical fitness assessments for healthy participants and those with controlled disease.
- Students will interpret cardiorespiratory fitness assessments.

Student Learning Outcome #2

- Students will demonstrate skills in risk factor and health risk identification and the ability to prescribe and implement exercise safely in healthy individuals, special populations (i.e. older adults, youth, and pregnant women), individuals with controlled cardiovascular, pulmonary, and metabolic diseases, and other clinical populations.

DESIRED PERFORMANCE OUTCOME

- Students will prescribe and implement Exercise Rx, using FITT-VP principles, for healthy participants, special populations (i.e. older adults, youth, and pregnant women), participants with controlled cardiovascular, pulmonary, and metabolic diseases, and other clinical populations based on health status and goals.
- Students will establish progression guidelines for resistance, aerobic and flexibility exercises to achieve the goals of the participant.
- Students will determine safe and effective exercise programs to achieve desired outcomes and goals.
- Students will demonstrate knowledge regarding the implementation of a weight management program as indicated by personal goals that are supported by pre-participation health screening, health history, and body composition/anthropometric

- The student will demonstrate skill in modifying exercise prescriptions based on environmental conditions.

Student Learning Outcome #3

- Students will demonstrate competency in effectively educating, exercise counseling and using behavioral strategies regarding lifestyle modification for individuals.

DESIRED PERFORMANCE OUTCOME

- Optimize adoption and adherence to exercise programs and other healthy behaviors by applying effective communication techniques, behavioral and motivational strategies.
- Students will demonstrate their knowledge by providing educational resources to support clients in the adoption and maintenance of healthy lifestyle behaviors.
- Students will demonstrate their knowledge by providing support within the scope of practice of an ACSM Certified Exercise Physiologist and refer to other health professionals as indicated.

Student Learning Outcome #4:

- Students will demonstrate competency in the legal and professional tasks related to the discipline

DESIRED PERFORMANCE OUTCOME

- Students will create and disseminate risk management guidelines for a health/fitness facility, department or organization to reduce member, employee and business risk
- Students will create an effective injury prevention program and ensure that emergency policies and procedures are in place.
- Students will demonstrate knowledge in establishing policies and procedures for the management of health fitness facilities based on accepted safety and legal guidelines, standards and regulations

Bachelor of Science in Applied Science in Exercise Science 4+1 MPH Track

The Exercise Science 4 + 1 MPH track begins preparing students to work one-on-one with individuals performing health assessments, fitness testing, and writing exercise prescriptions for a variety of populations (BSA) and continues to prepare the student to improve the health of entire populations (MPH).

The undergraduate degree in Exercise Science prepares students for careers that include:

- medically based wellness programs
- corporate wellness programs
- strength and conditioning
- clinical rehabilitation programs such as cardiac/pulmonary rehabilitation
- public and private fitness clubs

The master's degree in Public Health prepares students for careers that include:

- health informatics specialist
- healthcare administrator
- epidemiologist
- public health project manager
- healthcare consultant

The following are KSS courses required in the major for this degree:

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT - STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Gen Ed Math		
STAT 2625	Statistical Literacy and Critical Reasoning	3-6
or STAT 2601	Introductory Statistics	
or STAT 2625C	Statistical Literacy and Critical Reasoning with Co-Requisite Support	
Gen Ed NS		
BIOL 1551 & 1551L	Anatomy and Physiology 1 and Anatomy and Physiology 1 Laboratory	4
BIOL 1552 & 1552L	Anatomy and Physiology 2 and Anatomy and Physiology 2 Laboratory	4
Gen Ed Social Science (Select 1 Course)		3
PSYC 1560	General Psychology	3
Gen Ed Arts and Humanities (Select 2 Courses)		6
Gen Ed Electives		
FNUT 1551	Normal Nutrition	3
CMST 1545	Communication Foundations	3
PHLT 1568	Healthy Lifestyles	3
Major Requirements		
KSS 1595	Introduction to Kinesiology and Sport Science	2
KSS 1559	Aerobic Conditioning Activities	1
KSS 1560	Resistance Training	2
KSS 15XX Activity Elective		1
KSS 2605	Sports First Aid and Injury Prevention	3
KSS 2625	Pedagogical Aspects of Exercise Science	3
KSS 3700	Exercise Evaluation and Testing	4
KSS 3710 & 3710L	Physiology of Exercise and Physiology of Exercise Laboratory	5
KSS 3720	Kinesiology and Applied Anatomy	4
KSS 3730	Exercise Prescription	4
KSS 3760	Strength Training and Conditioning	3
KSS 4805	Administration of Exercise Programs	3
KSS 4810	Clinical Exercise Testing and Prescription	4
KSS 4875	Exercise Counseling and Behavioral Strategies	4
KSS 4880	Internship	8
Additional Courses Needed		
PHYS 1506	Physics for Health Care	3
MATH 1513	Algebra and Transcendental Function	4-6
or MATH 1510	College Algebra	
or MATH 1510C	College Algebra with Co-requisite Support	
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
PHLT 5804	Multicultural Health (Offered Spring only) ^{Counts toward graduate credit}	3
MPH 6901	Public Health Concepts (Offered Fall/Summer only) ^{Counts toward graduate credit}	3
MPH 6904	Biostatistics in Public Health (Offered Fall/Summer only) ^{Counts toward graduate credit}	3

Elective courses	10
Total Semester Hours	120-127
Year 1	
Fall	S.H.
YSU 1500 Success Seminar or YSU 1500S or Youngstown State University Success Seminar or HONR 1500 or Intro to Honors	1-2
ENGL 1550 Writing 1 or ENGL 1549 or Writing 1 with Support	3-4
BIOL 1551 Anatomy and Physiology 1 & 1551L and Anatomy and Physiology 1 Laboratory	4
MATH 1513 Algebra and Transcendental Function or MATH 1510 or College Algebra or MATH 1510C or College Algebra with Co-requisite Support	4-6
KSS 1595 Introduction to Kinesiology and Sport Science	2
Semester Hours	14-18
Spring	
ENGL 1551 Writing 2	3
BIOL 1552 Anatomy and Physiology 2 & 1552L and Anatomy and Physiology 2 Laboratory	4
KSS 1559 Aerobic Conditioning Activities	1
KSS 3710 Physiology of Exercise & 3710L and Physiology of Exercise Laboratory	5
Semester Hours	13
Year 2	
Fall	
KSS 1560 Resistance Training	2
KSS 2625 Pedagogical Aspects of Exercise Science	3
CHEM 1515 General Chemistry 1 & 1515L and General Chemistry 1 Laboratory	4
PSYC 1560 General Psychology	3
FNUT 1551 Normal Nutrition	3
Semester Hours	15
Spring	
KSS Activity Elective	1
PHLT 1568 Healthy Lifestyles	3
STAT 2625 Statistical Literacy and Critical Reasoning or STAT 2601 or Introductory Statistics or STAT 2625C or Statistical Literacy and Critical Reasoning with Co-Requisite Support	3-6
PHYS 1506 Physics for Health Care	3
KSS 2605 Sports First Aid and Injury Prevention	3
Semester Hours	13-16
Year 3	
Fall	
CMST 1545 Communication Foundations	3
KSS 3700 Exercise Evaluation and Testing	4
KSS 3720 Kinesiology and Applied Anatomy	4
KSS 4805 Administration of Exercise Programs	3
Social Science Elective	3
Semester Hours	17
Spring	
KSS 3760 Strength Training and Conditioning	3
KSS 3730 Exercise Prescription	4
Arts & Humanities Elective	3

Elective Course	6
Semester Hours	16
Year 4	
Fall	
KSS 4810 Clinical Exercise Testing and Prescription	4
MPH 6901 Public Health Concepts	3
MPH 6904 Biostatistics in Public Health	3
Elective course	1
Arts and Humanities Elective	3
Semester Hours	14
Spring	
KSS 4875 Exercise Counseling and Behavioral Strategies	4
KSS 4880 Internship	8
Elective course	3
PHLT 5804 Multicultural Health	3
Semester Hours	18
Total Semester Hours	120-127

Learning Outcomes

The student learning outcomes for the BSA in exercise science are as follows:

- Students will demonstrate knowledge and skills in health, fitness and performance assessment
- Students will demonstrate skills in risk factor and health risk identification and the ability to prescribe and implement exercise safely in healthy individuals, special populations (i.e. older adults) and individuals with controlled cardiovascular, pulmonary, and metabolic diseases and other clinical populations.
- Students will demonstrate competency in effectively educating, exercise counseling and using behavioral strategies in individuals regarding lifestyle modification.
- Students will demonstrate competency in the legal and professional tasks related to the field.
- Students will demonstrate knowledge of implementing management policies related to the field.

The student learning outcomes for the MPH are as follows:

Core Competencies

- Use basic techniques and statistical software to access, evaluate, and interpret health data.
- Apply analytic reasoning and methods.
- Interpret scientific and statistical results, including the strengths and limitations of scientific articles.
- Explain characteristics, strengths and limitations of epidemiological study design types.
- Apply behavioral health theories/models in developing community health promotion and intervention programs, and applications for research funding.
- Apply principles of strategic planning to public health, including continuous quality improvement, leadership, teamwork, systems thinking, and social marketing.
- Assess associations found between environmental hazards and health outcomes to influence environmental policies designed to protect populations.
- Apply principles of program planning, development, implementation, management, and evaluation in organizational and community initiatives.
- Use collaborative strategies in the design of policies, interventions, and programs.

- Communicate public health information to lay and professional audiences, using appropriate channels and technologies and with linguistic and cultural proficiency.
- Demonstrate ability to use credible evidence and rationale to guide well-reasoned decisions, proposals, and attitudes.
- Use individual, team and organizational learning opportunities for personal and professional development.

Generalist Competencies

- Prepare proposals for funding from external sources.
- Demonstrate the ability to design, implement and execute a research protocol.
- Consider the role of cultural and social factors in the planning and delivery of public health services and interventions.
- Demonstrate critical evaluation of ethical values, theories, and principles that guide public health inquiry and decision-making.
- Analyze the public health information infrastructure used to collect, process, maintain, and disseminate data in order to allow for decision-making at an administrative level.
- Apply theory and strategy-based communication principles adapted to different contexts.
- Explain how biological, chemical, and physical agents affect human health.

Bachelor of Science in Applied Science in Food and Nutrition-Graduate Track

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The Pre MPH-DFM (BSAS Food and Nutrition-Graduate track) is an upper-division generalist dietetics program with an emphasis in community wellness. The program prepares students for professional practice and leads to eligibility for graduates to sit for the examination to become Registered Dietitian Nutritionists (RDN) and Licensed Dietitians in the state of Ohio. During the four-semester program, each student accrues supervised practice hours covering medical nutrition therapy, community nutrition and wellness, maternal and child, foodservice, and aging in addition to public health preparation.

A community wellness emphasis has been identified as a need in the regional area that Youngstown State University serves. Graduates of the Master's in Public Health/Dietetics Future Model Track will be positioned to assume major roles in community health programs. The program is currently accredited through the Accreditation Council for Education in Nutrition and Dietetics (ACEND) within the Academy of Nutrition and Dietetics (AND).

Accreditation Council for Education in Nutrition and Dietetics (<http://www.eatright.org/ACEND/>)
120 South Riverside Plaza, Suite 2000
Chicago, IL 60606-6995
(312) 899-0040 Ext. 5400

Admission to the MPH-DFM is restricted since only 12 students can be accommodated. Satisfactory completion of a minimum of 65 semester hours (to qualify for junior status) is required before the student can apply to the program. Detailed information regarding criteria and procedures is available from the Department of Health Professions. Students are accepted to the MPH-DFM on an ongoing basis and start the program during summer or fall semester.

Upon satisfactory completion of the MPH-RDN, graduates are issued a verification statement that confirms eligibility to take the Commission on

Dietetic Registration (CDR) registration examination for dietitians. Graduates who pass the registration examination are entitled to use the RDN credential to signify professional competence in the field of Dietetics.

For more information, visit

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar Youngstown State University Success Seminar Intro to Honors	1-2
General Education Requirements		
ENGL 1550 or ENGL 1549	Writing 1 Writing 1 with Support	3-4
ENGL 1551	Writing 2	3
Gen Ed Math		
STAT 2625	Statistical Literacy and Critical Reasoning (STAT 2625 will replace MATH 2623)	4
Arts & Humanities (6 s.h.)		
Natural Science (2 courses; one with lab) (6-7 s.h.)		
CHEM 1510	Chemistry for the Allied Health Sciences	4
CHEM 1510L	Chemistry for the Allied Health Sciences Laboratory	0
BIOL 1551	Anatomy and Physiology 1	3
BIOL 1551L	Anatomy and Physiology 1 Laboratory	1
Social Science (6 s.h.)		
SOC 1500	Introduction to Sociology	3
PSYC 1560	General Psychology	3
General Education Electives (9 s.h.)		
CMST 1545	Communication Foundations	3
FNUT 1551	Normal Nutrition	3
GERO 3745 or GERO 3703	Sociology of Health, Illness, and Healthcare Aging and Society	3
Major Accreditation Requirements		
ACCT 1503 or HMG 2603	Essentials of Accounting Hospitality Managerial Accounting 1	3-4
BIOL 1552	Anatomy and Physiology 2	4
BIOL 1552L	Anatomy and Physiology 2 Laboratory	0
BIOL 1560	Microbiology for the Health Professions	2
BIOL 1560L	Microbiology Laboratory for Health Professions	1
Major Courses		
AHLT 4810	Management Skills for Health Professionals	3
FNUT 1512	Food Safety and Sanitation	2
FNUT 1553	Food Science and Management Principles	3
FNUT 1553L	Food Science and Management Principles Laboratory	1
FNUT 2600	Orientation to Dietetics Major	1
FNUT 2612	Food Systems: Operation, Production, and Service	3
FNUT 2612L	Food Systems: Operations, Production, and Service Laboratory	2
FNUT 2652L	Nutrition Assessment Laboratory	1
FNUT 3735	Nutritional Biochemistry	2
FNUT 3759	Advanced Nutrition	3
FNUT 3760	Medical Nutrition Therapy 2	3
FNUT 3760L	Medical Nutrition Therapy 2 Laboratory	3
FNUT 3760R	Medical Nutrition Therapy 2 Laboratory Recitation	2
FNUT 3761	Science of Nutrition in Exercise	3
FNUT 4802	Research Methods in Dietetics	2
FNUT 4802L	Research Methods in Dietetics Laboratory	1
FNUT 4810	Experimental Foods	2

FNUT 4810L	Experimental Foods Laboratory	1	Spring		
FNUT 4858	Food Service Systems Management	4	FNUT 2612	Food Systems: Operation, Production, and Service	3
FNUT 4860	Medical Nutrition Therapy 3	3	FNUT 2612L	Food Systems: Operations, Production, and Service Laboratory	2
FNUT 2640	Nutrition Counseling and Education Skills Development for Dietetics	3	FNUT 3735	Nutritional Biochemistry (S)	2
FNUT 2641	Diet Prescriptions and Intervention Planning	2	AHLT 2605	Introduction to Pharmacology	3
FNUT 4859	Food Systems Management Clinical Experience	2	FNUT 2652L	Nutrition Assessment Laboratory	1
FNUT 4862	Food Systems Management Clinical Experience Discussion	1	FNUT 2640	Nutrition Counseling and Education Skills Development for Dietetics	3
FNUT 4861	Medical Nutrition Therapy III Clinical	2	FNUT 2641	Diet Prescriptions and Intervention Planning	2
FNUT 4863	Medical Nutrition Therapy 3 Discussion	1	Semester Hours		16
FNUT 4872	Maternal and Child Nutrition	2	Year 3		
FNUT 4873	Nutrition and Aging	2	Fall		
FNUT 4874	Community Nutrition and Wellness	3	FNUT 3759	Advanced Nutrition	3
FNUT 4874L	Community Nutrition and Wellness Experience	3	FNUT 3761	Science of Nutrition in Exercise	3
FNUT 5862	Food and Culture	2	FNUT 4802	Research Methods in Dietetics	2
FNUT 5862L	Food and Cultures Laboratory	1	SOC 1500	Introduction to Sociology	3
HAHS 5875	Interprofessional Education for Health Professions	3	FNUT 3760	Medical Nutrition Therapy 2	3
AHLT 1501	Medical Terminology	3	A&H Gen Ed Course		3
AHLT 2605	Introduction to Pharmacology	3	Semester Hours		17
Total Semester Hours		128-131	Spring		
Year 1			FNUT 4810	Experimental Foods	2
Fall		S.H.	FNUT 4810L	Experimental Foods Laboratory	1
YSU 1500	Success Seminar	1-2	General Education Elective		3
or YSU 1500S	or Youngstown State University Success Seminar		FNUT 4802L	Research Methods in Dietetics Laboratory	1
or HONR 1500	or Intro to Honors		AHLT 4810	Management Skills for Health Professionals	3
BIOL 1551	Anatomy and Physiology 1	3	FNUT 4860	Medical Nutrition Therapy 3	3
BIOL 1551L	Anatomy and Physiology 1 Laboratory	1	BIOL 1560	Microbiology for the Health Professions	2
ENGL 1550	Writing 1	3-4	BIOL 1560L	Microbiology Laboratory for Health Professions	1
or ENGL 1549	or Writing 1 with Support		Semester Hours		16
CHEM 1510 & 1510L	Chemistry for the Allied Health Sciences and Chemistry for the Allied Health Sciences Laboratory	4	Year 4		
FNUT 1551	Normal Nutrition	3	Fall		
Semester Hours		15-17	FNUT 3760L	Medical Nutrition Therapy 2 Laboratory	3
Spring			FNUT 4859	Food Systems Management Clinical Experience	2
ENGL 1551	Writing 2	3	FNUT 4862	Food Systems Management Clinical Experience Discussion	1
FNUT 2600	Orientation to Dietetics Major	1	HAHS 5875	Interprofessional Education for Health Professions	3
PSYC 1560	General Psychology	3	FNUT 3760R	Medical Nutrition Therapy 2 Laboratory Recitation	2
BIOL 1552	Anatomy and Physiology 2	4	FNUT 4858	Food Service Systems Management	4
BIOL 1552L	Anatomy and Physiology 2 Laboratory	0	A&H Gen Ed Course		3
AHLT 1501	Medical Terminology	3	Semester Hours		18
Semester Hours		14	Spring		
Year 2			FNUT 4872	Maternal and Child Nutrition (S)	2
Fall			FNUT 4874L	Community Nutrition and Wellness Experience (F)	3
CMST 1545	Communication Foundations	3	FNUT 4873	Nutrition and Aging	2
ACCT 1503	Essentials of Accounting	3-4	FNUT 5862	Food and Culture	2
or HMG 2603	or Hospitality Managerial Accounting 1		FNUT 4874	Community Nutrition and Wellness	3
FNUT 1512	Food Safety and Sanitation	2	FNUT 4861	Medical Nutrition Therapy III Clinical	2
FNUT 1553	Food Science and Management Principles	3	FNUT 4863	Medical Nutrition Therapy 3 Discussion	1
FNUT 1553L	Food Science and Management Principles Laboratory	1			
STAT 2625	Statistical Literacy and Critical Reasoning	4			
Semester Hours		16-17			

FNUT 5862L	Food and Cultures Laboratory	1
Semester Hours		16
Total Semester Hours		128-131

F – Offered in the fall semester S – Offered in the spring semester X – Offered in the summer semester

Learning Outcomes

At the completion of the Pre-MPH-RDN program, graduates will be able to:

- Effectively integrate biochemical concepts into dietetics practice.
- Effectively integrate physiological concepts into dietetics practice.
- Effectively apply theory from the social sciences to dietetics practice.
- Effectively present results of research study.
- Effectively apply concepts from food, nutrition, management, and health care systems to dietetics practice.
- Practice effectively as members of an interdisciplinary team.
- Demonstrate competency in medical nutrition therapy.
- Demonstrate competency in foodservice management practice.
- Demonstrate competency in community nutrition practice.

Bachelor of Science in Applied Science in Public Health

Program Director

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Overview Public Health

The Bachelor of Science in Applied Science (BSAS) in Public Health degree can be completed in eight semesters if students average 16 hours per semester. Students may choose one of the following emphasis areas:

- Public Health Generalist
- Health Education and Promotion
- Environmental Health and Safety

The program also offers a minor in public health. Students pursuing a minor in public health may choose one of the following emphasis areas:

- Public Health Generalist
- Community Health Planning and Evaluation
- Environmental Health and Safety

The curriculum for the YSU bachelor's degree in public health addresses each of the five core areas in public health.

- Epidemiology
- Biostatistics
- Health Services Administration
- Environmental Health
- Behavioral Science/Health Education

This curriculum enables mastery at the bachelor's level of the nationally recognized Public Health Core Competencies, and requires an internship tailored to the area of public health interests of each student. All of the major courses can be completed through online distance learning options.

The BSAS in public health can also prepare the student to become a Certified Health Education Specialist (CHES). CHES:

- Assess individual and community health needs
- Plan and implement effective health education and health promotion programs
- Coordinate and manage the provision of health education and promotion services
- Effectively communicate health and health education needs, concerns, and resources
- Conduct program evaluation

Public health professionals work in multiple settings: public health agencies, non-profit organizations, academic, private, and other health care settings.

During the freshman and sophomore years, students are expected to take the courses that meet the requirements for general education. In addition to the English, mathematics, and communication requirement, specific general education courses for the BSAS public health degree include:

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics requirement (one of the following):		
MATH 2623	Quantitative Reasoning	3-6
or MATH 2623C	Quantitative Reasoning with Co-Requisite Support	
or STAT 2601	Introductory Statistics	
or STAT 2625	Statistical Literacy and Critical Reasoning	
or STAT 2625C	Statistical Literacy and Critical Reasoning with Co-Requisite Support	
Natural Science (7 s.h.) (2 courses, 1 with lab)		7
Arts and Humanities (6 s.h.) (2 courses)		6
Social Science (6 s.h.)		
PHLT 1531	Fundamentals of Public Health (required for the major)	3
Social Science Elective		3
General Education Electives (9 s.h.)		
CMST 1545	Communication Foundations	3
PHLT 1568	Healthy Lifestyles (required for the major)	3
PHLT 1513	Introduction to Environmental Health and Safety (required for the major)	3
Required Courses		
PHLT 1550	Public Health Advocacy and Policy	2
PHLT 3702	Health Education Theory and Methods	3
PHLT 3708	Preventive Public Health Care	3
PHLT 4826	Community Health Planning and Promotion	4
PHLT 4827	Evaluation of Health Promotion Programs	3
PHLT 4891	Public Health Internship	8
PHLT 4899	Public Health Senior Seminar	3
AHLT 4806	Research Methods	3
AHLT 4810	Management Skills for Health Professionals	3
AHLT 5807	Epidemiology	3
Choose one of the PHLT Emphasis Areas (15 s.h.):		15
Health Education and Promotion		
PHLT 2607	Ethical Issues in Public Health	

PHLT 2692	Human Sexuality	
PHLT 3791	Community Health	
PHLT 5804	Multicultural Health	
PHLT 5812	Crisis Management in Public Health	
Environmental Health		
PHLT 3709	Elements of Urban Environmental Health Practices	
PHLT 3791	Community Health	
PHLT 4808	Environmental Health Concerns	
PHLT 5810	Agents of Mass Casualty	
PHLT 5812	Crisis Management in Public Health	
Generalist		
Any combination of courses from the Health Education and Promotion/ Environmental emphasis areas above totaling 15 semester hours		
PHLT Upper Division Electives (12 s.h.)		12
Below are the courses that can be counted towards your upper division PHLT electives. Courses taken as part of your emphasis area do not count toward your PHLT upper division elective semester hours		
PHLT 3708	Preventive Public Health Care	
PHLT 3709	Elements of Urban Environmental Health Practices	
PHLT 3725	Topics in Public Health	
PHLT 3731	Drug Use and Abuse	
PHLT 3757	Health and Disease	
PHLT 4828	Grant Writing	
PHLT 5804	Multicultural Health	
PHLT 5810	Agents of Mass Casualty	
PHLT 5812	Crisis Management in Public Health	
AHLT 3740	Pathology of Infectious Diseases	
AHLT 5816	Environmental Regulations	
AHLT 5831	Industrial Hygiene	
Additional Electives or Minor Coursework		20
Total Semester Hours		120-125
A minimum of 120 semester hours are required for the BSAS in public health. No minor is required for this professional BSAS degree.		
Year 1		
Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success	
or HONR 1500	Seminar	
	or Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
CMST 1545	Communication Foundations	3
PHLT 1531	Fundamentals of Public Health	3
PHLT 1550	Public Health Advocacy and Policy	2
PHLT 1568	Healthy Lifestyles	3
Semester Hours		15-17
Spring		
ENGL 1551	Writing 2	3
MATH 2623	Quantitative Reasoning	3-6
or MATH 2623C	or Quantitative Reasoning with Co- Requisite Support	
or STAT 2601	or Introductory Statistics	
or STAT 2625	or Statistical Literacy and Critical	
or STAT 2625C	Reasoning	
	or Statistical Literacy and Critical Reasoning with Co-Requisite Support	
PHLT 3702	Health Education Theory and Methods	3
Natural Science Gen Ed.		3

Arts and Humanities Gen Ed.		3
Semester Hours		15-18
Year 2		
Fall		
PHLT 1513	Introduction to Environmental Health and Safety	3
PHLT 4826	Community Health Planning and Promotion	4
AHLT 4806	Research Methods	3
Social Science Gen Ed.		3
Natural Science + Lab Gen Ed.		4
Semester Hours		17
Spring		
PHLT 4827	Evaluation of Health Promotion Programs	3
PHLT 3708	Preventive Public Health Care	3
Arts and Humanities Gen Ed.		3
Elective or Minor		3
Elective or Minor		3
Semester Hours		15
Year 3		
Fall		
AHLT 5807	Epidemiology	3
PHLT Emphasis Area Course		3
PHLT Upper Division Elective		3
Elective or Minor		3
Elective or Minor		3
Semester Hours		15
Spring		
PHLT Emphasis Area Course		3
PHLT Emphasis Area Course		3
PHLT Upper Division Elective		3
Elective or Minor		3
Elective or Minor		3
Semester Hours		15
Year 4		
Fall		
AHLT 4810	Management Skills for Health Professionals	3
PHLT Emphasis Area Course		3
PHLT Upper Division Elective		3
Elective or Minor		2
Elective or Minor		3
Semester Hours		14
Spring		
PHLT 4891	Public Health Internship	8
PHLT 4899	Public Health Senior Seminar	3
PHLT Emphasis Area Course		3
Semester Hours		14
Total Semester Hours		120-125

- Students must earn a grade of "C" or better in all required PHLT and AHLT courses.
- Courses taken under the Credit(CR)/No Credit (NC) option may not be counted toward the major.

Learning Outcomes

The student learning outcomes for public health are as follows:

- At the conclusion of the BSAS in Public Health program students will demonstrate competency in the following domains:

- Data Analytics and Assessment Skills
- Policy Development and Program Planning Skills
- Communication Skills
- Health Equity Skills
- Community Partnership Skills
- Public Health Science Skills
- Management and Finance Skills
- Leadership and Systems Thinking Skills

Bachelor of Science in Applied Science in Public Health 4+1 MPH Track

Program Director

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Overview Public Health

The public health program offers the Bachelor of Science in Applied Science (BSAS) degree that can be completed in eight semesters if students average 16 hours per semester. Students may choose one of the following emphasis areas:

- Public Health Generalist
- Health Education and Promotion
- Environmental Health and Safety

Students who opt to participate in the 4+1 track may go on to complete their MPH in 1 year following the completion of their BSAS in Public Health. Students applying for the MPH program must have a minimum GPA of 2.75.

The curriculum for the YSU bachelor's degree in public health addresses each of the five core areas in public health.

- Epidemiology
- Biostatistics
- Health Services Administration
- Environmental Health
- Behavioral Science/Health Education

This curriculum enables mastery at the bachelor's level of the nationally recognized Public Health Core Competencies, and requires an internship tailored to the area of public health interests of each student. All of the major courses can be completed through online distance learning options.

The BSAS in public health can also prepare the student to become a Certified Health Education Specialist (CHES) or be eligible to take the sanitarian examination. CHES:

- Assess individual and community health needs
- Plan and implement effective health education and health promotion programs
- Coordinate and manage the provision of health education and promotion services
- Effectively communicate health and health education needs, concerns, and resources
- Conduct program evaluation

During the freshman and sophomore years, students are expected to take the courses that meet the requirements for general education. In addition to

the English, mathematics, and communication requirement, specific general education courses for the BSAS public health degree include:

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics requirement (one of the following):		
MATH 2623	Quantitative Reasoning	3-6
or MATH 2623C	Quantitative Reasoning with Co-Requisite Support	
or STAT 2601	Introductory Statistics	
or STAT 2625	Statistical Literacy and Critical Reasoning	
or STAT 2625C	Statistical Literacy and Critical Reasoning with Co-Requisite Support	
Natural Science (7 s.h.) (2 courses, 1 with lab)		7
Arts and Humanities (6 s.h.) (2 courses)		6
Social Science Electives (6 s.h.)		
PHLT 1531	Fundamentals of Public Health ^{Required for major}	3
Social Science Elective		3
General Education Electives (9 s.h.)		
PHLT 1568	Healthy Lifestyles ^{Required for major}	3
PHLT 1513	Introduction to Environmental Health and Safety ^{Required for major}	3
CMST 1545	Communication Foundations	3
Required Courses (41 s.h.)		
PHLT 1550	Public Health Advocacy and Policy	2
PHLT 3702	Health Education Theory and Methods	3
PHLT 4826	Community Health Planning and Promotion	4
PHLT 4827	Evaluation of Health Promotion Programs	3
AHLT 3708		3
AHLT 4806	Research Methods	3
AHLT 4810	Management Skills for Health Professionals	3
PHLT 4891	Public Health Internship	8
PHLT 4899	Public Health Senior Seminar	3
AHLT 5807	Epidemiology	3
MPH 6901	Public Health Concepts ^{Counts toward graduate credit}	3
MPH 6904	Biostatistics in Public Health ^{Counts toward graduate credit}	3
Choose one of the PHLT Emphasis Areas (15 s.h.)		15
Health Education and Promotion		
PHLT 2607	Ethical Issues in Public Health	
PHLT 2692	Human Sexuality	
PHLT 3791	Community Health	
PHLT 5804	Multicultural Health	
PHLT 5812	Crisis Management in Public Health	
Environmental Health		
PHLT 3709	Elements of Urban Environmental Health Practices	
PHLT 3791	Community Health	
AHLT 4808		
PHLT 5810	Agents of Mass Casualty	
PHLT 5812	Crisis Management in Public Health	
Generalist		
Any Combination of courses from the Health Education and Promotion/Environmental concentrations above totaling 15 hours		

PHLT Upper Division Electives (6 s.h.)**6**

Below are the courses that can be counted towards your upper division PHLT electives. Courses taken as part of your emphasis area do not count toward your PHLT upper division elective semester hours

PHLT 3709	Elements of Urban Environmental Health Practices
PHLT 3725	Topics in Public Health
PHLT 3731	Drug Use and Abuse
PHLT 3757	Health and Disease
PHLT 4828	Grant Writing
PHLT 5804	Multicultural Health
PHLT 5810	Agents of Mass Casualty
AHLT 3740	Pathology of Infectious Diseases
AHLT 4808	
PHLT 5812	Crisis Management in Public Health
AHLT 5816	Environmental Regulations
AHLT 5831	Industrial Hygiene

The above 5800 level courses may count toward both undergraduate and graduate credit in addition to MPH 6901 and 6904. A maximum of 9 credit hours may double count for both undergraduate and graduate credit.

Additional Electives or Minor Coursework **20**

Total Semester Hours **120-125**

A minimum of 120 semester hours are required for the BSAS in Public Health. No minor is required for this professional BSAS degree.

Year 1

Fall		S.H.
YSU 1500S or YSU 1500 or HONR 1500	Youngstown State University Success Seminar or Success Seminar or Intro to Honors	1-2
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
CMST 1545	Communication Foundations	3
PHLT 1531	Fundamentals of Public Health	3
PHLT 1550	Public Health Advocacy and Policy	2
PHLT 1568	Healthy Lifestyles	3
Semester Hours		15-17

Spring

MATH 2623 or MATH 2623C or STAT 2601 or STAT 2625 or STAT 2625C	Quantitative Reasoning or Quantitative Reasoning with Co-Requisite Support or Introductory Statistics or Statistical Literacy and Critical Reasoning or Statistical Literacy and Critical Reasoning with Co-Requisite Support	3-6
ENGL 1551	Writing 2	3
PHLT 3702	Health Education Theory and Methods	3
Natural Science Gen Ed		3
Arts and Humanities Gen Ed		3
Semester Hours		15-18

Year 2

Fall		
PHLT 1513	Introduction to Environmental Health and Safety	3
PHLT 4826	Community Health Planning and Promotion	4
AHLT 4806	Research Methods	3
Social Science Gen Ed		3

Natural Science + Lab Gen Ed	4
Semester Hours	17

Spring

PHLT 4827	Evaluation of Health Promotion Programs	3
AHLT 3708		3
PHLT Upper Division Elective		3
Arts and Humanities Gen Ed		3
Elective or Minor		3

Semester Hours **15**

Year 3

Fall		
AHLT 5807	Epidemiology	3
PHLT Emphasis Area Course		3
Elective or Minor		3
Elective or Minor		3
Elective or Minor		3

Semester Hours **15**

Spring

PHLT Emphasis Area Course	3
PHLT Emphasis Area Course	3
PHLT Emphasis Area Course	3
Elective or Minor	3
Elective or Minor	3

Semester Hours **15**

Year 4

Fall		
AHLT 4810	Management Skills for Health Professionals	3
PHLT Emphasis Area Course		3
MPH 6901	Public Health Concepts	3
MPH 6904	Biostatistics in Public Health	3

Semester Hours **12**

Spring

PHLT 4891	Public Health Internship	8
PHLT 4899	Public Health Senior Seminar	3
PHLT Emphasis Area Course		3
Elective or Minor		2

Semester Hours **16**

Total Semester Hours **120-125**

- While completing the BSAS in Public Health, students must earn a grade of "C" or better in all required PHLT and AHLT courses.
- Courses taken under the Credit (CR)/No Credit (NC) option may not be counted toward to major.

Learning Outcomes

The student learning outcomes for public health are as follows:

- At the conclusion of the BSAS in Public Health program students will demonstrate competency in the following domains:
 - Data Analytics and Assessment Skills
 - Policy Development and Program Planning Skills
 - Communication Skills
 - Health Equity Skills
 - Community Partnership Skills
 - Public Health Science Skills
 - Management and Finance Skills
 - Leadership and Systems Thinking Skills

Bachelor of Science in Medical Laboratory Science

Program Director

Joan O'Connell
(330) 941-1761
joconnell02@ysu.edu

Overview

Medical Laboratory Programs

Laboratory data plays an important role in the detection, diagnosis, and treatment of disease. Laboratory scientists perform complex tests to aid physicians and other healthcare providers in the prevention, treatment, and monitoring of disease states.

For more information, contact Joan O'Connell 330-941-1761

joconnell02@ysu.edu

Medical Laboratory Science (BS-MLS) Curriculum

The medical laboratory science program is a four-year program leading to a Bachelor of Science degree in Medical Laboratory Science (BSMLS). Students in the program must complete and provide records of their immunizations, including the hepatitis B immunization series.

All course work in the MLS program must be completed with a minimum grade of "C". Students must maintain an overall GPA of 2.75 and a GPA of 2.75 in all MLS courses.

The MLS program follows a "3+1" format. Students complete university general education requirements and pre-professional courses in medical laboratory science, general chemistry, and biological sciences, during the first three years of the program. The final year of the program is completed at an accredited MLS hospital based internship program. Upon successful program completion, graduates are qualified to take the certification examination offered through ASCP and become certified as MLS (ASCP).

Medical laboratory scientists perform, interpret, and report medical tests ranging from routine to complex. They operate and troubleshoot complex analytical instrumentation and perform sophisticated computations to ensure accurate results.

Medical laboratory scientists hold positions as laboratory managers, department supervisors, and technical consultants. In addition to traditional careers in hospitals and other medical facilities opportunities exist in education, research, and industry.

The diverse academic and clinical experience provided by the BSMLS curriculum provides graduates with a solid foundation for continued graduate studies in medicine and other chemical and biological fields of study.

MLS 3+1 Internship Guidelines

Students must apply for Medical Laboratory Science Internship year upon completion of the second year of the program or after completing 60-65 semester hours. Information on clinical affiliations and the application process is available from the program director. Students should apply for graduation at the beginning of the junior year to allow for evaluation of transcripts by an academic advisor in the Bitonte College of Health and Human Services. This application will help ensure that a requirements for internship and graduation have been fulfilled.

The University **does not** guarantee acceptance into the fourth year hospital based internship. Selection and acceptance are based on clinical site

admission and selection criteria. Internship placement is competitive, and students are urged to maintain a minimum 3.0 GPA, especially in Chemistry, Biology and Medical laboratory Science courses. Students are encouraged to apply to all our affiliated programs, a list of these programs is available through the program director. Students should notify the program director upon their acceptance to a professional program.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Gen Ed Math Course		
STAT 2601	Introductory Statistics	3-4
or STAT 2625	Statistical Literacy and Critical Reasoning	
Social Sciences (2 courses)		6
Arts & Humanities (2 courses)		6
Natural Science course requirement		Met with required courses in the major
General Education Electives (9 s.h.)		Met with required science courses in the major
Major Courses		
MLS 1501	Introduction to the Medical Laboratory Profession	2
MLS 1501L	Introduction to the Medical Laboratory Profession Laboratory	1
MLS 1502	Urinalysis and Body Fluids	2
MLS 1502L	Urinalysis and Body Fluid Laboratory	1
MLS 1503	Immunohematology	3
MLS 1503L	Immunohematology Laboratory	1
MLS 2601	Clinical Chemistry 1	2
MLS 2601L	Clinical Chemistry 1 Laboratory	1
MLS 2603L	Advanced Immunohematology Laboratory	1
MLS 2605	Molecular Diagnostics	2
MLS 3700	Clinical Chemistry 2	4
MLS 3701	Clinical Hematology 1	2
MLS 3701L	Clinical Hematology 1 Laboratory	1
MLS 3702	Clinical Hematology 2	2
MLS 3702L	Clinical Hematology 2 Laboratory	1
MLS 3704	Clinical Immunology and Serology	3
MLS 3704L	Clinical Immunology and Serology	1
MLS 3787	Diagnostic Microbiology	3
MLS 3787L	Diagnostic Microbiology Laboratory	2
Biology Courses		
BIOL 2601	General Biology 1: Molecules and Cells	3
BIOL 2601L	General Biology I: Molecules and Cells Laboratory	1
BIOL 1545	Allied Health Anatomy and Physiology	5
BIOL 1545L	Allied Health Anatomy and Physiology Laboratory	0
Chemistry Courses		
CHEM 1510	Chemistry for the Allied Health Sciences	4
CHEM 1510L	Chemistry for the Allied Health Sciences Laboratory	0
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
CHEM 3719	Organic Chemistry 1	3
CHEM 3719L	Organic Chemistry 1 Laboratory	1

Internship Year		
MLS 4800	MLS Chemistry Clinical Experience	7
MLS 4801	MLS Hematology Clinical Experience	7
MLS 4802	MLS Immunohematology Clinical Experience (7)	7
MLS 4803	MLS Microbiology Clinical Experience	7
MLS 4804	Miscellaneous Clinical Experience	7
Elective to meet 120 hrs		3
Total Semester Hours		120-123
Year 1		
Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
MLS 1501	Introduction to the Medical Laboratory Profession	2
MLS 1501L	Introduction to the Medical Laboratory Profession Laboratory	1
Elective (Any)		3
STAT 2601	Introductory Statistics	3-4
or STAT 2625	or Statistical Literacy and Critical Reasoning	
Semester Hours		13-16
Spring		
ENGL 1551	Writing 2	3
BIOL 2601	General Biology 1: Molecules and Cells	3
BIOL 2601L	General Biology I: Molecules and Cells Laboratory	1
CHEM 1510	Chemistry for the Allied Health Sciences	4
CHEM 1510L	Chemistry for the Allied Health Sciences Laboratory	0
MLS 1502	Urinalysis and Body Fluids	2
MLS 1502L	Urinalysis and Body Fluid Laboratory	1
Semester Hours		14
Year 2		
Fall		
BIOL 1545	Allied Health Anatomy and Physiology	5
BIOL 1545L	Allied Health Anatomy and Physiology Laboratory	0
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
Select one Social Science Gen Ed		3
Semester Hours		12
Spring		
CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
MLS 1503	Immunohematology	3
MLS 1503L	Immunohematology Laboratory	1
MLS 2601	Clinical Chemistry 1	2
MLS 2601L	Clinical Chemistry 1 Laboratory	1
MLS 2605	Molecular Diagnostics	2
Semester Hours		13
Summer		
MLS 3700	Clinical Chemistry 2	4
MLS 3701	Clinical Hematology 1	2

MLS 3701L	Clinical Hematology 1 Laboratory	1
Semester Hours		7
Year 3		
Fall		
MLS 2603L	Advanced Immunohematology Laboratory	1
MLS 3702	Clinical Hematology 2	2
MLS 3702L	Clinical Hematology 2 Laboratory	1
MLS 3787	Diagnostic Microbiology	3
MLS 3787L	Diagnostic Microbiology Laboratory	2
Select 1 course; Arts and Humanities		3
Semester Hours		12
Spring		
MLS 3704	Clinical Immunology and Serology	3
MLS 3704L	Clinical Immunology and Serology	1
CHEM 3719	Organic Chemistry 1	3
CHEM 3719L	Organic Chemistry 1 Laboratory	1
Select 1 course Social Science ¹		3
Select 1 course Arts and Humanities		3
Semester Hours		14
Summer		
MLS 4804	Miscellaneous Clinical Experience	7
Semester Hours		7
Year 4		
Fall		
MLS 4801	MLS Hematology Clinical Experience	7
MLS 4802	MLS Immunohematology Clinical Experience	7
Semester Hours		14
Spring		
MLS 4803	MLS Microbiology Clinical Experience	7
MLS 4800	MLS Chemistry Clinical Experience	7
Semester Hours		14
Total Semester Hours		120-123

¹ General education courses must fulfill the requirements for the baccalaureate degree.

Learning Outcomes

The student learning outcomes for the medical laboratory programs (MLS-BS and MLT-AAS) are as follows:

- Graduates will be prepared to function as entry-level health care professionals in the medical laboratory as medical laboratory technicians and medical laboratory scientists. At entry level, the medical laboratory graduate will be able to demonstrate the ability to comprehend, apply and evaluate information relative to the medical laboratory profession.
- These learning outcomes include comprehension of the theory and the ability to apply and evaluate the didactics of hematology, clinical chemistry, immunohematology, microbiology, immunology, coagulation, molecular diagnostics, and other emerging diagnostics.
- Graduates will be prepared to function as entry-level health care professionals in the medical laboratory as medical laboratory technicians and medical laboratory scientists. Upon completion of the program, graduates will demonstrate technical proficiency in laboratory applications.
- These psychomotor learning outcomes include the performance of laboratory procedures in hematology, clinical chemistry, immunohematology, microbiology, immunology, coagulation, molecular diagnostics, and other emerging diagnostics. The graduate will

demonstrate proficiency in the functions of all phases of laboratory analysis (pre-analytical, analytical, and post-analytical processes).

- Graduates will demonstrate professional conduct and interpersonal communication skills consistent with the medical laboratory profession.
- Students will exhibit the ability to think critically across all 3700-level courses through the application of fundamental didactic and psychomotor skills to assess the medical relevance and significance of specific aspects of laboratory testing.

Bachelor of Science in Medical Laboratory Science Advanced Placement Option

Medical Laboratory Programs

Laboratory analysis plays a vital role in the detection, diagnosis, and treatment of disease. Laboratory professionals perform moderate to highly complex analysis and provide data to assist physicians and other healthcare practitioners in identification and treatment of disease.

For more information, contact Dr. Joan O'Connell 330-941-1761
joconnell02@ysu.edu

Medical laboratory scientists perform diagnostic tests to assist in the prevention, identification, and treatment of disease. The curriculum provides in-depth knowledge of testing principles and methodologies, quality control, test validation, result verification and disease correlation. Medical laboratory scientists may be employed in clinics, hospitals, public health facilities, and industry.

Medical Laboratory Scientists may act in leadership roles as supervisors, technical consultants, and laboratory directors. In addition to traditional laboratory careers, there are opportunities in education, research, and industry. The undergraduate academic coursework and diverse clinical experience provides the MLS with a solid foundation for post-graduate programs in medicine, clinical chemistry, and biology.

Advanced Placement Option -Medical Laboratory Science On-line Completion Program

The Advanced Placement Option in the Medical Laboratory Science program provides a pathway for certified Medical Laboratory Technicians (MLT) to become Medical Laboratory Scientists (MLS). The program is designed to meet the needs of the working medical laboratory technician. Major courses are offered fully online to provide the opportunity for working MLT's to remain employed while completing the Bachelor of Science in MLS degree.

Applicants must meet the following criteria for acceptance into the program:

- Graduated from a NAACLS accredited MLT/CLT program.
- Completed prerequisite course work in biology, chemistry, and mathematics and meet Biology and Chemistry guidelines for eligibility for the ASCP MLS Certification examination.
- Certified as an MLT(ASCP)
- Employed in an accredited laboratory that can provide training in all required MLS disciplines.

Students may transfer courses from approved institutions with prior approval from the program director or department chairperson. Students must complete a minimum of thirty semester hours of coursework at Youngstown State

University to earn the Bachelor of Science degree in Medical Laboratory Science.

General education, chemistry, and biology transfer credits may be applied toward the BSMLS degree and are evaluated by the program director upon admission to YSU.

Students may be granted experiential credit for required clinical competency. Experiential credit may be granted following submission of required competency check lists and review by the program director.

Students who require clinical training to meet competency must submit a statement of support and employer support for initiation of an affiliation agreement with YSU if one does not currently exist.

Transfer credits cannot be applied to MLS 4800 level advanced lecture coursework.

The MLS Advanced Placement Option is accredited through the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS): 5600 N. River Rd. Suite 720 Rosemont, IL 60018-5119, Phone: 773.714.8880, www.naacls.org, info@naacls.org

COURSE	TITLE	S.H.
General Education transfer hours and block credit		15
Course requirements will vary dependent on applicable transfer credit		
5 Courses include: Writing 1, 2 Natural Science, 1 Social Science, and 1 additional Social Science, Arts and Humanities or General Education Elective		
GENERAL EDUCATION COMPLETION		
Additional transfer credit may be applied to Gen Ed requirements		
ENGL 1551	Writing 2	3
Social Sciences (0-1 Courses* Selection depends on block credit)		0-3
Arts & Humanities (1-2 Courses)		3-6
STAT 2625	Statistical Literacy and Critical Reasoning	4
General Education Electives (9 s.h.)		0
General education electives are met with courses in the major		
BSMLS Science Requirements (transfer credits may be applied to meet BIO and Chem requirements)		
Biology Courses (or equivalents) 16 sh must include A&P and Micro		
BIOL 2601	General Biology 1: Molecules and Cells	3
BIOL 2601L	General Biology I: Molecules and Cells Laboratory	1
BIOL 3702	Microbiology	3
BIOL 3702L	Microbiology Laboratory	1
BIOL 1545	Allied Health Anatomy and Physiology	5
BIOL 1545L	Allied Health Anatomy and Physiology Laboratory	0
MLS 3704	Clinical Immunology and Serology	3
MLS 3704L	Clinical Immunology and Serology	1
Chemistry courses 15sh (or equivalents) must include Organic, Biochemistry or Equiv.		
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
CHEM 1520	Allied Health Chemistry for Online Programs	3
CHEM 3719	Organic Chemistry 1	3
CHEM 3719L	Organic Chemistry 1 Laboratory	1
MLS REQUIRED COURSES -Advanced Placement Online Completion 37 sh Experiential competency credit may be applied to Lab courses only		
MLS 2605	Molecular Diagnostics	2
MLS 4807	Advanced Clinical Chemistry	4
MLS 4807L	Advanced Clinical Chemistry Lab Competency	2

MLS 4808	Advanced Hematology	4
MLS 4808L	Advanced Hematology Clinical Competency	2
MLS 4809	Advanced Immunohematology	4
MLS 4809L	Advanced Immunohematology Clinical Competency	2
MLS 4810	Advanced Diagnostic Microbiology	5
MLS 4810L	Advanced Microbiology Competency	3
MLS 4811	Advanced Immunology and Urinalysis	4
MLS 4811L	Adv Immuno/Sero, Urinalysis, and Molecular Competency	2
MLS 4812	Advanced Laboratory Operations	2
MLS 4813	Advanced Placement Seminar	1
Transfer credits from Associates Degree		26
Total Semester Hours		120-126

Year 3**Fall** S.H.**PROGRAM COURSES ARE OFFERED ONCE PER YEAR****Curriculum is in addition to university and program requirements for award of the Bachelor of Science degree in MLS**

MLS 4807	Advanced Clinical Chemistry	4
MLS 4807L	Advanced Clinical Chemistry Lab Competency	2.0
MLS 4812	Advanced Laboratory Operations	2
Semester Hours		8

Spring

MLS 4810	Advanced Diagnostic Microbiology	5
MLS 4810L	Advanced Microbiology Competency	3
MLS 4811	Advanced Immunology and Urinalysis	4
MLS 4811L	Adv Immuno/Sero, Urinalysis, and Molecular Competency	2
MLS 2605	Molecular Diagnostics	2
Semester Hours		16

Year 4

Fall		
MLS 4809	Advanced Immunohematology	4
MLS 4809L	Advanced Immunohematology Clinical Competency	2.0
Semester Hours		6

Spring

MLS 4808	Advanced Hematology	4
MLS 4808L	Advanced Hematology Clinical Competency	2.0
MLS 4813	Advanced Placement Seminar (Must be taken during the last semester of the program)	1
Semester Hours		7
Total Semester Hours		37

¹ General education courses must fulfill the requirements for the baccalaureate degree.

² Curriculum for years one and two includes coursework required for award of the Bachelor of Science degree. Student transcripts will be evaluated for applicable transfer credit. Student must have earned the Associate degree in Medical Laboratory Technology from an accredited program and successfully completed the ASCP certification exam.

³ Students must have 16 sh of Biology including Microbiology and Anatomy - Transfer credits may apply

⁴ Students must have 16sh of Chemistry including an Organic or Biochemistry component - Transfer credits may apply

⁵ Students must complete a minimum 120 semester hours to earn the BSMLS degree, 30 semester hours of course credit must be earned at YSU.

Learning Outcomes

The student learning outcomes for the medical laboratory programs (MLS-BS and MLT-AAS) are as follows:

- Graduates will be prepared to function as entry-level health care professionals in the medical laboratory as medical laboratory technicians and medical laboratory scientists. At entry level, the medical laboratory graduate will be able to demonstrate the ability to comprehend, apply and evaluate information relative to the medical laboratory profession.
- These learning outcomes include comprehension of the theory and the ability to apply and evaluate the didactics of hematology, clinical chemistry, immunohematology, microbiology, immunology, coagulation, molecular diagnostics, and other emerging diagnostics.
- Graduates will be prepared to function as entry-level health care professionals in the medical laboratory as medical laboratory technicians and medical laboratory scientists. Upon completion of the program, graduates will demonstrate technical proficiency in laboratory applications.
- These psychomotor learning outcomes include the performance of laboratory procedures in hematology, clinical chemistry, immunohematology, microbiology, immunology, coagulation, molecular diagnostics, and other emerging diagnostics. The graduate will demonstrate proficiency in the functions of all phases of laboratory analysis (pre-analytical, analytical, and post-analytical processes).
- Graduates will demonstrate professional conduct and interpersonal communication skills consistent with the medical laboratory profession.
- Students will exhibit the ability to think critically across all 3700-level courses through the application of fundamental didactic and psychomotor skills to assess the medical relevance and significance of specific aspects of laboratory testing.

Bachelor of Science in Respiratory Care in Respiratory Care

Program Director

Dr. Kelly L. Colwell
(330) 941-2631
klcolwell@ysu.edu

Overview

Respiratory care is an allied health profession concerned with the diagnostic evaluation, treatment, management, rehabilitation, education and discharge planning of patients with cardiopulmonary disorders, and is the only healthcare professional trained and licensed to operate and manage ventilators and life support systems.

The licensed respiratory care practitioner (RCP) is proficient in:

- Air land and sea transport of critically ill patients
- Airway insertion, placement, and management procedures
- Analyzing breath, tissue, and blood specimens to determine levels of oxygen and other gases.
- Basic and advanced cardiac life support techniques
- Broncho-pulmonary hygiene
- Discharge Planning
- Educating patients and families about lung disease to maximize their quality of life.
- Therapeutic administration of medical gases and aerosolized medications
- Intermittent and continuous mechanical ventilation management
- Non-invasive patient monitoring
- Perform Pulmonary function diagnostic testing and evaluation.

- Physician consultation to recommend adjustments to pulmonary treatments.
- Pulmonary rehabilitation

A licensed RCP must also be knowledgeable regarding various assessment techniques and patient education models. These skills are used with neonatal, pediatric, and adult patients in acute, sub-acute, and home care settings. To function effectively as a member of the multidisciplinary health care team, the RCP must have a sound understanding of:

- The physiological, psychological, and cultural needs of the patient
- The role of the various therapeutic interventions in the patient care plan
- Development of broad-based skills to contribute to the overall care of the patient more effectively.

Theory and laboratory experiences are provided prior to the student's entry into the clinical education phase of the program. This program can be completed in four calendar years. It includes three summer sessions. A master of respiratory care advanced placement option is also available and a sleep diagnostics option as well. Please visit Respiratory Care (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-health-human-services/departments-health-professions/bs-respiratory-care/>) for more information.

Accreditation

The Bachelor of Science in Respiratory Care (CoARC #200247) at Youngstown State University, Youngstown, Ohio is accredited by the Commission on Accreditation for Respiratory Care (www.coarc.com (<https://www.coarc.com/>)).

Current accreditation standing: CoARC reaffirms Continuing Accreditation for a 10-year cycle through July 31, 2031. All Standards are in compliance.

Date of last campus visit: May 21, 2021

Date of next campus visit: 2031

Pass rates: RRT 98%

The goals of the Bachelor of Science in Respiratory Care are:

- To prepare graduates with demonstrated competence in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains of respiratory care practice as performed by registered respiratory therapists (RRTs).
- To prepare leaders for the field of respiratory care by including curricular content that includes objectives related to acquisition of skills one or more of the following: management, education, research, and advanced clinical practice (which may include an area of clinical specialization).

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Any Gen Ed Math (Math 2623 recommended)		3-5
Arts and Humanities		
PHIL 2625	Introduction to Professional Ethics	3
Art & Humanities Gen Ed Elective		3
Natural Science		

BIOL 1545 & 1545L	Allied Health Anatomy and Physiology and Allied Health Anatomy and Physiology Laboratory	5
Natural Science Gen Ed (1 course)		3
Social Science		
SOC 1500	Introduction to Sociology	3
PSYC 1560	General Psychology	3
Gen education electives (9 s.h)		
CMST 1545	Communication Foundations	3
PHLT 1568 or PHLT 1531	Healthy Lifestyles Fundamentals of Public Health	3
General Education Elective		3
Additional Required Courses		
BIOL 1560 & 1560L	Microbiology for the Health Professions and Microbiology Laboratory for Health Professions	3
Respiratory Care Courses		
RESC 1530	Foundations of Respiratory Care	3
RESC 3710	Respiratory Care Pharmacology	3
RESC 1503	Respiratory Procedures 1	3
RESC 1503L	Respiratory Procedures 1 Lab	1
RESC 1520	Respiratory Care Assessment 1	2
RESC 1520L	Respiratory Assessment 1 Lab	1
RESC 2620	Respiratory Assessment 2	2
RESC 2620L	Respiratory Assessment 2 Lab	1
RESC 2621	Cardiopulmonary Disease	3
RESC 3706	Respiratory Procedures 2	2
RESC 3706L	Respiratory Procedures 2 Lab	1
RESC 3720	Mechanical Ventilation 1	2
RESC 3720L	Mechanical Ventilation 1 Lab	1
HAHS 5875	Interprofessional Education for Health Professions (* can be taken for graduate credit)	3
AHLT 5840	Comparative Health Systems (* can be taken for graduate credit)	3
RESC 2699	Clinical Practice 1	1
RESC 3708	Respiratory Clinical Specialties	3
RESC 3709	Neonatal/Pediatric Respiratory Care	3
RESC 3709L	Neonatal/Pediatric Respiratory Care Lab	1
RESC 3725	Mechanical Ventilation 2	2
RESC 3725L	Mechanical Ventilation 2 Lab	1
RESC 4867	Fundamentals of Leader Development	3
RESC 3740	Clinical Practice 2	3
RESC 4870	Advanced Cardiopulmonary Case Management	3
RESC 3765	Advanced Respiratory Care Diagnostics	3
RESC 3741	Clinical Practice 3	3
RESC 4831	Pulmonary Care Management	3
AHLT 4806	Research Methods	3
RESC 4838	Respiratory Seminar 1	1
RESC 4812	Advanced Cardiopulmonary Life Support	3
RESC 5820	The Respiratory Care Profession (* can be taken for graduate credit)	3
RESC 4842	Respiratory Seminar 2	1
AHLT 4820	Directed Research	3
RESC 4835	Clinical Practice 4	3
RESC 5860	Technology Applications for Health and Human Services (* can be taken for graduate credit)	3
Total Semester Hours		122-126

Bachelor of Science Respiratory Care (BSRC) Curriculum

Year 1

Fall		S.H.
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2
BIOL 1545 & 1545L	Allied Health Anatomy and Physiology and Allied Health Anatomy and Physiology Laboratory	5
Any Gen Ed Math (Math 2623 recommended)		3-5
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
CMST 1545	Communication Foundations	3
Semester Hours		15-19

Spring

ENGL 1551	Writing 2	3
SOC 1500	Introduction to Sociology	3
PHLT 1568 or PHLT 1531	Healthy Lifestyles or Fundamentals of Public Health	3
NS Gen Ed Course		3
Semester Hours		12

Year 2

Fall		
RESC 1530	Foundations of Respiratory Care	3
PHIL 2625	Introduction to Professional Ethics	3
BIOL 1560	Microbiology for the Health Professions	2
BIOL 1560L	Microbiology Laboratory for Health Professions	1
RESC 3710	Respiratory Care Pharmacology	3
Semester Hours		12

Spring

PSYC 1560	General Psychology	3
RESC 1520	Respiratory Care Assessment 1	2
RESC 1520L	Respiratory Assessment 1 Lab	1
RESC 1503	Respiratory Procedures 1	3
RESC 1503L	Respiratory Procedures 1 Lab	1
Gen Ed Elective		3
Semester Hours		13

Summer

RESC 2621	Cardiopulmonary Disease	3
RESC 2620	Respiratory Assessment 2	2
RESC 2620L	Respiratory Assessment 2 Lab	1
Semester Hours		6

Year 3

Fall		
RESC 3706	Respiratory Procedures 2	2
RESC 3706L	Respiratory Procedures 2 Lab	1
RESC 3720	Mechanical Ventilation 1	2
RESC 3720L	Mechanical Ventilation 1 Lab	1
HAHS 5875	Interprofessional Education for Health Professions (3
	• can be taken for graduate credit	
)	

AHLT 5840	Comparative Health Systems (3
	• can be taken for graduate credit	
)	

Semester Hours

12

Spring

RESC 2699	Clinical Practice 1	1
RESC 3708	Respiratory Clinical Specialties	3
RESC 3709	Neonatal/Pediatric Respiratory Care	3
RESC 3709L	Neonatal/Pediatric Respiratory Care Lab	1
RESC 3725	Mechanical Ventilation 2	2
RESC 3725L	Mechanical Ventilation 2 Lab	1
RESC 4867	Fundamentals of Leader Development	3

Semester Hours

14

Summer

RESC 3740	Clinical Practice 2	3
RESC 4870	Advanced Cardiopulmonary Case Management	3

Semester Hours

6

Year 4

Fall		
RESC 3765	Advanced Respiratory Care Diagnostics	3
RESC 3741	Clinical Practice 3	3
RESC 4831	Pulmonary Care Management	3
AHLT 4806	Research Methods	3
RESC 4812	Advanced Cardiopulmonary Life Support	3
RESC 4838	Respiratory Seminar 1	1
RESC 5820	The Respiratory Care Profession (3
	• can be taken for graduate credit	
)	

Semester Hours

19

Spring

RESC 4842	Respiratory Seminar 2	1
AHLT 4820	Directed Research	3
RESC 4835	Clinical Practice 4	3
Arts and Humanities Gen Ed Elective		3
RESC 5860	Technology Applications for Health and Human Services (*can be taken for graduate credit)	3

Semester Hours

13

Total Semester Hours

122-126

Learning Outcomes

The student learning outcomes for the major in Respiratory Care are as follows:

- Upon completion of the program, graduates will demonstrate the ability to comprehend, apply, and evaluate clinical information relevant to their roles as advanced-level respiratory therapists (cognitive domain).
- Upon completion of the program, graduates will demonstrate technical proficiency in all the skills necessary to fulfill their role as advanced level respiratory therapists (psychomotor domain).
- Upon completion of the program, graduates will demonstrate professional behavior consistent with employer expectations as advanced-level respiratory therapists (affective domain).
- Upon completion of the program graduates will be cognizant of cultural differences within diverse patient populations and have an awareness

of how those differences may affect the delivery of healthcare and outcomes...

Bachelor of Science in Respiratory Care Degree Advancement Completion Track

Program Director

Dr. Kelly L. Colwell
(330) 941-2631
klcolwell@ysu.edu

This 100% online program is designed to provide a focused advancement option that will bridge the depth and breadth of knowledge of the certified or registered respiratory therapist who has graduated from a Commission on Accreditation for Respiratory Care (CoARC) accredited associate degree program to meet the clinical education, leadership and research needs of the respiratory care profession. The core curriculum builds on the existing foundation of knowledge and skills in the areas of:

- Advanced cardiopulmonary disease management
- Advanced clinical applications
- Clinical research
- Education
- Interprofessional education (IPE)
- Leadership and technology related to the practice of respiratory care.

*Upon completion of the Required Core Upper Division Courses with a minimum GPA of 2.5, the student will be awarded up to 17 semester hours of upper division credit from their associate degree respiratory care courses and ALL of the respiratory care course credit earned from the applicant's associate degree will be applied toward the 120 required SH with another 10SH of prior learning assessment (PLA) being assessed for current professional experience.

Accreditation

The Bachelor of Science in Respiratory Care (CoARC #510019) at Youngstown State University, Youngstown, Ohio is provisionally accredited by the Commission on Accreditation for Respiratory Care (CoARC), www.coarc.com (<http://www.coarc.com/>). Current accreditation standing: CoARC granted Provisional accreditation for a maximum annual enrollment of up to 120 students..

Date of last campus visit: May 21, 2021

Date of next campus visit: To be determined

COURSE	TITLE	S.H.
The curriculum assumes that a student entering into the Respiratory Care Completion Program has an unencumbered license.		
The following block credit will be granted and posted on the student's transcripts after admission to the program		15-16
ENGL 1550	(3 s.h.)	
Arts and Humanities	(3 s.h.)	
Social Science	(3 s.h.)	
Natural Science	(6-7 s.h.)	
General Education Requirements (to be completed for BS degree)		
ENGL 1551	Writing 2 ¹	3
Arts and Humanities	(3 s.h.)	3
Any Math General Education Course		3
Social Science	(3 s.h.)	3
CMST 1545	Communication Foundations	3

General Education Electives (2 courses)		6
Associate Degree Respiratory Care Courses -Transfer Credit²		45
Required Core Courses (30 s.h.)		
RESC 3765	Advanced Respiratory Care Diagnostics	3
AHLT 4806	Research Methods	3
AHLT 4820	Directed Research	3
RESC 4867	Fundamentals of Leader Development	3
RESC 4870	Advanced Cardiopulmonary Case Management	3
RESC 5820	The Respiratory Care Profession (* Can be taken for graduate credit)	3
RESC 5860	Technology Applications for Health and Human Services (* Can be taken for graduate credit)	3
HAHS 5875	Interprofessional Education for Health Professions	3
RESC 5880	Advanced Management of the Ventilator Patient (* Can be taken for graduate credit)	3
AHLT 5840	Comparative Health Systems (* Can be taken for graduate credit)	3
Upper Division Electives (RESC 3700, 4800, 5800 level) Courses below are suggested		9
RESC 4801	Special Topics in Respiratory Care (*Required for CRT)	
RESC 4846	Sleep Diagnostics 1	
RESC 4848	Sleep Diagnostics 2	
RESC 4801A	Special Topics in Respiratory Care Clinical Sleep 1	
Additional electives may be required to reach the 120sh for a BSRC		
Total Credits for BSRC in Respiratory Care = 120		
Total Semester Hours		120-121

1. Certain general education courses, such as ENGL 1551, have prerequisites. Normal prerequisite rules apply for students taking the General Education Completion Program.

2. Transfer credit hours are dependent upon course evaluation and are estimated at 41 hours based on a 60 hour Associates program. Credit hours may vary depending on the institution where courses were taken and accreditation requirements.

For more information, please visit the Distance Education (<http://cms.ysu.edu/administrative-offices/distance-education/online-bachelor-science-respiratory-care-completion/>) website.

BSRC Degree advancement Learning outcomes

1/24/25

- SLO-1: Upon completion of the program, graduates will demonstrate the ability to , prepare, apply, and evaluate evidence-based research related to respiratory care.
- SLO-2: Upon completion of the program, graduates will demonstrate proficiency in the skills necessary to utilize current technologies such as, EMR/EHR computer and online charting and data collection systems/ services and applications appropriate for respiratory management, respiratory education, and research.
- SLO-3: Upon completion of the program, graduates will demonstrate leadership skills with applications within the healthcare delivery, education, management, and research settings.
- SLO-4: Upon completion of the program, graduates will demonstrate the ability to comprehend, prepare, apply, and evaluate advanced clinical applications.
- SLO-5: Upon completion of the program graduates will be cognizant of cultural differences within diverse patient populations and have an awareness of how those differences may affect the delivery of healthcare and outcomes...

Bachelor of Science in Respiratory Care in Respiratory Care Completion Track with Advanced Placement Option to Master of Respiratory Care

Program Director

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Accreditation

The Bachelor of Science in Respiratory Care (CoARC #510019) at Youngstown State University, Youngstown, Ohio is provisionally accredited by the Commission on Accreditation for Respiratory Care (CoARC), www.coarc.com (<http://www.coarc.com/>). Current accreditation standing: CoARC granted Provisional accreditation for a maximum annual enrollment of up to 120 students..

Date of last campus visit: May 21, 2021

Date of next campus visit: To be determined

Overview

Overview

This 100% online program is designed to provide a focused degree advancement option that will bridge the depth and breadth of knowledge of the certified or registered respiratory therapist who has graduated from a Commission on Accreditation for Respiratory Care (CoARC) accredited associate degree program to meet the clinical, educational, research and leadership needs of the respiratory care profession. The core curriculum builds on the existing foundation of knowledge and skills in the areas of:

- Advanced cardiopulmonary disease management
- Advanced clinical applications
- Clinical research
- Interprofessional education (IPE)
- Education
- leadership and technology related to the practice of respiratory care.

*Upon completion of the Required Core Upper Division Courses with a minimum GPA of 2.5, the student will be awarded up to 17 semester hours of upper division credit from their associate degree respiratory care courses and ALL of the respiratory care course credit earned from the applicant's associate degree will be applied toward the 120 required SH with another 10SH of prior learning assessment (PLA) being assessed for current professional experience.

Master's in respiratory care advanced placement option

The advanced placement option allows the undergraduate BSRC Completion student to take up to 9 semester hours of dual graduate credit that can be applied to the Master of Respiratory Care program. Upon completion of the BSRC, the student must apply to and be accepted into the Graduate School and the Master of Respiratory Care Program in order to apply the graduate credits earned during the BSRC program. To be accepted into the MRC Advanced Placement option, the student must have a Junior standing (60SH) Program and have a GPA of 3.2.

Once accepted into the BSRC Advanced Placement Option, the student must maintain a GPA of 3.0 to continue to take graduate level courses.

BSRC Degree advancement, MRC advanced placement student learning outcomes (SLO's)

SLO-1: Demonstrate competence in the cognitive (knowledge) domains the ability to evaluate, comprehend and apply information in order to match patient need with therapeutic intervention.

SLO-2: Demonstrate competence in the psychomotor (technical skills) Exhibit technical proficiency skills necessary to fulfill the role as an advanced level respiratory therapist. Including those of education and research attributes.

SLO-3: Demonstrate competence in the affective (behavior) Display professional behavior leadership and management attributes along with compassion consistent with employer expectations as an advanced level respiratory therapist.

SLO-4: Upon completion of the program graduates will be cognizant of cultural differences within diverse patient populations and have an awareness of how those differences may affect the delivery of healthcare and outcomes...

COURSE	TITLE	S.H.
The curriculum assumes the student entering into the Respiratory Care Program has an unencumbered license		
The following block credit will be granted and posted on the students transcripts after admission to the program		15
ELCT 15XX Social Science (3 s.h.)		
ELCT 15XX Social Science or Social and Personal Awareness (3 s.h.)		
ELCT 15XX Social and personal awareness (3) s.h.		
ELEC 15XX Arts & Humanities (3 s.h.)		
ELCT 15XX Natural science (3 s.h.)		
General Education Requirements (to be completed for BS degree)		
STAT 2625	Statistical Literacy and Critical Reasoning	4
CMST 1545	Communication Foundations	3
ENGL 1551	Writing 2 ¹	3
PHIL 2625	Introduction to Professional Ethics	3
CHEM 1520	Allied Health Chemistry for Online Programs	3
PSYC 3758	Lifespan Development	3
Associate Degree Respiratory Care Courses -transfer credit 2		45
Required Core Upper Division Courses (30 s.h.)		
AHLT 3705	Pharmacotherapeutics	3
RESC 3765	Advanced Respiratory Care Diagnostics	3
AHLT 4806	Research Methods	3
AHLT 4820	Directed Research	3
RESC 4867	Fundamentals of Leader Development	3
RESC 4870	Advanced Cardiopulmonary Case Management	3
RESC 5880	Advanced Management of the Ventilator Patient (* Must be taken for graduate credit)	3
RESC 5860	Technology Applications for Health and Human Services (* Must be taken for graduate credit)	3
RESC 5820	The Respiratory Care Profession (* Must be taken for graduate credit)	3
AHLT 5840	Comparative Health Systems (*Must be taken for graduate credit))	3
Upper Division Electives (Any RESC 3700, 4800, 5800 level). Courses below are recommended		12
RESC 4801	Special Topics in Respiratory Care (*Required for CRT/ CRTT)	
RESC 4846	Sleep Diagnostics 1	
RESC 4848	Sleep Diagnostics 2	
RESC 4801A	Special Topics in Respiratory Care Clinical Sleep 1	
Total Semester Hours		121

For more information, please visit the Distance Education (<http://cms.ysu.edu/administrative-offices/distance-education/online-bachelor-science-respiratory-care-completion/>) website.

Bachelor of Science in Respiratory Care in Respiratory Care with Advanced Placement Option to Master of Respiratory Care

Program Director

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Accreditation

The Bachelor of Science in Respiratory Care (CoARC #200247) at Youngstown State University, Youngstown, Ohio is accredited by the Commission on Accreditation for Respiratory Care (www.coarc.com (<https://www.coarc.com/>)).

Current accreditation standing: CoARC reaffirms Continuing Accreditation for a 10-year cycle through July 31, 2031. All Standards are in compliance.

Date of last campus visit: May 21, 2021

Date of next campus visit: 2031

Pass rates: RRT 98%

Respiratory care is an allied health profession concerned with the diagnostic evaluation, treatment, management, rehabilitation, education and discharge planning of patients with cardiopulmonary disorders, and is the only healthcare professional trained and licensed to operate and manage ventilators and life support systems.

The licensed respiratory care practitioner (RCP) is proficient in:

- Air land and sea transport of critically ill patients
- Airway insertion, placement, and management procedures
- Analyzing breath, tissue, and blood specimens to determine levels of oxygen and other gases.
- Basic and advanced cardiac life support techniques
- Broncho-pulmonary hygiene
- Discharge Planning
- Educating patients and families about lung disease to maximize their quality of life.
- Therapeutic administration of medical gases and aerosolized medications
- Intermittent and continuous mechanical ventilation management
- Non-invasive patient monitoring
- Perform Pulmonary function diagnostic testing and evaluation.
- Physician consultation to recommend adjustments to pulmonary treatments.
- Pulmonary rehabilitation

A licensed RCP must also be knowledgeable regarding various assessment techniques and patient education models. These skills are used with neonatal, pediatric, and adult patients in acute, sub-acute, and home care settings. To function effectively as a member of the multidisciplinary health care team, the RCP must have a sound understanding of:

- The physiological, psychological, and cultural needs of the patient
- The role of the various therapeutic interventions in the patient care plan

- Development of broad-based skills to contribute to the overall care of the patient more effectively.

Theory and laboratory experiences are provided prior to the student's entry into the clinical education phase of the program. This program can be completed in four calendar years. It includes three summer sessions. A master of respiratory care advanced placement option is also available and a sleep diagnostics option as well. Please visit Respiratory Care (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-health-human-services/department-health-professions/bs-respiratory-care/>) for more information.

Advanced Master of Respiratory Care placement option.

The advanced placement option allows the undergraduate BSRC student to take up to 9 semester hours of graduate credit that can be applied to the Master of Respiratory Care program. Upon completion of the BSRC, the student will apply to and be accepted into the Graduate School and the Master of Respiratory Care Program in order to apply the graduate credits earned during the BSRC program. To be accepted into the BSRC Advanced Placement option, the student must meet the following criteria:

1. Junior standing with an overall GPA of a minimum of 3.2; or,
2. Junior standing in BSRC Completion Program and have completed 15 semester hours of required core upper division courses and have an overall minimum GPA of 3.2

Once accepted into the BSRC Advanced Placement Option, the student must maintain a GPA of 3.0 to continue to take graduate level courses.

The goals of the Bachelor of Science in Respiratory Care are:

- To prepare graduates with demonstrated competence in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains of respiratory care practice as performed by registered respiratory therapists (RRTs).
- To prepare leaders for the field of respiratory care by including curricular content that includes objectives related to acquisition of skills one or more of the following: management, education, research, and advanced clinical practice (which may include an area of clinical specialization).

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics requirement (met with MATH 2623)		
Natural Science (6-7 s.h. met with courses in major)		
Arts and Humanities (6 s.h.)		
PHIL 2625	Introduction to Professional Ethics (required for major)	3
One additional Arts and Humanities course		
Social Science (6 s.h.)		
SOC 1500	Introduction to Sociology	3
PSYC 1560	General Psychology	3
General Education Elective (9 s.h.)		
CMST 1545	Communication Foundations	3
PHLT 1531	Fundamentals of Public Health (Suggested elective)	3
One additional elective (can be met with PHLT 1568)		
Pre-Respiratory Courses (also meet Gen Ed requirements above)		

BIOL 1545 & 1545L	Allied Health Anatomy and Physiology and Allied Health Anatomy and Physiology Laboratory (Meets natural science requirement with lab, required for major)	5
One additional Natural Science course without lab		3
MATH 2623	Quantitative Reasoning	3
Respiratory Care Required Courses		
RESC 1530	Foundations of Respiratory Care	3
RESC 3710	Respiratory Care Pharmacology	3
BIOL 1560	Microbiology for the Health Professions (required for major)	2
BIOL 1560L	Microbiology Laboratory for Health Professions (required for major)	1
RESC 1503	Respiratory Procedures 1	3
RESC 1503L	Respiratory Procedures 1 Lab	1
RESC 1520	Respiratory Care Assessment 1	2
RESC 1520L	Respiratory Assessment 1 Lab	1
RESC 2620	Respiratory Assessment 2	2
RESC 2620L	Respiratory Assessment 2 Lab	1
RESC 2621	Cardiopulmonary Disease	3
RESC 3706	Respiratory Procedures 2	2
RESC 3706L	Respiratory Procedures 2 Lab	1
RESC 3720	Mechanical Ventilation 1	2
RESC 3720L	Mechanical Ventilation 1 Lab	1
HAHS 5875	Interprofessional Education for Health Professions (* Can be taken for graduate credit)	3
RESC 2699	Clinical Practice 1	1
RESC 3708	Respiratory Clinical Specialties	3
RESC 3709	Neonatal/Pediatric Respiratory Care	3
RESC 3709L	Neonatal/Pediatric Respiratory Care Lab	1
RESC 3725	Mechanical Ventilation 2	2
RESC 3725L	Mechanical Ventilation 2 Lab	1
RESC 4867	Fundamentals of Leader Development	3
RESC 3740	Clinical Practice 2	3
RESC 4870	Advanced Cardiopulmonary Case Management	3
RESC 3765	Advanced Respiratory Care Diagnostics	3
RESC 3741	Clinical Practice 3	3
RESC 4831	Pulmonary Care Management	3
AHLT 4806	Research Methods	3
RESC 4838	Respiratory Seminar 1	1
RESC 5820	The Respiratory Care Profession (* can be taken for graduate credit)	3
RESC 4812	Advanced Cardiopulmonary Life Support	3
AHLT 5840	Comparative Health Systems (* Can be taken for graduate credit)	3
RESC 4842	Respiratory Seminar 2	1
AHLT 4820	Directed Research	3
RESC 4835	Clinical Practice 4	3
RESC 5860	Technology Applications for Health and Human Services (* Can be taken for graduate credit)	3
4+1 Dual Credit courses		
RESC 5820	Respiratory Care the Profession	
RESC 5860	Technology Applications for Health and Human Services	
AHLT 5840	Comparative Health	
HAHS 5875	IPE for Health Professions	
Total Semester Hours		122-124

Bachelor of Science Respiratory Care (BSRC) Curriculum

Year 1

Fall

YSU 1500	Success Seminar		S.H.
or YSU 1500S	or Youngstown State University Success Seminar		1-2
or HONR 1500	or Intro to Honors		
BIOL 1545	Allied Health Anatomy and Physiology	5	
MATH 2623	Quantitative Reasoning	3	
ENGL 1550	Writing 1	3-4	
or ENGL 1549	or Writing 1 with Support		
CMST 1545	Communication Foundations	3	

Semester Hours

15-17

Spring

ENGL 1551	Writing 2	3	
SOC 1500	Introduction to Sociology	3	
PHLT 1531	Fundamentals of Public Health	3	
NS course without lab		3	

Semester Hours

12

Year 2

Fall

RESC 1530	Foundations of Respiratory Care	3	
BIOL 1560	Microbiology for the Health Professions	2	
MLT 2687L	or Microbiology Laboratory for Health Professions	1	
or BIOL 1560L			
PHIL 2625	Introduction to Professional Ethics	3	
RESC 3710	Respiratory Care Pharmacology	3	

Semester Hours

12

Spring

RESC 1503	Respiratory Procedures 1	3	
RESC 1503L	Respiratory Procedures 1 Lab	1	
RESC 1520	Respiratory Care Assessment 1	2	
RESC 1520L	Respiratory Assessment 1 Lab	1	
PSYC 1560	General Psychology	3	
Elective can be met with PHLT 1568		3	

Semester Hours

13

Summer

RESC 2620	Respiratory Assessment 2	2	
RESC 2620L	Respiratory Assessment 2 Lab	1	
RESC 2621	Cardiopulmonary Disease	3	

Semester Hours

6

Year 3

Fall

RESC 3706	Respiratory Procedures 2	2	
RESC 3706L	Respiratory Procedures 2 Lab	1	
RESC 3720	Mechanical Ventilation 1	2	
RESC 3720L	Mechanical Ventilation 1 Lab	1	
HAHS 5875	Interprofessional Education for Health Professions (*can be taken for graduate credit)	3	
AHLT 5840	Comparative Health Systems (*Can be taken for graduate credit)	3	

Semester Hours

12

Spring

RESC 2699	Clinical Practice 1	1	
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RESC 3708	Respiratory Clinical Specialties	3
RESC 3709	Neonatal/Pediatric Respiratory Care	3
RESC 3709L	Neonatal/Pediatric Respiratory Care Lab	1
RESC 3725	Mechanical Ventilation 2	2
RESC 3725L	Mechanical Ventilation 2 Lab	1
RESC 4867	Fundamentals of Leader Development	3
Semester Hours		14
Summer		
RESC 3740	Clinical Practice 2	3
RESC 4870	Advanced Cardiopulmonary Case Management	3
Semester Hours		6
Year 4		
Fall		
RESC 3765	Advanced Respiratory Care Diagnostics	3
RESC 3741	Clinical Practice 3	3
RESC 4831	Pulmonary Care Management	3
AHLT 4806	Research Methods	3
RESC 4838	Respiratory Seminar 1	1
RESC 4812	Advanced Cardiopulmonary Life Support	3
RESC 5820	The Respiratory Care Profession	3
Semester Hours		19
Spring		
RESC 4842	Respiratory Seminar 2	1
AHLT 4820	Directed Research	3
RESC 4835	Clinical Practice 4	3
RESC 5860	Technology Applications for Health and Human Services (*Can be taken for graduate credit)	3
Elective Arts & Humanities		3
Semester Hours		13
Total Semester Hours		122-124

Learning Outcomes

The student learning outcomes for the major in Respiratory Care are as follows:

- Upon completion of the program, graduates will demonstrate the ability to comprehend, apply, and evaluate clinical information relevant to their roles as advanced-level respiratory therapists (cognitive domain).
- Upon completion of the program, graduates will demonstrate technical proficiency in all the skills necessary to fulfill their role as advanced level respiratory therapists (psychomotor domain).
- Upon completion of the program, graduates will demonstrate professional behavior consistent with employer expectations as advanced-level respiratory therapists (affective domain).
- Upon completion of the program, graduates will demonstrate the ability to comprehend, apply, and evaluate clinical information relevant to their roles as sleep disorder specialists (cognitive domain).
- Upon completion of the program, graduates will demonstrate technical proficiency in all the skills necessary to fulfill their role as sleep disorder specialists (psychomotor domain).
- Upon completion of the program, graduates will demonstrate professional behavior consistent with employer expectations as sleep disorder specialists (affective domain).

Minor in Nutrition and Health

This minor is intended for non-dietetics majors to gain insight into their personal nutrition and health outcomes by providing an orientation to food, nutrition, and health. Any interested student may select the minor however, this minor would be most appropriate for students majoring in life science or allied health disciplines. The courses in the Nutrition minor require a science foundation (human anatomy and chemistry) so course prerequisites must be examined before selecting the minor. This minor does not prepare students for prescribing diets for others which is a violation of dietetics licensure law.

COURSE	TITLE	S.H.
FNUT 1551	Normal Nutrition	3
FNUT 1553	Food Science and Management Principles	3
FNUT 2652L	Nutrition Assessment Laboratory	1
FNUT 3735	Nutritional Biochemistry (or Class approved as Substitute)	2
Select one of the following course options		3
FNUT 3761	Science of Nutrition in Exercise	
FNUT 3760	Medical Nutrition Therapy 2	
FNUT 5862 & 5862L	Food and Culture and Food and Cultures Laboratory (Take lecture and lab together for 3 s.h.)	
Total Semester Hours		12

Minor in Public Health

The learning outcomes for this minor are:

- The student will be able to describe the five core public health content areas.
- The student will be able to demonstrate basic skills in each of the five core public health content areas.

COURSE	TITLE	S.H.
Required Courses		
PHLT 1531	Fundamentals of Public Health	3
PHLT 3791	Community Health	3
Choose two of the following		6-7
PHLT 3702	Health Education Theory and Methods	
PHLT 4826	Community Health Planning and Promotion	
PHLT 3709	Elements of Urban Environmental Health Practices	
AHLT 4808	Environmental Health Concerns	
AHLT 5807	Epidemiology	
Total Semester Hours		12-13

Minor in Wellness

Minor in Wellness

Program Director

Garrett Kellar

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The minor consists of 20-22 credit hours. You'll take a combination of nutrition, human performance and exercise science courses to begin. Personalize the focus on your minor by choosing any two activities classes and one course in either community health, food and culture, mindfulness or comparative health systems.

COURSE	TITLE	S.H.
Required		
FNUT 1551	Normal Nutrition	3
KSS 1590	Foundations of Fitness	3
PHLT 1568	Healthy Lifestyles	3
KSS 2605	Sports First Aid and Injury Prevention	3
KSS 4875	Exercise Counseling and Behavioral Strategies	4
Choose any two KSS activity classes. These classes include but are not limited to:		
KSS 1509	Meditation	1
KSS 1552	Yoga	1
KSS 1557	Weight Training	1
KSS 1565	Self Defense	1
KSS 1550	Pilates	1
KSS 1508	Group Cycling	1
Choose one of the following:		
PHLT 3791	Community Health	3
FNUT 5862 & 5862L	Food and Culture and Food and Cultures Laboratory	3
KSS 3725	Mindfulness	2
AHLT 5840	Comparative Health Systems	3
Total Semester Hours - 21-22		

Certificate in Medical Assistant

The medical assistant performs a variety of administrative duties dependent upon the physician's practice and unique office requirements. The duties may include acting as a secretary, bookkeeper, and receptionist; answering incoming calls; receiving mail; greeting patients; handling correspondence and filing; arranging for laboratory and X-ray procedures or hospital admissions; taking histories; and maintaining patient records, accounts and billing.

The clinical duties of a medical assistant include preparing patients and assisting the physician with examinations or treatment; measuring height and weight; and taking vital signs. The assistant may perform certain laboratory tests, take X-rays or EKGs, or assist with diagnostic and minor surgical procedures and the administration of injections or other medications.

COURSE	TITLE	S.H.
CSIS 1514	Business Computer Systems	3
BIOL 1545	Allied Health Anatomy and Physiology	5
AHLT 1502	Applied Pathophysiology	4
MATC 2614	Medical Office Procedures	3
MATC 2611L	Clinical Procedures Lab	1
MATC 2620	Advanced Clinical Procedures	3
MATC 2620L	Advanced Clinical Procedures Lab	1
MATC 2680	Medical Laboratory Procedures	1
MATC 2680L	Medical Laboratory Procedures Lab	1
MATC 2692	Medical Assisting Externship	3
Total Semester Hours		25

Certificate in Medical Scribe Specialist

The Medical Scribe Specialist program provides instruction in medical terminology, anatomy and physiology, healthcare law and ethics, billing and reimbursement, ICD-10-CM, CPT, and HCPCS II coding, electronic health record components including documentation standards, computerized applications such as provider order entry and clinical decision support in the provider health record, personal health record at both the physical point of

care and telemedicine, quality/performance health information workflow, and professional ethics/communication based on CAAHEP required standards. The program prepares students for entry level Medical Scribe positions requiring the input of accurate and timely data into the electronic health record under the direction of a physician benefitting both the clinician and the patient.

PROGRAM GOAL

To prepare competent entry level Medical Scribe Specialists by equipping them with the knowledge, skills, and ability to assist physicians and improve quality of health care delivery through careful, accurate, and timely physician-directed input into the electronic health record.

COURSE	TITLE	S.H.
AHLT 1501	Medical Terminology	3
AHLT 1502	Applied Pathophysiology	3
AHLT 2605	Introduction to Pharmacology	3
HIM 1500	Introduction to Health Records	3
HIM 1510	Reimbursement Methodologies	3
HIM 2600	CPT Coding	4
HIM 2610	ICD-10 CM Coding	4
HIM 2630	Legal/Ethical Concepts in HIM	3
CSIS 1514	Business Computer Systems	3
BIOL 1545	Allied Health Anatomy and Physiology	5
Total Semester Hours		34

Certificate in Patient Health Navigator

Healthcare advocacy is an emerging and exciting career. Health care navigators help patients receive the best health care possible by helping patients and their families navigate the healthcare system, which can be complex and daunting. As the new healthcare legislation further complicates access to healthcare and insurance coverage, Patient Health Navigators assist patients and their families through the diagnosis, treatment and prognosis. They identify resources and help patients and their families decode insurance coverage. Patient navigators work with clients to reduce barriers to healthcare.

The range of patient navigator duties varies widely. Some patient navigators work with patients through the screening and diagnosis. Others work with patients through treatment and even into survivorship or end of life. The patient navigators may work in community or healthcare settings.

Patient navigators lead patients to screening tests and provide health information. They also work with patients to identify and reduce barriers that keep patients from getting healthcare. They may link patients to healthcare providers or medical homes, assist with publicly funded health insurance, find financial assistance or help with transportation.

Some of the jobs that Patient Health Navigators may be able to do include: Admissions Coordinator, Case Manager, Medicaid Service Coordinator (MSC), Patient Access Specialist, Patient Advocate, Patient Representative, Service Coordinator.

COURSE	TITLE	S.H.
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
CSIS 1514	Business Computer Systems	3
BIOL 1545 & 1545L	Allied Health Anatomy and Physiology and Allied Health Anatomy and Physiology Laboratory	5
MATC 2614	Medical Office Procedures	3
SCWK 1510	Introduction to Social Work	3
SCWK 2600	Health Issues for Social Work Practice	3
AHLT 1501	Medical Terminology	3

MATC 2692	Medical Assisting Externship	3
AHLT 4804	Stress and the Health Care Professional	3
MATC 2600	Medical Insurance Forms	2
PHIL 3725	Biomedical Ethics	3
MATC 1502	Medical Law and Ethics	3

Total Semester Hours **37-38**

Certificate in Polysomnography

Year 1

Fall		S.H.
RESC 4846	Sleep Diagnostics 1	3
RESC 4801A	Special Topics in Respiratory Care Clinical Sleep 1	3
Semester Hours		6

Spring

RESC 4848	Sleep Diagnostics 2	3
RESC 4801B	Special Topics in Respiratory Care Sleep Clinical 2	3
Semester Hours		6
Total Semester Hours		12

Department of Military Science

Army Reserve Officer Training Corps (ROTC)

The **Army Reserve Officer Training Corps (ROTC)** is a college leadership program designed to train college students in leadership and management skills, equipping them for leadership in the United States Army.

Army ROTC is not a college major, but the Army ROTC program is compatible with most baccalaureate degree producing programs at Youngstown State University.

The Military Science Department (Army ROTC) has served the University and the nation since 1949 by preparing students for service as professional Officers in the United States Army. The military science program at YSU offers a four-year course of study that adds practical management training and leadership experience to students' chosen degrees.

The Army ROTC program expands a student's education by providing leadership and management experience. This training helps students develop self-discipline, physical stamina, and poise - qualities basic to success in any worthwhile career. Students genuinely interested in military service can earn a commission as a Second Lieutenant in the U.S. Army (which includes the Active Army, Army National Guard, and Army Reserve) while earning their college degree. Through ROTC, the Army gains Officers with diverse educational backgrounds and contemporary ideas.

Students who have career goals outside the Army that require leadership or managerial skills, and who wish to explore the benefits of the Army, are encouraged to enroll in the introductory lower-division Military Science courses. These courses can be applied as elective credit toward your degree.

Participation in these classes is voluntary and carries no military obligation.

Army ROTC is one of the programs at YSU that provides leadership training. In Army ROTC, students quickly gain the confidence and self-discipline necessary to succeed in college. As they progress, students acquire skills and experience in taking charge of activities, setting goals, managing people and resources, and making decisions in demanding circumstances. When they complete the Army ROTC program and graduate from YSU, students will have gained both leadership and academic credentials necessary to take on responsibility as Army Officers and/or step into corporate America. A minor in Military Science

is available in consultation with the academic major advisor and the Military Science Department.

Scholarships

The Army ROTC program offers four, three, and two year scholarships to those that qualify (subject to availability). Scholarships include full tuition, a monthly stipend of \$300 - \$500 and a \$1200 book allowance. These scholarships incur a military obligation.

Youngstown State University Army ROTC also offers various alumni and endowment scholarships which are offered to students **without any military obligation**. Students interested in these scholarships can apply through the Army ROTC Department.

Opportunities for Veterans/Junior ROTC Graduates

Military Veterans and students with three years of Junior ROTC (high school), are eligible for Basic Course class credit (first two years of the ROTC program). These students may be eligible to begin the ROTC program in the Advanced Course (beginning with their junior year). Check with the Military Science Department for Advanced Course requirements.

Army ROTC/Army Reserve/Army National Guard

Students can further broaden their college experience and earn extra income by combining ROTC with service in the Army Reserve or Army National Guard through the Simultaneous Membership Program (SMP). Students who qualify may join the Army Reserve or Army National Guard unit as an Officer trainee and simultaneously enroll in the Army ROTC Advanced Course. In addition to ROTC allowances for contracted students, SMP participants are paid for their Reserve or Guard drills and annual summer training sessions. Contact the Military Science Department for details.

Leadership Laboratory

The leadership laboratory is a practical exercise period for both Basic and Advanced courses. It provides hands-on experience in practical military skills and the development of essential characteristics of leadership through progressive evaluation and counseling:

COURSE	TITLE	S.H.
MSCI 1530L	Basic Course Leadership Laboratories	0
MSCI 2630L	Basic Course Leadership Laboratories	0
MSCI 3730L	Advanced Course Leadership Laboratories	0
MSCI 4830L	Advanced Course Leadership Laboratories	0

Extra-Curricular Activities

Cadets have numerous opportunities to participate in ROTC activities outside the classroom. During YSU home football games, YSU Cadets raise the national colors, and mark every Penguin score by firing the cannon and doing push-ups for the fans. Additionally, the Color Guard Team provides color guards for university and community events. Army ROTC Cadets also have the opportunity to participate in field training exercises at Camp Ravenna Joint Military Training Center which tests their land navigation and tactical leadership skills. Cadets also participate in Combat Water Survival Training, formal military banquets and ceremonies, and weekly "hands-on" leadership labs.

Cadets may have the opportunity to earn the German Armed Forces Badge for Military Proficiency by completing a fitness test, pistol qualification, demonstrating proficiency in first aid, and completing a road march. Cadets who qualify may also participate in the annual Army Ten Miler in Washington,

DC, or honor fallen soldiers and their families at the Mountain Man Memorial March in Gatlinburg, TN.

For more information contact the Department of Military Science:

Email at: armyrotc@ysu.edu

Phone: 330.941.3205

Instagram: [ysu_rotc](#)

Facebook: YSU Army ROTC (<https://www.facebook.com/YSUArmyROTC/>)

visit the **Department of Military Science**

Majors

- Military Science Four Year Program (p. 344)
- Military Science Two Year Program (p. 345)

Minors

- Minor in Military Science (p. 345)
- Minor in Military Science History Track (p. 346)
- Minor in Military Science Political Science Track (p. 346)

MSCI 1510 Introduction to ROTC 1 s.h.

Team and individual study and activities in basic drill, physical fitness, rappelling, leadership recreation course, first aid, making presentations, and basic marksmanship. Fundamental concepts of leadership in a profession in both classroom and outside laboratory environments. One hour lecture and Leadership Laboratory MSCI 1530L per week.

MSCI 1520 Introduction to Leadership 1 s.h.

Learn/apply principles of effective leading. Reinforce self confidence through participation in physically and mentally challenging exercises. Develop communication skills to improve individual performance and group interaction. Relate organizational ethical values to the effectiveness of a leader. One hour lecture and Leadership Laboratory MSCI 1530L per week.

MSCI 1530L Basic Course Leadership Laboratories 0 s.h.

Practical exercises with different roles for students at different levels in the program. Build self confidence, and team-building leadership skills that can be applied throughout life. Open only to (and required of) students in the respective MSCI courses. For MSCI 1510 and MSCI 1520 it is MSCI 1530L.

MSCI 2610 Self Team Development 2 s.h.

Apply ethics-based leadership skills that develop individual abilities and contribute to the building of effective teams. Develop skills in oral presentations, writing concisely, planning of events, coordination of group efforts, advanced first aid, land navigation, and basic military tactics. Fundamentals of ROTC's Leadership Development Program. Two hours lecture and leadership lab MSCI 2630L per week.

MSCI 2620 Individual/Team Military Tactics 2 s.h.

Introduction to individual and team aspects of military tactics in small unit operations. Includes use of radio communications, safety assessments, movement techniques, planning for team safety/security and methods of pre-execution checks. Practical exercises with upper-division ROTC students. Techniques for training others. Two hours lecture and leadership lab MSCI 2630L per week.

MSCI 2630L Basic Course Leadership Laboratories 0 s.h.

Practical exercises with different roles for students at different levels in the program. Build self confidence, and team-building leadership skills that can be applied throughout life. Open only to (and required of) students in the respective MSCI courses. For MSCI 2610 and MSCI 2620 it is MSCI 2630L.

MSCI 2640 Basic ROTC Summer Camp Challenge 3 s.h.

A five-week summer camp conducted at an army post. The student receives pay. Travel, lodging, and most meal costs are defrayed by the Army. The environment is rigorous, and similar to Army Basic Training. No military obligation is incurred.

MSCI 2650 American Military Operations 2 s.h.

American Military Operations teaches the development and implementation of United States Army doctrine, philosophy, strategy, tactics, logistics, leadership, and battle and campaign analysis in an historical context.

MSCI 3710 Leading Small Organizations 1 3 s.h.

Practical opportunities to lead small groups and lead again in situations of increasing complexity. Uses small unit tactics and opportunities to plan and conduct training for lower-division students both to develop such skills and as vehicles for practicing leading. Three hours lecture and leadership lab MSCI 3730L per week.

Prereq.: Permission of department chairperson.

MSCI 3720 Leading Small Organizations 2 3 s.h.

Continues methodology of MSCI 3710. Analyze tasks; prepare written/oral guidance for team to accomplish tasks. Delegate tasks and supervise. Plan for the unexpected in organizations under stress. Apply lessons from leadership studies. Examine importance of ethical decision making in setting a positive climate that enhances team performance. Three hours lecture and leadership lab MSCI 3730L per week.

Prereq.: Permission of department chairperson.

MSCI 3730L Advanced Course Leadership Laboratories 0 s.h.

Practical exercises with different roles for students at different levels in the program. Involves leadership responsibilities for the planning, coordination, execution, and evaluation of training and activities. Open only to students in the respective MSCI courses. For MSCI 3710 and MSCI 3720 it is MSCI 3730L.

MSCI 3740 ROTC Advanced Camp 4 s.h.

A five-week camp conducted at an Army post. Student receives pay. Travel, lodging and meal costs are defrayed by the Army. The Advanced Camp environment is structured and demanding, stressing leadership at small unit levels under varying conditions. Individual leadership and basic skills performance are evaluated.

MSCI 3750 Individual Study 1-3 s.h.

The individual study of a particular military problem or review of the literature relating to a specific military problem. May be repeated with a different problem for a maximum of 3 s.h.

Prereq.: Six s.h. of Military Science and consent of the instructor.

MSCI 4810 Leadership Challenges and Goal-Setting 3 s.h.

Plan, conduct and evaluate activities of the ROTC cadet organization. Articulate goals, put plans into action. Assess organizational cohesion and develop strategies to improve it. Develop confidence in skills to lead people and manage resources. Learn/apply various Army policies and programs. Two hours lecture and leadership lab MSCI 4830L per week.

Prereq.: Permission of department chairperson.

MSCI 4820 Transition to Lieutenant 3 s.h.

Continues the methodology from MSCI 4810. Identify and resolve ethical dilemmas. Refine counseling and motivation techniques. Examine aspects of tradition and law as related to leading as an officer in the Army. Prepare for a future as a successful Army lieutenant. Two hours lecture and leadership lab MSCI 4830L per week.

Prereq.: Permission of department chairperson.

MSCI 4830L Advanced Course Leadership Laboratories 0 s.h.

Practical exercises with different roles for students at different levels in the program. Involves leadership responsibilities for the planning, coordination, execution, and evaluation of training and activities. Open only to students in the respective MSCI courses. For MSCI 4810 and MSCI 4820 it is MSCI 4830L.

Military Science Four-Year Program

The four-year Army ROTC program is divided into two parts:

- the Basic Course
- the Advanced Course

The Basic Course is usually taken during the freshman and sophomore years:

COURSE	TITLE	S.H.
Basic Course		
Freshman and Sophomore Years		
MSCI 1510	Introduction to ROTC	1
MSCI 1520	Introduction to Leadership	1
MSCI 2610	Self Team Development	2
MSCI 2620	Individual/Team Military Tactics	2
No military commitment is incurred during this time. After completing the Basic Course, students who have demonstrated officer potential and meet physical and scholastic standards are eligible to enroll in the Advanced Course.		
Advance Course		
Junior and Senior Years		
MSCI 3710	Leading Small Organizations 1	3
MSCI 3720	Leading Small Organizations 2	3
MSCI 4810	Leadership Challenges and Goal-Setting	3
MSCI 4820	Transition to Lieutenant	3
ROTC Leader Development and Assessment Course (LDAC)		
Summer between MS III and MS IV (junior and senior years)		
MSCI 3740	ROTC Advanced Camp	4
Total Semester Hours		22

MSCI 3740 ROTC Advanced Camp is conducted at Fort Knox, Kentucky, the summer between the Cadet's junior and senior year. Students put into practice the leadership and tactical skills they have acquired in the classroom with other Cadets from across the country.

All students in the Advanced Course receive uniforms and a monthly stipend.

Before entering the Advanced Course, an individual signs a contract that certifies an understanding of the service obligation. This obligation may be fulfilled in a variety of ways depending on the individual's personal preference and the needs of the Army at the time of commissioning.

Scholarship graduates incur an eight-year obligation and are required to serve one of the following obligations:

- four years on active duty and four years in an Army Reserve
- six years in National Guard unit then two years in the Individual Ready Reserve (IRR)
- three years on active duty and five years in the IRR
- four years on active duty and four years in the IRR
- eight years in Army Reserve or National Guard unit

Nonscholarship graduates are required to serve one of the following obligations:

- two years on active duty and six years in the IRR
- three years on active duty and five years in the IRR
- four years on active duty and four years in the IRR
- six years in an Army Reserve or National Guard unit and two years in the IRR
- eight years in the IRR

All commissionees incur a service obligation of eight years with service being either full-time active duty or part-time in the Army Reserves or Army National Guard. The mix of active and reserve duty is determined by the needs of the Army, the Cadet's performance, and the type of contract the Cadet signed (scholarship or nonscholarship, guaranteed Reserve Forces Duty or

participation in the Simultaneous Membership Program of the Army Reserve/ National Guard).

COURSE	TITLE	S.H.
MSCI 1510	Introduction to ROTC	1
MSCI 1520	Introduction to Leadership	1
MSCI 2610	Self Team Development	2
MSCI 2620	Individual/Team Military Tactics	2
MSCI 3710	Leading Small Organizations 1	3
MSCI 3720	Leading Small Organizations 2	3
MSCI 4810	Leadership Challenges and Goal-Setting	3
MSCI 4820	Transition to Lieutenant	3
Total Semester Hours		18

Military Science Two-Year Program

Army ROTC - Two-Year Program

There is a two-year Army ROTC program for students that have two years remaining to complete their degree program. This may include transfer students, junior college students, graduate students and any student that has not participated in the Military Science Basic Course (first two years of the program).

By attending the 31 day Army ROTC Basic Camp at Fort Knox, Kentucky, these students are eligible to enter the Advanced Course (junior and senior year). Students attend this course during the summer following their sophomore year (before the start of their junior year). Students desiring to start ROTC in their junior year should contact the Military Science Department for eligibility to attend Basic Camp at Fort Knox, Kentucky.

Students entering the Advanced Course (in their junior year) sign a contract which outlines their service obligation following graduation from YSU. This obligation may be fulfilled in a variety of ways (active duty, Army Reserves, Army National Guard) depending on the individual's personal preference and the needs of the Army at the time of commissioning. Contact the department of Military Science to discuss contract details.

Department of Military Science

Phone: 330.941.3205

Email: armyrotc@ysu.edu

COURSE	TITLE	S.H.
MSCI 1510	Introduction to ROTC	1
MSCI 1520	Introduction to Leadership	1
MSCI 2610	Self Team Development	2
MSCI 2620	Individual/Team Military Tactics	2
MSCI 3710	Leading Small Organizations 1	3
MSCI 3720	Leading Small Organizations 2	3
MSCI 4810	Leadership Challenges and Goal-Setting	3
MSCI 4820	Transition to Lieutenant	3
Total Semester Hours		18

Minor in Military Science

COURSE	TITLE	S.H.
MSCI 1510	Introduction to ROTC	1
MSCI 1530L	Basic Course Leadership Laboratories	0
MSCI 1520	Introduction to Leadership	1
MSCI 1530L	Basic Course Leadership Laboratories	0
MSCI 2610	Self Team Development	2

MSCI 2630L	Basic Course Leadership Laboratories	0
MSCI 2620	Individual/Team Military Tactics	2
MSCI 2630L	Basic Course Leadership Laboratories	0
MSCI 3710	Leading Small Organizations 1	3
MSCI 3730L	Advanced Course Leadership Laboratories	0
MSCI 3720	Leading Small Organizations 2	3
MSCI 3730L	Advanced Course Leadership Laboratories	0
MSCI 4810	Leadership Challenges and Goal-Setting	3
MSCI 4830L	Advanced Course Leadership Laboratories	0
MSCI 4820	Transition to Lieutenant	3
MSCI 4830L	Advanced Course Leadership Laboratories	0
MSCI 3740	ROTC Advanced Camp	4

Total Semester Hours 22

Minor in Military Science History Track

COURSE	TITLE	S.H.
MSCI 1510	Introduction to ROTC	1
MSCI 1520	Introduction to Leadership	1
MSCI 1530L	Basic Course Leadership Laboratories	0
MSCI 2610	Self Team Development	2
MSCI 2620	Individual/Team Military Tactics	2
MSCI 2630L	Basic Course Leadership Laboratories	0
POL 1550	Introduction to Political Science	3
HIST 2601	American Military History	3

History Courses

HIST 2606	Turning Points in United States History 2	3
Choose two of the following history courses:		6
HIST 3740	The Vietnam War	
HIST 3762	The Second World War	
HIST 3742		

Total Semester Hours 21

Minor in Military Science Political Science Track

COURSE	TITLE	S.H.
MSCI 1510	Introduction to ROTC	1
MSCI 1520	Introduction to Leadership	1
MSCI 1530L	Basic Course Leadership Laboratories	0
MSCI 2610	Self Team Development	2
MSCI 2620	Individual/Team Military Tactics	2
MSCI 2630L	Basic Course Leadership Laboratories	0
POL 1550	Introduction to Political Science	3
HIST 2601	American Military History	3

Political Science Courses

Choose three courses. Please note the prerequisites for POL 3741 and POL 3763.		9
POL 2640	Contemporary World Governments	
POL 2660	International Relations	
POL 3741	Russia and China: From Revolution to Reform	
POL 3763	International Law	

Total Semester Hours 21

Centofanti School of Nursing

(330) 941-3293

The YSU James and Coralie Centofanti School of Nursing offers a Bachelor of Science in Nursing (BSN) degree and a School Nurse Licensure Certificate Program. Graduate programs leading to a Master of Science in Nursing (MSN) degree and a Doctor of Nursing Practice (DNP) degree are also available. Refer to the *Graduate Catalog* for details.

Bachelor of Science in Nursing Program

Two programs are offered: Entry-level (pre-licensure) and an RN-BSN Online Completion program.

The Entry-level BSN program is a four-year program for new or transfer students entering YSU without a previous degree or diploma in nursing. The program prepares students for the registered nurse role. Graduates are eligible to sit for the NCLEX-RN examination for licensure as a Registered Nurse.

The RN-BSN Online Completion program is offered for students who are currently licensed as registered nurses and are returning to YSU to complete requirements for a baccalaureate degree. After completing prerequisites, the RN-BSN Online Completion program takes four semesters or more on a part-time basis, depending on the student's academic background. Admission criteria and more details are available under the RN-BSN Online Completion program tab or at <https://ysu.edu/academics/bitonte-college-health-and-human-services/online-nursing-rn-bsn-completion-program> (<https://ysu.edu/academics/bitonte-college-health-and-human-services/online-nursing-rn-bsn-completion-program/>).

Accreditation

The BSN program is fully approved by the:

Ohio Board of Nursing
17 S. High Street, Suite 400
Columbus, Ohio 43125
phone: (614) 466-3947

The BSN program is fully accredited by:

Commission on Collegiate Nursing Education (CCNE)
655 K Street, NW, Suite 750
Washington, DC 20001
phone: (202) 887-6791

Accreditation Commission for Education in Nursing (ACEN)
3390 Peachtree Road NE, Suite 1400
Atlanta, GA 30326
phone: (404) 975-5000

Admission Requirements for the Entry-level Bachelor of Science in Nursing Program

Admission into the entry-level BSN degree program is restricted. Entry-level students complete admission requirements as pre-nursing majors before formal admission to the BSN program. Admission to the University provides these students with the opportunity to complete a core of pre-nursing courses after which they may apply and compete for a position in the entry-level Nursing Program. Admission for the entry-level BSN program is held only once a year for Fall registration. Students who are scheduled to complete all admission requirements by the end of spring semester are eligible to apply for fall semester admission. Students who meet all requirements are encouraged to apply however attainment of the minimum GPA does not guarantee admission to the program due to a large applicant pool.

Guaranteed Admission Eligibility

First-time freshman students who score a Composite ACT of 24 or an equivalent combined SAT score of 1190 and have an accumulative GPA of

3.4 or above, are guaranteed a position in the entry level BSN program. To maintain this guaranteed position in the entry-level BSN program, these students must maintain a pre-nursing GPA of 3.2 with at least a "C" in all required pre-nursing courses (with no course repetitions). In addition to these grade requirements, all other admission requirements must be met. Students who do not meet the criteria for maintaining their guaranteed position, but meet the general requirements for admission into the entry-level BSN program, will be considered for Fall admission with all other nursing applicants.

Late Admission Eligibility

Students who are scheduled to complete all admission requirements by the end of summer semester are eligible to apply for late admission. *Late admission* applicants will be considered if, and only if, there are program seats available after all earlier submitted applicants have been considered.

Transfer Students

Applicants considered for advanced standing include transfer students who were in good standing at the previously attended nursing program and Licensed Practical Nurses (LPNs). LPN applicants must have graduated from an accredited Practical Nurse program and hold a current Practical Nurse license. A total of 11 semester hours of course credit will be given after successful completion of a clinical competency exam. Admission for advanced standing applicants is on a space available basis. Advanced standing applicants must meet all entry-level BSN Admission Requirements. Military credit will be given for electives.

Applicants for the Entry-level BSN program must meet the following minimum requirements

1. General University pre-college requirements for the Bachelor of Science degree.
2. Completion of required pre-nursing courses with a grade of "C" or better and a cumulative GPA in these courses of 3.0.
3. A cumulative GPA of 2.5 in all college course work.
4. Evidence of current CPR for Health Care Provider Certification.
5. Completed physical examination and immunization requirements.
6. Annual fingerprinting and drug screen through corporate screening for BCI and FBI criminal records check.
7. Photocopy of valid YSU ID.

Required Pre-Nursing courses for entry-level BSN students include

COURSE	TITLE	S.H.
BIOL 1551 & 1551L	Anatomy and Physiology 1 and Anatomy and Physiology 1 Laboratory	4
BIOL 1552 & 1552L	Anatomy and Physiology 2 and Anatomy and Physiology 2 Laboratory	4
CHEM 1510 & 1510L	Chemistry for the Allied Health Sciences and Chemistry for the Allied Health Sciences Laboratory	4
PSYC 1560	General Psychology	3
PSYC 3758	Lifespan Development	3
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
SOC 1500	Introduction to Sociology	3
STAT 2625	Statistical Literacy and Critical Reasoning	4
Total Semester Hours		31

Admission to the University, meeting minimal program admission requirements, and completion of pre-nursing courses does not guarantee admission into the nursing program. Pre-nursing students are encouraged to seek advisement on a regular basis from the pre-nursing advisor in the Dr.

Dominic A. and Helen M. Bitonte College of Health and Human Services Dean's office.

Enrollment in the RN-BSN Online Completion Program

Students who are currently registered nurses and seeking a BSN degree are admitted on an individual basis. RN-BSN admission is held any semester depending on the student's transferable prerequisites.

See admission requirements at <https://cms.ysu.edu/administrative-offices/distance-education/rn-bsn-admissions-information>

Registered nurses in the RN-BSN Online Completion program must meet all of the above requirements in addition to being a registered nurse with a current license to practice in Ohio or in the RN's home state.

Course Enrollment/Scheduling

All nursing courses except NURS 2610 Contemporary Nursing are available only to students formally admitted into the entry-level BSN program. Courses identified in the *Schedule of Classes* for RNs only are limited to registered nurses enrolled in the RN-BSN Online Completion program.

Many nursing courses include an off-campus clinical component. These courses are designated on the curriculum list with semester hours in parentheses. Example: NURS 3743 Professional Nursing 3 5(3+2). This course has three semester hours of lecture and two semester hours of clinical. Generally, one semester hour of credit is earned for each three clock hours of on-campus laboratory skills instruction and for each three off-campus clock hours of clinical instruction. The exceptions are NURS 3741 Professional Nursing 2 clinical, where it is 2.7 clock hours per semester hour and NURS 4853 Nursing Transitions clinical, where it is four clock hours per semester hour. Personal responsibility for transportation is required for travel to off-campus clinical sites.

Malpractice insurance is required for all clinical nursing experiences and is provided by the University when the student registers for the specified courses. Some risk is inherent to nursing students during their clinical education, but precautions are taken to minimize this risk.

Academic Requirements for the entry-level Bachelor of Science in Nursing Degree

For new students, the entry-level BSN program consists of 121 total semester hours; 71 semester hours are nursing courses plus 90 on-campus lab hours and 960 clinical contact hours at health care facilities and in the community.

Students are responsible for adhering to the prescribed BSN curriculum sequence including, but not limited to, course prerequisites and mandated sequencing of nursing courses. It is also the students' responsibility to see that all graduation requirements for the BSN degree are satisfied. It is recommended that students frequently seek guidance from their nursing advisor. A copy of the BSN curriculum is available from the YSU Centofanti School of Nursing. This program can be completed in eight semesters if students adhere to a curriculum schedule of 14-17 credit hours per semester.

After admission to the program, a grade of "C" or better is mandatory for all nursing courses, required non-nursing support courses, required elective, and general education hours. Only one nursing or one non-nursing support course (BIOL 1560 Microbiology for the Health Professions and BIOL 1560L Microbiology Laboratory for Health Professions or FNUT 1551 Normal Nutrition) may be repeated. A repeated course must be successfully completed with a grade of "A," "B," or "C" and all incomplete grades must be removed before progressing in the nursing curriculum. A grade of less than "C" in a second nursing or required non-nursing support course will result in permanent removal from the nursing program.

A Bachelor of Science in Nursing degree will be granted to the student who has completed the required baccalaureate nursing curriculum with a minimum grade point average of 2.00.

The Centofanti School of Nursing reserves the right to remove a student from the program when that student's performance in any nursing course is deemed to be unsafe as characterized by dangerous, inappropriate, irresponsible or unethical behavior. The school reserves the right to dismiss a student who, for legal, ethical, academic, emotional, or physical reasons, cannot be advised to continue in the program.

Current immunizations, CPR for Health Care Professionals certification, annual drug screen and fingerprinting, BCI and FBI criminal background checks are required of all nursing students. If the criminal record check reveals an egregious felony, the Ohio Board of Nursing will not consider the applicant for licensure. Please refer to the Ohio Board of Nursing (<http://www.nursing.ohio.gov/>) website for additional information. Some lesser offenses may impede student placement at a clinical site, which will affect the student's ability to progress in the program. Random drug testing may occur periodically. Students must adhere to a dress code which includes the wearing of specific nurse's uniform for nursing clinical courses. All policies/requirements stated in this *Undergraduate Catalog* and the *BSN Undergraduate Handbook* must be adhered to by students throughout the program.

For more information, visit the YSU Centofanti School of Nursing <https://ysu.edu/academics/bitonte-college-health-and-human-services/nursing-entry-level-bsn>

Director

Sheila Blank, D.N.P., Associate Professor, Director

Professor

Sheila M. Blank, D.N.P., Associate Professor, Director

Laura Calcagni, M.S.N., Assistant Professor

Danielle Class, D.N.P., Assistant Professor

Lori Ann Fusco, D.N.P., Associate Professor

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Amy Weaver, Ph.D., Professor

Lecturer

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Monica Hudson, M.S., Lecturer

John Jerome, M.S., Lecturer

Sarah L. Marotti, M.S., Lecturer

Paula McClusky, M.S.N., Senior Lecturer

Eiryn C. McKay, M.S.N., Lecturer

Vincent E. Mikula, M.S.N., Lecturer

Rose Mucci, M.S.N., Senior Lecturer

Kelly Newman, M.S.N., Lecturer

Lauren Stefan, M.S.N., Lecturer

Melody Wright, M.S.N., Lecturer

Melody Wright, M.S.N., Lecturer

Majors

- BSN for Entry-Level Students (Non-RN) (p. 352)
- BSN for RN Students (RN-BSN Online Completion) (p. 353)
- AAS Nursing (ADN) (p. 351)

Licensure

- School Nurse Licensure Program (p. 353) (post-baccalaureate)

NURS 2610 Contemporary Nursing 3 s.h.

Concepts related to professional nursing practice including nursing as a developing profession; educational perspectives and patterns; legal and ethical accountability; economic and political aspects; health care delivery systems; and nursing management and leadership roles. Open to nursing and non-nursing majors.

NURS 2620 Nursing 1 Foundations of Nursing 8 s.h.

This course will introduce concepts that promote the health and wellness of patients across the lifespan including the development of physical assessment and psychosocial and psychomotor nursing skills, caring behaviors, communication, safety, quality improvement, and health care informatics. This course is comprised of the following hours/week: Four hours lecture per week taken concurrently with NURS 2620L (3 hours lab, 8 hours of clinical).

Prereq.: Admission to the Associate Degree in Nursing program.

Coreq.: NURS 2620L.

NURS 2620L Foundations of Nursing Lab 0 s.h.

Lab to be taken concurrently with NURS 2620.

Coreq.: NURS 2620.

NURS 2625 Nursing 2 Medical-Surgical 7 s.h.

This course will introduce care of patients experiencing illness across the life span. It will introduce common diseases and disorders and incorporate evidence-based care utilized in their prevention and treatment including identification of risk factors, patient assessment, diagnostic studies, nursing care, medications, therapeutic procedures, surgical interventions, interdisciplinary care, patient education and informatics. Three hours lecture taken concurrently with NURS 2625L (3 hours lab and 8 hours clinical).

Prereq.: NURS 2620, NURS 2620L.

Coreq.: NURS 2625L.

NURS 2625L Nursing 2 Medical-Surgical Lab 0 s.h.

This course will introduce care of patients experiencing illness across the life span. It will introduce common diseases and disorders and incorporate evidence-based care utilized in their prevention and treatment including identification of risk factors, patient assessment, diagnostic studies, nursing care, medications, therapeutic procedures, surgical interventions, interdisciplinary care, patient education and informatics. This course is comprised of the following hours/week: 3 hours lab and 8 hours clinical.

Prereq.: NURS 2620, NURS 2620L.

Coreq.: NURS 2625.

NURS 2643 Health Assessment 4 s.h.

Development of communication and assessment skills for obtaining health data from various age groups, as well as reporting and recording findings. Three hours lecture and three hours lab experience.

Prereq.: Admission to the Entry-level BSN program.

Coreq.: NURS 2643L.

NURS 2643L Health Assessment Laboratory 0 s.h.

Lab experience taken with NURS 2643 Health Assessment.

Prereq.: Admission to the Entry-level BSN program.

NURS 2645 Professional Nursing 1 8 s.h.

Applications of the nursing process for the care of clients with emphasis on health assessment, health promotion, and psychosocial and psychomotor skills. Three hours lecture, 15 hours clinical experience in a variety of settings per week.

Prereq.: NURS 2643, NURS 2610, NURS 2646 and BIOL 1560, BIOL 1560L.

NURS 2645L Professional Nursing 1 Laboratory 0 s.h.

Professional Nursing 1 Laboratory.

NURS 2646 Pathophysiology 4 s.h.

Concepts related to pathophysiologic mechanisms of illness. Emphasis on application to nursing using the nursing process.

Prereq.: BIOL 1552/1552L and CHEM 1510/1510L or equivalent; Admission to the Entry-level BSN program.

NURS 2647 Pathophysiology and Pharmacology for Nursing Practice 3 s.h.

This course will examine the basic pathophysiological processes of various diseases of the body systems. Discussion will cover disease manifestations including symptoms, laboratory findings, treatment, and prognosis with emphasis on applying the nursing process. Students will also relate concepts of pharmacology applied to major drug classes, with an emphasis on nursing process application relating to drug therapy across the lifespan. Students will critically analyze several case study examples.

Prereq.: BIOL 1551/L and BIOL 1552/L; Admission to the Associate Degree in Nursing Program.

NURS 2650 Pharmacology 3 s.h.

Concepts of pharmacology applies to major drug classes. Emphasis on application of nursing process to drug therapy across the lifespan.

Prereq.: NURS 2646.

NURS 3710 Nursing in the Community 5 s.h.

Nursing in the community including families in health and illness needs; culturally competent health care; teaching and learning aspects; psychosocial concepts, spirituality, and home health concepts and skills. To be taken concurrently with NURS 3710L.

Prereq.: NURS 2645/L.

NURS 3710C CE Nursing in the Community 5 s.h.

Nursing in the community including families in health and illness needs; culturally competent health care; teaching and learning aspects; psychosocial concepts, spirituality, and home health concepts and skills. To be taken concurrently with NURS 3710L.

Prereq.: NURS 2645/L.

NURS 3710L Nursing in the Community Laboratory 0 s.h.

Nursing in the Community Laboratory.

NURS 3715 Nursing 3 Medical-Surgical 7 s.h.

This course will focus on the care of complex, diverse clients with various physiological disorders and associated psychological effects. The clinical emphasizes concepts of care of diverse, complex patients across the lifespan including caring behaviors and interventions, managing care, collaboration, palliation, safety, quality improvement, informatics, advanced assessment skills, and communication. This course will address nursing care issues from a multi-disciplinary collaborative perspective. This course is comprised of the following hours/week: four hours lecture and eight hours clinical (NURS 3715L).

Prereq.: NURS 2625 and NURS 2625L.

Coreq.: NURS 3715L.

NURS 3715L Nursing 3 Medical-Surgical Lab 0 s.h.

This clinical will accompany the course that focuses on the care of complex, diverse clients with various physiological disorders and associated psychological effects. The clinical emphasizes concepts of care of diverse, complex patients across the lifespan including caring behaviors and interventions, managing care, collaboration, palliation, safety, quality improvement, informatics, advanced assessment skills, and communication. This course will address nursing care issues from a multi-disciplinary collaborative perspective. This course is comprised of the following hours/week: eight clinical hours per week.

Prereq.: NURS 2625 and NURS 2625L.

Coreq.: NURS 3715.

NURS 3720 Professional Nursing 3 s.h.

Concepts related to professional nursing practice for graduates of ADN and diploma programs.

Prereq.: Valid RN Licensure.

NURS 3721 Mental Health Nursing 3 s.h.

This course utilizes evidenced-based interventions designed to promote, maintain, treat and restore mental health. Therapeutic communication is emphasized in the care of the patients including complex psychiatric patients. Legal and ethical issues are explored. Care is given in a variety of settings.

This course is comprised of the following hours/week for seven weeks, three hours lecture and six hours clinical.

Prereq.: NURS 2625.

NURS 3725 Nursing Informatics 3 s.h.

This course explores nursing and health care informatics and its application to nursing practice and nursing education. Includes technological strategies to access, evaluate and document information and apply skills to patient care in the nursing profession. Development of computer skills to be successful in the online teaching format are included.

Prereq.: admission to online RN-BSN completion program; Valid RN license.

NURS 3730 Culture in Nursing 3 s.h.

Culture in Nursing: Students will develop cultural awareness, assessment, communication and intervention techniques for various Cultures. The application of Culture to the practice of Nursing will be emphasized.

Prereq.: Valid RN Licensure.

NURS 3731 Child Bearing, Family, and Women's Health Nursing 5 s.h.

Family-centered nursing concentrating on health promotion and illness prevention, acute and chronic healthcare needs for parent(s) during the reproductive expanding phase of the family cycle and for women from adolescence through old age. Three hours lecture and six hours clinical experiences in a variety of settings per week.

Prereq.: NURS 3741, NURS 3741L or departmental permission.

NURS 3731L Childbearing, Family, and Women's Health Nursing Laboratory 0 s.h.

Six hour weekly clinical experience to be taken concurrently with NURS 3731 Childbearing, Family and Women's Health Nursing. **Prereq.** NURS 3741/L or departmental permission.

NURS 3735 Health Promotion Across the Lifespan 3 s.h.

This course provides the student with a theoretical foundation for wellness, health promotion and disease prevention across the lifespan. The role of the nurse as a health educator and patient advocate for health care and maintenance of health for patients of various ages, their families and groups will be explored. Students will develop a plan of care to ensure healthy lifestyles and promotion of wellness. Three class hours and no clinical hours/week.

Prereq.: Valid RN Licensure.

NURS 3740 Developing Family and Child Health 6 s.h.

Introduces the concepts of maternal newborn and pediatric nursing care designed to promote, maintain, and restore health for the childbearing family, newborn, child, and adolescent utilizing the nursing process and evidence-based interventions. Students must pass both NURS 3740 and NURS 3740L in order to successfully pass the course. Three hours of lecture per week.

Prereq.: NURS 2625.

Coreq.: NURS 3740L.

NURS 3740L Developing Family and Child Lab 0 s.h.

Clinical experience to introduce concepts of maternal newborn and pediatric nursing care designed to promote, maintain, and restore health for the childbearing family, newborn, child and adolescent utilizing the nursing process and evidence-based interventions. Students must pass both NURS 3740 and NURS 3740L in order to successfully pass the course. Six hours of clinical per week. **Coreq.:** NURS 3740.

NURS 3741 Professional Nursing 2 6 s.h.

Principles and practices of health promotion and rehabilitation of clients with acute and chronic health needs. Three hours lecture, eight hours clinical experience in a variety of settings per week.

Prereq.: NURS 2645/L.

Coreq.: NURS 3741L.

NURS 3741L Professional Nursing 2 Laboratory 0 s.h.

Eight hour clinical experience to be taken concurrently with NURS 3741.

Prereq.: NURS 2645/L.

NURS 3743 Professional Nursing 3 5 s.h.

Advanced principles and practices of health promotion and rehabilitation of patients with acute and chronic health needs. Three hours lecture, six hours clinical experience in a variety of settings per week. To be taken concurrently with NURS 3743L.

Prereq.: NURS 3741/L.

NURS 3743L Professional Nursing 3 Laboratory 0 s.h.

Six hour clinical experience to be taken concurrently with NURS 3743 Professional Nursing 3.

Prereq.: NURS 3741/L.

NURS 3746 Geriatric Health 2 s.h.

An examination of the aging person's physical changes with implications for determining healthcare needs and for interpreting the impact of these upon the elder's life and current health practices.

Prereq.: Junior status.

NURS 3747 Individual Studies 1-3 s.h.

The study of special problems or a review of the literature relating to specific problems or issues. May be repeated for a maximum of 6 s.h. with different problems.

Prereq.: Admission to program or permission of department chairperson.

NURS 3749 Nursing Research 3 s.h.

The process of research using reasoning and scientific rigor in critical analysis of nursing research.

Prereq.: STAT 2625, STAT 2601 or equivalent.

NURS 3750 Evidence Based Practice 3 s.h.

Process of evidence based practice using research, reasoning and scientific rigor in critical analysis of nursing research. **Prereq:** STAT 2625, RN-BSN Online Program.

NURS 3755 Nursing 4 Comprehensive Nursing 6 s.h.

Critical thinking, prioritization, and delegation are emphasized in the nursing care of diverse complex patients. Three hours lecture to be taken concurrently with NURS 3755L (8 hour clinical).

Prereq.: NURS 3715.

Coreq.: NURS 3755L.

NURS 3755L Nursing 4: Comprehensive Nursing Lab 0 s.h.

The clinical experience to accompany NURS 3755 Nursing 4: Comprehensive Nursing. Provides evidence-based practice serves as a foundation for the care of complex, diverse patients with various physiological and psychological disorders. Critical thinking, prioritization, and delegation are emphasized in the nursing care of diverse complex patients. 8 hour clinical. **Coreq.:** NURS 3755.

NURS 3760 Nursing Summary Seminar 3 s.h.

This course will emphasize improving student's ability to demonstrate understanding of essential nursing knowledge. Primary focus will include analysis, synthesis, and evaluation of care delivered by the health care team while supporting the development of leadership roles. This course is comprised of the following hours/week: three hours lecture to be taken concurrently with NURS 3760L (60 hours clinical over the semester).

Prereq.: NURS 3715 and NURS 3715L.

Coreq.: NURS 3760L.

NURS 3760L Nursing Summary Seminar Lab 0 s.h.

These precepted clinical hours will accompany the course that emphasizes improving student's ability to demonstrate understanding of essential nursing knowledge. Primary focus will include analysis, synthesis, and evaluation of care delivered by the health care team while supporting the development of leadership roles. This course is comprised of the following hours/week: 60 hours clinical over the semester with a designated preceptor in a variety of settings.

Prereq.: NURS 3715, NURS 3715L.

Coreq.: NURS 3760.

NURS 4804 Health Assessment for RNs 3 s.h.

Increase clinical knowledge and skills in health assessment of clients of various age groups, and the reporting and recording of findings.

Prereq.: admission to online RN-BSN completion program.

NURS 4832 Nursing Care of Children and Families 5 s.h.

Family-centered nursing concentrating on health promotion/illness and prevention and acute/chronic health care needs of the developing child and family. Three hours lecture and six hours clinical experience in a variety of settings per week.

Prereq.: NURS 3741/L.

Coreq.: 4832L.

NURS 4832C CE Nursing Care of Children and Families 5 s.h.

Family-centered nursing concentrating on health promotion/illness and prevention and acute/chronic health care needs of the developing child and family. Three hours lecture and six hours clinical experience in a variety of settings per week.

Prereq.: NURS 3741/L.

Coreq.: 4832L.

NURS 4832L Nursing Care of Children and Families Laboratory 0 s.h.

Nursing Care of Children and Families Laboratory.

NURS 4840 Complex Care 5 s.h.

High acuity, restorative, and health promoting care of clients with complex health problems. Three hours lecture, six hours clinical experience in a variety of settings per week.

Prereq.: NURS 3743, NURS 3743L, Entry-level BSN senior status.

NURS 4840L Complex Care Laboratory 0 s.h.

Complex Care Laboratory.

NURS 4842 Mental Health Nursing 5 s.h.

This course provides mental health theories and strategies as the foundation in the management of individuals, families, and groups experiencing acute and chronic mental illness. Emphasis on the promotion of optimal level functioning and mental wellness. Three hours lecture, six hours clinical experience in a variety of settings per week.

Prereq.: NURS 3743/3743L; Entry-level BSN senior status.

NURS 4842C CE Mental Health Nursing 5 s.h.

This course provides mental health theories and strategies as the foundation in the management of individuals, families, and groups experiencing acute and chronic mental illness. Emphasis on the promotion of optimal level functioning and mental wellness. Three hours lecture, six hours clinical experience in a variety of settings per week.

Prereq.: NURS 3743/3743L; Entry-level BSN senior status.

NURS 4842L Mental Health Nursing Laboratory 0 s.h.

Mental Health Nursing Laboratory.

NURS 4844 Community Health Nursing 3 s.h.

Synthesis of nursing and public health sciences with emphasis on promotion and maintenance of healthy communities through the assessment and analysis of at-risk population groups. Includes nursing role in health care policy.

Prereq.: NURS 3743/L.

NURS 4846 Community Health Nursing for RNs 3 s.h.

A synthesis of nursing and public health sciences emphasizing health of communities through assessment analysis of at-risk population groups. Includes nursing role in healthcare policy.

Prereq.: Valid RN license.

NURS 4850 Nursing Capstone 1 s.h.

Provides students with opportunities to integrate and synthesize nursing knowledge through research, writing, and presentations on current topics and issues.

Prereq.: NURS 3743/L.

NURS 4852 Senior Capstone Seminar 3 s.h.

Provides students with opportunities to integrate and synthesize nursing knowledge through research, writing, and presentations on current topics and issues. Total experiential learning 20 hours.

Prereq.: RN license.

Gen Ed: Capstone.

NURS 4853 Nursing Transitions 4 s.h.

Analysis, synthesis, and evaluation of care delivered by the healthcare team with emphasis on development of leadership and research roles. Two hours lecture and eight hours clinical experience with a preceptor in a variety of settings per week.

Prereq.: NURS 3743, NURS 3743L.

Coreq.: NURS 4840, NURS 4840L, or NURS 4842, NURS 4842L.

NURS 4853C CE Nursing Transitions 4 s.h.

Analysis, synthesis, and evaluation of care delivered by the healthcare team with emphasis on development of leadership and research roles. Two hours lecture and eight hours clinical experience with a preceptor in a variety of settings per week.

Prereq.: NURS 3743, NURS 3743L.

Coreq.: NURS 4840, NURS 4840L, or NURS 4842, NURS 4842L.

NURS 4853L Nursing Transitions Laboratory 0 s.h.

Nursing Transitions clinical experience with a preceptor off campus for 120 total hours per semester. To be taken concurrently with NURS 4853 Nursing Transitions.

Prereq.: NURS 3743, NURS 3743L.

Prereq. or Coreq.: NURS 4840, NURS 4840L, or NURS 4842, NURS 4842L.

Coreq.: NURS 4853.

NURS 4854 Nursing Leadership 4 s.h.

Analysis, synthesis, and evaluation of care delivered by the healthcare team with emphasis on development of leadership and research roles for the registered nurse. Total experiential learning strategies or practice 40 hours.

Prereq.: Program Restriction.

Coreq.: NURS 4854L.

NURS 4855 Comprehensive Nursing Summary 2 s.h.

Identifies individual strengths and weaknesses with emphasis on improving students' understanding and demonstration of essential nursing knowledge. Must be taken concurrently with NURS 4853 and NURS 4852.

Prereq.: Senior standing in nursing.

Learning Outcomes

BACCALAUREATE NURSING STUDENT LEARNING OUTCOMES

The integration of nursing theory, clinical practice, and critical thinking serves as the foundation for the program and upon completion of the program, the graduate is able to:

- Use the American Nurses Association Standards of Care when providing care for individuals, families, groups, and communities across the life span.
- Use critical thinking in decision-making and problem-solving while adhering to the Professional Code of Ethics for Nurses.
- Use effective and appropriate interpersonal communications and information technology.
- Apply theories and research findings from nursing and other disciplines to provide evidence-based, clinically, competent care.
- Provide culturally sensitive care and health education to individuals, families, groups, and communities.
- Demonstrate leadership and apply management skills that promote accountability, legal and ethical conduct, and maintenance of standards of care.
- Collaborate with the interdisciplinary healthcare team in planning, coordinating, and evaluating outcomes for quality cost-effective care and continuous improvement of the healthcare system.
- Manage human and material resources to provide access to healthcare for individuals, families, groups, and communities.
- Advocate for public policy to provide and protect the health of the public.
- Demonstrate commitment to life-long learning and service to the nursing profession.

Associate in Applied Science in Nursing ADN

There are many educational paths to becoming a professional nurse. An Associate Degree in Nursing (ADN) gives students a solid foundation for a career in healthcare. This degree provides opportunities to work in entry-level nursing positions. The degree also serves as the foundation for earning a BSN or baccalaureate degree in nursing to expand and build upon a professional career in this essential field.

Associate of Applied Science (AAS) in Nursing Requirements:

COURSE	TITLE	S.H.
First-Year Requirement--Student Success		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
Program Prerequisites		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
BIOL 1551	Anatomy and Physiology 1	3
BIOL 1551L	Anatomy and Physiology 1 Laboratory	1
STAT 2625	Statistical Literacy and Critical Reasoning	4-6
or STAT 2625C	Statistical Literacy and Critical Reasoning with Co-Requisite Support	
General Education Requirements		
BIOL 1552	Anatomy and Physiology 2	4
& 1552L	and Anatomy and Physiology 2 Laboratory	
ENGL 1551	Writing 2	3
PSYC 1560	General Psychology	3
Major Requirements		

BIOL 1560 & 1560L	Microbiology for the Health Professions and Microbiology Laboratory for Health Professions	3
NURS 2620 & 2620L	Nursing 1 Foundations of Nursing and Foundations of Nursing Lab	8
NURS 2647	Pathophysiology and Pharmacology for Nursing Practice	3
NURS 2625 & 2625L	Nursing 2 Medical-Surgical and Nursing 2 Medical-Surgical Lab	7
NURS 3715 & 3715L	Nursing 3 Medical-Surgical and Nursing 3 Medical-Surgical Lab	7
NURS 3740 & 3740L	Developing Family and Child Health and Developing Family and Child Lab	6
NURS 3755 & 3755L	Nursing 4 Comprehensive Nursing and Nursing 4: Comprehensive Nursing Lab	6
NURS 3760 & 3760L	Nursing Summary Seminar and Nursing Summary Seminar Lab	3
Total Semester Hours		65-69

Year 1**Fall** S.H.**Prerequisites**

YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
BIOL 1551 & 1551L	Anatomy and Physiology 1 and Anatomy and Physiology 1 Laboratory	4
STAT 2625 or STAT 2625C	Statistical Literacy and Critical Reasoning or Statistical Literacy and Critical Reasoning with Co-Requisite Support	4-6
Semester Hours		12-16

Spring

BIOL 1552 & 1552L	Anatomy and Physiology 2 and Anatomy and Physiology 2 Laboratory	4
NURS 2620 & 2620L	Nursing 1 Foundations of Nursing and Foundations of Nursing Lab	8
Semester Hours		12

Year 2**Fall**

ENGL 1551	Writing 2	3
NURS 2647	Pathophysiology and Pharmacology for Nursing Practice	3
NURS 2625 & 2625L	Nursing 2 Medical-Surgical and Nursing 2 Medical-Surgical Lab	7
Semester Hours		13

Spring

BIOL 1560 & 1560L	Microbiology for the Health Professions and Microbiology Laboratory for Health Professions	3
NURS 3715 & 3715L	Nursing 3 Medical-Surgical and Nursing 3 Medical-Surgical Lab	7
PSYC 1560	General Psychology	3
Semester Hours		13

Year 3**Fall**

NURS 3740 & 3740L	Developing Family and Child Health and Developing Family and Child Lab	6
NURS 3755 & 3755L	Nursing 4 Comprehensive Nursing and Nursing 4: Comprehensive Nursing Lab	6

NURS 3760 & 3760L	Nursing Summary Seminar and Nursing Summary Seminar Lab	3
Semester Hours		15
Total Semester Hours		65-69

1. Integrate best practices congruent with current evidence, patient/family preferences and values into delivery of optimal care.
2. Employ safety standards to minimize risk of harm to patients and providers.
3. Deliver care that is compassionate, ethical, coordinated, and based on respect for patient/family diversity, preferences, values and needs.
4. Collaborate within nursing and healthcare teams applying open communication, mutual respect, and shared decision-making in the delivery of optimal care.
5. Utilize data to monitor outcomes of care and continuously improve the quality and safety of patient care.
6. Exhibit understanding of information and technology to communicate and support decision making in the delivery of safe and quality health care.

Bachelor of Science in Nursing for Entry-Level Students

COURSE	TITLE	S.H.
STUDENT SUCCESS SEMINAR		
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2
General Education Requirements		
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
ENGL 1551	Writing 2	3
STAT 2625 or STAT 2625C or STAT 2601	Statistical Literacy and Critical Reasoning or Statistical Literacy and Critical Reasoning with Co-Requisite Support or Introductory Statistics	3-6
Natural Science		
CHEM 1510 & 1510L	Chemistry for the Allied Health Sciences and Chemistry for the Allied Health Sciences Laboratory	4
BIOL 1551 & 1551L	Anatomy and Physiology 1 and Anatomy and Physiology 1 Laboratory	4
Social Science		
SOC 1500	Introduction to Sociology	3
PSYC 1560	General Psychology	3
Art & Humanities Electives (2 courses)		
General Education Electives		
General Education Elective		3
FNUT 1551	Normal Nutrition	3
Additional Required Courses		
CMST 1545	Communication Foundations	3
PSYC 3758	Lifespan Development	3
BIOL 1552 & 1552L	Anatomy and Physiology 2 and Anatomy and Physiology 2 Laboratory	4
BIOL 1560 & 1560L	Microbiology for the Health Professions and Microbiology Laboratory for Health Professions	3
Nursing Core Courses		
NURS 2610	Contemporary Nursing	3
NURS 2643	Health Assessment	4
NURS 2643L	Health Assessment Laboratory	0

NURS 2645	Professional Nursing 1	8
NURS 2645L	Professional Nursing 1 Laboratory	0
NURS 2646	Pathophysiology	4
NURS 2650	Pharmacology	3
NURS 3741	Professional Nursing 2	6
NURS 3741L	Professional Nursing 2 Laboratory	0
NURS 3710	Nursing in the Community	5
NURS 3710L	Nursing in the Community Laboratory	0
NURS 3731	Child Bearing, Family, and Women's Health Nursing	5
NURS 3731L	Childbearing, Family, and Women's Health Nursing Laboratory	0
NURS 3743	Professional Nursing 3	5
NURS 3743L	Professional Nursing 3 Laboratory	0
NURS 3749	Nursing Research	3
NURS 4832	Nursing Care of Children and Families	5
NURS 4832L	Nursing Care of Children and Families Laboratory	0
NURS 4840	Complex Care	5
NURS 4840L	Complex Care Laboratory	0
NURS 4842	Mental Health Nursing	5
NURS 4842L	Mental Health Nursing Laboratory	0
NURS 4844	Community Health Nursing	3
NURS 4853	Nursing Transitions	4
NURS 4853L	Nursing Transitions Laboratory	0
NURS 4855	Comprehensive Nursing Summary	2
NURS 4850	Nursing Capstone	1
Total Semester Hours		120-125

Note: All Basic Skills & Knowledge Domains requirements are included in the above curriculum.

Once admitted into the program sophomore year, any deviation from the prescribed curriculum must be approved by the Admission, Progression, and Graduation (APG) Committee.

Bachelor of Science in Nursing for RN Students (100% Online RN-BSN Completion)

COURSE	TITLE	S.H.
The curriculum assumes that an entering student to the RN-BSN completion program has an active unencumbered RN license.		
Students will be awarded block credit for courses previously taken, which may or may not include any of the following.		29
BIOL 1551	Anatomy and Physiology 1	
BIOL 1551L	Anatomy and Physiology 1 Laboratory	
BIOL 1552	Anatomy and Physiology 2	
BIOL 1552L	Anatomy and Physiology 2 Laboratory	
BIOL 1560	Microbiology for the Health Professions	
BIOL 1560L	Microbiology Laboratory for Health Professions	
ENGL 1550	Writing 1	
PSYC 1560	General Psychology	
SOC 1500	Introduction to Sociology	
FNUT 1551	Normal Nutrition	
Arts and Humanities General Education Course		
Elective Course		
Credit Earned for Transfer and/or Prior Learning Nursing Credits Earned may receive up to 44 pending prior credits		37
NURS 2645	Professional Nursing 1	

NURS 2645L	Professional Nursing 1 Laboratory	
NURS 3710	Nursing in the Community	
NURS 3731	Child Bearing, Family, and Women's Health Nursing	
NURS 3731L	Childbearing, Family, and Women's Health Nursing Laboratory	
NURS 3741	Professional Nursing 2	
NURS 3741L	Professional Nursing 2 Laboratory	
NURS 3743	Professional Nursing 3	
NURS 3743L	Professional Nursing 3 Laboratory	
NURS 4832	Nursing Care of Children and Families	
NURS 4832L	Nursing Care of Children and Families Laboratory	
NURS 4840	Complex Care	
NURS 4840L	Complex Care Laboratory	
NURS 4842	Mental Health Nursing	
NURS 4842L	Mental Health Nursing Laboratory	

Prior learning experiential credit earned for active unencumbered RN license

NURS 37XEC		10
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Additional General Education Requirements (may be taken concurrently with nursing courses):

ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations (may be taken concurrently with nursing courses)	3
STAT 2625	Statistical Literacy and Critical Reasoning (may be taken concurrently with nursing courses but must be taken prior to NURS 3750)	4
or STAT 2601	Introductory Statistics	
PSYC 3758	Lifespan Development (credit for PSYC 3758 will be given if PSYC 3755, 3756 or 3757 has previously been taken)	3

Any approved Arts and Humanities Course	3
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Required Nursing Courses

NURS 3720	Professional Nursing	3
NURS 3725	Nursing Informatics	3
NURS 3730	Culture in Nursing	3
NURS 3735	Health Promotion Across the Lifespan	3
NURS 3750	Evidence Based Practice	3
NURS 4804	Health Assessment for RNs	3
NURS 4846	Community Health Nursing for RNs	3
NURS 4852	Senior Capstone Seminar (20 hours of clinical)	3
NURS 4854	Nursing Leadership	4

Electives may be needed to reach the 120 graduation hours *Hours will vary based upon what is awarded from previous degree and licensure

Total Semester Hours	120
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Please see the YSU Nursing RN-BSN Course Schedule 7-week Semester Grid on this program overview (<https://online.ysu.edu/degrees/nursing/rn-to-bsn/>) page.

License in School Nurse Licensure Program Description

The School Nurse Licensure program is designed to build on an undergraduate education and to prepare registered nurses with a baccalaureate degree for school nurse licensure. Courses are taught by faculty in the Centofanti School of Nursing and in the Beeghly College of Education.

Curriculum

This program requires 15-17 semester credit hours including four courses plus 300 practicum hours (5 sh credit) in a school setting under the supervision

of a licensed school nurse preceptor and a university faculty member. This practicum may be taken in increments to accommodate the working student. Opportunities for practicum hours to be waived (up to 200 hours) are considered on an individual basis for nurses with school nurse experience. Courses are either online or hybrid, meeting about four (4) times during the semester. After the completion of the courses, the student will receive a post-baccalaureate certificate.

Admission Process

Students seeking admission into the school nurse licensure program must have an undergraduate degree (BSN) with coursework in growth and development, psychology, sociology, and community health.

Students must be licensed to practice nursing in Ohio or eligible to be licensed (graduate of an approved school of nursing).

An Ohio Registered Nurse license is required for practicum placement. For more information and specific course descriptions, see the School Nurse Licensure Program Description (http://catalog.ysu.edu/undergraduate/colleges-programs/college-health-human-services/departments-nursing/school-nurse-licensure-program/School_Nurse_Licensure_Program_-_7_-_2016.pdf) or contact Dr. Valerie O'Dell at vmodell@ysu.edu.

COURSE	TITLE	S.H.
SPED 6900	Issues, Trends & Ethical, Legal and Professional Guidelines in Special Education	3
NURS 6907	Health Assessment of School Children	3
NURS 7014	Health Management in Schools	3
NURS 7016	School Nurse Role	3
NURS 7017	School Nurse Role Practicum	1-5

Department of Social Work

(330) 941-1598

3365 Cushwa Hall

The baccalaureate degree with a major in social work prepares students for entry into beginning, generalist, and entry-level professional social work practice. Social workers are employed in a variety of settings such as public and private welfare agencies, mental health centers, health care settings, educational systems, correctional institutions, and business and industry.

The Bachelor of Social Work program is available on the main (Youngstown) campus. This program is also available in partnership with Lorain County Community College in Elyria, Ohio, and Lakeland County Community College in Kirtland, Ohio. For more specific information pertaining to the BSW program at the partnership sites, visit BSW and MSW Partnership Programs (<http://www.ysu.edu/academics/bitonte-college-health-and-human-services/bsw-msw-partnership-programs/>).

The BSW program at all sites is accredited by the Council on Social Work Education.

Course work at the host community college and combine credits earned with YSU social work courses taught on the site of the respective community college fulfill requirements for the BSW degree. All YSU instruction is provided by YSU faculty members. Students have access to Ohio LINK online research services, YSU student support, and additional academic support available through the community college.

Core Competencies of Social Work Practice

The BSW program at Youngstown State University applies a competency-based curriculum that develops in students core competencies of generalist

social work practice as defined by the Council on Social Work Education. Upon graduating from the BSW program students are expected to:

1. Demonstrate ethical and professional behavior
2. Advance Human Rights and Social, Racial, Economic and Environmental Justice
3. Engage Anti-Racism, Diversity, Equity and Inclusion (ADEI) in Practice
4. Engage in research-informed practice and practice-informed research.
5. Engage in policy practice
6. Engage with individuals, families, groups, organizations and communities.
7. Assess individuals, families, groups, organizations and communities
8. Intervene with individuals, families, groups, organizations and communities.
9. Evaluate practice with individuals, families, groups, organizations and communities

Admission Policy

Neither admission to the University nor enrollment in social work courses as a pre-social work major guarantees full admission to the social work program. Full admission to the program is required to become a social work major and to gain access to upper-division social work classes. Pre-social work majors who are not formally admitted to the social work program will be unable to obtain a permit to register for SCWK 3736 Social Work Methods with Individuals and subsequent social work courses for which SCWK 3736 Social Work Methods with Individuals is a prerequisite.

Qualified students who have been convicted of misdemeanor or felony offenses may be admitted to the program. However, field internship opportunities may be restricted due to agency prohibitions pertaining to the engagement of students in agency work in possession of criminal records. Additionally, students should be aware that state licensure in social work may not be possible for individuals with past convictions. Students with convictions are advised to become informed of requirements pertaining to social work licensure and possible avenues of appeal as they consider their enrollment in the Bachelor of Social Work program and the limitations prior convictions may impose on their ability to practice the profession of social work.

For more information, visit the **Department of Social Work**.

Chair

Dana Davis, Ph.D., Associate Professor, Chair

Professor

Mari L. Alschuler, Ph.D., Professor

Dessalegn Guyo, PhD, Assistant Professor

Meenakshi Venkataraman, Ph.D., Assistant Professor

Sherri Harper Woods, D.M., Assistant Professor

Lecturer

Meghan Bileci, M.S.W., Senior Lecturer

Heather Eynon, M.S.W., Lecturer

Angela Kearns, M.S., Lecturer

Charles T. Morgan, M.S., Lecturer

Willie Peterson, M.A., Lecturer

Jennifer Walker, M.S., Lecturer

Karla A. Wyant, M.S., Senior Lecturer

Majors

- Pre-Social Work (p. 359)
- Social Work (p. 356)

Minors

- Minor in Social Work (p. 359)

SCWK 1510 Introduction to Social Work 3 s.h.

An overview of the values, systems, policy, theories and concepts central to the profession of social work. This course will also review roles, licensure requirements and history of the social work profession. This is the first course orienting students to the social work profession.

SCWK 2600 Health Issues for Social Work Practice 3 s.h.

Explores impact of physical and biological forces on client issues/needs and importance of understanding these factors for professional social work practice. Emphasis given to biological development across the human lifespan, ecological issues, genetic influences, health concerns.

SCWK 2622 Social Work Processes 3 s.h.

Addresses the full range of communication skills in systems of all sizes for professional social work practice. Includes principles of effective communication, functions and purposes of communication, and the roles of social workers. Thirty clock hours of volunteer engagement required. Three hours lecture.

Prereq.: SCWK 1510.

SCWK 2641 American Social Welfare 3 s.h.

Overview of the history and evolution of social welfare programs and services in America. Emphasis on the identification and interrelationships of social values and structures, political factors, and economic conditions on resource allocation, including meeting the needs of special populations.

SCWK 2642 Human Behavior and the Social Environment for Social Workers 1 3 s.h.

A general social systems approach as a conceptual framework to the understanding of culture and society, communities, organizations, groups, families, and individuals as they develop over the lifespan. Application of theory and research to social work.

SCWK 2644 Human Behavior and the Social Environment for Social Workers 2 3 s.h.

An ecosystems perspective in understanding families, groups, organizations and communities. Focus on individuals and their transactions with each other and their environment. Application of theory and research to social work.

SCWK 2695 Applied Social Work 3-6 s.h.

A practicum in human service agencies for the Social Services Technology major. The student must spend 225 hours in an agency for a total of 6 s.h. credit.

SCWK 3720 Cultural Diversity 3 s.h.

This course emphasizes understanding the experiences, values, beliefs, and inherent problems of racial, ethnic, and other vulnerable population groups. The course focuses on groups affected by socioeconomic disparities, gender, sexual orientation and expression, religion, physical and cognitive challenges, and age. Students will be asked to apply theories, use differential assessments, and develop and use intervention skills necessary for effective social work practice with a diverse population.

SCWK 3726 Child Welfare and Case Planning 3 s.h.

This course provides the knowledge, concepts, and skills needed for beginning level social work practice in public and child welfare settings. Major focus is on protecting at-risk children by strengthening, supporting and empowering families.

Prereq.: SCWK 1510.

SCWK 3727 Child Welfare Permanency Planning 3 s.h.

Provides the knowledge, concepts, and skills needed for beginning level social work practice in public child welfare settings. Major focus is on the developmental needs and permanency planning associated with at-risk children served by the child welfare system.

Prereq.: SCWK 1510.

SCWK 3730 Social Services and the Aged 3 s.h.

An empirical and analytical base for understanding the policies, problems, and trends in services for the aged.

Prereq.: none.

SCWK 3731 Social Services and the Disabled 3 s.h.

Problems arising from or related to illness and disability; adjustment of disabled persons. General interventive techniques for working with the disabled; recent research and treatment innovations.

Prereq.: SCWK 2622.

SCWK 3736 Social Work Methods with Individuals 3 s.h.

Overview of generalist practice methods with client systems of varying sizes. In-depth analysis of problem solving strategies and skills in working with individuals. Theory and research relating to practice. Social work purposes, functions, and values are addressed from the systems perspective.

Prereq.: Admission to SCWK Program.

SCWK 3737 Social Work Methods with Groups 3 s.h.

In-depth analysis of problem-solving strategies and skills in working with small groups. Theory and research relating to practice. Social work purpose, functions, and values are addressed for the systems perspective.

Prereq.: Social Work Majors Only.

SCWK 3738 Social Work Methods with Families 3 s.h.

In-depth analysis of problem-solving strategies and skills in working with families. Theory and research relating to practice. Social work purposes, functions, and values are addressed from the systems perspective.

Prereq.: Social Work Majors Only.

SCWK 3739 Social Work Methods with Communities and Organizations 3 s.h.

This course presents an in-depth analysis of problem-solving strategies and skills in working with organizations and communities. Theory and research relating to practice will be examined. Social Work purpose, functions, and values are addressed from the systems perspective.

Prereq.: Social Work Majors Only.

SCWK 3740 Mental Health and Addictions 3 s.h.

This course focuses on the study of mental health and addictions in the Social Work discipline. The course includes social work theory, practice and service delivery methods, and research. Policy considerations will also be addressed.

Prereq.: Social Work Majors Only.

SCWK 3742 Substance Use & Recovery 3 s.h.

This course explores traditional and contemporary theories related to substance misuse and substance use disorders. Students will develop beginning-level practice application skills for intervening with individuals regarding their substance misuse. The course surveys a range of evidence-based approaches to: screening, assessment, and diagnosis of substance misuse/substance use disorder and related problems; determining the nature and severity of problems associated with substance use; evaluating readiness to change; and, treatment planning and intervention to ameliorate substance use problems. Content of this course meets the forty (40) hours of chemical dependency specific education in: theories of addiction (5 hours), counseling procedures and strategies with addicted populations (14 hours), group process and techniques working with addicted populations (5 hours), assessment and diagnosis of addiction (3 hours), treatment planning (7 hours), ethics (6 hours). Three hour lecture per week.

SCWK 3743 Mental Health 3 s.h.

This course will provide students with knowledge and skills in mental health treatment, with an emphasis on understanding people with mental illnesses. Students will learn how to: use the DSM to assess and diagnose clients; conduct case conceptualization; conduct a mental status exam; write a narrative diagnostic summary; and develop a basic understanding of psychiatric medications.

Prereq.: Social Work Major.

SCWK 3760 Research Methods for Social Workers 3 s.h.

Quantitative and Qualitative research methodologies for building knowledge for social work practice. Systematic evaluation of outcomes, theoretical bases, relevant technological advances, and ethical standards.

Prereq.: Social Work Majors.

SCWK 3770 Social Policy 3 s.h.

Review of the programs, structures and functions of social services including historical development and social, political and economic issues. Application of scientific method to analyze and develop social work policies designed to achieve social work goals and purpose.

SCWK 4820 Special Topics Elective in Social Work 1-6 s.h.

An examination of various social work topics and issues of both current and long standing interest.

Prereq.: BSW Student or permission of the BSW coordinator.

SCWK 4821 BSW Independent Study 1-6 s.h.

This course involves study under the personal supervision of a faculty member with the approval of the BSW Coordinator. The course demands that student and faculty member choose a topic related to the Social Work field. For successful completion students will tie the topic to at least three different CSWE.

Prereq.: BSW Student.

SCWK 4825 Field Work in Social Services 6 s.h.

Professionally supervised practice in an approved social agency. The student must complete 225 hours per semester in an agency for each 6 s.h. of credit. Must be taken two consecutive semesters for a total of 12 s.h. CR/NC grade option only.

Prereq.: Social Work Majors Only.

SCWK 4826 Integrated Field Work Seminar 3 s.h.

Integration and evaluation of conceptual, affective, and experiential learning achieved from previous social work courses and field-based assignments.

Concurrent: SCWK 4825 first enrollment.

Prereq.: Social Work Majors Only.

SCWK 4827 Integrated Capstone Seminar 3 s.h.

Provides opportunities to synthesize and integrate all the previous coursework from social work education. Includes both theoretical and experiential assignments to assist students with increased self awareness and to prepare them for the transition from college to entry-level generalist practice.

Concurrent: SCWK 4825 second enrollment.

Prereq.: Social Work Majors Only.

Gen Ed: Capstone.

SCWK 4860 Seminar Special Topics in Social Work 1-3 s.h.

Study of selected topics in social work theory, methods and research. May be repeated with different topics.

Prereq.: Junior standing or permission of instructor.

SCWK 5826 Child Welfare and Case Planning 3 s.h.

This course provides the knowledge, concepts, and skills needed for beginning level social work practice in public and child welfare settings. Major focus is on protecting at-risk children by strengthening, supporting and empowering families.

Prereq.: SCWK 1510.

SCWK 5827 Child Welfare Permanency Planning 3 s.h.

Provides the knowledge, concepts, and skills needed for beginning level social work practice in public child welfare settings. Major focus is on the developmental needs and permanency planning associated with at-risk children served by the child welfare system.

Prereq.: SCWK 1510.

Bachelor of Social Work in Social Work

Youngstown State University offers an accredited Bachelor of Social Work program. The program includes general education, support, social work lecture courses and a social work field internship to prepare graduates for entry-level professional social work practice. Graduates of the BSW program are eligible for a license to practice social work as a Licensed Social Worker (LSW) in Ohio.

WELCOME

The social work profession has a long-standing tradition of delivering the energy, intelligence, and heart to make a difference in the lives of people. Through the efforts and energy of social workers, people who might otherwise suffer or go without suffer less and have what they need. Because of the knowledge and skills social workers use to help people, complex human problems are addressed responsibly using the best methods available. And through the expression of humane values held by members of the social work profession, people served are treated with compassion and dignity.

Social workers are committed to helping people adapt with a keen eye on the environment and the opportunities that exist to make this adaptation possible. Social workers work with a broad range of people and the concerns they bring and are interested in the actions that will improve their situations. Social workers are employed in a broad range of organizations both private and governmental.

If you are ready for a human services career that is challenging and offers a wide range of rewards, the Bachelor of Social Work degree is the place to start. I invite you to explore the social work major at Youngstown State University.

Department contact information

- BSW Program Director: Dr. Ron Davis, PhD, Assistant Professor, redavis01@ysu.edu
- Social Work Department Chairman: Dr. Dana Davis: (330) 941-3774 ddavis05@ysu.edu
- Social Work Department Office: (330) 941-1598

BSW Program Mission

The Bachelor of Social Work Program at Youngstown State University has as its primary mission the educational preparation of students for beginning, competent, generalist social work practice.

The Bachelor of Social Work Program at Youngstown State University prepares graduates to assume professional roles in addressing social problems that are related to the economic and social conditions of the Youngstown region. Conditions of poverty, unemployment, underemployment, racial and ethnic disparities and demands for service exist in the region. Racial and ethnic minorities, women and children are particularly vulnerable groups who are over represented with regard to disparate social and economic conditions. The Department of Social Work is committed to raising the consciousness of students with regard to these conditions as well as increasing their understanding of how vulnerable groups are often the target of the aforementioned injustices. Exposing students to these problems increases understanding and enhances the potential for thoughtful solutions and remedies.

The Bachelor of Social Work Program at Youngstown State University offers education preparation that enables students to integrate the knowledge, values, and skills of the social work profession into competent practice with individuals, families, groups, institutions, organizations, and communities.

This preparation also enables students to apply their understanding of the social work profession in a broad range of client service settings with a variety of groups and presenting problems. As entry level practitioners, graduates are capable of delivering social services in a manner that is consistent with the values and ethics of the social work profession. Ultimately, students recognize their responsibility to continue their professional growth and development to include the incorporation of the latest technologies in their practice.

The mission, purpose, and philosophy of the Bachelor of Social Work Program at Youngstown State University are consistent with the overall institutional mission. The institutional mission is "dedicated to encouraging public service . . . promoting and understanding diversity . . . and advancing the intellectual, cultural and economic life of the state and region." The Bachelor of Social Work Program embraces the institution's commitment to address the needs of the region it which it is located.

BSW Program goals

1. Prepare students for beginning, generalist social work practice.
2. Provide students with the ability to integrate the knowledge, values and skills of the social work profession into competent practice with individuals, families, groups, organizations and communities.
3. Develop the ability of students to work with a diversity of clients, presenting problems, and social service delivery systems.
4. Facilitate the development of core values and ethics of the social work profession.
5. Prepare students to understand and to address issues pertaining to social and economic justice to include poverty, oppression, racism and discrimination.
6. Prepare students to sustain their effectiveness by instilling the value of continuing professional growth and development.

ADMISSION AND PROGRESSION

Pre-Social Work

Students enter the BSW program by declaring themselves as pre-social work majors and begin progress toward a degree by enrolling in General Education Requirement, support, and pre-social work courses. These courses are typically completed in the freshman and sophomore years.

Neither admission to the University nor enrollment in social work courses as a pre-social work major guarantees full admission to the social work major. Full admission to the major is required to enroll in upper-division social work classes. Pre-social work majors who are not formally admitted to the social work program will be unable to obtain a permit to register for Social Work 3736 and subsequent social work courses for which Social Work 3736 is a prerequisite. To be admitted to the program as a social work major, pre-social work majors must meet the following requirements:

Social Work Major

To gain entry into upper-division social work courses beginning with SCWK 3736 Social Work Methods with Individuals, students must be formally admitted to the social work major. To be admitted to the social work major, students must be declared pre-social work majors and meet the following requirements:

1. Complete all pre-social work courses with a C or better.
2. Possess an overall GPA of 2.5 or better.
3. Submit a completed Social Work Program Admission Application (available online or from the Department of Social Work) before the fourth week of the semester preceding the semester for which admission is sought.
4. Participate in an admission interview and be approved for admission by the BSW Program Admission Committee.

ADVISORS

Dr. Ron Davis redavis01@ysu.edu

Dr. Dana Davis (330) 941-3774 ddavis05@ysu.edu

ACCREDITATION

The Bachelor of Social Work program at Youngstown State University is fully accredited by the Council on Social Work Education (<http://www.cswe.org/>).

The program was originally accredited in 1990, has remained accredited to-date. Graduates of the BSW program are eligible for social work licensing in the State of Ohio.

Program Locations

The Bachelor of Social Work program is available on the main (Youngstown) campus. This program is also available in partnership with Lakeland Community College in Kirtland, Ohio and Lorain County Community College in Elyria, Ohio. For more specific information pertaining to the BSW program at the partnership sites contact the following program coordinators:

Lakeland CC: Dr. Dana Davis ddavis05@ysu.edu

Lorain CCC: Ms. Karla Wyant kawyant@ysu.edu

The Bachelor of Social Work program at all sites is accredited by the Council on Social Work Education.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1 (Completed in advance of entering the social work major)	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2 (Completed in advance of entering the social work major.)	3
Any Gen Ed Math		3-4
Natural Science (2 courses; one with lab)		6-7
Arts and Humanities (6 s.h.)		6
Social Science (6 s.h.)		6
SOC 1500	Introduction to Sociology (required for the major)	
PSYC 1560	General Psychology (required for major)	
General Education Electives (9 s.h.)		
CMST 1545	Communication Foundations (Completed in advance of entering the social work major.)	3
Any Gen Ed Course		3
Any Gen Ed Course		3
Social Work Major Requirements		
SCWK 1510	Introduction to Social Work	3
SCWK 2600	Health Issues for Social Work Practice	3
SCWK 2622	Social Work Processes	3
SCWK 2641	American Social Welfare	3

SCWK 2642	Human Behavior and the Social Environment for Social Workers 1	3
SCWK 2644	Human Behavior and the Social Environment for Social Workers 2	3

The following courses are completed in advance of the field internship SCWK 4825.

SCWK 3736	Social Work Methods with Individuals	3
SCWK 3760	Research Methods for Social Workers	3
SCWK 3770	Social Policy	3

The following courses may be taken concurrently with the field work in social services SCWK 4825:

SCWK 4825	Field Work in Social Services (SCWK 4825 is taken 2 consecutive semester at 6 semester hours each.)	12
SCWK 3737	Social Work Methods with Groups	3
SCWK 3738	Social Work Methods with Families	3
SCWK 3739	Social Work Methods with Communities and Organizations	3
SCWK 3742	Substance Use & Recovery	3
SCWK 3743	Mental Health	3
SCWK 3720	Cultural Diversity	3
SCWK 4826	Integrated Field Work Seminar (Must be taken concurrently with SCWK 4825 Field Work in Social Services. See course descriptions for pre-requisites.)	3
SCWK 4827	Integrated Capstone Seminar (Must be taken concurrently with SCWK 4825 Field Work in Social Services. See course descriptions for pre-requisites.)	3

Electives to meet 120 hours **20**

Total Semester Hours **120-124**

Year 1

Fall

YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	S.H. 1-2
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
SOC 1500	Introduction to Sociology	3
PSYC 1560	General Psychology	3
Arts and Humanities		3
Elective		1-2

Semester Hours **14-17**

Spring

ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
SCWK 1510	Introduction to Social Work	3
Natural Science + Lab		4
Arts and Humanities		3

Semester Hours **16**

Year 2

Fall

SCWK 2622	Social Work Processes	3
SCWK 2641	American Social Welfare	3
SCWK 2642	Human Behavior and the Social Environment for Social Workers 1	3
Elective		3
Elective		3

Semester Hours **15**

Spring

SCWK 2644	Human Behavior and the Social Environment for Social Workers 2	3
SCWK 2600	Health Issues for Social Work Practice	3
Natural Science		3
Gen Ed Elective		3
Any Gen Ed Math		3-4

Semester Hours **15-16**

Year 3

Fall

SCWK 3736	Social Work Methods with Individuals	3
SCWK 3742	Substance Use & Recovery	3
SCWK 3743	Mental Health	3
SCWK 3770	Social Policy	3
Elective		3

Semester Hours **15**

Spring

SCWK 3760	Research Methods for Social Workers	3
SCWK 3737	Social Work Methods with Groups	3
SCWK 3738	Social Work Methods with Families	3
SCWK 3720	Cultural Diversity	3
Elective		3

Request a Graduation Evaluation after completing 80-85 s.h. from the BCHHS Advising /Dean's Office, 2104 Cushwa Hall, (330) 941-3321.

Semester Hours **15**

Year 4

Fall

SCWK 4825	Field Work in Social Services	6
SCWK 4826	Integrated Field Work Seminar	3
Elective		3
SCWK 3738	Social Work Methods with Families	3

Semester Hours **15**

Spring

SCWK 4825	Field Work in Social Services	6
SCWK 4827	Integrated Capstone Seminar	3
SCWK 3739	Social Work Methods with Communities and Organizations	3
Elective		3

Semester Hours **15**

Total Semester Hours **120-124**

Learning Outcomes

The BSW program at Youngstown State University applies a competency-based curriculum that develops in students core competencies of generalist social work practice as defined by the Council on Social Work Education. Upon graduating from the BSW program, students are expected to:

1. Demonstrate ethical and professional behavior.
2. Engage diversity and difference in practice.
3. Advance human rights and social, economic, and environmental justice.
4. Engage in practice-informed research and research-informed practice.
5. Engage in policy practice.
6. Engage with individuals, families, groups, organizations, and communities.

- 7. Assess individuals, families, groups, organizations, and communities.
- 8. Intervene with individuals, families, groups, organizations, and communities.
- 9. Evaluate (practice with) individuals, families, groups, organizations, and communities.

Associate of Applied Science in Social Work

The Associate of Applied Science Degree in Social Work prepares students for the social work profession. The curriculum is designed to provide the educational background necessary to enable students to pursue further social work education earning a bachelor's degree in Social Work, or the graduate may stop with an associate degree assisting Licensed Social Worker. Students who graduate with an Associate of Applied Science Degree in Social Work may work as social work assistants, depending on state criteria and requirements. Social Workers typically work with children, adults, families, correction facilities, probation departments, mental health facilities and many other social service-type agencies. One is not a social worker with only an associate degree, but one may assist social workers who are involved in assessment, referral, initial screening, helping with case management, outreach, prevention services and community programs or development. Some states allow people with an associate degree to get registered in the state as social work assistants. Ohio allows for registered social work assistants.

COURSE	TITLE	S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Any Gen Ed Math		3
SOC 1500	Introduction to Sociology	3
PSYC 1560	General Psychology	3
AH or NS elective		3
Major Requirements		
Select Four of the Courses Below		12
ECON 1503	Rich and Poor: Diversity and Disparity in the United States Workplace	
ECON 1505	Personal Financial Literacy	
SOC 2630	Criminology	
SOC 2601	Social Problems	
SOC 2650	Human Trafficking	
SOC 2690	Identities and Differences	
Core Requirements		
SCWK 1510	Introduction to Social Work	3
SCWK 2600	Health Issues for Social Work Practice	3
SCWK 2622	Social Work Processes	3
SCWK 2641	American Social Welfare	3
SCWK 2642	Human Behavior and the Social Environment for Social Workers 1	3
SCWK 2644	Human Behavior and the Social Environment for Social Workers 2	3
SCWK 2695	Applied Social Work (Taken one time for 6 s.h.)	6
SCWK 3730	Social Services and the Aged	3
SCWK 3731	Social Services and the Disabled	3
Total Semester Hours		61-63

Minor in Social Work

COURSE	TITLE	S.H.
Required Courses		
SCWK 1510	Introduction to Social Work	3
SCWK 2622	Social Work Processes	3
Select two of the following:		6
SCWK 2600	Health Issues for Social Work Practice	
SCWK 2644	Human Behavior and the Social Environment for Social Workers 2	
SCWK 2642	Human Behavior and the Social Environment for Social Workers 1	
SCWK 2641	American Social Welfare	
Select two of the following:		6
SCWK 3720	Cultural Diversity	
SCWK 3726	Child Welfare and Case Planning	
SCWK 3727	Child Welfare Permanency Planning	
SCWK 3740	Mental Health and Addictions	
SCWK 3770	Social Policy	
HAHS 5875	Interprofessional Education for Health Professions	
Total Semester Hours		18

Pre-Social Work

Students enter the BSW program by declaring themselves as pre-social work majors and begin progress toward a degree by enrolling in General Education requirements, support, and pre-social work courses. These courses are typically completed in the freshman and sophomore years. Neither admission to the University nor enrollment in social work courses as a pre-social work major guarantees full admission to the social work program.

Pre-Social Work courses include the following:

COURSE	TITLE	S.H.
ENGL 1550	Writing 1	3
		or 4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
SOC 1500	Introduction to Sociology	3
CMST 1545	Communication Foundations	3
PSYC 1560	General Psychology	3
SCWK 1510	Introduction to Social Work	3
SCWK 2600	Health Issues for Social Work Practice	3
SCWK 2622	Social Work Processes	3
SCWK 2641	American Social Welfare	3
SCWK 2642	Human Behavior and the Social Environment for Social Workers 1	3
SCWK 2644	Human Behavior and the Social Environment for Social Workers 2	3
2 Gen Ed Electives		6
2 Arts & Humanities (A&H)		6
Total Semester Hours		45-46

Students also select General Education math, natural science, social and personal awareness courses as well as electives as they complete pre-social work requirements the freshman and sophomore years of the program.

COURSE	TITLE	S.H.
Any Gen Ed Math		3-6
Natural Science With Lab		4

Natural Science	3
Electives	12-16
YSU 1500 Success Seminar	1
	or
	2
or YSU 1500S Youngstown State University Success Seminar	
or HONR 1500 Intro to Honors	
Total Semester Hours	23-31

Undergraduate Aging Studies

Minors

- Gerontology (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-health-human-services/department-undergraduate-aging-studies/gerontology-minor/>)

Certificates

- Health Information Systems (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-health-human-services/department-undergraduate-aging-studies/health-information-systems-certificate/>)

Gerontology

GRK 1550 Elementary Ancient Greek 4 s.h.

Introduction to Ancient Greek with emphasis on those aspects of grammar most essential for developing the ability to read Greek. Translation of simple Ancient Greek texts into English. Grading is ABC/NC.

GRK 2600 Intermediate Ancient Greek 4 s.h.

Continuation of GRK 1550 with emphasis on more complex aspects of Ancient Greek grammar. Translation of more advanced Ancient Greek texts, including some authentic passages.

Prereq.: Placement test or GRK 1550.

GRK 2603 Directed Reading in Ancient Greek 1 3 s.h.

Reading of selections from an Ancient Greek author or genre with emphasis on translation. Review of Ancient Greek grammar and introduction of some advanced grammatical constructions not covered in Ancient Greek 1550 or 2600. May be repeated once if topic is different.

Prereq.: Permission of Chair and either placement test or GRK 2600.

GRK 3753 Directed Reading in Ancient Greek 2 3 s.h.

Reading of selections from an Ancient Greek author or genre with emphasis on translation and interpretation of text; review of Ancient Greek grammar, introduction of relevant modern scholarship, and writing of evaluative essays. May be repeated once if topic is different.

Prereq.: GRK 2603 and permission of Chair.

GRK 4883 Directed Reading in Ancient Greek 3 3 s.h.

Reading of selections from an Ancient Greek author or genre with emphasis on translation and interpretation of text. Review of Ancient Greek grammar. Writing of a research paper. May be repeated once if topic is different.

Prereq.: GRK 3753 and permission of Chair.

Certificate in Applied Gerontology

Program Director: Dr. Daniel Van Dussen (330) 941-1683 or djvandussen@ysu.edu

Students desiring to pursue the Certificate in Applied Gerontology must complete the following required core and elective courses. Please note: students must also complete required prerequisites to the upper division courses.

COURSE	TITLE	S.H.
Required Courses		
GERO 3703	Aging and Society	3

SOC 4801	Later Life Issues	3
PSYC 3757	Adult Development	3
GERO 3759	Physical Change and Aging	3
Field Work in Gerontology		
GERO/SOC 4821	Internship in Gerontology	3
Electives		
Select two of the following:		6
GERO 3745	Sociology of Health, Illness, and Healthcare	3
GERO 3755	Theories of Gerontology	3
SOC 3758	Long-Term Care	3
GERO 3757	Aging and Social Policy	3
SOC 3759	Sociology of Dementia	3
SOC 3760	Sociology of Death and Dying	3
GERO 4804	Family, Health, and Aging	3
SOC 6905	Social Gerontology	3
ANTH 3790	Aging in Cross-Cultural Perspective	3
FNUT 3720	Nutrition, Health, and Aging	3
POL 3717	Health Care Policy	3
KSS 4870	Exercise and Aging for Health Professions	3
GERO 4821	Internship in Gerontology	3-15
SCWK 3730		3
PSYC 4857	Biopsychological Aspects of Health and Aging	3
ECON 1504		3
PSYC 3758	Lifespan Development	3

Note: The Certificate in Applied Gerontology comprises 21 semester hours. Students must maintain a "C" or better in all course work, must satisfy all prerequisites, and cannot take a course on a "CR/NC" basis.

Minor in Gerontology

Program Director: Dr. Daniel Van Dussen (330) 941-1683 or djvandussen@ysu.edu

COURSE	TITLE	S.H.
Required Courses		
GERO 1501	Introduction to Gerontology	3
or SOC 1500	Introduction to Sociology	
Select five of the following:		15
GERO 3703	Aging and Society	
GERO 3755	Theories of Gerontology	
GERO 3756		
GERO 3757	Aging and Social Policy	
SOC 4801	Later Life Issues	
GERO 4804	Family, Health, and Aging	
GERO 4821	Internship in Gerontology	
SOC 3759	Sociology of Dementia	
FNUT 3720	Nutrition, Health, and Aging	
Total Semester Hours		18

Minor in Aerospace Studies (Air Force ROTC)

The Air Force ROTC program, offered through an agreement with Kent State University, provides professional preparation and leadership training for students considering service as officers in the U.S. Air Force. The program also offers information on Air Force career opportunities and the role of the military

in the American society. Scholarships are available to help students complete their bachelor's and/or master's degrees.

Overview

There are two primary AFROTC programs under which officer candidates may earn their commissions.

- The first is a four-year AFROTC program. It includes membership in (and completion of) the General Military Course (GMC), a four-week field training course, and the Professional Officer Course (POC).
- The second is a two-year program designed for students who have two years of academic work remaining. In the two-year program, students are selected to participate in the POC program and attend a five-week field training course, which includes coursework covered during the freshman and sophomore years.

Both programs result in a commission as a Second Lieutenant in the United States Air Force. A minor in aerospace studies is available in consultation with the academic major advisor and the Aerospace Studies Department.

Registering

Courses are normally taken for YSU academic credit as part of the students' electives. Entering freshmen and sophomores may register for aerospace studies courses at the same time, and in the same manner, as they enroll in their other YSU courses. Juniors and seniors wishing to enroll in AFROTC should call the AFROTC Unit Admissions Officer prior to enrollment to discuss the particular requirements. Students enrolled in the program must travel to Kent State University once a week to attend the courses. Arrangements can be made for carpools or pick-up if the students do not have transportation.

The General Military Course

The General Military Course (GMC) is offered in four-sequenced lower-division aerospace studies courses. Each course consists of one hour of academic instruction per week and 15 leadership laboratory contact hours per semester. Non-scholarship membership in the GMC does not confer any military status or commitment upon the students, but affords them the opportunity to learn about the Air Force and its role in the American society. Students who do not want commissions may take the aerospace studies courses for academic credit only. There is no military obligation incurred by enrolling in the GMC.

The Professional Officer Course

The Professional Officer Course (POC) is a four-part upper division aerospace studies course. Each course consists of three hours of academic instruction per week and 15 leadership laboratory contact hours per semester. Entrance into POC is limited to qualified students desiring to compete for Air Force commissions. Enrollment in this program is based upon a cumulative grade point average, physical qualifications, and leadership.

Veterans

Veterans with previous honorable, active U.S. military service who wish to enroll in the POC may be eligible for a waiver of either the GMC or its equivalent as an entrance requirement.

Uniforms and Textbooks

AFROTC uniforms and textbooks are provided at no charge. Textbooks are returned upon completion of each academic year or upon withdrawal from the course. Uniforms are returned upon completion of the program or withdrawal from the course.

Financial Assistance

Students who demonstrate academic and leadership potential may be selected by the professor of aerospace studies to compete for scholarships.

The scholarship award includes tuition, textbook allowance, some course fees, and a monthly tax-free stipend.

Scholarship Statement of Understanding

Air Force ROTC scholarship recipients must meet and maintain certain academic and military retention standards and serve in the active-duty Air Force after graduation.

Contact Information

For further information, contact:

Department of Aerospace Studies
AFROTC DET 630
104 Terrace Hall
Kent State University
Kent, Ohio 44242
(330) 672-2182
or e-mail us at: det630@kent.edu.

The curriculum in aerospace studies is divided into two parts:

- the General Military Course, usually taken during the freshman and sophomore years
- the Professional Officer Course, normally taken during the junior and senior years (see Overview, above)

Air Force officers are assigned as full-time faculty members and teach all aerospace studies courses. The courses include one hour of academic instruction and a 1 ½-hour leadership laboratory each week. All courses are taught at the Kent State University main campus in Kent, Ohio. Non-scholarship students incur no military obligation when enrolled in freshman- and sophomore-level courses.

Year 1		
Fall		
AERO 1501	Heritage and Values	1
AERO 1503	Leadership Laboratory	1
Semester Hours		2
Spring		
AERO 1502	Heritage and Values	1
AERO 1504	Leadership Laboratory	1
Semester Hours		2
Year 2		
Fall		
AERO 2601	Team and Leadership Fundamentals	1
AERO 2603	Leadership Laboratory	1
Semester Hours		2
Spring		
AERO 2602	Team and Leadership Fundamentals	1
AERO 2604	Leadership Laboratory	1
Semester Hours		2
Year 3		
Fall		
AERO 3701	Leading People/Effective Communication	3
AERO 3703	Leadership Laboratory	1
Semester Hours		4
Spring		
AERO 3702	Leading People/Effective Communication	3
AERO 3704	Leadership Laboratory	1
Semester Hours		4

Year 4**Fall**

AERO 4801	Leading National Security/Leadership Responsibilities	3
AERO 4803	Leadership Laboratory	1
AERO 4802	Leading National Security/Leadership Responsibilities	3
AERO 4804	Leadership Laboratory	1
Semester Hours		8
Total Semester Hours		24

The College of Science, Technology, Engineering, and Mathematics

Wim Steelant, Ph.D., Dean

Moser Hall 2200

(330) 941-3009

The College of Science, Technology, Engineering, and Mathematics (STEM) is the academic unit of the university comprising the following departments:

- **Chemical and Biological Sciences**
 - Forensic Science
- **Rayen School of Engineering**
 - Civil/Environmental and Chemical Engineering
 - Electrical and Computer Engineering
 - Mechanical, Industrial, and Manufacturing Engineering
- **School of Computer Science, Information, and Engineering Technology**
 - Civil and Construction Engineering Technology
 - Electrical Engineering Technology
 - Mechanical Engineering Technology
- **Mathematics and Statistics**
- **Physics, Astronomy, Geology, and Environmental Sciences**

Formed in 2007 through an administrative reorganization, the STEM College is committed to strengthening core areas of its departments as well as facilitating collaborations between its faculties and students at all levels in their disciplines. Its formation is a bold initiative in coupling higher education to economic development by enhancing research activities and collaboration with industry.

College of STEM Mission

The College of STEM is committed to furthering the mission of Youngstown State University by delivering integrated programs of excellence to an engaged learning community. The College uses state-of-the-art technology in teaching and research to meet the educational objectives of students, both undergraduate and graduate, enrolled in all its programs. The College fosters intellectual growth through integration of teaching, scholarship, and service that expands the talents of its constituencies—including students, faculty, business, industry, and government—with synergistic activities in and beyond the classroom; prepares our graduates for a multidisciplinary world through a flexible and diverse curriculum; and meets the need for a well-educated, skilled workforce for economic growth with industrial partnerships, research, and scholarship.

Core Values

The College of STEM fully subscribes to the core values of the University: the centrality of students; excellence and innovation; integrity/human dignity; and collegiality and public engagement.

- We are a learning-centered college committed to the intellectual, ethical, and career growth of all learners, both inside and outside the classroom.
- We foster intellectual inquiry, exploration, and discovery that transcends traditional boundaries and facilitates interdisciplinary scholarship. We expand and apply knowledge and encourage creativity through research and scholarship.
- We are committed to the social development of students, by promoting ethical behavior and collegiality in all endeavors, and to enrichment of the University through diversity of the faculty and student body.
- We enhance the quality of life and economic health of the region, the state, and beyond by providing students with the knowledge and skills to meet the challenges of modern society, and by providing business, industry, government, K–12 schools, and the public with technical expertise and leadership to support innovation and growth.

Degrees/Programs

The College offers four bachelor's degrees:

- Bachelor of Arts (BA)
- Bachelor of Engineering (BE)
- Bachelor of Science (BS)
- Bachelor of Science in Applied Science (BSAS)

The College offers associate degrees:

- Associate of Applied Science (AAS)

Students whose needs are not met by existing conventional programs may wish to investigate and apply for the Individualized Curriculum Program (see Academic Policies and Procedures).

Admissions

Students who are calculus-ready will be directly admitted into the academic department in their major. Those who are not will remain under the guidance of the professional advising staff until they are department-ready. For more details on the preparation and criteria of the STEM standards, please check with the Advising Center in the College of STEM.

Degree Requirements

Requirements for completion of a baccalaureate degree and an associate degree within the College of STEM include all University requirements detailed in the Academic Policies and Procedures section of the Undergraduate Catalog (i.e., graduation and general education requirements, course levels requirements including majors [and minors, where applicable], grade point average, residency, and degree applications). Specific requirements for each major in the College of STEM are listed by department or school. Consult the Rayen School of Engineering and Engineering Technology section in the Undergraduate Catalog for additional graduation requirements for the BE, AAS, and BSAS degrees.

Minors

Minors are not required for every program/major in the STEM College. Consult the curricula listed in the department sections of the catalog for specific requirements for each major. For programs/majors requiring minors, at least twelve (12) semester hours are required for the minor, and at least 6 hours must be upper-division.

Foreign Language Requirement for the Bachelor's Degree

All candidates for the BA degrees in the College are required to complete the elementary (1550: Elementary Foreign Language) and the intermediate level (2600: Intermediate Foreign Language) of the same foreign language. Students with a foreign language background may desire to take the foreign language placement test in order to place into the intermediate level (2600) or satisfy the requirement. It may be possible to satisfy the foreign language

requirement through appropriate college transfer coursework and credit by exam.

Candidates for the BS entering after fall 2012 (except Math majors), candidates for the BE degree, and candidates for the BSAS degree do not have a foreign language requirement.

For more information, visit the College of Science, Technology, Engineering, and Mathematics (STEM) (<http://www.ysu.edu/academics/science-technology-engineering-mathematics/>).

Department of Chemical and Biological Sciences and Forensic Science

Dept. Main Office:

Ward Beecher Science Hall, Room 5053

Youngstown State University

Youngstown, OH 44555

Dept. Chairperson: Dr. Tim R. Wagner (trwagner@ysu.edu), 330-941-3662

Academic Operations Specialist: Lisa DeVore (ldevore@ysu.edu), 330-941-3664

Welcome

The former departments of Chemistry and Biological Sciences, along with the Forensic Science program from the former Department of Criminal Justice and Forensic Sciences, have all merged together to form the new Department of Chemical and Biological Sciences. Our new department is comprised of nearly 50 full- and part-time faculty members and technical and administrative staff.

The department offers several degree programs, including BA, BS, and MS programs in Biological Sciences and Chemistry, a BS program in Biochemistry, and a BSAS program in Forensic Science. To learn more about these programs and various tracks available within them (e.g., pre-medicine), visit the links below:

- Biological Sciences Division (p. 364)
- Chemical Sciences Division (p. 373)
- Forensic Science Division (p. 389)
- Associate of Applied Science in Fire Science (p. 363)

Dept. Mission Statement

The mission of the Department of Chemical and Biological Sciences embraces the interdependent core aspects of undergraduate and graduate education, research and scholarship, and university and community service. In education, the Department seeks to provide a comprehensive education meeting professional guidelines (e.g., American Chemical Society, American Society for Microbiology, Forensic Education Program Accreditation Committee, American Association of Medical Colleges, etc.) for students majoring in the departmental Divisions of Chemistry, Biological Sciences, Forensic Sciences, and allied disciplines in the Baccalaureate, Masters, and Ph.D. programs; and to educate the general student body about the vitality and significance of divisional disciplines as contemporary laboratory sciences. In scholarship, the Department seeks to expand the boundaries of knowledge while simultaneously encouraging students to expand their intellectual horizons and develop critical-thinking and problem-solving skills through faculty directed independent undergraduate and graduate research. In service, faculty members are expected to be advisors, mentors, and career counselors

to students and to use their expertise to support the University, the chemical, biological, and forensic science professions and the larger community.

Division Coordinators

• Biological Sciences Division:

Dr. David Asch, Ward Beecher Hall 3003 or 4037

dkasch@ysu.edu, (330) 941-1350 or (330) 941-3608

• Forensic Science Division:

Mr. Robert E. Wardle III, Ward Beecher Hall 5006

rewardle@ysu.edu, (330) 941-2274

Associate of Applied Science in Fire Science

The Fire Science Program is designed to provide entry level and advanced education for those students seeking a career in fire and emergency services, as well as current practitioners seeking career advancement. Students completing the Fire Science Program will earn an Associate Degree. The program is delivered through an on-line modality, offering maximum flexibility and access, and explores topics such as, building construction, incident mitigation practices, fire behavior, fire prevention, incident command and control, and firefighter health and safety. The program provides additional areas of study such as written communications, sociology, and organizational behavior to ensure students are prepared for success in the contemporary fire and emergency services.

COURSE	TITLE	S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
MATH 2623	Quantitative Reasoning	3-5
or MATH 2623C	Quantitative Reasoning with Co-Requisite Support	
PSYC 1560	General Psychology	3
PHIL 2625	Introduction to Professional Ethics	3
SOC 1500	Introduction to Sociology	3
FIRE 1501	Introduction to Fire and Emergency Services	3
FIRE 1520	Public Sector Community Relations and Customer Service	3
FIRE 1511	Building Constructions for Fire and Life Safety	3
FIRE 1504	Fire Prevention	3
FIRE 1521	Combustion Processes and Fire Behavior	3
FIRE 1505	Occupational Safety and Health for Emergency Services	3
FIRE 1503	Fire Protection and Detection Systems	3
FIRE 2601	Fire Service Hydraulics	3
FIRE 2602	Legal Aspects of Emergency Services	3
FIRE 2603	Principles of Fire and Emergency Services Administration	3
FIRE 2640	Emergency Services Safety and Survival	3
FIRE 2620	Fire Ground Strategy and Tactics	3
FIRE 2630	Fire Investigation Methods	3

FIRE 2631	Hazardous Materials Operations and Command	3
Total Semester Hours		64-68

Upon successful completion of the program, the graduate will:

- Describe basic principles of fire protection and emergency services, including public fire protection, fire department resources, fire department structure, career opportunities, codes and standards, and professional development.
- Analyze the principles of fire behavior and combustion, including the elements of combustion, basic chemistry and measurements, and fuel type characteristics.
- Demonstrate knowledge of building construction types and the associated impact by incidents of unwanted fire; including fire growth, fire spread, and the influence on structural stability and collapse.
- Identify the principles of fire prevention and community risk reduction, including the influence of codes and standards, fire protection engineering technology, and enforcement methodologies.
- Describe the legal aspects of fire and emergency services, including the legal system, types of laws, contracts, civil rights, employee safety, and employment relationships.
- Comprehend the principles of occupational safety, survival, and health in fire and emergency services, including a culture of safety, risk management, wellness standards, and elements of incident safety.
- Demonstrate knowledge of firefighting tactics and strategy, including incident command and control, incident Management systems, firefighter safety, company operations in various occupancies, and post-incident analysis.
- Describe the principles of fire and emergency services leadership and management, including fire officer responsibilities, personnel management, physical resource management, fiscal management, employee relations, employee training, and employee safety.

The Fire Science Program is recognized by the United States Fire Administration (USAF) as a Fire and Emergency Services Higher Education Program (FESHE). All FESHE approved courses provide students with an opportunity to earn a Certificate of Course Completion from the USFA and the Federal Emergency Management Agency.

COURSE	TITLE	S.H.
FIRE 1501	Introduction to Fire and Emergency Services	3
FIRE 1503	Fire Protection and Detection Systems	3
FIRE 1504	Fire Prevention	3
FIRE 1505	Occupational Safety and Health for Emergency Services	3
FIRE 1511	Building Constructions for Fire and Life Safety	3
FIRE 1520	Public Sector Community Relations and Customer Service	3
FIRE 1521	Combustion Processes and Fire Behavior	3
FIRE 2601	Fire Service Hydraulics	3
FIRE 2602	Legal Aspects of Emergency Services	3
FIRE 2603	Principles of Fire and Emergency Services Administration	3
FIRE 2620	Fire Ground Strategy and Tactics	3
FIRE 2630	Fire Investigation Methods	3
FIRE 2631	Hazardous Materials Operations and Command	3
FIRE 2640	Emergency Services Safety and Survival	3

Biological Sciences

(330) 941-3608

Room 4037 Ward Beecher Science Hall

Courses in Biological Sciences may be applied toward a Bachelor of Science or a Bachelor of Arts degree. The department offers specialized courses in three major divisions:

- molecular biology and microbiology
- physiology and anatomy
- evolution, ecology and environmental biology

Biological Sciences offers courses to prepare a student for a wide variety of fields and future careers including:

- dentistry
- botany
- health-related careers
- physical therapy
- medicine
- veterinary medicine
- medical technology
- microbiology
- molecular biology
- biomedical research
- biotechnology

Advisement is available concerning course selection appropriate for a specific field in biology and in the choice of a minor or minors. These degrees may be earned in eight semesters if students average 16 hours per semester.

For more information, visit **Biological Sciences** (<http://www.ysu.edu/academics/science-technology-engineering-mathematics/biology-major/>).

Professor

David K. Asch, Ph.D., Associate Professor

Michael Butcher, Ph.D., Professor

Jonathan J. Caguiat, Ph.D., Professor

Chester R. Cooper, Ph.D., Professor

Thomas P. Diggins, Ph.D., Professor

Carl G. Johnston, Ph.D., Professor

Xiangjia Min, Ph.D., Professor

Stefania C Panaitof, Ph.D., Assistant Professor

Ian J. Renne, Ph.D., Professor

Jill M. Tall, Ph.D., Associate Professor

Lecturer

Angela Ricciulli-Ciolli, D.C., Lecturer

Li (Linda) Sui, M.S., Lecturer

Stefania Panaitof, Ph.D., Assistant Professor

Majors

- BS in Biological Sciences (p. 370)
- BA in Biological Sciences (p. 368)

Certificates

- Certificate in Molecular and Biotechnology (p. 372)

Minors

- Biological Sciences Minor (p. 372)

BIOL 1505 Biology and the Modern World 3 s.h.

Biology applied to critical issues of today's society. Focus on the scientific method as relevant to modern biology issues. Not applicable to the Biology major.

Gen Ed: Natural Science.

BIOL 1505H Honors Biology and Modern World 3 s.h.

Biology applied to critical issues of today's society. Focus on the scientific method as relevant to modern biology issues. Not applicable to the Biology major.

Gen Ed: Natural Science.

BIOL 1505L Biology and the Modern World Laboratory 1 s.h.

Student investigations in biological phenomena using a variety of laboratory approaches focused on a single theme or concept using the scientific method. Satisfies the Natural Science Laboratory requirement. Not applicable to the Biology major.

BIOL 1545 Allied Health Anatomy and Physiology 5 s.h.

Explores the structure and function of the human body and its organ systems. Diseases and their relationship to various physiological systems. Four hours lecture, two hours lab. Not applicable to the Biology major.

Prereq.: High school biology and chemistry, or equivalent.

Gen Ed: Natural Science.

BIOL 1545L Allied Health Anatomy and Physiology Laboratory 0 s.h.

Allied Health Anatomy and Physiology Laboratory.

BIOL 1551 Anatomy and Physiology 1 3 s.h.

Structure, function, and clinical applications of the integument, musculature, skeletal, and nervous systems. Targeted for students in nursing and associated health professions. Three hours of lecture. Not applicable to the Biological Sciences major.

Prereq.: High school biology, High school chemistry or "C" or better CHEM 1501, and Level 20 or better on the MPT.

Coreq.: BIOL 1551L.

Gen Ed: Natural Science.

BIOL 1551L Anatomy and Physiology 1 Laboratory 1 s.h.

Anatomical study of skeletal, muscular, and nervous systems. For students in nursing and associated health professions. Two hours of laboratory per week. Not applicable to the Biology major. BIOL 1551 must be taken either previous or concurrent.

BIOL 1552 Anatomy and Physiology 2 4 s.h.

Structure, function, and clinical applications of the endocrine, cardiovascular, respiratory, renal, digestive, and reproductive systems. Targeted for students in nursing and associated health professions. Three hours lecture, two hours lab. Not applicable to the Biology major.

Prereq.: BIOL 1551.

Gen Ed: Natural Science.

BIOL 1552L Anatomy and Physiology 2 Laboratory 0 s.h.

Anatomy and Physiology 2 Laboratory.

BIOL 1560 Microbiology for the Health Professions 2 s.h.

Characteristics, epidemiology, and pathology of viruses, bacteria, and protozoa of medical significance. Other topics dealing with the control of microorganisms and food microbiology will be covered. Not applicable to a biology major. Two hours of lecture. Must be taken concurrent with BIOL 1560L or substitute.

BIOL 1560L Microbiology Laboratory for Health Professions 1 s.h.

Microscopy, cultivation, and identification of bacteria. Microbiology of foods. Disinfection techniques. Not applicable to a biology major. Three hours of laboratory per week. Must be taken concurrent with BIOL 1560.

BIOL 2601 General Biology 1: Molecules and Cells 3 s.h.

The chemical and physical foundations of life, structure and function of cells and organelles, metabolism, basic molecular biology and inheritance, and principles of evolution. Three hours of lecture per week.

Prereq. or Coreq.: CHEM 1515.

Coreq.: BIOL 2601L.

Gen Ed: Natural Science.

BIOL 2601H Honors General Biology I: Biology: Molecules and Cells 3 s.h.

The chemical and physical foundations of life, structure and function of cells and organelles, metabolism, basic molecular biology and inheritance, and principles of evolution. Three hours of lecture per week.

Gen Ed: Natural Science.

BIOL 2601L General Biology I: Molecules and Cells Laboratory 1 s.h.

The chemical and physical foundations of life, including scientific communication, cell biology, metabolism, basic molecular biology and diversity. Two hours of lab each week.

Prereq. or Coreq.: CHEM 1515.

Coreq.: BIOL 2601.

BIOL 2602 General Biology 2: Organisms and Ecology 3 s.h.

The structure and function of plants and animals. Examination of the structure and functioning of organismic communities and ecosystems. Required of all biological sciences majors. Three hours of lecture per week.

Prereq.: BIOL 2601 and CHEM 1515.

Coreq.: BIOL 2602L.

Gen Ed: Natural Science.

BIOL 2602H Honors General Biology 2: Organisms and Ecology 3 s.h.

The structure and function of plants and animals. Examination of the structure and functioning of organismic communities and ecosystems. Required of all biological sciences majors. Three hours of lecture per week.

Prereq.: BIOL 2601 and CHEM 1515.

Coreq.: BIOL 2602L.

Gen Ed: Natural Science.

BIOL 2602L General Biology: Organisms and Ecology Laboratory 1 s.h.

Structure and function of plants and animals including, biological diversity and basic physiology. Two hours of lab each week. 1 s.h.

Prereq.: BIOL 2601 and BIOL 2601L.

Coreq.: BIOL 2602.

BIOL 2603 Integrated Biology for BaccMed 4 s.h.

This course is an introduction to general biology that focuses on those aspects of biology that are the fundamental basis of medicine and human biology.

Prereq.: admittance to BS in Biochemistry or Electrical and Computer Engineering with a Biomedical emphasis.

BIOL 2603H Honors Integrated Biology 4 s.h.

This course is an introduction to general biology that focuses on those aspects of biology that are the fundamental basis of medicine and human biology.

Prereq.: admittance to the BaccMed program, BS in Biochemistry, or Electrical and Computer Engineering with a Biomedical emphasis.

BIOL 3702 Microbiology 3 s.h.

Fundamentals of the biology of microbes. The principles of microbial structure, function, reproduction, metabolism, genetics, phylogeny, host-parasite relationships, and immunity. Three hours lecture.

Prereq.: BIOL 2601 or BIOL 2603 and concurrent enrollment in BIOL 3702L.

BIOL 3702H Honors Microbiology 3 s.h.

Fundamentals of the biology of microbes. The principles of microbial structure, function, reproduction, metabolism, genetics, phylogeny, host-parasite relationships, and immunity. Three hours lecture.

Prereq.: BIOL 2601 or BIOL 2603 and concurrent enrollment in BIOL 3702L.

BIOL 3702L Microbiology Laboratory 1 s.h.

Fundamental and applied technical skills acquired through laboratory experiences to include proper handling, microscopy, culture, and biochemical identification of microorganisms. Two 1.5-hour laboratory sessions per week.

Prereq.: BIOL 2601 or BIOL 2603.

Coreq.: BIOL 3702.

BIOL 3703 Clinical Immunology 3 s.h.

Fundamentals of immunology, including both humoral and cellular immunological responses. Applications of immunological methods in medical research and patient treatment.

Prereq.: BIOL 2601 or BIOL 2603 and BIOL 3702 recommended.

BIOL 3703L Clinical Immunology Laboratory 1 s.h.

VDRL, ASO, febrile, latex, pregnancy, and viral tests; flocculation, precipitation, complement fixation, and titration procedures for various diseases. Three hours lab per week. Concurrent with: BIOL 3703. Identical with MLS 3703L and MLT 3703L.

Prereq.: BIOL 2602.

BIOL 3704 Biological Anthropology 3 s.h.

The physical origins and development of the human species as a member of the primate order and the biological bases of human differences disclosed by human paleontology and archaeology. Also listed with ANTH 3703.

Prereq.: ANTH 1500 and BIOL 2601.

BIOL 3705 Introduction to Human Gross Anatomy 4 s.h.

Overview of human structure, using a regional approach to examine the functional anatomy of the musculoskeletal, nervous, and visceral systems. Three hours lecture, two hours lab.

Prereq.: BIOL 2602 or BIOL 2603.

BIOL 3705L Introduction to Human Gross Anatomy Laboratory 0 s.h.

Introduction to Human Gross Anatomy Laboratory.

BIOL 3711 Cell Biology: Fine Structure 3 s.h.

Theoretical and conceptual background necessary for understanding cellular structure-function relationships. Basic architecture of the cell, various organelles. The basic behavior of cells analyzed illustrating the integrative interaction of organelle systems.

Prereq.: BIOL 2601 or BIOL 2603.

BIOL 3721 Genetics 3 s.h.

Genetic material, reproductive cycles, sex determination, mitosis, meiosis, mendelism, probability linkage, genes in populations, mutation, evolution.

Prereq.: BIOL 2601 or BIOL 2603.

BIOL 3725 Mammalogy 3 s.h.

Overview of structure, function, evolutionary history, behavior, ecology, and classification of mammals. Animal groups will be studied from diverse biological points of view. Three hours lecture.

Prereq.: BIOL 2601, BIOL 2602.

BIOL 3730 Human Physiology 4 s.h.

Concepts of human physiology that focus on the regulation of homeostatic mechanisms by the neural, endocrine, cardiovascular, respiratory, and renal systems. Four hours lecture.

Prereq.: BIOL 2602 or BIOL 2603.

BIOL 3730L Human Physiology Laboratory 1 s.h.

Experimental approach to the study of human physiology that explores regulation of homeostasis by the neural, endocrine, cardiovascular, respiratory, and renal systems. Three hours laboratory.

Prereq. or Coreq.: BIOL 3730.

BIOL 3740 Plant Diversity 4 s.h.

Examination of the diversity of plant species and their interaction with the environment; the morphology, reproduction and ecology of a wide variety of vascular and nonvascular plants. Three hours lecture, two hours lab.

Prereq.: BIOL 2602.

BIOL 3740L Plant Diversity Laboratory 0 s.h.

Plant Diversity Laboratory.

BIOL 3741 Animal Diversity 4 s.h.

Examination of the diversity of animal species and their interaction with the environment; the morphology, reproduction and ecology of a wide variety of invertebrate and vertebrate phylon. Three hours lecture, two hours lab.

Prereq.: BIOL 2602.

BIOL 3741L Animal Diversity Laboratory 0 s.h.

Animal Diversity Laboratory.

BIOL 3745 Plant Physiology 3 s.h.

Examination of the physiology of higher plants with emphasis on the whole plant aspects as well as on biochemical, cellular and molecular aspects of how plants function including transport and translocation of water and solutes, photosynthesis and respiration, growth and development.

Prereq.: BIOL 2602.

BIOL 3759 Evolution 3 s.h.

Examination of fundamental evolutionary mechanisms integral to such covered topics as natural selection, drift, genetic variance maintenance, gene flow consequences, phylogenetic resolution, modes of speciation, coevolution, cooperation and mating system structure. Ecological concepts will be integrated throughout.

Prereq.: BIOL 2601 and BIOL 2602 or instructor consent.

BIOL 3762 Field Botany 4 s.h.

Identification, ecology, and significance of local plants. Two hours lecture, four hours lab.

Prereq.: BIOL 2602.

BIOL 3762L Field Botany Laboratory 0 s.h.

Field Botany Laboratory.

BIOL 3780 General Ecology 5 s.h.

Examination of ecological principles affecting species distributions, interactions and biodiversity; dynamics of populations, communities and ecosystems; life history evolution; origin, maintenance and loss of genetic variation; mechanisms of speciation and extinction; experimental design and analysis. Three hours lecture, four hours lab.

Prereq.: BIOL 2602.

BIOL 3780L General Ecology Laboratory 0 s.h.

General Ecology Laboratory.

BIOL 4800 Bioinformatics 3 s.h.

Fundamentals of the theories and applications of bioinformatics. Topics include the tools and databases used to analyze DNA and protein sequences and the evolutionary relationships between sequences from different organisms. Three hours of lecture.

Prereq.: BIOL 3721 or BIOL 3759.

BIOL 4800L Bioinformatics Laboratory 1 s.h.

Learn how to use common bioinformatics tools and how to access public database to retrieve DNA, RNA, and protein sequence data, and perform functional and structural analysis of these sequences.

Prereq.: BIOL 3721 or BIOL 3759.

BIOL 4801 Environmental Microbiology 4 s.h.

The occurrence, detection, and control of microbes, including bacteria and viruses, in food, water, and the environment. Two hours lecture, four hours lab.

Prereq.: BIOL 3702.

BIOL 4801L Environmental Microbiology Laboratory 0 s.h.

Environmental Microbiology Laboratory.

BIOL 4802 Ecology of Lakes 3 s.h.

A study of the physical, chemical, biological, and ecological structure and function of lake ecosystems.

Prereq.: 20 s.h. of BIOL and/or GES, or permission of instructor.

BIOL 4803 Stream Ecology 3 s.h.

A study of the physical, chemical, biological, and ecological structure and function of stream ecosystems, and of their associated riparian zones.

Prereq.: 20 s.h. of BIOL and/or GES, or permission of instructor.

BIOL 4805 Ichthyology 3 s.h.

Ecology, evolution, and taxonomy of fishes, especially those of Midwestern United States. Two hours lecture, two hours lab.

Prereq.: BIOL 3741.

BIOL 4805L Ichthyology Laboratory 0 s.h.

Ichthyology Laboratory.

BIOL 4806 Ecosystem Field Ecology 4 s.h.

Students will learn about destination ecosystems, including associated organisms, interactions, physical, chemical, and climatic conditions, culture, and human impacts. Can be taken more than once for different destinations. Students must be in good health, hike, swim, and handle primitive conditions. This course involves travel expenses in addition to lab fees.

Prereq.: permission from instructor.

Coreq.: 3000-level course.

BIOL 4809 The Human Microbiome 3 s.h.

Covers microbial communities and their interactions associated with the human host. Scientific literature on the identity and roles of microbes associated with the human gut, oral cavity, skin, genital-urinary tract and respiratory system will be reviewed, presented, and discussed.

Prereq.: BIOL 3702.

BIOL 4811 Comparative Biomechanics 4 s.h.

Overview of biomechanical principles involved with the structure and function of animals. Topics include mechanical properties of biomaterials, comparative muscle architecture and physiology, and locomotor mechanisms of human walking and running. Three hours lecture, two hours lab.

Prereq.: BIOL 2602 or BIOL 3705, and PHYS 1501 or PHYS 2610.

BIOL 4811L Comparative Biomechanics Laboratory 0 s.h.

Comparative Biomechanics Laboratory.

BIOL 4814 Hormones & Behavior 3 s.h.

A comparative study of the hormone-behavior interactions in animals. Topics include endocrine signaling, homeostasis and behavior, and neuroendocrine control of reproductive and social behavior. 3.0 s.h.

Prereq.: BIOL 3711 or BIOL 3730, or permission of instructor.

BIOL 4818 Microbiome Gut Brain Axis 3 s.h.

This course examines bidirectional interactions between the host gut microbiome community and the host central nervous system (CNS), via a complex neural, endocrine, immune, and humoral network. The class will cover associations between the gut microbiome, gut function, and a wide spectrum of CNS disorders, emotions, and stress response, with a primary focus on evaluating various dietary regimes and dietary probiotic intervention strategies.

Prereq.: BIOL 4809 or by permission of instructor.

BIOL 4822 Principles of Pharmacology 3 s.h.

Overview of drugs used for the diagnosis, prevention, and treatment of disease. Topics include mechanisms of action, therapeutic and adverse drug effects, and clinical uses for each drug category.

Prereq.: BIOL 3730.

BIOL 4823 Cancer Biology 2 s.h.

This course will present the student with the comprehensive body of knowledge concerning cancer biology. It will draw upon all areas of biological sciences; from environmental causal factors to the molecular mechanisms underlying tumor cell formation and development of malignant tumors. The scientific basis of therapies will be explored.

Prereq.: Junior standing.

BIOL 4829 Microbial Physiology 3 s.h.

This course synthesizes material covered in introductory microbiology and cell and molecular biology. Topics include biomolecule synthesis, molecular biology, bacterial genetics, gene expression, energy production photosynthesis, bacteriophages and microbial stress response.

Prereq.: BIOL 3702 or BIOL 3711.

BIOL 4839 Selected Topics in Physiology 1 s.h.

Advanced study of topics in physiology not covered in depth in other physiology courses. May be repeated twice up to 2 s.h.

Prereq.: BIOL 3730.

BIOL 4848 Biology of Fungi 3 s.h.

Examination of fungal and fungal-like organisms with emphasis placed upon their taxonomy, phylogenetic relationships, structure, function, physiology, genetics, and ecology. Exploration of their role in agriculture, medicine, and scientific research.

Prereq.: BIOL 2602 or graduate standing.

BIOL 4849 Medical Mycology 3 s.h.

Survey of infectious diseases caused by fungi including their etiology, epidemiology, histopathology, diagnosis, and treatment. Host-parasite interactions and the environmental and molecular factors that contribute to establishment of fungal disease in humans and animals.

Prereq.: BIOL 2602.

BIOL 4850 Problems in Biology 1-3 s.h.

Special biological problems for which materials and equipment are available and for which the student is qualified.

Prereq.: Senior standing or consent of the chairperson.

BIOL 4861 Senior Biology Capstone Experience 2 s.h.

A capstone experience for the major in Biological Sciences (B.A. or B.S. degree).

Prereq.: Senior status in Biological Sciences, completion of at least one 3700 and 4800 level laboratory course.

Gen Ed: Capstone.

BIOL 4866 Forest Ecology 4 s.h.

A study of the structure, function, and management/conservation of forest ecosystems, including the biology and taxonomy of woody plants. Major emphasis on eastern North America.

Prereq.: 20 s.h. BIOL or GES, or combination thereof, or PI.

Coreq.: BIOL 4866L.

BIOL 4866L Forest Ecology Laboratory 0 s.h.

Forest Ecology Laboratory.

Prereq.: 20 semester hours BIOL or GES, or combination thereof, or PI.

Coreq.: BIOL 4866.

BIOL 4867 Stem Cell Biology 3 s.h.

This course deals with the study of stem cells and their role in biology. Developmental aspects of stem cells will be presented. The relevance of stem cells to medicine and applied biology will be discussed.

Prereq.: BIOL 3711 or BIOL 4890 or consent of instructor.

BIOL 4878 Conservation Biology 3 s.h.

A socioeconomic, political and ecological approach to issues associated with the maintenance and value of biodiversity and ecosystem services; consequences of anthropogenic climate change, fragmentation, overharvesting, extinction, and invasion of non-native species; biofuels; ecological restoration, nature reserve design and sustainability. Three hours lecture.

Prereq.: BIOL 3759 or BIOL 3780 or permission of instructor.

BIOL 4890 Molecular Genetics 3 s.h.

Examination of DNA structure, DNA replication, transcription, translation, RNA processing, and gene control in both prokaryotes and eukaryotes.

Prereq.: BIOL 3711 or BIOL 3721.

BIOL 4890L Molecular Genetics Laboratory 1 s.h.

Introduction to basic molecular techniques such as transformation, use of restriction enzymes, agarose gel electrophoresis, and polymerase chain reaction (PCR). Three hours lab.

Prereq.: BIOL 4890 or concurrent.

BIOL 4896 Introduction to Biomedical Research 2 s.h.

The class will introduce students to processes and strategies at the core of modern biomedical research. Students will develop an understanding of experimental design, experimental implementation, data evaluation and communication.

Prereq.: BIOL 3730.

Cross-Listed: BIOL 6904.

BIOL 4899 Internships in the Biological Sciences 2 s.h.

Internships integrate theory and practice through supervised learning experiences. Internships are available in any area of the biological/biomedical sciences, including field research and analytical, clinical, or research laboratories. Students submit a proposal of the internship, maintain a journal of experiences, and submit a final project paper.

Prereq.: Junior or senior standing in Biological Sciences and permission of the chairperson.

BIOL 5806 Field Ecology 4 s.h.

Field study involving quantitative methods for the collection, analysis, and interpretation of ecological data in populations and communities. Pre-field trip lectures, specified experiments, independent study, a written report, and an oral presentation of the independent study project. Required off-campus travel. Field conditions may be rigorous and/or primitive.

Prereq.: BIOL 3780.

BIOL 5811 Ornithology 4 s.h.

Structure, physiology, behavior, ecology, and evolution of birds. Natural history of common bird species and important bird groups, especially those in Ohio. Basic methods and skills for field study of birds. Three hours lecture, three hours lab.

Prereq.: BIOL 3741.

BIOL 5811L Ornithology Laboratory 0 s.h.

Ornithology Laboratory.

BIOL 5813 Vertebrate Histology 4 s.h.

The microscopic study of mammalian tissues and organs. Three hours lecture, two hours lab.

Prereq.: BIOL 3711 or BIOL 3730.

BIOL 5813L Vertebrate Histology Laboratory 0 s.h.

Vertebrate Histology Laboratory.

BIOL 5823 Advanced Eukaryotic Genetics 3 s.h.

Mechanisms and control of eukaryotic DNA replication, current advances in understanding the genetics basis of cancer and other genetic diseases, problems and benefits of the various eukaryotic genome projects (human and others), gene therapy and genetic engineering in animals and plants.

Prereq.: BIOL 3721 and BIOL 4890.

BIOL 5824 Behavioral Neuroscience 4 s.h.

Explores the biological basis of human experience and behavior. Topics include basic neuroanatomy and neuropharmacology, emotions, learning and memory, sleep and biological rhythms, reproductive behavior, and communication. Three hours lecture, three hours lab.

Prereq.: BIOL 3730.

Coreq.: BIOL 5824L.

BIOL 5824L Behavioral Neuroscience Laboratory 0 s.h.

Behavioral Neuroscience Laboratory.

Prereq.: BIOL 3730.

Coreq.: BIOL 5824.

BIOL 5827 Gene Manipulation 2 s.h.

Techniques of modern molecular biology including the use of restriction enzymes, plasmid and phage vectors, Southern blots and the polymerase chain reaction (PCR). Introduction and manipulation of foreign DNA in bacterial and eukaryotic systems. Six hours lab.

Prereq.: BIOL 4890.

BIOL 5833 Mammalian Endocrinology 3 s.h.

Detailed examination of the hormones of the hypothalamus, pituitary, thyroid, adrenal pancreas, gonads, and other organs with putative endocrine function. Focus on the physiological functions of hormones and their mechanisms of action with emphasis on the human.

Prereq.: BIOL 3730.

BIOL 5840 Advanced Microbiology 3 s.h.

Molecular mechanisms for virulence of pathogenic organisms.

Prereq.: BIOL 3702 or equivalent.

BIOL 5844 Physiology of Reproduction 3 s.h.

Current concepts of reproductive processes and their physiological control in mammalian systems.

Prereq.: BIOL 3730.

BIOL 5853 Biometry 3 s.h.

Application of fundamental theory and procedures to the statistical analysis of biological data.

Prereq.: 20 s.h. of Biological Sciences.

BIOL 5858 Computational Bioinformatics 3 s.h.

Project-based learning course with a focus on using a Linux environment and PERL for processing large genomic datasets and data mining. Relational database and BioPERL will also be introduced for genomic data analysis and display. Three hours of combined lecture and lab per week.

BIOL 5888 Environmental Biotechnology 3 s.h.

This course provides an overview of environmental biotechnology, engineering fundamentals, theory, and principles in application of biological treatment to solve environmental problems. Topics include relevant biological, chemical, and ecological processes, biological treatments of waste, land, and water. Environmental biotechnology is an essential tool to help humanity face enormous environmental health challenges, especially pollution, climate change, loss of habitat, and resulting threats to wildlife and human populations, their health outcomes and survival potential. This course is designed to summarize modern insights regarding evaluation and applications of environmental biotechnology.

Prereq.: CHEM 3719 or CEEN 3736.

BIOL 5888L Environmental Biotechnology Laboratory 0 s.h.

Environmental Biotechnology Laboratory.

Bachelor of Arts in Biological Sciences

The Bachelor of Arts is recommended only for those students who plan careers in business or secondary education careers related to the Biological Sciences. A minimum of 32 S.H. in Biological Sciences is required for the BA degree.

All biological sciences majors must take the courses as listed for the BA degree in the curriculum sheet.

The BA degree in biological sciences requires a minimum of 32 semester hours from within the Department of Biological Sciences. (Courses at the 1000 level are not applicable to a Bachelor of Arts degree.)

All biological sciences majors must take the following courses for the BA degree:

COURSE	TITLE	S.H.
FIRST YEAR STUDENT EXPERIENCE		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	

ENGL 1551	Writing 2	3
Mathematics Requirement (met through MATH in major)		
Arts and Humanities (6 s.h.)		
Natural Sciences (2 courses, 1 with lab) (6-7 s.h.) ¹ Met through science courses in the major		
Social Science (6 s.h.)		
General Education Electives (9 s.h.)		
CMST 1545	Communication Foundations	3
Any 2 Gen Ed Courses (6 s.h.) Met with CHEM courses in major		
Foreign Language Requirement		
FNLG 1501	Conversational Foreign Language 1	3
FNLG 1502	Conversational Foreign Language 2	3
Major Requirements		
BIOL 2601 & 2601L	General Biology 1: Molecules and Cells and General Biology I: Molecules and Cells Laboratory ¹	4
BIOL 2602 & 2602L	General Biology 2: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory ¹	4
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
Select one course from two of the following groups:		7-8
Group A		
BIOL 3702	Microbiology	
BIOL 3702L	Microbiology Laboratory	
BIOL 3711	Cell Biology: Fine Structure	
Group B		
BIOL 3725	Mammalogy	
BIOL 3730	Human Physiology	
Group C		
BIOL 3740	Plant Diversity	
BIOL 3741	Animal Diversity	
Select 16 semester hours of courses in the Department of Biological Sciences at the 3000-5000 level. At least two of these courses must have a laboratory component.		16
Capstone Course		
BIOL 4861	Senior Biology Capstone Experience	2
Electives		
Strongly recommended:		
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	
PHYS 1501 & 1501L	Fundamentals of Physics 1 and Fundamentals of Physics Laboratory 1	
PHYS 1502 & 1502L	Fundamentals of Physics 2 and Fundamentals of Physics Laboratory 2	
Minor Requirement		
Select courses counting toward minor		12-18
Additional electives to meet 120		39
Total Semester Hours		128-137

¹ The general biology courses are prerequisites for genetics and all core and upper-division courses.

Students seeking admission to medically related professional schools should complete the BS program.

The mathematics, physics and chemistry courses may not be taken under the credit/no credit option.

Recommended core curriculum meeting science requirements of medically related and other professional schools.

Year 1

Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	

ENGL 1550 or ENGL 1549	Writing 1 (electives may be substituted if excused based on results of Placement Test) or Writing 1 with Support	3-4
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BIOL 2601	General Biology 1: Molecules and Cells	3
CHEM 1515R	Recitation for General Chemistry 1 (opt)	1
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
GER AL/SS/Elective		3

Semester Hours 15-17

Spring

ENGL 1551	Writing 2 (electives may be substituted if excused based on results of Placement Test)	3
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BIOL 2602 & 2602L	General Biology 2: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
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CHEM 1516R	Recitation for General Chemistry 2 (opt)	1
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
GER elective (COMM 1545 recommended)		3

Semester Hours 15

Year 2

Fall

Biology Core Course		
Select one of the following:		3

BIOL 3730	Human Physiology	
BIOL 3711	Cell Biology: Fine Structure	
BIOL 3740	Plant Diversity	

MATH 1570 or MATH 1571	Applied Calculus 1 or Calculus 1	4
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GER Elective (AL)		3
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General Electives		3
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Select an additional 3 s.h.		3
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Semester Hours 16

Spring

Biology Core Course		
Select one of the following:		3-4

BIOL 3730	Human Physiology	
BIOL 3721	Genetics	
BIOL 3741	Animal Diversity	

GER Elective (SI)		3
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FNLG 1501	Conversational Foreign Language 1	3
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General Electives		6
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Semester Hours 15-16

Year 3		
Fall		
BIOL 3700-5800 course w/ lab	4	
GER electives (PS), (SI)	6	
FNLG 1502 Conversational Foreign Language 2	3	
General Elective	5	
Semester Hours	18	
Spring		
BIOL 3700-5800 course w/ lab	4	
BIOL 3700-5800 course	3	
GER electives (AL), (PS)	6	
General Elective	3	
Semester Hours	16	
Year 4		
Fall		
BIOL 3700 course	3	
General Electives	9-12	
Semester Hours	12-15	
Spring		
BIOL 3700-5800 course	4	
BIOL 4861 Senior Biology Capstone Experience	2	
General Electives	7-10	
Semester Hours	13-16	
Total Semester Hours	120-129	

Learning Outcomes

The department’s learning outcomes for the BA in biology are as follows:

- Students will be fluent in the terminology of the biological sciences.
- Students will be competitive for entry into the workplace.
- Students will be familiar with the scientific process and the process of hypothesis testing.
- Students should be able to reason critically, both individually and in collaboration with other students.

Bachelor of Science in Biological Sciences

(330) 941-3608

Room 4037

Ward Beecher Science Hall

The Bachelor of Science degree is recommended for those who wish to pursue careers in the biological sciences, medicine, dentistry, or other related biotech fields. A minimum of 37 s.h. in Biological Sciences is required for the BS degree.

The BS degree in biological sciences requires a minimum of 37 semester hours from within the Department of Biological Sciences. (Courses at the 1000 level are not applicable to a Bachelor of Science degree.):

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4

or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics Requirement (Met with MATH 1570, 1571 or 1581 in the major)		
Arts and Humanities (Select 2 courses 6 s.h.)		6
Social Science (Select 2 courses 6 s.h.)		6
Natural Sciences: (This requirement is satisfied by the major requirements below)		
General Education Electives (9 s.h.)		
CMST 1545	Communication Foundations	3
2 Gen Ed Courses Met with Courses in Major (6 s.h.)		0
Major Specific Courses		
BIOL 2601	General Biology 1: Molecules and Cells	3
BIOL 2601 & 2601L	General Biology 1: Molecules and Cells and General Biology I: Molecules and Cells Laboratory	4
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
BIOL 2601L	General Biology I: Molecules and Cells Laboratory	1
BIOL 2602	General Biology 2: Organisms and Ecology	3
BIOL 2602L	General Biology: Organisms and Ecology Laboratory	1
BIOL 3721	Genetics	3
or BIOL 3759	Evolution	
BIOL 4861	Senior Biology Capstone Experience	2
Electives in Biology		
24 s.h. of BIOL courses at the 3000-5000 level. At least two of these courses must have a laboratory component, with at least one at the 4800-5800 level.		24
Required Support Courses		
Mathematics - take one of the following courses (4 s.h.):		4
MATH 1570	Applied Calculus 1	
MATH 1571	Calculus 1	
MATH 1581	Calculus for the Health Sciences 1	
Statistics - take one of the following courses (3-4 s.h.):		3-4
BIOL 5853	Biometry	
STAT 3717	Statistical Methods	
Physics - take one of the following sequences (9-10 s.h.):		9-10
PHYS 1501	Fundamentals of Physics 1	
PHYS 1501L	Fundamentals of Physics Laboratory 1	
PHYS 1502	Fundamentals of Physics 2	
PHYS 1502L	Fundamentals of Physics Laboratory 2	
OR		
PHYS 2610	General Physics 1	
PHYS 2610L	General Physics Laboratory 1	
PHYS 2611	General Physics 2	
PHYS 2611L	General Physics laboratory 2	
Chemistry (16 s.h.):		
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
CHEM 3719	Organic Chemistry 1	3
CHEM 3719L	Organic Chemistry 1 Laboratory	1
CHEM 3720	Organic Chemistry 2	3
CHEM 3720L	Organic Chemistry 2 Laboratory	1
Minor and Electives to reach 120 (Minor is required)		21
Total Semester Hours		120-124

Enrollment in the recitation sections are recommended for PHYS 1501 and the above Chemistry courses. Recitation Chemistry courses may not count toward the Chemistry minor.

Year 1		
Fall		
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	S.H. 1-2
ENGL 1550 or ENGL 1549	Writing 1 (electives may be substituted if excused based on results of Placement Test) or Writing 1 with Support	3-4
BIOL 2601	General Biology 1: Molecules and Cells	3
BIOL 2601L	General Biology I: Molecules and Cells Laboratory	1
Gen Ed SS		3
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
Semester Hours		15-17
Spring		
ENGL 1551	Writing 2 (electives may be substituted if excused based on results of Placement Test)	3
BIOL 2602	General Biology 2: Organisms and Ecology	3
BIOL 2602L	General Biology: Organisms and Ecology Laboratory	1
CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
CMST 1545		3
Semester Hours		14
Year 2		
Fall		
General Elective		3
Biology Elective		4
MATH 1570 or MATH 1571 or MATH 1581 or MATH 1581H	Applied Calculus 1 or Calculus 1 or Calculus for the Health Sciences 1 or Honors Calculus for the Health Sciences 1	4
BIOL 3721 or BIOL 3759	Genetics (CT) or Evolution	3
CHEM 3719	Organic Chemistry 1	3
CHEM 3719L	Organic Chemistry 1 Laboratory	1
Semester Hours		18
Spring		
Biology Elective		4
STAT 3717 or BIOL 5853	Statistical Methods or Biometry	3-4
Gen Ed SS		3
CHEM 3720	Organic Chemistry 2	3
CHEM 3720L	Organic Chemistry 2 Laboratory	1
Semester Hours		14-15
Year 3		
Fall		
BIOL 3700-5800 course		4
Gen Ed AH		3
PHYS 1501	Fundamentals of Physics 1	4
PHYS 1501L	Fundamentals of Physics Laboratory 1	1

Gen Ed AH		3
Semester Hours		15
Spring		
BIOL 3700-5800 course		4
Elective		3
PHYS 1502	Fundamentals of Physics 2	3
PHYS 1502L	Fundamentals of Physics Laboratory 2	1
Elective		3
Elective		3-4
Semester Hours		17-18
Year 4		
Fall		
BIOL 5800 course		4
General Electives		5
General Electives		6
Semester Hours		15
Spring		
BIOL 3700-5800 course		4
BIOL 4861	Senior Biology Capstone Experience	2
General Electives		6
Semester Hours		12
Total Semester Hours		120-124

Learning Outcomes

The student learning outcomes for the major in biological sciences are as follows:

- Students will be prepared for entry into professional health or research related schools, post-graduate (MS, PhD) programs, or the work place.
- Students will master the subjects found on standardized tests (molecular biology, physiology, immunology) required for entrance into professional schools (MCAT, GRE, etc.).
- Students will demonstrate an understanding of fundamental biological principles and their application.
- Students should be able to reason critically, both individually and in collaboration with other students.

Bachelor of Science in Biological Sciences BaccMed Track

The BS in Biological Sciences - BaccMed Track degree is competitive program recommended for those who wish to pursue careers in medicine.

Learning Outcomes

The student learning outcomes for the major in Biological Sciences are as follows:

- Students will be able to synthesize concepts in biology and sub-disciplines of biology (Students will know, be able to explain, and synthesize concepts in biology and sub-disciplines of biology).
- Students will be able to analyze data and information in biology using statistical analysis, technology and computer-based analytical algorithms.
- Students will be able to critique or evaluate information in biology or sub-disciplines of biology (Students will be able think critically about information in biology or sub-disciplines of biology).
- Students will be able to communicate information in biology using appropriate vocabulary and syntax.

- Students will be prepared for entry into professional health or research related schools, post-graduate (MS) programs, or the workplace.

The BS degree in Biological Sciences requires a minimum of 37 semester hours from within the Department of Biological Sciences. (Courses at the 1000-level are not applicable to a BS degree.) Required courses may not be taken as credit/no credit.

All Biological Science majors following the BaccMed track must satisfy the following requirements:

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
HONR 1500	Intro to Honors	1
HONR 2601P	Honor Seminar Campus Community Partnerships	1-2
General Education Requirements		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
MATH 1581H	Honors Calculus for the Health Sciences 1	4
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model.		
Listed GER courses below are required for this major.		
Arts and Humanities		6
Natural Science (2 courses, one must include a lab) (8 s.h.)		
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	
Social Science		
SOC 1500	Introduction to Sociology	3
PSYC 1560	General Psychology	3
General Education Electives (9 s.h.)		
CMST 1545	Communication Foundations	3
PHLT 1531	Fundamentals of Public Health	3
Any Gen Ed Course		3
Major Required Courses		
Required BIOL Courses (21 s.h.):		
BIOL 2603H	Honors Integrated Biology	4
BIOL 3711	Cell Biology: Fine Structure	3
BIOL 3721	Genetics	3
BIOL 3730	Human Physiology	4
BIOL 3730L	Human Physiology Laboratory	1
BIOL 3705	Introduction to Human Gross Anatomy	4
BIOL 3705L	Introduction to Human Gross Anatomy Laboratory	0
BIOL 4861	Senior Biology Capstone Experience	2
In addition to the 21 s.h. Required BIOL Courses, students must take a minimum of 16 s.h. elective BIOL courses. These must be 3700 level or higher. A minimum of two BIOL electives must have a laboratory component. One of these labs must be at 4800 level or above.		16
Required Major Support Courses (50-51 s.h.):		
Chemistry		
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
CHEM 3719	Organic Chemistry 1	3
CHEM 3719L	Organic Chemistry 1 Laboratory	1
CHEM 3720	Organic Chemistry 2	3
CHEM 3720L	Organic Chemistry 2 Laboratory	1

CHEM 3785	Biochemistry 1	3
Physics - Take One of the Following Sequences		9-10
PHYS 1501	Fundamentals of Physics 1	
PHYS 1501L	Fundamentals of Physics Laboratory 1	
PHYS 1502	Fundamentals of Physics 2	
PHYS 1502L	Fundamentals of Physics Laboratory 2	
OR		
PHYS 2610	General Physics 1	
PHYS 2610L	General Physics Laboratory 1	
PHYS 2611	General Physics 2	
PHYS 2611L	General Physics laboratory 2	
Other Major Required Courses:		
STAT 3717	Statistical Methods (or Biol 5853, Biometry, 4 sh)	4
PHLT 3709	Elements of Urban Environmental Health Practices	3
SOC 3745	Sociology of Health, Illness, and Healthcare	3
HAHS 4809H	Honors Primary Care Medical Practices	2
HONR 4890C	Senior Honors Thesis: Capstone	1
Free Electives	Additional coursework as needed to reach 120 s.h.	9
Total Semester Hours		120-122

Minor in Biological Sciences

COURSE	TITLE	S.H.
Required Courses		
BIOL 2601	General Biology 1: Molecules and Cells	3
BIOL 2601L	General Biology I: Molecules and Cells Laboratory	1
BIOL 2602	General Biology 2: Organisms and Ecology	3
BIOL 2602L	General Biology: Organisms and Ecology Laboratory	1
Core Courses		
Select one of the following:		3-5
BIOL 3711	Cell Biology: Fine Structure	
BIOL 3721	Genetics	
BIOL 3730 & 3730L	Human Physiology and Human Physiology Laboratory	
BIOL 3740 & 3740L	Plant Diversity and Plant Diversity Laboratory	
BIOL 3741 & 3741L	Animal Diversity and Animal Diversity Laboratory	
One 4800-5800 level course with lab		4-5
One 3700-5800 level course		3
Total Semester Hours		18-21

Certificate in Molecular Biology and Biotechnology

The Certificate in Molecular Biology and Biotechnology is designed to better prepare undergraduate and post-baccalaureate students interested in pursuing the following areas:

1. Advanced degrees molecular biology or applied biosciences and bioengineering.
2. Professional degrees in biomedical sciences, biochemistry and gene technology programs.
3. Employment in industry with a focus on biotechnology.

Many of the advances in Biological Sciences in the second half of the 20th century and the first decades of the 21st century have occurred in the fields of molecular biology and genetics. We have entered an era where genomic sequencing and the examination of entire biological systems is commonplace.

In this era of genomic sequencing and genetic engineering of a whole host of organisms a knowledge of Molecular biology is essential. The Bachelor of Science in Molecular Biology and Biotechnology is designed to prepare students for careers in fields where an in depth knowledge of molecular biology and biotechnology are needed.

The current Bachelor of Science in Biological Sciences is very broad. No clear track to knowledge and skills in Molecular Biology and Biotechnology is discernable. In this program students will be prepared for research or technically intensive graduate programs and career positions requiring a knowledge set and expertise in molecular biology/ biotechnology. Also students from this program that choose a public policy career will be better informed of the issues facing society in regards to molecular biology than their peers.

This program is aimed to be an interface between fundamental basic sciences and applied sciences. The degree will require almost no additional resources from the University. The Department of Biological Sciences and the STEM college already have the faculty, research base, and courses to implement this program. The Bachelors degree in Molecular Biology and Biotechnology will simply clarify for students a pathway to acquiring a specific set of skills and knowledge that are already available at Youngstown State University.

The B.S. Certificate in Molecular Biology and Biotechnology is designed to give the student a competitive edge in obtaining career opportunities in pharmaceuticals, biomedical, biotechnology, recombinant DNA technology based fields as well a broader opportunities. This is a research and techniques focused curriculum that emphasizes the molecular biology sciences.

Criteria for admission to the certificate program: Due to the research-intensive aspects of this program, a limited number of competitive candidates will be selected for participation in the Certificate. Minimum requirements for admission to the Certificate in Molecular Biology and Biotechnology are; 1) completion of the prerequisite course in the certificate curriculum and 2) a **3.0 GPA**. Admission to the program is determined by the program coordinator (Departmental Chair) after review of formal application.

To receive the certificate in Molecular Biology and Biotechnology, students must complete 35-38 semester hours and maintain a grade point average of 3.0 or better in their required and elective courses in the certificate program.

Prerequisites for admission to the Molecular Biology and Biotechnology certificate.

These prerequisite courses are designed to select for the students that will be successful in the molecular biology and biotechnology fields. They all apply to the BS or BA degree program.

COURSE	TITLE	S.H.
BIOL 2601 & 2601L	General Biology 1: Molecules and Cells and General Biology I: Molecules and Cells Laboratory	4
BIOL 2602 & 2602L	General Biology 2: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
BIOL 3721	Genetics	3
BIOL 3702 & 3702L	Microbiology and Microbiology Laboratory	4
OR		
BIOL 3711	Cell Biology: Fine Structure	3
Total of Prerequisites BIOL courses: 14-15 s.h.		

Required Certificate Courses

COURSE	TITLE	S.H.
BIOL 4890	Molecular Genetics	3
BIOL 4800 & 4800L	Bioinformatics and Bioinformatics Laboratory	4

BIOL 4850 A-Z Problems Course. Pick one course number specific to the topic/instructor		1 s.h. then 2 s.h. with same instructor
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BIOL 5827	Gene Manipulation	2
CHEM 3785	Biochemistry 1	3
or BIOL 4829	Microbial Physiology	
Subtotal of required BIOL courses: 15 s.h.		

Biochemistry 1 can replace the chemistry recitation sections in satisfying the Chemistry minor. These courses are designed to give the student a firm foundation for molecular biology and the applied sciences in molecular biology.

Elective certificate BIOL courses. Pick at least two lecture courses and one lab course from the following (6-8 s.h.)

COURSE	TITLE	S.H.
BIOL 3759	Evolution	3
BIOL 3703	Clinical Immunology	3
BIOL 3703L	Clinical Immunology Laboratory	1
BIOL 4890L	Molecular Genetics Laboratory	1
BIOL 4837		1
BIOL 4836		3
BIOL 4801 & 4801L	Environmental Microbiology and Environmental Microbiology Laboratory	4
BIOL 3730	Human Physiology	4
		or 3
		or 3
or BIOL 3745	Plant Physiology	
or BIOL 4829	Microbial Physiology	
BIOL 4893		2
BIOL 4822	Principles of Pharmacology	3
BIOL 4823	Cancer Biology	2
BIOL 4848	Biology of Fungi	3
BIOL 5823	Advanced Eukaryotic Genetics	3
BIOL 5840	Advanced Microbiology	3
Subtotal of elective BIOL courses: 6-8 s.h.		

Learning Outcomes

- The student will learn research approaches to modern questions in molecular biology by experiencing a research intensive environment.
- The student will learn and master scientific approaches and perspective of problems involving the molecular biology of living organisms. With his molecular perspective and context, will develop in the student a high level of problem solving ability.
- The student will become skilled in biotechnology techniques and methods.

Chemical Sciences
Chemistry

Ward Beecher Science Hall, Room 5053
Youngstown State University

Youngstown, OH 44555

(330) 941-3664

Dr. Tim R. Wagner, Chair (trwagner@ysu.edu)

The Division of Chemistry within the Department of Chemical and Biological Sciences offers the BS & BA degrees in Chemistry, and the BS degree in Biochemistry. The Division also has an active MS program, offering both thesis and non-thesis options. Our 4 + 1 program gives students the option of completing the Bachelors and Masters Programs in five years.

The division is exceptionally well-equipped in research instrumentation, and offers a rich, hands-on 'learning through research' experience for its students. State-of-the-art laboratory facilities include NMR, X-ray diffraction (powder and single crystal), electron microscopy (scanning & transmission), and a variety of analytical instrumentation. As part of the College of STEM, the division also participates in the YSU Ph.D. program in Materials Science and Engineering.

Our BS Chemistry program is accredited by the American Chemical Society (ACS), one of the largest scientific societies in the world. Students completing an accredited program are considered to be especially well-trained for the chemistry profession, thus the BS degree is recommended for those students who plan to make a career in industrial chemistry or pursue a graduate degree in chemistry. The BA degree is recommended for those who plan to go into a medical, pharmacy, or dental field and for those who plan to enter business or secondary education careers related to chemistry. The BS Biochemistry degree integrates the chemical and biological sciences for students interested in developing a deep understanding of the molecular and chemical processes of living organisms. Students completing this program will be especially well-prepared for further studies in medicine or graduate school programs in biochemistry, or for related careers in the chemical industry.

Each student majoring in chemistry or biochemistry will be assigned a STEM advisor, who will discuss the overall curriculum necessary for your degree program and will assist you in the preparation of a suitable course sequence and choice of a minor or minors if applicable.

For further information, click on the tabs above or visit the Chemistry (<http://chemistry.ysu.edu/>) home page.

Chair

Timothy R. Wagner, Ph.D., Professor, Chair

Professor

Ali Abbaspourtamijani, Ph.D., Assistant Professor

Ganesaratnam K. Balendiran, Ph.D., Professor

Susan Citrak, Ph.D., Assistant Professor

Douglas T. Genna, Ph.D., Professor

Allen D. Hunter, Ph.D., Professor

John A. Jackson, Ph.D., Professor

Brian D. Leskiw, Ph.D., Professor

Clovis Linkous, Ph.D., Professor

Peter Norris, Ph.D., Professor

Michael A. Serra, Ph.D., Associate Professor

Josef B. Simeonsson, Ph.D., Professor

Wim F.A. Steelant, Ph.D., Professor

Nina V. Stourman, Ph.D., Professor

Lecturer

Jennifer R. Decker, Ph.D., Lecturer

Janelle Russell, M.S., Senior Lecturer

Majors

- BS in Chemistry (p. 379)
- BS in Chemistry 4+1 Track (p. 381)
- BA in Chemistry (p. 376)
- BA in Chemistry 4+1 Track (p. 378)
- BS in Biochemistry (p. 383)
- BS in Biochemistry 4+1 Track (p. 384)
- BS in Biochemistry, BaccMed Track (p. 386)

Minors

- Chemistry Minor (p. 388)

CHEM 1500 Chemistry in Modern Living 3 s.h.

Introduction to basic chemical concepts, the scientific method, and the impact of chemistry on human life and society. Examples may include water treatment, air quality, plastics, drugs, cosmetics, energy resources, food, and the chemical basis of life. Not intended for Chemistry majors.

Gen Ed: Natural Science.

CHEM 1500L Chemistry in Modern Living Laboratory 1 s.h.

Introduction to basic laboratory techniques designed to supplement CHEM 1500. Three hours per week. Concurrent with: CHEM 1500.

CHEM 1501 An Introduction to Chemistry 3 s.h.

Metric units, dimensional analysis, chemical nomenclature, the mole concept, chemical stoichiometry. Emphasis on problem solving and the mathematics required for success in the study of chemistry. For students without high school chemistry and others needing preparation for CHEM 1510 or CHEM 1515. Three hours lecture, no laboratory.

Prereq.: "C" or better in MATH 1510 or Level 20 on the MPT or one unit each of high school algebra and geometry.

CHEM 1504 Introductory Applied Chemistry for Water/Wastewater Treatment 3 s.h.

This course presents the basic chemistry and treatment methodologies used in drinking water and wastewater operations. The course is a comprehensive water chemistry course and includes fundamentals of atomic structure, dilution calculations, wastewater chemistry, coagulation, softening and BOD, and chlorination, DBP and corrosion control.

Prereq.: none.

CHEM 1510 Chemistry for the Allied Health Sciences 4 s.h.

An overview of general, organic, and biochemistry. General chemistry introduces basic principles of chemistry. Organic chemistry examines the physical and chemical properties of molecules based on their functional groups. Biochemistry applies these chemistry concepts to the living organism. Intended for majors in allied health and other applied sciences. Three hours lecture, three hours laboratory.

Prereq.: "C" or better CHEM 1501 or equivalent, Level 20 or better on the MPT.

Gen Ed: Natural Science.

CHEM 1510L Chemistry for the Allied Health Sciences Laboratory 0 s.h.

Laboratory for the allied health chemistry course. Concurrent: CHEM 1510.

CHEM 1510R Chemistry for the Allied Health Sciences Recitation 1 s.h.

Discussion and problem solving exercises to complement and enhance study in CHEM 1510. Concurrent: CHEM 1510.

CHEM 1515 General Chemistry 1 3 s.h.

An introduction to the fundamental principles of chemistry, including measurement and calculation; chemical stoichiometry; the properties of gases; atomic and molecular structure; bonding; thermochemistry; and periodic properties. Intended for majors in the natural sciences and engineering. Three hours lecture.

Prereq.: "C" or better in CHEM 1501 or equivalent; "C" or better in MATH 1513 or "C" or better in MATH 1510.

Coreq.: CHEM 1515L; CHEM 1515R if major or repeating CHEM 1515.

Gen Ed: Natural Science.

CHEM 1515L General Chemistry 1 Laboratory 1 s.h.

Quantitative experiments focusing on topics covered in CHEM 1515 lectures. Three hours lab.

Prereq.: "C" or better in CHEM 1501 or equivalent; "C" or better in MATH 1513 or "C" or better in MATH 1510.

Coreq.: CHEM 1515.

CHEM 1515R Recitation for General Chemistry 1 1 s.h.

Discussion and problem solving based on current material in CHEM 1515. Required for chemistry majors or for those repeating CHEM 1515. Concurrent with: CHEM 1515.

CHEM 1516 General Chemistry 2 3 s.h.

A continuation of the study of the principles of chemistry, including solution properties; acids and bases; chemical equilibrium; thermodynamics; reaction kinetics; and electrochemistry. Intended for majors in the natural sciences and engineering. Three hours lecture.

Prereq.: "C" or better in CHEM 1515 and "C" or better in CHEM 1515L.

Coreq.: CHEM 1516L; CHEM 1516R if major or repeating CHEM 1516.

Gen Ed: Natural Science.

CHEM 1516L General Chemistry 2 Laboratory 1 s.h.

Quantitative experiments focusing on topics covered in CHEM 1516 lectures. Three hours lab.

Prereq.: "C" or better in CHEM 1515L; "C" or better in CHEM 1515.

Coreq.: CHEM 1516.

CHEM 1516R Recitation for General Chemistry 2 1 s.h.

Discussion and problem solving based on current material in CHEM 1516. Required for chemistry majors or for those repeating CHEM 1516. Concurrent with: CHEM 1516.

CHEM 1520 Allied Health Chemistry for Online Programs 3 s.h.

An overview of general, organic, and biochemistry. General chemistry introduces basic principles of chemistry. Organic chemistry examines the physical and chemical properties of molecules based on their functional groups. Biochemistry applies these chemistry concepts to the living organism. Intended for students in the accelerated RN to BSN program.

Gen Ed: Natural Science.

CHEM 2604 Quantitative Analysis 5 s.h.

Chemical equilibrium, stoichiometry, theory of errors, and volumetric and gravimetric procedures as applied to quantitative determinations. Introduction to electroanalytical, chromatographic and spectrophotometric methods. Emphasis on development of technique. Three hours lecture, six hours lab.

Prereq.: CHEM 1516.

CHEM 2604L Quantitative Analysis Laboratory 0 s.h.

Quantitative Analysis Laboratory.

CHEM 2650 Introduction to Undergraduate Research 1-2 s.h.

Introduction to the methods of chemical research under the direction of a faculty member. May include literature search and analysis, instructional laboratory development, and/or original basic or applied research. May be repeated to a maximum of 4 s.h.

Prereq. or Coreq.: CHEM 1516 and approval of department chairperson.

CHEM 3719 Organic Chemistry 1 3 s.h.

Organic compounds, names, structures, reactions, and mechanisms. Three hours lecture.

Prereq.: "C" or better in CHEM 1516 and "C" or better in CHEM 1516L.

Coreq.: CHEM 3719L.

CHEM 3719L Organic Chemistry 1 Laboratory 1 s.h.

Typical techniques, preparations, and procedures of analysis of organic compounds. Three hours lab.

Prereq.: "C" or better in CHEM 1516 and "C" or better in CHEM 1516L.

Coreq.: CHEM 3719.

CHEM 3719R Organic Chemistry Recitation 1 1 s.h.

An introduction to the preparation and analysis of organic compounds. Discussion of CHEM 3719 material and approaches to problem solving. Required for chemistry majors. Concurrent with: CHEM 3719.

CHEM 3720 Organic Chemistry 2 3 s.h.

Organic compounds, names, structures, spectroscopic properties, reactions, and mechanisms. Three hours lecture.

Prereq.: "C" or better in CHEM 3719 and "C" or better in CHEM 3719L.

Coreq.: CHEM 3720L.

CHEM 3720L Organic Chemistry 2 Laboratory 1 s.h.

Typical techniques, preparations, and procedures of spectroscopic analysis of organic compounds. Three hours lab.

Prereq.: "C" or better in CHEM 3719 and "C" or better in CHEM 3719L.

Coreq.: CHEM 3720.

CHEM 3720R Organic Chemistry Recitation 2 1 s.h.

An introduction to the preparation and analysis of organic compounds. Discussion of CHEM 3720 material and approaches to problem solving. Required for chemistry majors. Concurrent with: CHEM 3720.

CHEM 3729 Inorganic Chemistry 3 s.h.

Fundamental principles underlying the structure, bonding, and properties of the elements and molecular, solid state, and coordination compounds.

Prereq. or Coreq.: CHEM 3739.

CHEM 3739 Physical Chemistry 1 3 s.h.

Principles and applications of thermodynamics and kinetics to chemical systems.

Prereq.: "C" or better in CHEM 3720, PHYS 2610, MATH 1572.

CHEM 3739L Physical Chemistry 1 Laboratory 1 s.h.

Quantitative thermodynamic and kinetic measurements of chemical systems.

Prereq. or Coreq.: CHEM 3739.

CHEM 3740 Physical Chemistry 2 3 s.h.

Principles and applications of quantum mechanics and statistical thermodynamics to chemical systems. Three hours lecture.

Prereq.: "C" or better in CHEM 3739; PHYS 2611, MATH 2673.

CHEM 3740L Physical Chemistry 2 Laboratory 1 s.h.

Spectroscopy and computational measurements of chemical systems.

Prereq. or Coreq.: CHEM 3740.

CHEM 3761 Introduction to Polymer Chemistry 1 s.h.

Survey of polymer chemistry for representative classes of organic polymers, their preparation, characterization, and structure-property relationships.

Prereq.: CHEM 3720.

CHEM 3764 Chemical Toxicology 3 s.h.

Introduction to the basic principles of toxicology; disposition of toxic agents, focus on the effect that chemical structure has on biotransformation and the mechanism of action of chemicals on living organisms. **Prereq.:** CHEM 3720.

CHEM 3785 Biochemistry 1 3 s.h.

Structure and function of proteins, nucleic acids, and carbohydrates. Includes techniques of protein purification and analysis, the study of enzyme catalysis and kinetics. Study of the organization and regulation of metabolic pathways: glycolysis, the citric acid cycle, and oxidative phosphorylation.

Prereq.: "C" or better in CHEM 3720.

CHEM 3785L Biochemistry Laboratory 1 s.h.

Analysis and separation techniques of biochemistry. Three hours lab-discussion.

Prereq. or Coreq.: CHEM 3785.

CHEM 3786 Biochemistry 2 3 s.h.

Continues the study of the organization and regulation of metabolic pathways: glycogen metabolism, the pentose phosphate pathway, amino acid, lipid, and nucleic acid metabolism. Biochemical information pathways including replication, transcription, and translation followed by the regulation of gene expression.

Prereq.: "C" or better in CHEM 3785.

CHEM 3790 Undergraduate Seminar 1 s.h.

Students participate in departmental seminars and present a seminar to the class. May be repeated once.

Prereq. or Coreq.: CHEM 2604 and CHEM 3720.

CHEM 4850 Chemistry Research 1 s.h.

Research planning, design, and execution including literature survey techniques, proposal writing, and critical scientific analysis. The student gives an oral presentation of a research proposal for CHEM 4850L, or on another topic as approved by the instructor.

Prereq.: CHEM 2604 or CHEM 3719 and approval of department chairperson.

Gen Ed: Capstone.

CHEM 4851 Chemistry Research Project 2-3 s.h.

Research participation under the direction of a faculty member. The student prepares an acceptable written report on the completed project. May be repeated to a maximum of 5 semester hours.

Prereq.: Approval of department chairperson.

CHEM 4860 Regulatory Aspects of Industrial Chemistry 2 s.h.

Roles and responsibilities of industrial chemists. Industrial hygiene and safety. Industrial chemical processes, their waste products, their environmental effects, and the treatment of pollutants. Governmental regulations relating to waste disposal, product safety, occupational safety, resource conservation, environmental protection, and problems of awareness and compliance.

Prereq.: CHEM 3720.

CHEM 4891 Special Topics 1-3 s.h.

Topics selected by the faculty from fields of current research interest or of special emphasis. May be repeated with different topics.

CHEM 5804 Chemical Instrumentation 4 s.h.

The theoretical foundations of instrumental procedures and the use of instruments in analytical work. Two hours lecture, six hours lab.

Prereq.: CHEM 3739.

CHEM 5804L Chemical Instrumentation Laboratory 0 s.h.

Chemical Instrumentation Laboratory.

CHEM 5821 Intermediate Organic Chemistry 3 s.h.

An intermediate treatment of organic chemistry building on the principles introduced at the sophomore level. Emphasis on curved arrow notation in mechanism and the planning of organic syntheses. Structural analysis of organic compounds using NMR, IR and MS and the application of structural knowledge to questions of mechanism.

Prereq.: CHEM 3720.

CHEM 5822 Advanced Organic Laboratory 4 s.h.

An advanced approach to the applications of organic chemistry in the laboratory. Synthesis and purification of organic molecules using modern techniques, structure elucidation using spectroscopic techniques. Lecture discussion includes use of instrumentation, planning of practical syntheses, use of the primary chemical literature and safety in the laboratory. Two hours lecture, six hours lab.

Prereq.: CHEM 3720.

CHEM 5822L Advanced Organic Laboratory 0 s.h.

Advanced Organic Laboratory.

CHEM 5830 Intermediate Inorganic Chemistry 2 s.h.

Reactions and descriptive chemistry of transition metal, organometallic, and main-group compounds.

Prereq.: CHEM 3729, CHEM 3740 (may be concurrent).

CHEM 5831L Inorganic Chemistry Laboratory 2 s.h.

Preparation of typical inorganic compounds and their characterization. Six hours lab-discussion.

Prereq. or Coreq.: CHEM 3729 and CHEM 3739.

CHEM 5832 Solid State Structural Methods 3 s.h.

The determination of structures of biological, organic, and inorganic materials in the solid state. Introduction to the crystalline state, defects, diffraction of waves, powder and single crystal diffraction methods of neutron and x-ray analysis, electron microscopy, and solid state NMR. Two hours lecture, three hours lab.

Prereq.: CHEM 3729.

CHEM 5832L Solid State Structural Methods Laboratory 0 s.h.

Solid State Structural Methods Laboratory.

CHEM 5861 Polymer Science 1: Polymer Chemistry and Plastics 3 s.h.

Preparation, characterization, structure-property relationships, morphology, and uses of the major commercial polymers. Two hours lecture, three hours lab.

Prereq.: CHEM 3739.

CHEM 5876 Enzyme Analysis 2 s.h.

Advanced biochemistry laboratory focusing on the methods of enzyme purification and characterization. One hour lecture, two hours lab.

Prereq.: CHEM 3785 or equivalent and CHEM 3785L or equivalent.

Bachelor of Arts in Chemistry

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics requirement (met with MATH in major)		
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the GE model.		
Arts and Humanities (6 s.h.)		6
Natural Sciences (2 courses, 1 with lab) (6-7 s.h.)		
Requirement is met through science courses in the major		
Social Science (6 s.h.)		6
General Education Electives (9 s.h.)		
CMST 1545	Communication Foundations	3
Any 2 Gen Ed Courses		6
Foreign Language		8
FNLG 1501	Conversational Foreign Language 1	3
FNLG 1502	Conversational Foreign Language 2	3
The following CHEM core courses are required (29 s.h.):		
Grade of "C" or better is required. Courses cannot be taken "CR/NC"		
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
CHEM 1515R	Recitation for General Chemistry 1	1
CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
CHEM 1516R	Recitation for General Chemistry 2	1
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
CHEM 3719	Organic Chemistry 1	3
CHEM 3719L	Organic Chemistry 1 Laboratory	1

CHEM 3719R	Organic Chemistry Recitation 1	1
CHEM 3720	Organic Chemistry 2	3
CHEM 3720L	Organic Chemistry 2 Laboratory	1
CHEM 3720R	Organic Chemistry Recitation 2	1
CHEM 3739	Physical Chemistry 1	3
CHEM 3739L	Physical Chemistry 1 Laboratory	1

The following capstone is required (1 s.h.):

CHEM 4850	Chemistry Research	1
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The following non-CHEM courses are required (18 s.h.):

MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics Laboratory 1	1
PHYS 2611	General Physics 2	4
PHYS 2611L	General Physics laboratory 2	1

Electives:

Select 9 s.h. of upper-level CHEM electives (3000 or higher) from the list below:

CHEM 3729	Inorganic Chemistry	
CHEM 3740	Physical Chemistry 2	
CHEM 3740L	Physical Chemistry 2 Laboratory	
CHEM 3761	Introduction to Polymer Chemistry	
CHEM 3764	Chemical Toxicology	
CHEM 3785	Biochemistry 1	
CHEM 3785L	Biochemistry Laboratory	
CHEM 3786	Biochemistry 2	
CHEM 3790	Undergraduate Seminar	
CHEM 4851	Chemistry Research Project	
CHEM 4860	Regulatory Aspects of Industrial Chemistry	
CHEM 4891	Special Topics	
CHEM 5804 & 5804L	Chemical Instrumentation and Chemical Instrumentation Laboratory	
CHEM 5821	Intermediate Organic Chemistry	
CHEM 5822 & 5822L	Advanced Organic Laboratory and Advanced Organic Laboratory	
CHEM 5830	Intermediate Inorganic Chemistry	
CHEM 5832 & 5832L	Solid State Structural Methods and Solid State Structural Methods Laboratory	
CHEM 5876	Enzyme Analysis	

29 s.h. of additional electives required, 15 s.h. of which must be upper level. These electives should include courses needed to fulfill requirements of the minor, which is required.

Total Semester Hours 128-130

Year 1

Fall S.H.

YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	

CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
CHEM 1515R	Recitation for General Chemistry 1	1
MATH 1571	Calculus 1	4
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	

Semester Hours 13-15

Spring

CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
CHEM 1516R	Recitation for General Chemistry 2	1
MATH 1572	Calculus 2	4
ENGL 1551	Writing 2	3
Gen Ed SS		3

Semester Hours 15

Year 2

Fall

CHEM 3719	Organic Chemistry 1	3
CHEM 3719L	Organic Chemistry 1 Laboratory	1
CHEM 3719R	Organic Chemistry Recitation 1	1
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
PHYS 2610 & 2610L	General Physics 1 and General Physics Laboratory 1	5

Semester Hours 15

Spring

CHEM 3720	Organic Chemistry 2	3
CHEM 3720L	Organic Chemistry 2 Laboratory	1
CHEM 3720R	Organic Chemistry Recitation 2	1
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2	5
Gen Ed SS		6

Semester Hours 16

Year 3

Fall

CHEM 3739	Physical Chemistry 1	3
CHEM 3739L	Physical Chemistry 1 Laboratory	1
FNLG 1501	Conversational Foreign Language 1	3
Gen Ed AH		3
Gen Ed AH		3
Elective		4

Semester Hours 17

Spring

FNLG 1502	Conversational Foreign Language 2	3
Upper-Level Chemistry Elective		3
Upper-Level Electives		5
Gen Ed Elective		3

Semester Hours 14

Year 4

Fall

CHEM 4850	Chemistry Research	1
CMST 1545	Communication Foundations	3
Upper-Level Chemistry Elective		3
Gen Ed Elective		3
Upper-Level Electives		5

Semester Hours 15

Spring

Upper-Level Chemistry Elective		3
Upper-Level Electives		5
Electives		7

Semester Hours 15

Total Semester Hours 120-122

Electives must include courses to fulfill the students chosen minor. Typically for Chemistry majors, the minor will be in Mathematics, Physics or Biology.

Learning Outcomes

- Undergraduate students will demonstrate an understanding of the basic principles of the chemical disciplines included in their curriculum.
- Undergraduate students will demonstrate independent and critical thinking.
- Undergraduate students will demonstrate an understanding of the fundamentals of modern chemical instrumentation.
- Undergraduate students will effectively communicate their ideas both orally and in writing.

Bachelor of Arts in Chemistry 4+1 MS Chemistry Track

The Division of Chemistry within the Department of Chemical and Biological Sciences is comprised of 14 full-time faculty, 10 adjunct & part time faculty, 3 staff members, nearly 100 majors in its BS & BA Chemistry and BS Biochemistry programs, and an active MS program. The division is exceptionally well-equipped in research instrumentation, and offers a rich, hands-on 'learning through research' experience for its students. State-of-the-art laboratory facilities include NMR, X-ray diffraction (powder and single crystal), electron microscopy (scanning & transmission), and a variety of analytical instrumentation. As part of the College of STEM, the division also participates in the YSU Ph.D. program in Materials Science and Engineering.

Our BS Chemistry program is accredited by the American Chemical Society (ACS), one of the largest scientific societies in the world. Students completing an accredited program are considered to be especially well-trained for the chemistry profession, thus the BS degree is recommended for those students who plan to make a career in industrial chemistry or pursue a graduate degree in chemistry. The BA degree is recommended for those who plan to go into a medical, pharmacy, or dental field and for those who plan to enter business or secondary education careers related to chemistry. The BS Biochemistry degree integrates the chemical and biological sciences for students interested in developing a deep understanding of the molecular and chemical processes of living organisms. Students completing this program will be especially well-prepared for further studies in medicine or graduate school programs in biochemistry, or for related careers in the chemical industry.

Each student majoring in chemistry or biochemistry will be assigned a faculty advisor by the department. The advisor will discuss the overall curriculum necessary for your degree program and will assist you in the preparation of a suitable course sequence and choice of a minor or minors if applicable.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics requirement (met with MATH in major)		
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the GE model.		
Arts and Humanities (6 s.h.)		6
Natural Sciences (2 courses, 1 with lab) (6-7 s.h.)		
Requirement is met through science courses in the major		
Social Science (6 s.h.)		6
General Education Electives (9 s.h.)		

CMST 1545	Communication Foundations	3
Any 2 Gen Ed Courses (6 s.h.)		6
Foreign Language		8
FNLG 1501	Conversational Foreign Language 1	3
FNLG 1502	Conversational Foreign Language 2	3
The following CHEM core courses are required (29 s.h.):		
Grade of "C" or better is required. Courses cannot be taken "CR/NC"		
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
CHEM 1515R	Recitation for General Chemistry 1	1
CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
CHEM 1516R	Recitation for General Chemistry 2	1
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
CHEM 3719	Organic Chemistry 1	3
CHEM 3719L	Organic Chemistry 1 Laboratory	1
CHEM 3719R	Organic Chemistry Recitation 1	1
CHEM 3720	Organic Chemistry 2	3
CHEM 3720L	Organic Chemistry 2 Laboratory	1
CHEM 3720R	Organic Chemistry Recitation 2	1
CHEM 3739	Physical Chemistry 1	3
CHEM 3739L	Physical Chemistry 1 Laboratory	1
The following capstone is required (1 s.h.):		
CHEM 4850	Chemistry Research	1
The following non-CHEM courses are required (18 s.h.):		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics Laboratory 1	1
PHYS 2611	General Physics 2	4
PHYS 2611L	General Physics laboratory 2	1
Dual Credit Requirements		
Select 9 s.h. of upper-level CHEM electives from the list below:		9
CHEM 5822 & 5822L	Advanced Organic Laboratory and Advanced Organic Laboratory	
CHEM 5804 & 5804L	Chemical Instrumentation and Chemical Instrumentation Laboratory	
CHEM 6911	Advanced Analytical Chemistry 1	
CHEM 6912	Advanced Analytical Chemistry 2	
CHEM 6921	Advanced Biochemistry 1	
CHEM 6941	Advanced Organic Chemistry 1	
CHEM 6980	Introduction to Chemical Research	
CHEM 6991K	Special Topics Organometallics	
CHEM 6991Q	Special Topics Quantum Chemistry	
29 s.h. of additional electives required, 15 s.h. of which must be upper level. These electives should include courses needed to fulfill requirements of the minor, which is required.		29
Total Semester Hours		128-130

Dual Credit Requirements

Accelerated 4+1 Program

Undergraduate Chemistry students can apply for admission into the accelerated 4+1 MS in Chemistry graduate program after completing 78 undergraduate semester hours with a GPA of 3.0 or higher. After being admitted to the accelerated 4+1 MS program, students will be allowed a maximum of nine semester hours of graduate coursework, specified as 5000 level or higher, to be double counted toward both a bachelor's and master's

degrees. The courses chosen to count for both undergraduate and graduate coursework must be approved by the Graduate Program Director. An additional three hours of graduate coursework can be completed as an undergraduate and used exclusively for graduate credit. This allows the student to graduate with a master's degree with one year of additional full-time study beyond the bachelor's degree, as the total hours counted towards the Master's degree is greater than or equal to 30 hours.

Courses Counting Towards Requirements

Select 3 of these courses, as only 3 can be double counted. Can select a 4th that would only count for the Master's degree.

Year 1		
Fall		
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	S.H. 1-2
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
CHEM 1515R	Recitation for General Chemistry 1	1
MATH 1571	Calculus 1	4
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
Semester Hours		13-15
Spring		
CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
CHEM 1516R	Recitation for General Chemistry 2	1
MATH 1572	Calculus 2	4
ENGL 1551	Writing 2	3
Gen Ed SS		3
Semester Hours		15
Year 2		
Fall		
CHEM 3719	Organic Chemistry 1	3
CHEM 3719L	Organic Chemistry 1 Laboratory	1
CHEM 3719R	Organic Chemistry Recitation 1	1
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
PHYS 2610 & 2610L	General Physics 1 and General Physics Laboratory 1	5
Semester Hours		15
Spring		
CHEM 3720	Organic Chemistry 2	3
CHEM 3720L	Organic Chemistry 2 Laboratory	1
CHEM 3720R	Organic Chemistry Recitation 2	1
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2	5
Gen Ed SS		6
Semester Hours		16
Year 3		
Fall		
CHEM 3739	Physical Chemistry 1	3
CHEM 3739L	Physical Chemistry 1 Laboratory	1
FNLG 1501	Conversational Foreign Language 1	3
Gen Ed AH		3
Gen Ed AH		3

Elective		4
Semester Hours		17
Spring		
FNLG 1502	Conversational Foreign Language 2	3
Upper-Level Chemistry Elective		3
Upper-Level Electives		5
Gen Ed Elective		3
Semester Hours		14
Year 4		
Fall		
CHEM 4850	Chemistry Research	1
CMST 1545	Communication Foundations	3
Upper-Level Chemistry Elective		3
Gen Ed Elective		3
Upper-Level Electives		5
Semester Hours		15
Spring		
Upper-Level Chemistry Elective		3
Upper-Level Electives		5
Electives		7
Semester Hours		15
Total Semester Hours		120-122

Electives must include courses to fulfill the students chosen minor. Typically for Chemistry majors, the minor will be in Mathematics, Physics or Biology.

Learning Outcomes

- Undergraduate students will demonstrate an understanding of the basic principles of the chemical disciplines included in their curriculum.
- Undergraduate students will demonstrate independent and critical thinking.
- Undergraduate students will demonstrate an understanding of the fundamentals of modern chemical instrumentation.
- Undergraduate students will effectively communicate their ideas both orally and in writing.

Bachelor of Science in Chemistry

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar Youngstown State University Success Seminar Intro to Honors	1-2
General Education Requirements		
ENGL 1550 or ENGL 1549	Writing 1 Writing 1 with Support	3-4
ENGL 1551	Writing 2	3
Mathematics requirement (met through MATH in major)		
Some courses are categorized in more than one Knowledge Domain. Courses can only be used once within the GE model.		
Arts and Humanities (6 s.h.)		6
Natural Sciences (2 courses, 1 with lab) (6-7 s.h.)		
Requirement is met through science courses in the major		
Social Science (6 s.h.)		6
General Education Electives (9 s.h.)		
CMST 1545	Communication Foundations	3
Any 2 Gen Ed Courses (6 s.h.) Met through NS and Math courses in major		
The following CHEM core courses are required (40 s.h.)		

Grade of "C" or better is required. Courses cannot be taken "CR/NC"		
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
CHEM 1515R	Recitation for General Chemistry 1	1
CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
CHEM 1516R	Recitation for General Chemistry 2	1
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
CHEM 3719	Organic Chemistry 1	3
CHEM 3719L	Organic Chemistry 1 Laboratory	1
CHEM 3719R	Organic Chemistry Recitation 1	1
CHEM 3720	Organic Chemistry 2	3
CHEM 3720L	Organic Chemistry 2 Laboratory	1
CHEM 3720R	Organic Chemistry Recitation 2	1
CHEM 3729	Inorganic Chemistry	3
CHEM 3739	Physical Chemistry 1	3
CHEM 3739L	Physical Chemistry 1 Laboratory	1
CHEM 3740	Physical Chemistry 2	3
CHEM 3740L	Physical Chemistry 2 Laboratory	1
CHEM 3761	Introduction to Polymer Chemistry	1
CHEM 3785	Biochemistry 1	3
The following capstone is required (3 s.h.)		
CHEM 4850	Chemistry Research	1
CHEM 4851	Chemistry Research Project	2
The following non-CHEM courses are required (22 s.h.)		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics Laboratory 1	1
PHYS 2611	General Physics 2	4
PHYS 2611L	General Physics laboratory 2	1
Electives:		
Select 11 hours of upper-division chemistry electives (from the list below) 11		
4 hours of which must be in upper-division laboratory.		
CHEM 3764	Chemical Toxicology	
CHEM 3785L	Biochemistry Laboratory	
CHEM 3786	Biochemistry 2	
CHEM 3790	Undergraduate Seminar	
CHEM 4851	Chemistry Research Project	
CHEM 4860	Regulatory Aspects of Industrial Chemistry	
CHEM 4891	Special Topics	
CHEM 5804 & 5804L	Chemical Instrumentation and Chemical Instrumentation Laboratory	
CHEM 5821	Intermediate Organic Chemistry	
CHEM 5822 & 5822L	Advanced Organic Laboratory and Advanced Organic Laboratory	
CHEM 5830	Intermediate Inorganic Chemistry	
CHEM 5832 & 5832L	Solid State Structural Methods and Solid State Structural Methods Laboratory	
22 s.h. of additional hours required. These electives could include courses needed to fulfill requirements of the minor. 22		
Total Semester Hours		120-122

Year 1			
Fall			S.H.
YSU 1500	Success Seminar		1-2
or YSU 1500S	or Youngstown State University Success Seminar		
or HONR 1500	or Intro to Honors		
CHEM 1515	General Chemistry 1		3
CHEM 1515L	General Chemistry 1 Laboratory		1
CHEM 1515R	Recitation for General Chemistry 1		1
MATH 1571	Calculus 1		4
ENGL 1550	Writing 1		3-4
or ENGL 1549	or Writing 1 with Support		
Semester Hours			13-15
Spring			
CHEM 1516	General Chemistry 2		3
CHEM 1516L	General Chemistry 2 Laboratory		1
CHEM 1516R	Recitation for General Chemistry 2		1
MATH 1572	Calculus 2		4
ENGL 1551	Writing 2		3
GER			3
Semester Hours			15
Year 2			
Fall			
CHEM 3719	Organic Chemistry 1		3
CHEM 3719L	Organic Chemistry 1 Laboratory		1
CHEM 3719R	Organic Chemistry Recitation 1		1
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory		5
PHYS 2610	General Physics 1		4
PHYS 2610L	General Physics Laboratory 1		1
Semester Hours			15
Spring			
CHEM 3720	Organic Chemistry 2		3
CHEM 3720L	Organic Chemistry 2 Laboratory		1
CHEM 3720R	Organic Chemistry Recitation 2		1
PHYS 2611	General Physics 2		4
PHYS 2611L	General Physics laboratory 2		1
MATH 2673	Calculus 3		4
Semester Hours			14
Year 3			
Fall			
CHEM 3739	Physical Chemistry 1		3
CHEM 3739L	Physical Chemistry 1 Laboratory		1
CHEM 3729	Inorganic Chemistry		3
Elective			3
GER			6
Semester Hours			16
Spring			
CHEM 3740	Physical Chemistry 2		3
CHEM 3740L	Physical Chemistry 2 Laboratory		1
CHEM 3761	Introduction to Polymer Chemistry		1
Upper Level Chemistry Electives			5
Elective			3
GER			3
Semester Hours			16

Year 4

Fall

CHEM 4850	Chemistry Research	1
CHEM 4851	Chemistry Research Project	2
CHEM 3785	Biochemistry 1	3
Upper Level Chemistry Elective		3
CMST 1545	Communication Foundations	3
Elective		3

Semester Hours 15

Spring

Upper Level CHEM Elective		3
Electives		13

Semester Hours 16

Total Semester Hours 120-122

Electives must include courses to fulfill the students chosen minor. Typically for Chemistry majors, the minor will be in Mathematics, Physics or Biology.

Learning Outcomes

- Undergraduate students will demonstrate an understanding of the basic principles of the chemical disciplines included in their curriculum.
- Undergraduate students will demonstrate independent and critical thinking.
- Undergraduate students will demonstrate an understanding of the fundamentals of modern chemical instrumentation.
- Undergraduate students will effectively communicate their ideas both orally and in writing.
- Undergraduate students will acquire basic research skills including planning and performing an experiment and analyzing the results.

Bachelor of Science in Chemistry 4+1 MS Chemistry Track

The Division of Chemistry within the Department of Chemical and Biological Sciences is comprised of 14 full-time faculty, 10 adjunct & part time faculty, 3 staff members, nearly 100 majors in its BS & BA Chemistry and BS Biochemistry programs, and an active MS program. The division is exceptionally well-equipped in research instrumentation, and offers a rich, hands-on 'learning through research' experience for its students. State-of-the-art laboratory facilities include NMR, X-ray diffraction (powder and single crystal), electron microscopy (scanning & transmission), and a variety of analytical instrumentation. As part of the College of STEM, the division also participates in the YSU Ph.D. program in Materials Science and Engineering.

Our BS Chemistry program is accredited by the American Chemical Society (ACS), one of the largest scientific societies in the world. Students completing an accredited program are considered to be especially well-trained for the chemistry profession, thus the BS degree is recommended for those students who plan to make a career in industrial chemistry or pursue a graduate degree in chemistry. The BA degree is recommended for those who plan to go into a medical, pharmacy, or dental field and for those who plan to enter business or secondary education careers related to chemistry. The BS Biochemistry degree integrates the chemical and biological sciences for students interested in developing a deep understanding of the molecular and chemical processes of living organisms. Students completing this program will be especially well-prepared for further studies in medicine or graduate school programs in biochemistry, or for related careers in the chemical industry.

Each student majoring in chemistry or biochemistry will be assigned a faculty advisor by the department. The advisor will discuss the overall curriculum necessary for your degree program and will assist you in the preparation of a suitable course sequence and choice of a minor or minors if applicable.

COURSE TITLE S.H.

FIRST YEAR REQUIREMENT -STUDENT SUCCESS

YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	

General Education Requirements

ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3

Mathematics requirement (met through MATH in major)

Some courses are categorized in more than one Knowledge Domain. Courses can only be used once within the GE model.

Arts and Humanities (6 s.h.) 6

Natural Sciences (2 courses, 1 with lab) (6-7 s.h.)

Requirement is met through science courses in the major

Social Science (6 s.h.) 6

Gen Ed Electives (9 s.h.)

CMST 1545	Communication Foundations	3
Two Gen Ed Courses Met with Courses in Major		0

The following CHEM core courses are required (40 s.h.)

Grade of "C" or better is required. Courses cannot be taken "CR/NC"

CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
CHEM 1515R	Recitation for General Chemistry 1	1
CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
CHEM 1516R	Recitation for General Chemistry 2	1
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
CHEM 3719	Organic Chemistry 1	3
CHEM 3719L	Organic Chemistry 1 Laboratory	1
CHEM 3719R	Organic Chemistry Recitation 1	1
CHEM 3720	Organic Chemistry 2	3
CHEM 3720L	Organic Chemistry 2 Laboratory	1
CHEM 3720R	Organic Chemistry Recitation 2	1
CHEM 3729	Inorganic Chemistry	3
CHEM 3739	Physical Chemistry 1	3
CHEM 3739L	Physical Chemistry 1 Laboratory	1
CHEM 3740	Physical Chemistry 2	3
CHEM 3740L	Physical Chemistry 2 Laboratory	1
CHEM 3761	Introduction to Polymer Chemistry	1
CHEM 3785	Biochemistry 1	3

The following capstone is required (3 s.h.)

CHEM 4850	Chemistry Research	1
CHEM 4851	Chemistry Research Project	2

The following non-CHEM courses are required (22 s.h.)

MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics Laboratory 1	1
PHYS 2611	General Physics 2	4
PHYS 2611L	General Physics laboratory 2	1

Dual Credit Requirements

Select 9 hours of upper-division chemistry electives (from the list below) 4 9
hours of which must be in upper-division laboratory.

CHEM 5822 & 5822L	Advanced Organic Laboratory and Advanced Organic Laboratory	
CHEM 5804 & 5804L	Chemical Instrumentation and Chemical Instrumentation Laboratory	
CHEM 6911	Advanced Analytical Chemistry 1	
CHEM 6912	Advanced Analytical Chemistry 2	
CHEM 6921	Advanced Biochemistry 1	
CHEM 6941	Advanced Organic Chemistry 1	
CHEM 6980	Introduction to Chemical Research	
CHEM 6991K	Special Topics Organometallics	
CHEM 6991Q	Special Topics Quantum Chemistry	
24 s.h. of additional hours required. These electives could include courses needed to fulfill requirements of the minor.		24
Total Semester Hours		120-122

Dual Credit Requirements**Accelerated 4+1 Program**

Undergraduate Chemistry students can apply for admission into the accelerated 4+1 MS in Chemistry graduate program after completing 78 undergraduate semester hours with a GPA of 3.0 or higher. After being admitted to the accelerated 4+1 MS program, students will be allowed a maximum of nine semester hours of graduate coursework, specified as 5000 level or higher, to be double counted toward both a bachelor's and master's degrees. The courses chosen to count for both undergraduate and graduate coursework must be approved by the Graduate Program Director. An additional three hours of graduate coursework can be completed as an undergraduate and used exclusively for graduate credit. This allows the student to graduate with a master's degree with one year of additional full-time study beyond the bachelor's degree, as the total hours counted towards the Master's degree is greater than or equal to 30 hours.

Courses Counting Towards Requirements

Select 3 of these courses, as only 3 can be double counted. Can select a 4th that would only count for the Master's degree.

Year 1		
Fall		S.H.
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
CHEM 1515R	Recitation for General Chemistry 1	1
MATH 1571	Calculus 1	4
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
Semester Hours		13-15

Spring		
CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
CHEM 1516R	Recitation for General Chemistry 2	1
MATH 1572	Calculus 2	4
ENGL 1551	Writing 2	3
GER		3
Semester Hours		15

Year 2		
Fall		
CHEM 3719	Organic Chemistry 1	3

CHEM 3719L	Organic Chemistry 1 Laboratory	1
CHEM 3719R	Organic Chemistry Recitation 1	1
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics Laboratory 1	1
Semester Hours		15

Spring		
CHEM 3720	Organic Chemistry 2	3
CHEM 3720L	Organic Chemistry 2 Laboratory	1
CHEM 3720R	Organic Chemistry Recitation 2	1
PHYS 2611	General Physics 2	4
PHYS 2611L	General Physics laboratory 2	1
MATH 2673	Calculus 3	4
Semester Hours		14

Year 3		
Fall		
CHEM 3739	Physical Chemistry 1	3
CHEM 3739L	Physical Chemistry 1 Laboratory	1
CHEM 3729	Inorganic Chemistry	3
Elective		3
GER		6
Semester Hours		16

Spring		
CHEM 3740	Physical Chemistry 2	3
CHEM 3740L	Physical Chemistry 2 Laboratory	1
CHEM 3761	Introduction to Polymer Chemistry	1
Upper Level Chemistry Electives		5
Elective		3
GER		3
Semester Hours		16

Year 4		
Fall		
CHEM 4850	Chemistry Research	1
CHEM 4851	Chemistry Research Project	2
CHEM 3785	Biochemistry 1	3
Upper Level Chemistry Elective		3
GER Speech Communications		3
GER		3
Semester Hours		15

Spring		
Upper Level CHEM Elective		3
Electives		10
GER		3
Semester Hours		16

Total Semester Hours		120-122
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Electives must include courses to fulfill the students chosen minor. Typically for Chemistry majors, the minor will be in Mathematics, Physics or Biology.

Learning Outcomes

- Undergraduate students will demonstrate an understanding of the basic principles of the chemical disciplines included in their curriculum.
- Undergraduate students will demonstrate independent and critical thinking.
- Undergraduate students will demonstrate an understanding of the fundamentals of modern chemical instrumentation.

- Undergraduate students will effectively communicate their ideas both orally and in writing.
- Undergraduate students will acquire basic research skills including planning and performing an experiment and analyzing the results.

Bachelor of Science in Biochemistry

The Bachelor of Science degree in Biochemistry is recommended for those students interested in integrating the subjects of biology and chemistry. The cross-disciplinary nature of the degree provides students with a good foundation for careers in research and development in the private sector and in academia. Many will continue their education in graduate schools or in health related fields such as medicine, dentistry, or pharmacy.

For further information, please see the Chemical Sciences (p. 373) overview page.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics requirement (met with MATH in major)		
Some courses are categorized in more than one Knowledge Domain. Courses can only be used once within the GE model.		
Arts and Humanities (6 s.h.)		6
Natural Sciences (2 courses, 1 with lab)		
This requirement is met through courses in the major		
Social Science (6 s.h.)		6
General Education Electives (9 s.h.)		
CMST 1545	Communication Foundations	3
Any 2 Gen Ed Courses (6 s.h.)		6
The following CHEM core courses are required:		
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
CHEM 1515R	Recitation for General Chemistry 1	1
CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
CHEM 1516R	Recitation for General Chemistry 2	1
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
CHEM 3719	Organic Chemistry 1	3
CHEM 3719L	Organic Chemistry 1 Laboratory	1
CHEM 3719R	Organic Chemistry Recitation 1	1
CHEM 3720	Organic Chemistry 2	3
CHEM 3720L	Organic Chemistry 2 Laboratory	1
CHEM 3720R	Organic Chemistry Recitation 2	1
CHEM 3739	Physical Chemistry 1	3
CHEM 3739L	Physical Chemistry 1 Laboratory	1
CHEM 3785	Biochemistry 1	3
CHEM 3785L	Biochemistry Laboratory	1
CHEM 3786	Biochemistry 2	3
CHEM 4850	Chemistry Research	1
CHEM 4851	Chemistry Research Project	2
CHEM 5876	Enzyme Analysis	2

Select 10 s.h. in upper-level CHEM electives from the list below. At least one elective must be a laboratory course or include a laboratory component: **10**

CHEM 3729	Inorganic Chemistry
CHEM 3764	Chemical Toxicology
CHEM 4851	Chemistry Research Project
CHEM 4891	Special Topics
CHEM 5804 & 5804L	Chemical Instrumentation and Chemical Instrumentation Laboratory
CHEM 5821	Intermediate Organic Chemistry
CHEM 5822 & 5822L	Advanced Organic Laboratory and Advanced Organic Laboratory
CHEM 5832 & 5832L	Solid State Structural Methods and Solid State Structural Methods Laboratory

The following BIOL core courses are required (14 s.h.):

BIOL 2601	General Biology 1: Molecules and Cells	3
BIOL 2601L	General Biology I: Molecules and Cells Laboratory	1
BIOL 3702	Microbiology	3
BIOL 3702L	Microbiology Laboratory	1
BIOL 3711	Cell Biology: Fine Structure	3
BIOL 3721	Genetics	3

At least 3 s.h. in upper-level BIOL courses required from the list below; 5 s.h. recommended if needed to attain 120 s.h. required for graduation. **5**

BIOL 4800 & 4800L	Bioinformatics and Bioinformatics Laboratory
BIOL 4801 & 4801L	Environmental Microbiology and Environmental Microbiology Laboratory
BIOL 4829	Microbial Physiology
BIOL 4890	Molecular Genetics
BIOL 4890L	Molecular Genetics Laboratory
BIOL 5840	Advanced Microbiology

The following support courses are required (22 s.h.):

MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
STAT 3717	Statistical Methods	4
or STAT 3743	Probability and Statistics	
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics Laboratory 1	1
PHYS 2611	General Physics 2	4
PHYS 2611L	General Physics laboratory 2	1

Total Semester Hours **120-122**

Year 1

Fall		S.H.
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
CHEM 1515R	Recitation for General Chemistry 1	1
MATH 1571	Calculus 1	4
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4

Spring

CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
CHEM 1516R	Recitation for General Chemistry 2	1

MATH 1572	Calculus 2	4
ENGL 1551	Writing 2	3
BIOL 2601	General Biology 1: Molecules and Cells	3
BIOL 2601L	General Biology I: Molecules and Cells Laboratory	1

Semester Hours 16

Year 2

Fall

CHEM 3719	Organic Chemistry 1	3
CHEM 3719L	Organic Chemistry 1 Laboratory	1
CHEM 3719R	Organic Chemistry Recitation 1	1
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics Laboratory 1	1

Semester Hours 15

Spring

CHEM 3720	Organic Chemistry 2	3
CHEM 3720L	Organic Chemistry 2 Laboratory	1
CHEM 3720R	Organic Chemistry Recitation 2	1
PHYS 2611	General Physics 2	4
PHYS 2611L	General Physics laboratory 2	1
STAT 3717 or STAT 3743	Statistical Methods or Probability and Statistics	4

Semester Hours 14

Year 3

Fall

CHEM 3785	Biochemistry 1	3
CHEM 3785L	Biochemistry Laboratory	1
CHEM 3739	Physical Chemistry 1	3
CHEM 3739L	Physical Chemistry 1 Laboratory	1
BIOL 3721	Genetics	3
GER		6

Semester Hours 17

Spring

CHEM 3786	Biochemistry 2	3
CHEM 5876	Enzyme Analysis	2
BIOL 3711	Cell Biology: Fine Structure	3
BIOL 3702	Microbiology	3
BIOL 3702L	Microbiology Laboratory	1
GER		3

Semester Hours 15

Year 4

Fall

CHEM 4850	Chemistry Research	1
CHEM Upper-Level Elective		6
CHEM 4851	Chemistry Research Project	2
CMST 1545	Communication Foundations	3
GER		3

Semester Hours 15

Spring

CHEM Upper-Level Elective		4
BIOL Upper-Level Elective		5
GER		6

Semester Hours 15

Total Semester Hours 120-122

Learning Outcomes

The undergraduate student learning outcomes for the major in biochemistry are as follows:

- Undergraduate students will demonstrate an understanding of the fundamentals of chemistry and biochemistry.
- Undergraduate students will demonstrate independent and critical thinking.
- Undergraduate students will demonstrate an understanding of the fundamentals of modern chemical instrumentation.
- Undergraduate students will be able to interpret experimental data.
- Undergraduate students will effectively communicate their ideas both orally and in writing.

Bachelor of Science in Biochemistry 4+1 MS Chemistry Track

The Bachelor of Science degree in Biochemistry is recommended for those students interested in integrating the subjects of biology and chemistry. The cross-disciplinary nature of the degree provides students with a good foundation for careers in research and development in the private sector and in academia. Many will continue their education in graduate schools or in health related fields such as medicine, dentistry, or pharmacy.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT - STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics requirement (met with MATH in major)		
Some courses are categorized in more than one Knowledge Domain. Courses can only be used once within the GE model.		
Arts and Humanities (6 s.h.)		6
Natural Sciences (2 courses, 1 with lab)		
This requirement is met through courses in the major		
Social Science (6 s.h.)		6
General Education Electives (9 s.h.)		
CMST 1545	Communication Foundations	3
Any 2 Gen Ed Courses		6
The following CHEM core courses are required:		
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
CHEM 1515R	Recitation for General Chemistry 1	1
CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
CHEM 1516R	Recitation for General Chemistry 2	1
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
CHEM 3719	Organic Chemistry 1	3
CHEM 3719L	Organic Chemistry 1 Laboratory	1
CHEM 3719R	Organic Chemistry Recitation 1	1
CHEM 3720	Organic Chemistry 2	3
CHEM 3720L	Organic Chemistry 2 Laboratory	1
CHEM 3720R	Organic Chemistry Recitation 2	1
CHEM 3739	Physical Chemistry 1	3

CHEM 3739L	Physical Chemistry 1 Laboratory	1
CHEM 3785	Biochemistry 1	3
CHEM 3785L	Biochemistry Laboratory	1
CHEM 3786	Biochemistry 2	3
CHEM 4850	Chemistry Research	1
CHEM 4851	Chemistry Research Project	2
CHEM 5876	Enzyme Analysis	2

Dual Credit Requirements

Select 9 s.h. in upper-level CHEM electives from the list below. At least one elective must be a laboratory course or include a laboratory component:

CHEM 5822 & 5822L	Advanced Organic Laboratory and Advanced Organic Laboratory	
CHEM 5804 & 5804L	Chemical Instrumentation and Chemical Instrumentation Laboratory	
CHEM 6911	Advanced Analytical Chemistry 1	
CHEM 6912	Advanced Analytical Chemistry 2	
CHEM 6921	Advanced Biochemistry 1	
CHEM 6941	Advanced Organic Chemistry 1	
CHEM 6980	Introduction to Chemical Research	
CHEM 6991K	Special Topics Organometallics	
CHEM 6991Q	Special Topics Quantum Chemistry	

The following BIOL core courses are required (14 s.h.):

BIOL 2601 & 2601L	General Biology 1: Molecules and Cells and General Biology I: Molecules and Cells Laboratory	4
BIOL 3702 & 3702L	Microbiology and Microbiology Laboratory	4
BIOL 3711	Cell Biology: Fine Structure	3
BIOL 3721	Genetics	3

At least 3 s.h. in upper-level BIOL courses required from the list below; 6 s.h. recommended if needed to attain 120 s.h. required for graduation.

BIOL 4800 & 4800L	Bioinformatics and Bioinformatics Laboratory	
BIOL 4801 & 4801L	Environmental Microbiology and Environmental Microbiology Laboratory	
BIOL 4829	Microbial Physiology	
BIOL 4890 & 4890L	Molecular Genetics and Molecular Genetics Laboratory	
BIOL 5840	Advanced Microbiology	

The following support courses are required (22 s.h.):

MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
STAT 3717 or STAT 3743	Statistical Methods Probability and Statistics	4
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics Laboratory 1	1
PHYS 2611	General Physics 2	4
PHYS 2611L	General Physics laboratory 2	1

Total Semester Hours 120-122

Dual Credit Requirements

Accelerated 4+1 Program

Undergraduate Biochemistry students can apply for admission into the accelerated 4+1 MS in Chemistry graduate program after completing 78 undergraduate semester hours with a GPA of 3.0 or higher. After being admitted to the accelerated 4+1 MS program, students will be allowed a maximum of nine semester hours of graduate coursework, specified as 5000 level or higher, to be double counted toward both a bachelor's and master's degrees. The courses chosen to count for both undergraduate and graduate

coursework must be approved by the Graduate Program Director. An additional three hours of graduate coursework can be completed as an undergraduate and used exclusively for graduate credit. This allows the student to graduate with a master's degree with one year of additional full-time study beyond the bachelor's degree, as the total hours counted towards the Master's degree is greater than or equal to 30 hours.

Courses Counting Towards Requirements

Select 3 of these courses, as only 3 can be double counted. Can select a 4th that would only count for the Master's degree.

Year 1

Fall		S.H.
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
CHEM 1515R	Recitation for General Chemistry 1	1
MATH 1571	Calculus 1	4
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
Semester Hours		13-15

Spring

CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
CHEM 1516R	Recitation for General Chemistry 2	1
MATH 1572	Calculus 2	4
ENGL 1551	Writing 2	3
BIOL 2601	General Biology 1: Molecules and Cells	3
BIOL 2601L	General Biology I: Molecules and Cells Laboratory	1
Semester Hours		16

Year 2

Fall		
CHEM 3719	Organic Chemistry 1	3
CHEM 3719L	Organic Chemistry 1 Laboratory	1
CHEM 3719R	Organic Chemistry Recitation 1	1
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics Laboratory 1	1
Semester Hours		15

Spring

CHEM 3720	Organic Chemistry 2	3
CHEM 3720L	Organic Chemistry 2 Laboratory	1
CHEM 3720R	Organic Chemistry Recitation 2	1
PHYS 2611	General Physics 2	4
PHYS 2611L	General Physics laboratory 2	1
STAT 3717 or STAT 3743	Statistical Methods or Probability and Statistics	4
Semester Hours		14

Year 3

Fall		
CHEM 3785	Biochemistry 1	3
CHEM 3785L	Biochemistry Laboratory	1
CHEM 3739	Physical Chemistry 1	3
CHEM 3739L	Physical Chemistry 1 Laboratory	1

BIOL 3721	Genetics	3
GER		6
Semester Hours		17
Spring		
CHEM 3786	Biochemistry 2	3
CHEM 5876	Enzyme Analysis	2
BIOL 3711	Cell Biology: Fine Structure	3
BIOL 3702 & 3702L	Microbiology and Microbiology Laboratory	4
GER		3
Semester Hours		15
Year 4		
Fall		
CHEM 4850	Chemistry Research	1
CHEM Upper-Level Elective		6
CHEM 4851	Chemistry Research Project	2
CMST 1545	Communication Foundations	3
GER		3
Semester Hours		15
Spring		
CHEM Upper-Level Elective		4
BIOL Upper-Level Elective		5
GER		6
Semester Hours		15
Total Semester Hours		120-122

Learning Outcomes

The undergraduate student learning outcomes for the major in biochemistry are as follows:

- Undergraduate students will demonstrate an understanding of the fundamentals of chemistry and biochemistry.
- Undergraduate students will demonstrate independent and critical thinking.
- Undergraduate students will demonstrate an understanding of the fundamentals of modern chemical instrumentation.
- Undergraduate students will be able to interpret experimental data.
- Undergraduate students will effectively communicate their ideas both orally and in writing.

Bachelor of Science in Biochemistry BaccMed Track

The Bachelor of Science degree in Biochemistry, BaccMed track, is specifically designed for students interested in seeking careers as physicians. The cross-disciplinary nature of the degree provides a student with a good foundation in the sciences, psychology, sociology, and public health. The student will not only be well prepared for the rigors of medical school, but he or she will also be aware of the issues facing health care professionals as well as be better able to deal with a diverse population.

For more information, please see the Chemical Sciences (p. 373) overview page.

Learning Outcomes

The learning objectives for the major in Biochemistry, BaccMed Track are as follows:

- Undergraduate students will demonstrate an understanding of the fundamentals of chemistry and biochemistry.

- Undergraduate students will demonstrate independent and critical thinking.
- Undergraduate students will demonstrate an understanding of the fundamentals of modern chemical instrumentation.
- Undergraduate students will be able to interpret experimental data.
- Undergraduate students will effectively communicate their ideas both orally and in writing.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT - STUDENT SUCCESS		
HONR 1500	Intro to Honors	1
HONR 2601P	Honor Seminar Campus Community Partnerships	1
General Education Requirements		
ENGL 1550	Writing 1	3
ENGL 1551	Writing 2	3
Mathematics requirement included in the major.		
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model.		
Arts & Humanities (2 courses)		6
Natural Sciences - NS requirement included in the major.		
(courses below are required for the BS Biochemistry major and fulfill the Natural Sciences General Education requirement)		
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	
Social Science: 2 courses, both required		6
PSYC 1560	General Psychology	
PHLT 1531	Fundamentals of Public Health	
General Education Electives (9 s.h.)		
CMST 1545	Communication Foundations	3
Any 2 Gen Ed Courses (6 s.h.)		6
The following CHEM core courses are required (38 s.h.):		
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
CHEM 1515R	Recitation for General Chemistry 1	1
CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
CHEM 1516R	Recitation for General Chemistry 2	1
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
CHEM 3719	Organic Chemistry 1	3
CHEM 3719L	Organic Chemistry 1 Laboratory	1
CHEM 3719R	Organic Chemistry Recitation 1	1
CHEM 3720	Organic Chemistry 2	3
CHEM 3720L	Organic Chemistry 2 Laboratory	1
CHEM 3720R	Organic Chemistry Recitation 2	1
CHEM 3739	Physical Chemistry 1	3
CHEM 3739L	Physical Chemistry 1 Laboratory	1
CHEM 3785	Biochemistry 1	3
CHEM 3785L	Biochemistry Laboratory	1
CHEM 3786	Biochemistry 2	3
CHEM 5876	Enzyme Analysis	2
The following capstone is required (3 s.h.):		
CHEM 4850	Chemistry Research	1
CHEM 4851	Chemistry Research Project	2
The following BIOL core courses are required (14 s.h.):		
BIOL 2603	Integrated Biology for BaccMed	4

BIOL 3702	Microbiology	3
BIOL 3702L	Microbiology Laboratory	1
BIOL 3711	Cell Biology: Fine Structure	3
BIOL 3721	Genetics	3

The following Mathematics and Statistics courses are required (12 s.h.):

MATH 1581H	Honors Calculus for the Health Sciences 1	4
or MATH 1571	Calculus 1	
MATH 1572	Calculus 2	4
STAT 3743	Probability and Statistics	4
or STAT 3717	Statistical Methods	

The following Physics Courses are required - choose Option 1 or Option 2 9-10 (9-10 s.h.):

Option 1:		
PHYS 2610	General Physics 1	
PHYS 2610L	General Physics Laboratory 1	
PHYS 2611	General Physics 2	
PHYS 2611L	General Physics laboratory 2	

Option 2:		
PHYS 1501	Fundamentals of Physics 1	
PHYS 1501L	Fundamentals of Physics Laboratory 1	
PHYS 1502	Fundamentals of Physics 2	
PHYS 1502L	Fundamentals of Physics Laboratory 2	

Select 7 s.h. in upper level CHEM electives (3000 or higher) from the list below. It is recommended that one elective course includes a laboratory. 7

CHEM 3729	Inorganic Chemistry	
CHEM 3764	Chemical Toxicology	
CHEM 4851	Chemistry Research Project	
CHEM 4891	Special Topics	
CHEM 5804 & 5804L	Chemical Instrumentation and Chemical Instrumentation Laboratory	
CHEM 5821	Intermediate Organic Chemistry	
CHEM 5822 & 5822L	Advanced Organic Laboratory and Advanced Organic Laboratory	
CHEM 5832 & 5832L	Solid State Structural Methods and Solid State Structural Methods Laboratory	

At least 3 s.h. in upper-level BIOL courses required from the list below. 3

BIOL 3703	Clinical Immunology	
BIOL 3705 & 3705L	Introduction to Human Gross Anatomy and Introduction to Human Gross Anatomy Laboratory	
BIOL 3730	Human Physiology	
BIOL 4829	Microbial Physiology	
BIOL 4890	Molecular Genetics	
BIOL 4890L	Molecular Genetics Laboratory	
BIOL 5840	Advanced Microbiology	

Other Required Courses:

PHLT 3709	Elements of Urban Environmental Health Practices	3
SOC 3745	Sociology of Health, Illness, and Healthcare	3
HONR 4890C	Senior Honors Thesis: Capstone	1

Total Semester Hours 122-123

Year 1

Fall		S.H.
HONR 1500	Intro to Honors	1
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
CHEM 1515R	Recitation for General Chemistry 1	1
MATH 1571	Calculus 1	4

ENGL 1550	Writing 1	3
Semester Hours		13

Spring

HONR 2601P	Honor Seminar Campus Community Partnerships	1
CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
CHEM 1516R	Recitation for General Chemistry 2	1
MATH 1572	Calculus 2	4
ENGL 1551	Writing 2	3
BIOL 3711	Cell Biology: Fine Structure	3

Semester Hours 16

Summer

Second Summer Session		
BIOL 2603	Integrated Biology for BaccMed	4
PSYC 1560	General Psychology	3
Semester Hours		7

Year 2

Fall

CHEM 3785	Biochemistry 1	3
CHEM 3785L	Biochemistry Laboratory	1
PHYS 2610	General Physics 1	4
or PHYS 1501	or Fundamentals of Physics 1	
PHYS 2610L	General Physics Laboratory 1	1
or PHYS 1501L	or Fundamentals of Physics Laboratory 1	
BIOL 3721	Genetics	3
BIOL 3702	Microbiology	3
BIOL 3702L	Microbiology Laboratory	1

Semester Hours 16

Spring

CHEM 3786	Biochemistry 2	3
CHEM 5876	Enzyme Analysis	2
PHYS 2611	General Physics 2	3-4
or PHYS 1502	or Fundamentals of Physics 2	
PHYS 2611L	General Physics laboratory 2	1
or PHYS 1502L	or Fundamentals of Physics Laboratory 2	
STAT 3743	Probability and Statistics	4
or STAT 3717	or Statistical Methods	
PHLT 3725	Topics in Public Health	3

Semester Hours 16-17

Summer

First Summer Session		
CHEM 3719	Organic Chemistry 1	3
CHEM 3719L	Organic Chemistry 1 Laboratory	1
CHEM 3719R	Organic Chemistry Recitation 1	1
PHLT 1531	Fundamentals of Public Health	3
Second Summer Session		
CHEM 3720	Organic Chemistry 2	3
CHEM 3720L	Organic Chemistry 2 Laboratory	1
CHEM 3720R	Organic Chemistry Recitation 2	1
SOC 3745	Sociology of Health, Illness, and Healthcare	3
Semester Hours		16

Year 3

Fall

CHEM 3739	Physical Chemistry 1	3
CHEM 3739L	Physical Chemistry 1 Laboratory	1
CHEM 4850	Chemistry Research	1

CHEM Upper-level Elective		4
GER Arts & Humanities		3
PHLT 3709	Elements of Urban Environmental Health Practices	3
Semester Hours		15
Spring		
HONR 4890C	Senior Honors Thesis: Capstone	1
CHEM 4851	Chemistry Research Project	2
CHEM Upper-level Elective		3
BIOL Upper-level Elective		6
Semester Hours		12
Summer		
First Summer Session		
CHEM 2604 & 2604L	Quantitative Analysis and Quantitative Analysis Laboratory	5
Second Summer Session		
CMST 1545	Communication Foundations	3
GER Arts & Humanities		3
Semester Hours		11
Total Semester Hours		122-123

Minor in Chemistry

COURSE	TITLE	S.H.
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
CHEM 3719	Organic Chemistry 1	3
CHEM 3719L	Organic Chemistry 1 Laboratory	1
Select two of the following:		6-9
CHEM 2604	Quantitative Analysis	
CHEM 2604L	Quantitative Analysis Laboratory	
CHEM 3720	Organic Chemistry 2	
CHEM 3720L	Organic Chemistry 2 Laboratory	
CHEM 3729	Inorganic Chemistry	
CHEM 3739	Physical Chemistry 1	
CHEM 3739L	Physical Chemistry 1 Laboratory	
CHEM 3764	Chemical Toxicology	
CHEM 3785	Biochemistry 1	
CHEM 4850	Chemistry Research	
CHEM 4851	Chemistry Research Project	
Total Semester Hours		18-21

Forensic Science

Forensic Science Program

We're the only Ohio university to offer a crime scene lab for our students to learn and grow. Hands-on experience begins here.

What You'll Study

Forensic scientists interpret evidence obtained from the scene of a crime. They often identify suspects through tiny traces of scientific evidence. Their research is a difference-maker in acquitting the innocent or convicting the guilty.

We're also set up for more practical experiences. Fingerprinting and blood pattern analysis can be done in our labs.

Our students also get the opportunity to integrate academic studies with the daily operations of a forensic science related facility through our required internship program (https://ysu.edu/sites/default/files/stem/Internship_Manual_Revised_11.13.20.pdf)* their senior year. Each of the required six semester hours translates to 45 on-site hours in the field.

Professor

Susan Ann Clutter, M.F.S., Associate Professor

Robert E. Wardle III, M.S., Associate Professor

Majors

- BS in Forensic Science (p. 389)
- BS in Forensic Science 4+1 MS Chemistry Track (p. 392)

Certificates

- Certificate in Forensic Science (p. 394)

Minors

- Forensic Science Minor (p. 395)

FSCI 1510 Survey of Forensic Science 3 s.h.

An overview of the history, evolution, and current state of the forensic science discipline. Discussion of the scientific method and its applicability to forensic science, a description of the various sub-disciplines and areas of specialty that contribute to the field as a whole, and a summary of training, education, certification, accreditation, legal, and constitutional issues related to the discipline. There will also be discussion of the basic application of biological, physical, chemical, medical, technological, and behavioral sciences to questions of evidence and law. This course is designed to be accessible to those without a natural science background and provide a comprehensive introduction to those considering further study within the discipline.

Gen Ed: Natural Science.

FSCI 3714 Forensic Science: Crime Scene Investigation 2 s.h.

An introduction to the legal and practical aspects of crime scene investigation. Emphasis on the value of physical evidence and the skills and tools needed to recognize, collect and preserve physical evidence found at a crime scene. Concurrent with: FSCI 3714L.

Prereq.: FSCI 1510 and sophomore standing.

FSCI 3714L Forensic Science CSI Lab 1 s.h.

Laboratory section designed to teach the practical skills employed by criminalists collecting evidence at a crime scene. Students will gain experience using tools, techniques and procedures required to recognize and collect evidence by completing practical exercises.

Prereq.: FSCI 1510 and sophomore standing.

Coreq.: FSCI 3714.

FSCI 3716 Forensic Science Evidence Analysis 2 s.h.

Serves as an introduction to the techniques, instrumentation and procedures used in the examination and analysis of physical evidence in a forensic laboratory setting and the legal aspects regarding the use of laboratory reports in the investigation process. Concurrent with: FSCI 3716L.

Prereq.: FSCI 3714, FSCI 3714L.

FSCI 3716L Forensic Science Evidence Analysis Laboratory 1 s.h.

Laboratory section designed to familiarize students with the tools commonly used in the examination and analysis of physical evidence. Students will gain experience with the instrumentation, techniques, and procedures used for examining physical evidence through a variety of practical exercises.

Prereq.: FSCI 3714, FSCI 3714L.

Coreq.: FSCI 3716.

FSCI 3720 Forensic Fire and Explosion Investigation 3 s.h.
Principles of science including fire chemistry, explosion physics, the application of forensics, and investigation of both fire and explosion scenes. Special emphasis on concepts of fire progression, cause and origin determinations, arson investigation, and bombings.
Prereq.: Sophomore status or higher, or permission of forensic coordinator; it is urged that YSU campus students take FSCI 3714/L before this course.

FSCI 4850 Special Topics in Forensic Sciences 3 s.h.
Contemporary issues in criminal justice. Topics are announced prior to enrollment.
Prereq.: Senior standing or permission of instructor.

FSCI 4852 Trace Evidence 3 s.h.
Teaches search methods, recovery procedures, and laboratory analysis for hairs, fibers, and other types of trace evidence in criminal investigations and prosecutions. Emphasis is on major cases that hinged on trace evidence, and the legal and ethical future of trace evidence. Some laboratory exercises with microscopes are included.
Prereq.: FSCI 3714 or concurrent or permission from instructor.

FSCI 4853 Forensic Firearms Examination 3 s.h.
This course features discussion on the forensic science involved in firearms examination, to include gun manufacturing, the physics of ballistics, gunpowder and gun primer residue analysis, serial number restoration, and shooting reconstruction. Legislation concerning handguns and other weapons in the US will also be covered.
Prereq.: FSCI 3714 or concurrent or permission from Instructor.

FSCI 4854 Death Investigation 3 s.h.
A broad overview exploring the various facets of medicolegal death investigation including discussion of history, standard procedures, methods and techniques, safety, scene documentation, cause and manner of death determination, autopsy, toxicological analysis, and other issues related to the discipline. Course content will include graphic images, descriptions, and discussion. May include depictions of a sexual nature, nudity, the aftermath of violent actions, and/or catastrophe.
Prereq.: Junior standing or permission of instructor.

FSCI 5814 Practice and Ethics in Forensic Science 3 s.h.
Overview of the forensic science discipline as it relates to the criminal justice system including discussion of legal aspects, constitutional considerations, expert testimony, the role of the expert witness, and ethical standards and dilemmas. Also includes discussion of current events and the evolution and future of the forensic sciences.
Prereq.: FSCI 3714 and FSCI 3714L.
Gen Ed: Capstone.

Bachelor of Science in Applied Science in Forensic Science Forensic Science Program

Youngstown State University offers an undergraduate degree, the Bachelor of Science in Applied Science in Forensic Science. This is a multidisciplinary program drawing upon Criminal Justice, Forensic Science, Biological Sciences, Chemical Sciences, Sociology, and Anthropology. The program is housed in the Department of Chemical and Biological Sciences.

Forensic science can be broadly defined as the application of science to law. This program is designed to give students both a theoretical and practical background in the scientific, legal, and investigative aspects of forensic science. Graduates of the program are prepared for continued education in graduate programs or for immediate employment in forensic science-related facilities. Many careers in or related to forensic science require academic preparation beyond the undergraduate level. Students should be prepared to pursue advanced degrees within their discipline.

Admission Policy

Students wishing to transfer into the forensic science program must have and maintain a cumulative GPA of at least 2.5. **Note: individuals with a felony, drug, and/or domestic violence conviction will experience difficulty gaining employment in the fields of forensic science and/or criminal justice.** Students with misdemeanor convictions or juvenile sex offense convictions should seek advice from an advisor.

Internships

YSU's Forensic Science program requires a six-semester hour internship experience which will provide students with the opportunity to integrate academic studies with the daily operations of a forensic science related facility. Each semester hour requires approximately 45 on-site hours. Internships also foster the development of networking relationships with practitioners who can assist in procuring future employment. Certain criminal convictions may prohibit students from being eligible for an internship experience.

For more information, visit the Forensic Science Program. (<https://ysu.edu/academics/science-technology-engineering-mathematics/forensicsciencemajor/>)

A Bachelor of Science in Applied Science degree in Forensic Science requires a minimum of 120 semester hours. The program is designed to be rigorous and multi-disciplinary, and allows for fewer electives in lower level courses but an increased flexibility in upper-division coursework. Students must complete the following coursework within their first 3 semesters at YSU, and must maintain at least a 2.5 GPA in order to remain in the FS program:

- STEM 1520 or YSU 1500
- ENGL 1550
- CRJS 1500
- FSCI 1510
- CHEM 1515
- CHEM 1515L
- Two MATH courses, if applicable (may include MATH 1510, MATH 1510C, MATH 1511, MATH 1511C, MATH 1513, MATH 1570, MATH 1571)

Professor

Susan Ann Clutter, M.F.S., Associate Professor

Robert E. Wardle III, M.S., Associate Professor

A minor is intended to contrast with or deepen a major or General Education. Forensic Science is an interdisciplinary major. Courses that are required for, and count toward, the Forensic Science major cannot be counted toward a minor.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics		
MATH 1571	Calculus 1 (required for major)	4
or MATH 1570	Applied Calculus 1	
Natural Science (2 courses; 1 with lab) ^{met with BIOL 2601 and 2602}		
Arts and Humanities (Select 2 courses)		6
General Education Electives (9 s.h.):		

CMST 1545	Communication Foundations	3
Any 2 Gen Ed Courses (6 s.h.)		6
Major Specific Courses		
BIOL 2601	General Biology 1: Molecules and Cells (required for major)	3
BIOL 2601L	General Biology I: Molecules and Cells Laboratory	1
BIOL 2602	General Biology 2: Organisms and Ecology (required for major)	3
BIOL 2602L	General Biology: Organisms and Ecology Laboratory	1
Social Sciences (2 courses below required for major)		
CRJS 1500	Introduction to Criminal Justice	3
ANTH 1500	Introduction to Anthropology (required for major)	3
Core Requirements (64 s.h.)		
Chemistry		
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
CHEM 3719	Organic Chemistry 1	3
CHEM 3719L	Organic Chemistry 1 Laboratory	1
CHEM 3720	Organic Chemistry 2	3
CHEM 3720L	Organic Chemistry 2 Laboratory	1
CHEM 2604	Quantitative Analysis	5
CHEM 2604L	Quantitative Analysis Laboratory	0
Additional Biology		
BIOL 3721	Genetics	3
Physics		
PHYS 1501 & 1501L	Fundamentals of Physics 1 and Fundamentals of Physics Laboratory 1	5
or PHYS 2610 & 2610L	General Physics 1 and General Physics Laboratory 1	
PHYS 1502 & 1502L	Fundamentals of Physics 2 and Fundamentals of Physics Laboratory 2	4
Statistics		
STAT 3717	Statistical Methods	4
Criminal Justice and Forensic Sciences		
FSCI 1510	Survey of Forensic Science	3
CRJS 2602	Criminal Courts	3
FSCI 3714	Forensic Science: Crime Scene Investigation	2
FSCI 3714L	Forensic Science CSI Lab	1
FSCI 3716	Forensic Science Evidence Analysis	2
FSCI 3716L	Forensic Science Evidence Analysis Laboratory	1
FSCI 3720	Forensic Fire and Explosion Investigation	3
FSCI 4852	Trace Evidence	3
or FSCI 4853	Forensic Firearms Examination	
or FSCI 4854	Death Investigation	
STEM 4890	STEM Internship	6
FSCI 5814	Practice and Ethics in Forensic Science	3
Concentrations (Pick One -Biology, Chemistry, Anthropology, or Flexible Option)		16
CHEMISTRY (Select at least 16 s.h.)		
CHEM 3729	Inorganic Chemistry	
CHEM 3739 & 3739L	Physical Chemistry 1 and Physical Chemistry 1 Laboratory	
CHEM 3740 & 3740L	Physical Chemistry 2 and Physical Chemistry 2 Laboratory	
CHEM 3764	Chemical Toxicology	

CHEM 3785 & 3785L	Biochemistry 1 and Biochemistry Laboratory
CHEM 3786	Biochemistry 2
CHEM 4891	Special Topics
CHEM 5804 & 5804L	Chemical Instrumentation and Chemical Instrumentation Laboratory
CHEM 5821	Intermediate Organic Chemistry
CHEM 5822 & 5822L	Advanced Organic Laboratory and Advanced Organic Laboratory
BIOLOGY (Select at least 16 s.h.)	
BIOL 3702 & 3702L	Microbiology and Microbiology Laboratory
BIOL 3703 & 3703L	Clinical Immunology and Clinical Immunology Laboratory
BIOL 3705 & 3705L	Introduction to Human Gross Anatomy and Introduction to Human Gross Anatomy Laboratory
BIOL 3711	Cell Biology: Fine Structure
BIOL 3730 & 3730L	Human Physiology and Human Physiology Laboratory
BIOL 4800 & 4800L	Bioinformatics and Bioinformatics Laboratory
BIOL 4839	Selected Topics in Physiology
CHEM 3785 & 3785L	Biochemistry 1 and Biochemistry Laboratory
CHEM 3786	Biochemistry 2
BIOL 4850	Problems in Biology
BIOL 4890 & 4890L	Molecular Genetics and Molecular Genetics Laboratory
BIOL 5827	Gene Manipulation
ANTHROPOLOGY (Select at least 16 s.h.)	
ANTH 2600	Human Osteology
ANTH 3702	Archaeology
ANTH 3703	Biological Anthropology
ANTH 3778	Archaeological Techniques
ANTH 3779	Fieldwork in Historical and Industrial Sites Archaeology
ANTH 3780	Forensic Anthropology 1
ANTH 4881	Forensic Anthropology 2
BIOL 3705 & 3705L	Introduction to Human Gross Anatomy and Introduction to Human Gross Anatomy Laboratory
Optional courses to meet 120 hours (16 hours). Students may take a flexible option of any 3700 or higher level courses to meet the degree requirements.	
FSCI 4850	Special Topics in Forensic Sciences
FSCI 4853	Forensic Firearms Examination
FSCI 4854	Death Investigation
CSCI 4870	Biometrics
CHEM 3719R	Organic Chemistry Recitation 1
CHEM 3720R	Organic Chemistry Recitation 2
PHLT 3731	Drug Use and Abuse
PHLT 5810	Agents of Mass Casualty
PHLT 5812	Crisis Management in Public Health
ENST 3700 & 3700L	Environmental Chemistry and Environmental Chemistry Lab
ENST 3730	Air Quality
ENST 3751 & 3751L	Water Quality Analysis and Water Quality Analysis Lab
ENST 3752	Soil Quality and Analysis

ENST 3781	Environmental Sampling Methods	
Total Semester Hours		120-122

There may be other courses that qualify for upper division electives, but you must discuss these options with an academic advisor and get pre-approval.

Year 1		
Fall		S.H.
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
FSCI 1510	Survey of Forensic Science	3
CRJS 1500	Introduction to Criminal Justice	3
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
Semester Hours		14-16
Spring		
ENGL 1551	Writing 2	3
CRJS 2602	Criminal Courts	3
ANTH 1500	Introduction to Anthropology	3
CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
General Education Elective		3
Semester Hours		16

Year 2		
Fall		
CMST 1545	Communication Foundations	3
FSCI 3714	Forensic Science: Crime Scene Investigation	2
FSCI 3714L	Forensic Science CSI Lab	1
MATH 1571	Calculus 1	4
CHEM 3719	Organic Chemistry 1	3
CHEM 3719L	Organic Chemistry 1 Laboratory	1
Semester Hours		14
Spring		
FSCI 3716	Forensic Science Evidence Analysis	2
FSCI 3716L	Forensic Science Evidence Analysis Laboratory	1
FSCI 3720	Forensic Fire and Explosion Investigation	3
CHEM 3720	Organic Chemistry 2	3
CHEM 3720L	Organic Chemistry 2 Laboratory	1
Concentration Electives		4
Semester Hours		14

Year 3		
Fall		
BIOL 2601	General Biology 1: Molecules and Cells	3
BIOL 2601L	General Biology I: Molecules and Cells Laboratory	1
FSCI 4850	Special Topics in Forensic Sciences	3
STAT 3717	Statistical Methods	4
Concentration Electives		5
Semester Hours		16

Spring		
BIOL 2602	General Biology 2: Organisms and Ecology	3
BIOL 2602L	General Biology: Organisms and Ecology Laboratory	1

CHEM 2604	Quantitative Analysis	5
CHEM 2604L	Quantitative Analysis Laboratory	0
Arts and Humanities		3
Concentration Electives		4
Semester Hours		16

Year 4		
Fall		
STEM 4890	STEM Internship	6
PHYS 1501	Fundamentals of Physics 1	4
PHYS 1501L	Fundamentals of Physics Laboratory 1	1
General Education Elective		3
Concentration Electives		3
Semester Hours		17

Spring		
FSCI 5814	Practice and Ethics in Forensic Science	3
BIOL 3721	Genetics	3
PHYS 1502	Fundamentals of Physics 2	3
PHYS 1502L	Fundamentals of Physics Laboratory 2	1
Arts & Humanities		3
Semester Hours		13

Total Semester Hours 120-122

Request a Graduation Evaluation after you have completed 80-85 s.h. from the BCHHS Advising/Deans Office, 2104 Cushwa Hall, 330-941-3221.

Learning Outcomes

- Students will understand the basic principles of chemistry, biology, physics, and math and how they relate to the forensic science discipline.
- Students will demonstrate competency in the recognition, collection, processing, analysis, and evaluation of physical evidence.
- Students will utilize the application of scientific concepts, techniques and data analysis in drawing logical conclusions.
- Students will exhibit proficiency in communicating and defending conclusions based on scientific inquiry in a variety of formats.
- Students will be capable of making reasoned decisions which allow them to maintain the high professional and ethical standards necessary for the forensic science discipline.

FSCI 1510 Survey of Forensic Science 3 s.h.

An overview of the history, evolution, and current state of the forensic science discipline. Discussion of the scientific method and its applicability to forensic science, a description of the various sub-disciplines and areas of specialty that contribute to the field as a whole, and a summary of training, education, certification, accreditation, legal, and constitutional issues related to the discipline. There will also be discussion of the basic application of biological, physical, chemical, medical, technological, and behavioral sciences to questions of evidence and law. This course is designed to be accessible to those without a natural science background and provide a comprehensive introduction to those considering further study within the discipline.

Gen Ed: Natural Science.

FSCI 3714 Forensic Science: Crime Scene Investigation 2 s.h.

An introduction to the legal and practical aspects of crime scene investigation. Emphasis on the value of physical evidence and the skills and tools needed to recognize, collect and preserve physical evidence found at a crime scene. Concurrent with: FSCI 3714L.

Prereq.: FSCI 1510 and sophomore standing.

FSCI 3714L Forensic Science CSI Lab 1 s.h.

Laboratory section designed to teach the practical skills employed by criminalists collecting evidence at a crime scene. Students will gain experience using tools, techniques and procedures required to recognize and collect evidence by completing practical exercises.

Prereq.: FSCI 1510 and sophomore standing.

Coreq.: FSCI 3714.

FSCI 3716 Forensic Science Evidence Analysis 2 s.h.

Serves as an introduction to the techniques, instrumentation and procedures used in the examination and analysis of physical evidence in a forensic laboratory setting and the legal aspects regarding the use of laboratory reports in the investigation process. Concurrent with: FSCI 3716L.

Prereq.: FSCI 3714, FSCI 3714L.

FSCI 3716L Forensic Science Evidence Analysis Laboratory 1 s.h.

Laboratory section designed to familiarize students with the tools commonly used in the examination and analysis of physical evidence. Students will gain experience with the instrumentation, techniques, and procedures used for examining physical evidence through a variety of practical exercises.

Prereq.: FSCI 3714, FSCI 3714L.

Coreq.: FSCI 3716.

FSCI 3720 Forensic Fire and Explosion Investigation 3 s.h.

Principles of science including fire chemistry, explosion physics, the application of forensics, and investigation of both fire and explosion scenes. Special emphasis on concepts of fire progression, cause and origin determinations, arson investigation, and bombings.

Prereq.: Sophomore status or higher, or permission of forensic coordinator; it is urged that YSU campus students take FSCI 3714/L before this course.

FSCI 4850 Special Topics in Forensic Sciences 3 s.h.

Contemporary issues in criminal justice. Topics are announced prior to enrollment.

Prereq.: Senior standing or permission of instructor.

FSCI 4852 Trace Evidence 3 s.h.

Teaches search methods, recovery procedures, and laboratory analysis for hairs, fibers, and other types of trace evidence in criminal investigations and prosecutions. Emphasis is on major cases that hinged on trace evidence, and the legal and ethical future of trace evidence. Some laboratory exercises with microscopes are included.

Prereq.: FSCI 3714 or concurrent or permission from instructor.

FSCI 4853 Forensic Firearms Examination 3 s.h.

This course features discussion on the forensic science involved in firearms examination, to include gun manufacturing, the physics of ballistics, gunpowder and gun primer residue analysis, serial number restoration, and shooting reconstruction. Legislation concerning handguns and other weapons in the US will also be covered.

Prereq.: FSCI 3714 or concurrent or permission from Instructor.

FSCI 4854 Death Investigation 3 s.h.

A broad overview exploring the various facets of medicolegal death investigation including discussion of history, standard procedures, methods and techniques, safety, scene documentation, cause and manner of death determination, autopsy, toxicological analysis, and other issues related to the discipline. Course content will include graphic images, descriptions, and discussion. May include depictions of a sexual nature, nudity, the aftermath of violent actions, and/or catastrophe.

Prereq.: Junior standing or permission of instructor.

FSCI 5814 Practice and Ethics in Forensic Science 3 s.h.

Overview of the forensic science discipline as it relates to the criminal justice system including discussion of legal aspects, constitutional considerations, expert testimony, the role of the expert witness, and ethical standards and dilemmas. Also includes discussion of current events and the evolution and future of the forensic sciences.

Prereq.: FSCI 3714 and FSCI 3714L.

Gen Ed: Capstone.

Forensic Science 4+1 MS Chemistry Track

A Bachelor of Science in Applied Science degree in Forensic Science requires a minimum of 120 semester hours. The program is designed to be rigorous and multi-disciplinary, and allows for fewer electives in lower level courses but an increased flexibility in upper-division coursework. Students must complete the following coursework within their first 3 semesters at YSU, and must maintain at least a 2.5 GPA in order to remain in the FS program:

- STEM 1520 or YSU 1500
- ENGL 1550
- CRJS 1500
- FSCI 1510
- CHEM 1515
- CHEM 1515L
- Two MATH courses, if applicable (may include MATH 1510, MATH 1510C, MATH 1511, MATH 1511C, MATH 1513, MATH 1570, MATH 1571)

A minor is intended to contrast with or deepen a major or General Education. Forensic Science is an interdisciplinary major. Courses that are required for, and count toward, the Forensic Science major cannot be counted toward a minor.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics		
MATH 1571	Calculus 1 (required for major)	4
or MATH 1570	Applied Calculus 1	
Arts and Humanities (Select 2 courses)		
Natural Science (2 courses; 1 with lab) met with BIOL 2601 and 2602		
BIOL 2601	General Biology 1: Molecules and Cells (required for major)	3
BIOL 2601L	General Biology I: Molecules and Cells Laboratory	1
BIOL 2602	General Biology 2: Organisms and Ecology (required for major)	3
BIOL 2602L	General Biology: Organisms and Ecology Laboratory	1
Social Sciences (2 courses below required for major)		
CRJS 1500	Introduction to Criminal Justice	3
ANTH 1500	Introduction to Anthropology (required for major)	3
General Education Electives (9 s.h.)		
CMST 1545	Communication Foundations	3
Any 2 Gen Ed Courses		
Core Requirements (64 s.h.)		
Chemistry		
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
CHEM 3719	Organic Chemistry 1	3
CHEM 3719L	Organic Chemistry 1 Laboratory	1

CHEM 3720	Organic Chemistry 2	3
CHEM 3720L	Organic Chemistry 2 Laboratory	1
CHEM 2604	Quantitative Analysis	5
CHEM 2604L	Quantitative Analysis Laboratory	0
Additional Biology		
BIOL 3721	Genetics	3
Physics		
PHYS 1501 & 1501L	Fundamentals of Physics 1 and Fundamentals of Physics Laboratory 1	5
or PHYS 2610 & 2610L	General Physics 1 and General Physics Laboratory 1	
PHYS 1502 & 1502L	Fundamentals of Physics 2 and Fundamentals of Physics Laboratory 2	4
Statistics		
STAT 3717	Statistical Methods	4
Criminal Justice and Forensic Sciences		
FSCI 1510	Survey of Forensic Science	3
CRJS 2602	Criminal Courts	3
FSCI 3714	Forensic Science: Crime Scene Investigation	2
FSCI 3714L	Forensic Science CSI Lab	1
FSCI 3716	Forensic Science Evidence Analysis	2
FSCI 3716L	Forensic Science Evidence Analysis Laboratory	1
FSCI 3720	Forensic Fire and Explosion Investigation	3
FSCI 4852	Trace Evidence	3
or FSCI 4853	Forensic Firearms Examination	
or FSCI 4854	Death Investigation	
CRJS 4807	Criminal Justice Internship	6
or STEM 4890	STEM Internship	
FSCI 5814	Practice and Ethics in Forensic Science	3
Concentrations (Pick One -Biology, Chemistry, Anthropology, or Flexible Option)		16
CHEMISTRY (Select at least 16 s.h.) at least 9 hours must be at the 5800/6900 level for 4+1 (See below for full list)		
CHEM 3729	Inorganic Chemistry	
CHEM 3739 & 3739L	Physical Chemistry 1 and Physical Chemistry 1 Laboratory	
CHEM 3740 & 3740L	Physical Chemistry 2 and Physical Chemistry 2 Laboratory	
CHEM 3764	Chemical Toxicology	
CHEM 3785 & 3785L	Biochemistry 1 and Biochemistry Laboratory	
CHEM 3786	Biochemistry 2	
CHEM 4891	Special Topics	
CHEM 5804 & 5804L	Chemical Instrumentation and Chemical Instrumentation Laboratory	
CHEM 5821	Intermediate Organic Chemistry	
CHEM 5822 & 5822L	Advanced Organic Laboratory and Advanced Organic Laboratory	
BIOLOGY (Select at least 16 s.h.)		
BIOL 3702 & 3702L	Microbiology and Microbiology Laboratory	
BIOL 3703 & 3703L	Clinical Immunology and Clinical Immunology Laboratory	
BIOL 3705 & 3705L	Introduction to Human Gross Anatomy and Introduction to Human Gross Anatomy Laboratory	
BIOL 3711	Cell Biology: Fine Structure	
BIOL 3730 & 3730L	Human Physiology and Human Physiology Laboratory	

BIOL 4800 & 4800L	Bioinformatics and Bioinformatics Laboratory
BIOL 4839	Selected Topics in Physiology
CHEM 3785 & 3785L	Biochemistry 1 and Biochemistry Laboratory
CHEM 3786	Biochemistry 2
BIOL 4850	Problems in Biology
BIOL 4890 & 4890L	Molecular Genetics and Molecular Genetics Laboratory
BIOL 5827	Gene Manipulation
ANTHROPOLOGY (Select at least 16 s.h.)	
ANTH 2600	Human Osteology
ANTH 3702	Archaeology
ANTH 3703	Biological Anthropology
ANTH 3778	Archaeological Techniques
ANTH 3779	Fieldwork in Historical and Industrial Sites Archaeology
ANTH 3780	Forensic Anthropology 1
ANTH 4881	Forensic Anthropology 2
BIOL 3705 & 3705L	Introduction to Human Gross Anatomy and Introduction to Human Gross Anatomy Laboratory
Optional courses to meet 120 hours (16 hours). Students may take a flexible option of any 3700 or higher level courses to meet the degree requirements.	
FSCI 4850	Special Topics in Forensic Sciences
FSCI 4853	Forensic Firearms Examination
FSCI 4854	Death Investigation
CSCI 4870	Biometrics
CHEM 3719R	Organic Chemistry Recitation 1
CHEM 3720R	Organic Chemistry Recitation 2
PHLT 3731	Drug Use and Abuse
PHLT 5810	Agents of Mass Casualty
PHLT 5812	Crisis Management in Public Health
ENST 3700 & 3700L	Environmental Chemistry and Environmental Chemistry Lab
ENST 3730	Air Quality
ENST 3751 & 3751L	Water Quality Analysis and Water Quality Analysis Lab
ENST 3752	Soil Quality and Analysis
ENST 3781	Environmental Sampling Methods

Total Semester Hours**120-122**

There may be other courses that qualify for upper division electives, but you must discuss these options with an academic advisor and get pre-approval.

Dual Credit Requirements**Accelerated 4+1 Program**

Undergraduate Forensic Science students can apply for admission into the accelerated 4+1 MS in Chemistry graduate program after completing 78 undergraduate semester hours with a GPA of 3.0 or higher. After being admitted to the accelerated 4+1 MS program, students will be allowed a maximum of nine semester hours of graduate coursework, specified as 5000 level or higher, to be double counted toward both a bachelor's and master's degrees. The courses chosen to count for both undergraduate and graduate coursework must be approved by the Graduate Program Director. An additional three hours of graduate coursework can be completed as an undergraduate and used exclusively for graduate credit. This allows the student to graduate with a master's degree with one year of additional full-time study beyond the

bachelor's degree, as the total hours counted towards the Master's degree is greater than or equal to 30 hours.

Courses Counting Towards Requirements

Select 3 of these courses, as only 3 can be double counted. Can select a 4th that would only count for the Master's degree.

COURSE	TITLE	S.H.
CHEM 6911	Advanced Analytical Chemistry 1	3
CHEM 6912	Advanced Analytical Chemistry 2	3
CHEM 6921	Advanced Biochemistry 1	3
CHEM 6941	Advanced Organic Chemistry 1	3
CHEM 6991K	Special Topics Organometallics	1-3
CHEM 6991Q	Special Topics Quantum Chemistry	1-3
CHEM 6980	Introduction to Chemical Research	3
CHEM 5804	Chemical Instrumentation	4
CHEM 5804L	Chemical Instrumentation Laboratory	0
CHEM 5822	Advanced Organic Laboratory	4
CHEM 5822L	Advanced Organic Laboratory	0
Year 1		
Fall		
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
FSCI 1510	Survey of Forensic Science	3
CRJS 1500	Introduction to Criminal Justice	3
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
Semester Hours		14-16
Spring		
ENGL 1551	Writing 2	3
CRJS 2602	Criminal Courts	3
ANTH 1500	Introduction to Anthropology	3
CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
Gen Ed Elective		3
Semester Hours		16
Year 2		
Fall		
CMST 1545	Communication Foundations	3
FSCI 3714	Forensic Science: Crime Scene Investigation	2
FSCI 3714L	Forensic Science CSI Lab	1
MATH 1571	Calculus 1	4
CHEM 3719	Organic Chemistry 1	3
CHEM 3719L	Organic Chemistry 1 Laboratory	1
Semester Hours		14
Spring		
FSCI 3716	Forensic Science Evidence Analysis	2
FSCI 3716L	Forensic Science Evidence Analysis Laboratory	1
FSCI 3720	Forensic Fire and Explosion Investigation	3
CHEM 3720	Organic Chemistry 2	3
CHEM 3720L	Organic Chemistry 2 Laboratory	1

Concentration Electives		4
Semester Hours		14
Year 3		
Fall		
BIOL 2601	General Biology 1: Molecules and Cells	3
BIOL 2601L	General Biology I: Molecules and Cells Laboratory	1
FSCI 4850	Special Topics in Forensic Sciences	3
STAT 3717	Statistical Methods	4
Concentration Electives		5
Semester Hours		16
Spring		
BIOL 2602	General Biology 2: Organisms and Ecology	3
BIOL 2602L	General Biology: Organisms and Ecology Laboratory	1
CHEM 2604	Quantitative Analysis	5
CHEM 2604L	Quantitative Analysis Laboratory	0
Arts and Humanities		3
Concentration Electives		4
Semester Hours		16
Year 4		
Fall		
CRJS 4807	Criminal Justice Internship	6
PHYS 1501	Fundamentals of Physics 1	4
PHYS 1501L	Fundamentals of Physics Laboratory 1	1
Concentration Electives		3
Gen Ed Elective		3
Semester Hours		17
Spring		
FSCI 5814	Practice and Ethics in Forensic Science	3
BIOL 3721	Genetics	3
PHYS 1502	Fundamentals of Physics 2	3
PHYS 1502L	Fundamentals of Physics Laboratory 2	1
Arts & Humanities		3
Semester Hours		13
Total Semester Hours		120-122

Request a Graduation Evaluation after you have completed 80-85 s.h. from the STEM Advising/Deans Office, 2325 Moser Hall, 330-941-2512.

Learning Outcomes

1. Students will demonstrate knowledge on the influence of the CJ system at the subsystem levels (policing, courts, and corrections).
2. Students can analyze scientific situations, and apply the scientific method within the CJ judicial system.
3. Students can explain biology principles and how they relate to forensic science.
4. Students can explain chemistry principles and how they relate to forensic science.
5. Students can explain basic physics and math principles, and how they relate to forensic science.

Certificate in Forensic Science

The Forensic Sciences Certificate is an 18 hour program that emphasizes crime scene investigation and basic information regarding the use of forensic work within multiple career fields. The student can pick their own advanced courses based upon their desired career.

Upon completion of the Forensic Science Certificate, the student will be able to:

- Describe various subfields of forensic science, and identify where forensic sciences fit into the Criminal Justice system
- Examine crime scenes, recover evidence, and perform basic scientific tests within a laboratory setting
- Apply biological, chemical, mathematical, and physics theory towards solving crimes
- Evaluate the probative value of forensic evidence such as hair examination, drug analysis, and fire investigation

COURSE	TITLE	S.H.
CRJS 1500	Introduction to Criminal Justice	3
FSCI 1510	Survey of Forensic Science	3
FSCI 3714	Forensic Science: Crime Scene Investigation	2
FSCI 3714L	Forensic Science CSI Lab	1
FSCI 3716	Forensic Science Evidence Analysis	2
FSCI 3716L	Forensic Science Evidence Analysis Laboratory	1
AND ANY TWO OF THE FOLLOWING COURSES:		6
FSCI 3720	Forensic Fire and Explosive Investigation	
FSCI 4852	Trace Evidence	
FSCI 4853	Forensic Firearms Examination	
FSCI 4854	Death Investigation	
FSCI 5814	Practice and Ethics in Forensic Science	
Total Semester Hours		18

Minor in Forensic Science

COURSE	TITLE	S.H.
CRJS 1500	Introduction to Criminal Justice	3
FSCI 1510	Survey of Forensic Science	3
CRJS 2601	Policing	3
CRJS 2602	Criminal Courts	3
FSCI 3714	Forensic Science: Crime Scene Investigation	2
FSCI 3714L	Forensic Science CSI Lab	1
FSCI 3716	Forensic Science Evidence Analysis	2
FSCI 3716L	Forensic Science Evidence Analysis Laboratory	1
Total Semester Hours		18

Department of Computer Science, Information, and Engineering Technology

OVERVIEW

Welcome to the School of Computer Science, Information, and Engineering Technology. The programs that make up the School are committed to high quality education in the classroom, in student research, student projects, and in internships with our business partners. The programs within the School range from Associate Degrees to a Master Degree. Some programs focus on the analytical while others are focused on the practical side. Below is a list of the programs to meet student needs:

- The Computer Science program is offered as the Bachelor of Science degree and is a traditional, analytical program which involves extensive computer programming and support courses in mathematics.
- The Information Technology program is offered as the Associate of Applied Science and the Bachelor of Science in Applied Science.

Coursework emphasizes applying high-end computer applications and system management.

- The Master's in Computing and Information Systems offers advanced education in several computing areas.
- The Civil and Construction Engineering Technology is offered as both Associate and Bachelor of Science in Applied Science degree and focuses on civil design engineering and the construction aspect to civil engineering.
- The Electrical Engineering Technology is also offered as both Associate and Bachelor of Science in Applied Science degrees with focuses in electrical engineering design and industrial automation.
- The Mechanical Engineering Technology program, also offers both Associate and Bachelor of Science in Applied Science degrees with focuses in mechanical and additive manufacturing engineering. Within the mechanical engineering program students can also earn certifications in specific areas.

Welcome from the Chair

As the chair, I want to welcome you to YSU and the School of Computer Science, Information, and Engineering Technology. The programs within the School offers students the most current curriculum with the technology that will prepare them for their professional careers upon graduation by teaching them to apply knowledge and training to create solutions.

Students in the various programs have the opportunity to work with faculty on both research and real-world projects, as well as internship and co-op opportunities so that they gain experience in their field of study.

I am proud of the faculty, students, and graduates of our programs. We look forward to meeting you and answering any questions you may have! Please feel free to contact me at aarslanyilmaz@ysu.edu (cmlamb@ysu.edu).

School Contact Information

Phone: (330) 941-3134 or (330) 941-3287

Locations:

- Computer Science and Information Technology: Meshel Hall, Room 339
- Engineering Technology: Moser Hall, Room 4120

Program Coordinators

Computer Science: Dr. Kramer rwkramer@ysu.edu

Information Technology: Dr. Arslanyilmaz
aarslanyilmaz@ysu.edu

Civil and Construction Engr'g Tech: Prof. Korenic rjkorenic@ysu.edu

Electrical Engr'g. Tech: Prof. Zapka jazapka@ysu.edu

Mechanical Engr Tech: Prof. Martin jdmartin01@ysu.edu
(cmlamb@ysu.edu)

Computer Science and Information Systems

Computer Science and Information Technology

- The Computer Science program is offered as the Bachelor of Science degree and is a traditional, analytical program which involves extensive computer programming and support courses in mathematics.
- The Information Technology program is offered as the Associate of Applied Science and the Bachelor of Science in Applied Science.

Coursework emphasizes applying high-end computer applications and system management.

- The Master's in Computing and Information Systems offers advanced education in several computing areas.

The learning outcomes for each program can be found at:

- BS in Computer Science (p. 409)
- AAS in Information Technology (p. 402)
- BSAS in Information Technology (p. 405)

For more information, please see the program coordinator/department chair.

MISSION STATEMENT

The increasingly interdisciplinary nature of computer science has significantly pushed its frontiers, while at the same time reinvigorated research into the foundations of computing. This duality informs and guides how we implement our mission. The primary mission of the CSIS programs is to:

- generate and spread knowledge, train future scholars who actively participate in their field of study, and give services to our community. The field of computer science has extensively created new technology and has also given way for new research topics. This ability creates our mission in this department.
- design a broad range of current Computer Science, and Information Technology experiences that include multidisciplinary activities and community interaction, using current computing technology and supported by strong written, critical thinking, and verbal communication skills to enable students to function effectively in a technology-based society.
- develop partnerships with local industry and school systems to benefit the economic health of the Mahoning Valley.
- supports and encourages research, industry partnerships, and other activities leading to the development of new technologies and new classroom methods and techniques.
- recognize that computing has become an increasingly crucial aspect of all disciplines of knowledge, and support interdisciplinary programs and forms symbiotic relationships with other disciplines in areas of greatest benefit to students.
- support the social growth of students, promoting ethical decision making, the development of secure and reliable computing systems, and an awareness of the role of computing in a global environment.
- constantly strives for diversity in terms of groups underrepresented in computing, particularly women.

Curriculum sheets and suggested schedules for each program may be obtained from the office (M-339) in Meshel Hall or from the School's website.

ADMISSION REQUIREMENTS FOR THE PROGRAMS

Students will initially be admitted to University in the "STEM-T" (formerly "PRE-COMPUTER") major in the STEM College. Students may and should apply for a transfer into the Computer Science or Information Technology programs once they have met the eligibility requirements. Students will be eligible to transfer to the CSCI or IT major once they have completed all pre-college Math (i.e. ready to take MATH 1513, 1552, or higher MATH) and pre-college English (i.e. ready to take ENGL 1550).

The typical courses taken by a PRE-COMPUTER major prior to transferring to a program are:

- Intended Major - Computer Science: **MATH 1571** or **CSIS 2610**
- Intended Major - Information Technology: **CSIS 1525** or **CSIS 1590**

New students, former YSU students, and external transfer students will enter the University as "STEM-T" majors and apply for admission to a departmental major when the above criteria are satisfied.

GRADUATION POLICIES

Students must meet the degree requirement of each program. The curricular requirements for each program is listed below. For more information, please see the program coordinator/department chair.

- BS in Computer Science (p. 407)
- AAS in Information Technology (p. 401)
- BSAS in Information Technology (p. 403)

Professor

Abdu Arslanyilmaz, Ph.D., Professor, Director

Robert Gilliland, Ph.D., Assistant Professor

Zahra Golrizkhatami, Ph.D., Assistant Professor

Robert W. Kramer, Ph.D., Associate Professor

Alina Lazar, Ph.D., Professor

John R. Sullins, Ph.D., Associate Professor

Feng Yu, Ph.D., Associate Professor

Lecturer

Melanie DiCarlo, M.S., Lecturer

Rachel Gramann, D.B.A., Lecturer

Todd A. Jones, M.C.I.S., Lecturer

HaSheen Wilson, M.C.I.S., M.B.A., Lecturer

Majors

- AAS in Information Technology (p. 401)
- AAS in Web and Digital Design (p. 402)
- BSAS in Information Technology (p. 403)
- BSAS in Information Technology 4+1 Track (p. 405)
- BS in Computer Science (p. 407)
- BS in Computer Science 4+1 Track (p. 409)
- BS in Computer Science Cybersecurity Track (p. 410)

Minors

- Minor in Computer Networking (p. 411)
- Minor in Computer Science (p. 411)
- Minor in Information Technologies (p. 411)

- Minor in Interdisciplinary Game Studies (p. 412)
- Minor in Multimedia and Web Design (p. 412)
- Minor in Object-Oriented Programming (p. 412)
- Minor in Web Communication (p. 412)
- Certificate in IT Professional -Essential (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-science-technology-engineering-mathematics/department-computer-science-information-systems/certificate-in-it-professional-essential/>)
- Certificate in IT Professional -Linux and Security (p. 412)
- Certificate in IT Professional -Networking (p. 413)
- Certificate in Programmable Logic Controllers (p. 413)

Computer Science and Information Systems

CSIS 1514 Business Computer Systems 3 s.h.

Hands-on business software, with emphasis on operating systems, word processing, database and spreadsheet applications. This course is not designed for beginning computer users. Beginning computer users should take CSIS 1500: Computer Literacy before taking this course.

CSIS 1525 Survey of Modern Operating Systems 3 s.h.

This course presents the history of design and creation of the operating system, role and purpose of the operating system, functionality of a typical operating system, mechanisms to support client-server models, handheld devices, design issues (efficiency, robustness, flexibility, portability, security, compatibility). Influences of security, networking, multimedia, windowing systems. This course will introduce the Android, IOS, Linux, Windows, and Unix operating systems. This course is not applicable to the CSCI major. This course is not designed for beginning computer users. Beginning computer users should take CSIS 1500: Computer Literacy before taking this course.

CSIS 1570 Web Systems and Technologies 3 s.h.

This course will cover the basics of web-based applications including related software, interfaces and digital media. Foundations of web-site development including design, implementation, and integration of web-site, multimedia integration, and security and accessibility issues.

Prereq.: CSIS 1590.

CSIS 1590 Foundations of Information Systems & Technologies 3 s.h.

Essential information technology concepts such as computer hardware & software, databases, network, big data & cloud computing, and security. Study of information systems in businesses, organizations, & society, including enterprise information systems, information system acquisition & development, and electronic commerce, as well as ethical, legal, and social issues related to information systems and technologies.

Prereq.: or concurrent MATH 1510 or MATH 1510C or at least Level 35 on the Mathematics Placement Test.

CSIS 1595 Fundamentals of Programming and Problem-Solving 1 2 s.h.

Introduction to concepts, principles, and skills of programming using a high-level programming language. Topics include programming language characteristics, an integrated development environment, algorithms and pseudocode, variables, operators, conditional statements, looping statements, functions, arrays, testing, debugging, documentation and program style. Credit will not be given for both CSIS 1595 and CSIS 2610.

Prereq.: CSIS 1590 or MATH 1510 or MATH 1511 or Math Level 35.

Coreq.: CSIS 1595L.

CSIS 1595L Fundamentals of Programming and Problem-Solving 1 Lab 1 s.h.

Programming laboratory for CSIS 1595 Fundamentals of Programming and Problem Solving 1. This laboratory will meet for 100 minutes per week.

Coreq.: CSIS 1595.

CSIS 2605 Fundamentals of Programming and Problem- Solving 2 2 s.h.

Theory and application of programming principles, data and information structures, simple linked lists, searching, and sorting, software development life cycle. Practice using these concepts in an object-oriented programming language. Credit will not be given for both CSIS 2605 and CSIS 2610.

Prereq.: C or better in CSIS 1595.

Coreq.: CSIS 2605L.

CSIS 2605L Fundamentals of Programming and Problem- Solving 2 Lab 1 s.h.

Programming laboratory for CSIS 2605: Fundamentals of Programming and Problem Solving 2. This laboratory will meet for 100 minutes per week.

Coreq.: CSIS 2605.

CSIS 2610 Programming and Problem-Solving 3 s.h.

Problem solving methods and algorithms using a high-level programming language. Designing, coding, debugging, and documenting programs using techniques of good programming style. Credit will not be given for both CSIS 2610 and CSIS 1595 or CSIS 2605.

Prereq.: MATH 1513 or Math Level 45.

Coreq.: CSIS 2610L.

CSIS 2610L Programming and Problem-Solving Lab 1 s.h.

Programming laboratory for CSIS 2610. This laboratory will meet for 100 minutes per week.

Coreq.: CSIS 2610.

CSIS 2620 System Configuration and Maintenance 3 s.h.

Theory and practice of installing and maintaining hardware and software for complex systems. Motherboards, memories, storage devices, processors, power supplies, network interface cards, and I/O peripheral devices. Operating systems, startup and boot process, I/O peripheral devices, data backup, data protection and recovery, networking, security strategies, virtualization, and troubleshooting.

Prereq.: CSIS 1590 or CSIS 2605 or CSIS 2610.

CSIS 2655 Personal Cyber Security 3 s.h.

PC system security including data assurance, standards and legal issues, and methods and procedures for guarding against potential software attack. Not applicable to the CIS, CSCI, or INFO major. Credit will not be given for 2655 if a student already received credit for CSIS 3755 or its equivalent.

CSIS 2660 Foundations of Electronic Commerce 3 s.h.

Framework of electronic commerce, including e-commerce architecture, infrastructure, technologies, tools, and strategies. Topics include security, environmental, and implementation issues. Includes web site analysis, hardware/software issues, mini-cases, and introduction to site development.

Prereq.: CSIS 1590.

CSIS 2699 Computer Science and Information Systems Internship 1-3 s.h.

Classroom theory applied to on-the-job professional experience related to the student's major. Work for a minimum of 12 hours per week at an approved site, complete a related project, and attend seminars. May be repeated once with the permission of coordinator.

Prereq.: Sophomore in good standing and permission of internship coordinator.

CSIS 3700 Data Structures and Objects 3 s.h.

Program design, style and expression, testing and debugging for larger programs. Introductory concepts of object-oriented programming, including classes, methods, encapsulation, and abstract data types. Theory and application of data structures, including linked structures, priority queues, trees, networks, and graphs.

Prereq.: "C" or better in either CSIS 2605 or CSIS 2610.

Coreq.: CSIS 3700L.

CSIS 3700L Data Structures and Objects Lab 1 s.h.

Programming laboratory for CSIS 3700: Data Structures and Objects. This laboratory will meet for 100 minutes per week.

Prereq.: "C" or better in either CSIS 2605 or CSIS 2610.

Coreq.: CSIS 3700.

CSIS 3701 Advanced Object-oriented Programming 3 s.h.

Object-oriented design and programming, including classes, encapsulation, inheritance, polymorphism, exception handling, and generics. Design, development, and testing of large-scale programs using object-oriented programming.

Prereq.: "C" or better in either CSIS 2605 or CSIS 2610.

CSIS 3722 Development of Databases 3 s.h.

This course covers concepts about data modelling, relational data model, Structured Query Language (SQL), relational database design and transaction processing. Storing, retrieving, updating and displaying data using Structured Query Language (SQL), functions and triggers. Secure operations performed by database administrators.

Prereq.: CSIS 1590 or CSIS 2605 or CSIS 2610.

CSIS 3723 Networking Concepts and Administration 3 s.h.

Overview of electronic communications concepts and technologies, with emphasis on Local Area Networks. Network topologies, design, administration, installed applications, and performance monitoring. Privacy, ethical and legal concerns.

Prereq.: CSIS 2605 or CSIS 2610.

CSIS 3726 Visual/Object-Oriented Programming 4 s.h.

Use of one or more visual programming languages in conjunction with the concepts of object-oriented programming. Development of interactive programs using a graphical user interface. Database and Internet programming. Three hours lecture, two hours lab.

Prereq.: CSIS 2605 or CSIS 2610.

CSIS 3730 Computer Graphics 3 s.h.

Techniques of computer raster graphics, including scan conversion, two- and three- dimensional clipping and windowing, transformations, and viewing in 3D. Algorithms and more advanced topics.

Prereq.: CSIS 3700 and MATH 1572.

CSIS 3731 Human-Computer Interaction 3 s.h.

Concepts of human-computer interaction, including human factors, performance analysis, cognitive processing, usability studies, environment, training, user and task analysis, ergonomics, and accessibility standards.

Prereq.: CSIS 2605 or CSIS 2610 or INFO 2663.

CSIS 3737 Game Programming 3 s.h.

Programming and development of computer games using a game programming environment. Software tools for coding 2D and 3D graphics and animation, sprites and other assets, and handling input events, motion, and collisions. Object-oriented programming and AI concepts for game development.

Prereq.: CSIS 1595 or CSIS 2610.

CSIS 3738 Graphics and Animation for Gaming 3 s.h.

Design and implementation of animated characters in 3D computer games. Mesh design creation; surface materials, textures, and lighting; skeletal and facial rigging; motion and animation. Underlying physical principles and realistic character design concepts. Use of 3D animation software.

Prereq.: CSIS 1595 or CSIS 2610.

CSIS 3740 Computer Organization 4 s.h.

Basic hardware components, structure, and implementation of computer systems. Assembly language and instruction set architecture. Combinational and sequential digital logic. CPU and control unit design.

Prereq.: CSIS 2605 or CSIS 2610.

CSIS 3755 Information Assurance 3 s.h.

Confidentiality, integrity, and authenticity of information. Methods of controlling access to electronic data, enforcing security policies, protecting against malicious attacks (including web site attacks), intrusion detection, and disaster recovery.

Prereq.: CSIS 1590 or CSIS 2605 or CSIS 2610.

CSIS 3756 Security Design 3 s.h.

Operating system security concepts, techniques and applications including MS Windows and LINUX/UNIX platforms. Includes a hands-on design project.

Prereq.: Either CSCI 5806 or CSIS 3755 and either CSIS 1525 or CIS 3718.

CSIS 3757 Computer Forensics 3 s.h.

Professional computer forensics, including methods and investigative techniques for the discovery and recovery of digital images and information at all levels, from PCs to large information systems. Chain of evidence and investigative techniques for cybercrime detection.

Prereq.: CSIS 3755.

CSIS 3760 Electronic Commerce Programming 3 s.h.

Programming for client/server systems related to electronic commerce, including server-side languages such as Perl and Client-side languages such as JavaScript. Topics include form validation and parsing, database access and manipulation, and design, networking, and security issues.

Prereq.: CSIS 2605 or CSIS 2610.

CSIS 3782 Cisco Networking Academy 1 3 s.h.

Introduction to Networks (ITN) covers the architecture, structure, functions and components of the Internet and other computer networks. Students achieve a basic understanding of how networks operate and how to build simple local area networks (LAN), perform basic configurations for routers and switches, and implement Internet Protocol (IP). Two hours lecture and two hours lab per week.

Prereq.: CSIS 1590.

CSIS 3783 Cisco Networking Academy 2 3 s.h.

Switching, Routing, and Wireless Essentials (SRWE) covers the architecture, components, and operations of routers and switches in small networks and introduces wireless local area networks (WLAN) and security concepts.

Students learn how to configure and troubleshoot routers and switches for advanced functionality using security best practices and resolve common issues with protocols in both IPv4 and IPv6 networks. Two hours lecture and two hours lab per week.

Prereq.: CSIS 3782.

CSIS 3784 Cisco Networking Academy 3 3 s.h.

Enterprise Networking, Security, and Automation (ENSA) describes the architecture, components, operations, and security to scale for large, complex networks, including wide area network (WAN) technologies. The course emphasizes network security concepts and introduces network virtualization and automation. Students learn how to configure, troubleshoot, and secure enterprise. Two hours lecture and two hours lab per week.

Prereq.: CSIS 3782.

CSIS 3790 Undergraduate Research 1-3 s.h.

A research experience under the supervision of a faculty mentor. Course may be repeated for a total of up to 6 semester hours.

Prereq.: CSIS 2605 or CSIS 2610, and faculty approval.

CSIS 4819 Parallel and Distributed Computing 3 s.h.

Survey of current development of parallel processing with emphasis on parallel programming. Topics include parallel architecture, interconnection networks for inter-processor communication, parallel sorting/searching algorithms, parallel constructs for parallel programming paradigms, and implementation of the algorithms in a parallel programming language.

Prereq.: CSIS 3700 and CSIS 3740.

CSIS 4822 Database Applications 3 s.h.

Design and development of applications using database languages.

Prereq.: CSIS 3722.

CSIS 4823 Data Communications Networking 3 s.h.

Study of present methods for design and evaluation of information networks, LAN and WAN. Includes queuing, routing, security, reliability, error detection and correction, and distributed processing.

Prereq.: CSIS 3723.

CSIS 4831 Virtual Reality Systems 3 s.h.

An investigation into the use, design, implementation, and evaluation of virtual reality interfaces. Experiences with VR systems using both 2D projections and stereoscopic display and other systems. Students work in multidisciplinary groups.

Prereq.: CSIS 3730.

CSIS 4878 Mobile Application Development 3 s.h.

Principles of designing and developing cross-platform mobile applications. Techniques for designing, developing, testing, packaging, and publishing cross-platform mobile apps. Client- and server-side programming theories and practices regarding mobile app development.

Prereq.: CSIS 3722, INFO 3776, and CSIS 3701.

CSIS 4893 Computer Science and Information Systems Advanced Internship 2-4 s.h.

An industrial/academic experience in information systems/technology. Employment for 15 to 20 hours per week. May be repeated once with the permission of internship supervisor.

Prereq.: 16 s.h. of department courses (at least 3 hours upper-division) and permission of department internship supervisor.

CSIS 5723 Networking Concepts and Administration 3 s.h.

Overview of electronic communications concepts and technologies, with emphasis on Local Area Networks. Network topologies, design, administration, installed applications, and performance monitoring. Privacy, ethical and legal concerns.

Prereq.: Enrollment in Computer Science Endorsement Program.

Cross-Listed: CSIS 3723.

CSIS 5755 Information Assurance 3 s.h.

Confidentiality, integrity, and authenticity of information. Methods of controlling access to electronic data, enforcing security policies, protecting against malicious attacks (including web site attacks), intrusion detection, and disaster recovery. Cross-Listed: CSIS 3755.

CSIS 5824 Applied Artificial Intelligence 3 s.h.

Study of artificial intelligence software related to decision making. Topics may include robotic control, expert systems, automated knowledge acquisition, or logic programming.

Prereq.: CSIS 3700 and 3 s.h. of upper-division departmental courses, or CSIS 6901.

CSIS 5825 Natural Language Processing 3 s.h.

This course will explore the field of NLP (Natural Language Processing) as it is concerned with the theory and practice of modern AI. It covers major concepts of NLP. It presents important algorithms, methods, structures, and techniques required to construct natural language interfaces for software agents and physical agents. It introduces students to important approaches necessary to build practical, useful, and interesting systems that require natural language processing, interfaces, and models.

Prereq.: CSCI 3710, CSCI 5835, CSCI 5870, or CSIS 5824.

CSIS 5828 Computer Network Security 3 s.h.

Overview of security issues that arise from computer networks, including the spectrum of security activities, methods, methodologies, and procedures. Intrusion detection, firewalls, threats and vulnerabilities, denial of service attacks, viruses and worms, encryption, and forensics.

Prereq.: CSIS 3723 or equivalent or graduate standing.

CSIS 5837 Artificial Intelligence in Game Design 3 s.h.

Artificial intelligence techniques for designing and programming intelligent non-player characters for a variety of different types of game genres. Finite and fuzzy state machines, terrain analysis and path planning, board games, language understanding, and learning.

Prereq.: CSIS 3700 or CSIS 3701 or CSIS 3726 or CSCI 6901.

CSIS 5838 Graphics and Animation for Gaming 3 s.h.

Design and implementation of 3D computer games. Development of 3D characters, including surface creation and effects, skeletal and facial rigging, and motion and animation. Programming those characters in a 3D game engine, including scripting, level and game design, and game physics.

Prereq.: CSIS 2605 or CSIS 2610 or CSIS 3737.

CSIS 5883 Remote Access and Multilayer Switched Networks 4 s.h.

Advanced WAN connectivity, including Frame Relay, ATM, ISDN, DSL, and modems; IP address scaling techniques; advanced access control; core issues in network design and management, focusing on multilayer switched networks and emerging multi-service networks. Will incorporate CCNP Cisco Academy curriculum. Three hours lecture, three hours lab.

Prereq.: CSIS 3783.

CSIS 5884 Building Scalable Networks and Advanced Internetwork Troubleshooting 4 s.h.

Designing scalable networks; advanced routing protocols; VLSM and route aggregation; management and diagnostic tools; troubleshooting tools and methodology for TCP/IP, Novell, and AppleTalk connectivity, VLANs, routers, and switches; Frame Relay and ISDN connectivity. Will incorporate CCNP Cisco Academy curriculum. Three hours lecture, three hours lab.

Prereq.: CSIS 3783.

Computer Science

CSCI 3710 Introduction to Discrete Structures 3 s.h.

Basic set theory, including functions and relations. Boolean algebra, propositional logic, regular expressions, and finite automata.

Prereq.: CSIS 2610 and MATH 1571 or MATH 1585H, or Math Placement Level 9 or 90.

CSCI 3750 Advanced UNIX and C Programming 3 s.h.

Use of UNIX programming environment and associated tools and utilities. Command language programming. Systems programming with ANSI C. May include UNIX internals and system administration.

Prereq.: CSIS 3700.

CSCI 3770 Concepts of Programming Languages 3 s.h.

Comparative survey of programming language paradigms, including imperative, object-oriented, event-driven, functional, logic-based, and concurrent programming languages. Design and tradeoffs of programming language features and implementation, including syntax, control structures, types, memory management, and security.

Prereq.: CSIS 3701.

CSCI 4850 Advanced Database Design and Administration 3 s.h.

Design, development, implementation, and administration of large database systems at the enterprise level, including logical data models, data security and assurance, concurrent processing, data distribution, data marts, data warehouses, data mining, and data extraction, cleansing, and loading.

Prereq.: CSIS 3722 with a grade of C or better.

Cross-Listed: CSCI 6950.

CSCI 4851 Data Science and Machine Learning 3 s.h.

Basic methodologies for the data science pipeline: data acquisition and cleaning, handling missing data, exploratory data analysis, visualization, feature engineering, modeling, interpretation, and presentation in the context of real-world datasets. Classical models and techniques for classification, clustering, anomaly detection, deep learning, and collaborative filtering.

Prereq.: CSIS 3722 with a grade of C or better.

Cross-Listed: CSCI 6951.

CSCI 4852 Deep Learning 3 s.h.

Foundations of neural networks and deep learning. Master the practical aspects of implementing deep learning solutions, using a hands-on approach to understanding both theory and practice. Key architectures in deep learning are covered, including feedforward networks, convolution neural networks, recurrent neural networks, long short-term memory networks, autoencoders and generative adversarial networks. Apply deep learning to real world problems.

Prereq.: CSIS 3722.

Cross-Listed: CSCI 6952.

CSCI 4855 Transformers: Large Language and Vision Models 3 s.h.

A comprehensive course about Transformer-based models. This course covers the inner workings of large language models such as GPT and BERT, and vision transformers such as ViT. Learn their architectures, applications, and how they revolutionize AI in language understanding and image processing. Hands-on projects and case studies will deepen your practical knowledge of these cutting-edge technologies.

Prereq.: CSCI 4852 with a grade of C.

Cross-Listed: CSCI 6955.

CSCI 4862 Server-Side Web Development and Programming 3 s.h.

Configuration of web server software and the use of server-side programming. Server-side scripting. Database access and drivers. Security issues, including access control and secured transmissions.

Prereq.: CSIS 3700 or CSIS 3701.

CSCI 4870 Biometrics 3 s.h.

Major biometric techniques, including face, fingerprint, voice and iris. Biometric methods with roots in computer vision, image processing, pattern recognition and machine learning.

Prereq.: CSIS 3700 or FSCI 3716/L or permission of instructor.

CSCI 4871 Cloud Computing and Big Data 3 s.h.

Fundamental knowledge of cloud computing and big data. Advances in cloud computing and data intensive computing environment across multiple disciplines. Students will build, manage, and program on popular cloud and big data platforms.

Prereq.: At least 3 semester hours of upper division CSIS or CSCI courses.

CSCI 4890 Computer Projects 2-4 s.h.

Individualized study of a topic in computer science culminating in a written report and an oral presentation. May be repeated up to 8 s.h.h. of upper-division CSCI courses) applicable to the minimum requirements of a computer science major, and formal project proposal.

Prereq.: 24 s.h. of computer science (including at least 3 s.

Gen Ed: Capstone.

CSCI 5801 Software Engineering 3 s.h.

Developing and maintaining complex software systems. Process and life-cycle models, and tools for software development (such as CASE). Specification methods, prototyping, validation and verification strategies, and version maintenance. Management of the system development process. A group project is required.

Prereq.: CSIS 3701 or graduate standing.

CSCI 5802 Software Tools and Practices 3 s.h.

A course that focuses on the different tools and techniques that software engineers typically use while developing software. Topics include current software engineering tools and practices, software testing, software architecture, version control systems, build and make systems, debuggers, static analysis tools, dynamic analysis tools, and design patterns. Students gain experience in multiple environments (Windows and a UNIX-based environment).

Prereq.: Junior standing and CSIS 3700 or CSCI 6901.

CSCI 5806 Operating Systems 3 s.h.

Study of the various components of operating systems including kernels and monitors, currency and parallel processing, processor management, storage management, device management, I/O processing and file management.

Prereq.: CSIS 3700 and CSIS 3740.

CSCI 5807 Compiler Design 3 s.h.

Study of compiler design and construction, including context-free languages, lexical analysis, parsing, code generation and optimization.

Prereq.: CSIS 3700 and CSIS 3740, CSCI 3710.

CSCI 5814 Computer Architecture 3 s.h.

Study of high-performance sequential computer architecture. Topics include performance evaluation, instruction set design, processor implementation techniques, pipelining, vector processing, memory hierarchy design, and parallel architecture.

Prereq.: CSIS 3700 and CSIS 3740.

CSCI 5820 Simulation 3 s.h.

Methods for modeling discrete event systems by algorithmic approaches using simulation languages.

Prereq.: CSIS 3700 and STAT 3743.

CSCI 5835 Artificial Intelligence 3 s.h.

Study of the theory and applications of intelligent systems. Topics may include general problem-solving techniques, knowledge representation and expert systems, vision and perception, and natural language processing. AI systems and languages.

Prereq.: CSIS 3700 or CSIS 3701.

CSCI 5840 Automata Theory 3 s.h.

Abstract models of computers, and the languages they generate or recognize. Finite state automata and regular expressions; Context-free grammars and pushdown automata; Turing machines. Limits of each model, including decidability and undecidability of computing-related problems. Applications of these models to areas such as input validation, security, language design, and compilers.

Prereq.: CSCI 3710.

CSCI 5849 Computational Methods for problems in the Physical Sciences 3 s.h.

CSCI 5849: Computational Methods for the Physical Sciences 3 s.h. Provides application of the techniques discussed in the class to real world situations.

Cross-Listed: MATH 5849 and PHYS 5849.

CSCI 5849: Computational Methods for the Physical Sciences 3 s.h. **Prereq.:**

MATH 3705 and PHYS 2610.

CSCI 5857 Encoding and Encryption 3 s.h.

Securing computer and information systems through encoding and/or encryption. Private and public cryptographic methods, digital certificates and signatures, cryptovvariable techniques, key management, and database security issues.

Prereq.: CSIS 2605 or CSIS 2610; MATH 1513 or MATH 1552 or Math Placement Test of 4 or 40 or higher; and at least 3 s.h. of upper-division departmental courses.

CSCI 5858 Blockchain and Cryptocurrency Technologies 3 s.h.

This course introduces the fundamentals and mechanics of blockchain and cryptocurrency. Topics include an introduction to basic cryptography and cryptocurrencies, decentralization and mechanism of bitcoin, storage and transactions of bitcoin, mining of bitcoin, and regulation, platforms, and applications of bitcoin.

Prereq.: Senior standing or graduate student status.

CSCI 5870 Data Structures and Algorithms 3 s.h.

Study and application of analysis and design techniques to nonnumerical algorithms. Topics selected from algorithms acting on sets, trees, graphs; memory management; notions of complexity and related areas..

Prereq.: CSIS 3700 and CSCI 3710 or graduate standing.

CSCI 5895 Special Topics 2-4 s.h.

A study of special topics in computer science. Subject matter and credit hours will be announced in advance. May be repeated multiple times if topic is different.

Prereq.: At least 3 s.h. of upper-division departmental courses, and permission of chair.

Information Technology

INFO 2663 Information Technology Management 3 s.h.

Principles and practices of effective information systems management. Includes organization environment, leadership issues, information system types, strategic role of information technology, planning issues, managing and supporting essential technologies, system development and computing, and successful integration of people and technology.

Prereq.: CSIS 1590 or INFO 2600.

INFO 2698 Special Topics 1-3 s.h.

An in-depth study of information technologies. Topics vary. May be repeated for different topics.

Prereq.: Permission of chairperson.

INFO 3704 Business Communication 3 s.h.

Communication theory and practice. Business letter writing; oral communication. Review of English usage.

Prereq.: ENGL 1551.

INFO 3714 Advanced Spreadsheets 3 s.h.

Includes macros, look-up tables, advanced problems, templates, and projects with emphasis on accounting and finance applications.

Prereq.: CSIS 1514 or CSIS 1590.

INFO 3774 Digital Image Processing 4 s.h.

Technical configurations, graphic creation, manipulation, exchange, and digital asset management. Image sampling and quantization, image enhancement, color image theory, image transforms, compression, and restoration.

Storyboarding strategies, layout, and design issues. Three hours lecture, two hours lab.

Prereq.: CSIS 1590.

INFO 3775 Digital Multimedia Design & Creation 4 s.h.

A study of digital multimedia design and creation. Methods for designing, creating and integrating text, graphics, audio, animation, and video into a digital multimedia application. Project required. Three hours lecture and two hours lab.

Prereq.: CSIS 1570.

INFO 3776 Client-Side Scripting Techniques 4 s.h.

Scripting and the role of scripting languages in software development for the web, and identifying key scripting languages used for the web. Developing, debugging, and testing scripts for the web, and local and remote software version control systems. Three hours lecture and two hours lab.

Prereq.: CSIS 1570.

INFO 3777 Digital Audio & Video Production 4 s.h.

Study of tools and technology to produce digital audio and video. Digital audio and video design, creation, acquisition, digitization, transformation, compression, editing, and publishing. Project required. Three hours of lecture and two hours of lab.

Prereq.: h.

INFO 4880 Information Technology Analysis and Design 3 s.h.

Information systems integration and modeling. Analysis of dynamic information flow, functional requirements, and system design in theory and practice.

Prereq.: CSIS 3722 and either CSIS 3723 or CSIS 3782.

Gen Ed: Capstone.

INFO 4895 Special Topics 2-4 s.h.

A study of special topics in information technologies. Subject matter and credit hours will be announced in advance. May be repeated multiple times if topic is different.

Prereq.: At least 3 s.h. of upper-division departmental courses and permission of chair.

INFO 5875 Advanced Multimedia Authoring 4 s.h.

This course is a study of advanced multimedia authoring principles. Through assigned reading, lab exercises, and lectures, you will generate guiding principles of designing and developing effective multimedia materials. Additionally, advanced-scripting language concepts toward developing multimedia materials, integrating text, graphics, sound, and animation, will be presented. 3 hours lecture and 2 hours lab.

Prereq.: INFO 3774 or INFO 3775 or INFO 3776.

Associate of Applied Science in Information Technology

Information technology provides systematic foundations that include methodologies and models for conceptualizing the complex dynamics of the Information Technology environment as it applies to information systems design and implementation.

IT professionals possess the right combination of knowledge and practical, hands-on expertise to take care of both an organization's information

technology infrastructure and the people who use it. They assume responsibility for selecting hardware and software products appropriate for an organization. They integrate those products with organizational needs and infrastructure and install, customize and maintain those applications, thereby providing a secure and effective environment that supports the activities of the organization's computer users. In IT, programming often involves writing short programs that typically connect existing components (scripting).

Planning and managing an organization's IT infrastructure is a difficult and complex job that requires a solid foundation in applied computing as well as management and people skills. Those in the IT discipline require special skills – in understanding, for example, how networked systems are composed and structured, and what their strengths and weaknesses are. There are important software systems concerns such as reliability, security, usability, and effectiveness and efficiency for their intended purpose; all of these concerns are vital. These topics are difficult and intellectually demanding.

The program supports work processes and employee performance enhancements; is designed to improve overall workgroup and individual productivity; and addresses the creation, distribution, storage, and use of information in all its states. Business processes are incorporated as an integral part of all course content. Information Technology encompasses:

- Client/Server Side Computing
- Project Management
- Multimedia
- Networks
- Database Systems
- System Analysis
- Information Security
- Network/ Cybersecurity
- Application Development
- E-Commerce Programming

IT graduates of the AAS degree program may continue their studies towards a bachelor's degree in a computer or information technology area or may obtain full-time employment as database specialist, help desk support, network technicians, web/digital designers, and in other closely related fields.

IT graduates of the BSAS degree program may obtain full-time employment as web & multimedia designers/developers, network administrators, computer programmers, application developers, database managers, computer systems analysts, cybersecurity specialist, and in other closely related fields.

Associate Degree Program

Graduates of the associate degree program can pursue careers in service and support of information systems, as well as continuing on to a bachelor's degree in information technology. This degree may be earned in four semesters if students average 15-16 hours per semester.

Students wishing to receive the Associate of Applied Science in Information Technology must complete the following:

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
MATH 1552	Applied Business Calculus	4

Select 2 courses from 2 of the domains: AH, SS, or NS (one must include a 6-7 lab)

Major Requirements		
CSIS 1525	Survey of Modern Operating Systems	3
CSIS 1570	Web Systems and Technologies	3
CSIS 1590	Foundations of Information Systems & Technologies	3
CSIS 1595 & 1595L	Fundamentals of Programming and Problem-Solving 1 and Fundamentals of Programming and Problem-Solving 1 Lab	3
CSIS 2605 & 2605L	Fundamentals of Programming and Problem-Solving 2 and Fundamentals of Programming and Problem-Solving 2 Lab	3
CSIS 2620	System Configuration and Maintenance	3
INFO 3704 or ENGL 3743	Business Communication or Introduction to Public, Professional and Technical Writing	3
CSIS 3722	Development of Databases	3
CSIS 3731	Human-Computer Interaction	3
CSIS 3755	Information Assurance	3
CSIS 3782	Cisco Networking Academy 1	3
Additional Course Work to total 60 s.h.		
Free Electives		10
Total Semester Hours		60-63

Year 1

Fall		S.H.
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
CSIS 1525	Survey of Modern Operating Systems	3
CSIS 1590	Foundations of Information Systems & Technologies	3
Free Elective	i.e., prereq Math course for MATH 1552	4
Semester Hours		14-16

Spring

ENGL 1551	Writing 2	3
MATH 1552	Applied Business Calculus	4
CSIS 1570	Web Systems and Technologies	3
CSIS 1595	Fundamentals of Programming and Problem-Solving 1	2
CSIS 1595L	Fundamentals of Programming and Problem-Solving 1 Lab	1
CSIS 2620	System Configuration and Maintenance	3
Semester Hours		16

Year 2

Fall		
CSIS 3722	Development of Databases	3
CSIS 2605	Fundamentals of Programming and Problem-Solving 2	2
CSIS 2605L	Fundamentals of Programming and Problem-Solving 2 Lab	1
CSIS 3755	Information Assurance	3
General Education Course	Natural Science, Arts and Humanities, or Social Science	3-4
Free Elective		3
Semester Hours		15-16

Spring

INFO 3704 or ENGL 3743	Business Communication or Introduction to Public, Professional and Technical Writing	3
CSIS 3731	Human-Computer Interaction	3
CSIS 3782	Cisco Networking Academy 1	3
General Education Course	Natural Science, Arts and Humanities, or Social Science	3
Free Elective		3
Semester Hours		15
Total Semester Hours		60-63

Learning Outcomes

1. The Associate program in Information Technology provides preparation for student's basic knowledge of technologies in the implementation and troubleshooting of networks.
2. The Associate program in Information Technology provides preparation for student's basic knowledge of technologies in designing databases and extracting information using appropriate programs or applications.
3. The Associate program in Information Technology provides preparation for student's basic knowledge of technologies in assessing information management processes and procedures and the application of technologies.
4. The Associate program in Information Technology provides preparation for student's basic knowledge of technologies in developing interactive programs.

Associate of Applied Science in Web and Digital Design

Web and Digital Design combines the study of web design, Internet technologies, digital animation, graphics, and computer programming with written and oral communication skills, graphic arts, and business knowledge to prepare students for careers in information technology, entrepreneurial opportunities, or transfer to a bachelor's degree. Students who complete the required coursework earn the Associate of Applied Science degree.

The program of study includes two primary areas. The primary focus is on information technologies. Students use industry standard software to develop digital media applications such as games and simulations, digital animations, electronic publications, and dynamic web sites. Students also learn fundamental programming used in digital media such as JavaScript, PHP, and ActionScript.

Second, students study writing, statistics, public speaking, and art to foster skills vital for career or continued educational advancement. Students learn to express critical ideas both written and verbally in a logical and concise manner so their creativity can effectively contribute to their further success. Finally, students choose from a variety of electives based upon their interests and desired goals.

COURSE	TITLE	S.H.
FIRST YEAR STUDENT EXPERIENCE		
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2
General Education Courses		
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
PSYC 1560	General Psychology	3

MATH 2623	Quantitative Reasoning	3-5
or MATH 2623C	Quantitative Reasoning with Co-Requisite Support	
PHIL 2625	Introduction to Professional Ethics	3
Major Specific Courses		
CSIS 1590	Foundations of Information Systems & Technologies	3
CSIS 1595	Fundamentals of Programming and Problem-Solving 1	2
CSIS 1595L	Fundamentals of Programming and Problem-Solving 1 Lab	1
CSIS 1570	Web Systems and Technologies	3
INFO 3774	Digital Image Processing	4
INFO 3775	Digital Multimedia Design & Creation	4
INFO 3776	Client-Side Scripting Techniques	4
INFO 3777	Digital Audio & Video Production	4
CSIS 3737	Game Programming	3
ART 1501	Fundamentals of 2D Design	3
ART 1521	Foundation Drawing	3
ART 2661	Print Design 1	3
ART 2674	Introduction to Photography	3
ART 3798	Transmedia Art and Visual Storytelling	3
Total Semester Hours		62-66

Bachelor of Science in Applied Science in Information Technology

Information technology provides systematic foundations that include methodologies and models for conceptualizing the complex dynamics of the Information Technology environment as it applies to information systems design and implementation.

IT professionals possess the right combination of knowledge and practical, hands-on expertise to take care of both an organization's information technology infrastructure and the people who use it. They assume responsibility for selecting hardware and software products appropriate for an organization. They integrate those products with organizational needs and infrastructure and install, customize and maintain those applications, thereby providing a secure and effective environment that supports the activities of the organization's computer users. In IT, programming often involves writing short programs that typically connect existing components (scripting).

Planning and managing an organization's IT infrastructure is a difficult and complex job that requires a solid foundation in applied computing as well as management and people skills. Those in the IT discipline require special skills – in understanding, for example, how networked systems are composed and structured, and what their strengths and weaknesses are. There are important software systems concerns such as reliability, security, usability, and effectiveness and efficiency for their intended purpose; all of these concerns are vital. These topics are difficult and intellectually demanding.

The program supports work processes and employee performance enhancements; is designed to improve overall workgroup and individual productivity; and addresses the creation, distribution, storage, and use of information in all its states. Business processes are incorporated as an integral part of all course content. Information Technology encompasses:

- Client/Server Side Computing
- Project Management
- Multimedia
- Networks
- Database Systems
- System Analysis
- Information Security
- Network/ Cybersecurity

- Application Development
- E-Commerce Programming

IT graduates of the AAS degree program may continue their studies towards a bachelor's degree in a computer or information technology area or may obtain full-time employment as database specialist, help desk support, network technicians, web/digital designers, and in other closely related fields.

IT graduates of the BSAS degree program may obtain full-time employment as web & multimedia designers/developers, network administrators, computer programmers, application developers, database managers, computer systems analysts, cybersecurity specialist, and in other closely related fields.

Bachelor's Degree Program

The information technology professional will develop his or her ability to conceptualize, design, and implement high-quality information systems based upon computer systems ranging from single-user systems to complex, interactive, and multi-user distributed systems.

IT majors will choose to follow one of several concentration areas:

- Database Engineering
- Networking
- Security
- Multimedia/Web
- Software Development

This degree may be earned in eight semesters if students average 16 hours per semester.

Students wishing to receive the Bachelor of Applied Science in Information Technology must complete the following:

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics Requirement		Included in Support Courses
Arts and Humanities (6 s.h.)		6
PHIL 2625	Introduction to Professional Ethics	
One additional Arts and Humanities course		
Natural Sciences (2 courses, 1 with lab) (6-7 s.h.)		6-7
Social Science (6 s.h.)		6
General Education Electives (9 s.h.)		9
Any 3 Gen Ed Courses		
Major Requirements		
CSIS 1525	Survey of Modern Operating Systems	3
CSIS 1570	Web Systems and Technologies	3
CSIS 1590	Foundations of Information Systems & Technologies	3
CSIS 1595 & 1595L	Fundamentals of Programming and Problem-Solving 1 and Fundamentals of Programming and Problem-Solving 1 Lab	3
CSIS 2605 & 2605L	Fundamentals of Programming and Problem-Solving 2 and Fundamentals of Programming and Problem-Solving 2 Lab	3
CSIS 2620	System Configuration and Maintenance	3

CSIS 3722	Development of Databases	3	Year 1		
CSIS 3731	Human-Computer Interaction	3	Fall		S.H.
CSIS 3755	Information Assurance	3	YSU 1500	Success Seminar	1-2
CSIS 3782	Cisco Networking Academy 1	3	or YSU 1500S	or Youngstown State University Success Seminar	
INFO 4880	Information Technology Analysis and Design	3	or HONR 1500	or Intro to Honors	
Concentration area (min 6 hours within the same area)		6			
Data Engineering Concentration			ENGL 1550	Writing 1	3-4
CSIS 3726	Visual/Object-Oriented Programming		or ENGL 1549	or Writing 1 with Support	
CSIS 4822	Database Applications		CSIS 1525	Survey of Modern Operating Systems	3
CSIS 3760	Electronic Commerce Programming		CSIS 1590	Foundations of Information Systems & Technologies	3
CSCI 4851	Data Science and Machine Learning		Free Elective	Any course(s) to meet the 120 total hours (i.e., prereq Math course for MATH 1552)	4
CSCI 4852	Deep Learning				
CSCI 4871	Cloud Computing and Big Data			Semester Hours	14-16
Multimedia & Web Concentration			Spring		
INFO 3774	Digital Image Processing		ENGL 1551	Writing 2	3
INFO 3775	Digital Multimedia Design & Creation		CSIS 1570	Web Systems and Technologies	3
INFO 3776	Client-Side Scripting Techniques		CSIS 1595	Fundamentals of Programming and Problem-Solving 1	2
INFO 3777	Digital Audio & Video Production		CSIS 1595L	Fundamentals of Programming and Problem-Solving 1 Lab	1
INFO 5875	Advanced Multimedia Authoring		MATH 1552	Applied Business Calculus	4
CSIS 4878	Mobile Application Development		Gen Ed Arts & Humanities		3
Networking Concentration				Semester Hours	16
CSIS 3783	Cisco Networking Academy 2		Year 2		
CSIS 3784	Cisco Networking Academy 3		Fall		
CSIS 4823	Data Communications Networking		CSIS 3722	Development of Databases	3
CSIS 5883	Remote Access and Multilayer Switched Networks		CSIS 2605	Fundamentals of Programming and Problem-Solving 2	2
CSIS 5884	Building Scalable Networks and Advanced Internetwork Troubleshooting		CSIS 2605L	Fundamentals of Programming and Problem-Solving 2 Lab	1
Security Concentration			CSIS 2620	System Configuration and Maintenance	3
CSIS 3756	Security Design		STAT 2601	Introductory Statistics	3
CSIS 3757	Computer Forensics		Gen Ed Electives (Any Gen Ed Course)		3
CSIS 5828	Computer Network Security			Semester Hours	15
CSCI 5857	Encoding and Encryption		Spring		
Software Development Concentration			CSIS 3731	Human-Computer Interaction	3
CSIS 3700	Data Structures and Objects		CSIS 3782	Cisco Networking Academy 1	3
& 3700L	and Data Structures and Objects Lab		INFO 3704	Business Communication	3
CSIS 3701	Advanced Object-oriented Programming		or ENGL 3743	or Introduction to Public, Professional and Technical Writing	
CSIS 3726	Visual/Object-Oriented Programming		Minor Course		3
CSIS 3760	Electronic Commerce Programming		Gen Ed Social Science		3
CSIS 4878	Mobile Application Development			Semester Hours	15
CSCI 4862	Server-Side Web Development and Programming		Year 3		
CSCI 5801	Software Engineering		Fall		
Departmental Upper-Division Electives			CSIS 3755	Information Assurance	3
Select at least 9 additional semester hours of upper division Information Technology or CSIS courses. CSCI or CIS courses numbered 3000 and above with advisor approval, and up to 3 semester hours of STEM 4890 may also be used toward the 9 upper-division hours.		9	Departmental Upper Division Elective	CSIS/CSCI/INFO 37XX and above numbered courses, or STEM 4890	3
Support Courses			Minor Course		3
MATH 1552	Applied Business Calculus	4	Gen Ed Electives (Any Gen Ed Course)		3
STAT 2601	Introductory Statistics	3	Free Elective	Any course to meet the 120 total hours	3
INFO 3704	Business Communication	3		Semester Hours	15
or ENGL 3743	Introduction to Public, Professional and Technical Writing		Spring		
Minor			IT Concentration		3
Select at least 12 s.h. from an unspecified minor.		12	PHIL 2625	Introduction to Professional Ethics	3
Free Electives	Any courses to meet 120 total hours	16	Minor Course		3
Total Semester Hours		120-123	Gen Ed Social Science		3

Free elective ^{Any course to meet the 120 total hours} 3
 Request a Graduation Evaluation after completing 80-85 s.h. from the STEM Advising Center, 2325 Moser Hall, (330) 941-2512.

Semester Hours 15

Year 4

Fall

IT Concentration	3
Departmental Upper Division Elective ^{CSIS/CSCI/INFO 37XX and above numbered courses, or STEM 4890}	3
Minor Course	3
Gen Ed Natural Sciences	3
Free Elective ^{Any course to meet the 120 total hours}	3

Semester Hours 15

Spring

INFO 4880 Information Technology Analysis and Design	3
Departmental Upper Division Elective ^{CSIS/CSCI/INFO 37XX and above numbered courses, or STEM 4890}	3
Gen Ed Electives (Any Gen Ed Course)	3
Gen Ed Natural Sciences + Lab	3-4
Free Elective ^{Any course to meet the 120 total hours}	3

Semester Hours 15-16

Total Semester Hours 120-123

Learning Outcomes:

The Bachelor program in Information Technology provides preparation and instruction that enables students:

1. to analyze computing technology related problems, identify and define computing technology requirements to address these problems
2. to design, implement, and evaluate computing technologies to meet the needs of organizations or individuals using current techniques, skills, and tools
3. to communicate with clients effectively while understanding their needs and identifying appropriate solutions
4. to work collaboratively within a team environment to achieve its goal(s)
5. to understand the need and importance of continuous professional development
6. to recognize the technical and legal issues involved with technologies and concepts used in information technology
7. to offer solutions and perform required tasks in networking design, implementation, and administration; information assurance and security; database design, development, and administration; interactive program design and development; e-commerce design, development, and implementation; and report and document preparation.

Learning Outcomes

1. The Bachelors program in Information Technology provides preparation and instruction that enables for students acquire knowledge and technical competencies to perform network design, implementation, and administration.
2. The Bachelors program in Information Technology provides preparation and instruction that enables for students acquire knowledge and technical competencies to perform information assurance and security.
3. The Bachelors program in Information Technology provides preparation and instruction that enables for students acquire knowledge and technical competencies to design, implement, and administer databases.
4. The Bachelors program in Information Technology provides preparation and instruction that enables for students acquire knowledge and technical competencies to design and implement reports and documents required by the organization through extraction of information using appropriate programs and applications.

5. The Bachelors program in Information Technology provides preparation and instruction that enables for students acquire knowledge and technical competencies to demonstrate information management skills in project management and system analysis, design, implementation, testing and monitoring.
6. The Bachelors program in Information Technology provides preparation and instruction that enables for students acquire knowledge and technical competencies to write and produce or assist in developing interactive programs.
7. The Bachelors program in Information Technology provides preparation and instruction that enables for students acquire knowledge and technical competencies to recognize technical and legal issues involved with technologies and concepts used in information technology.

Bachelor of Science in Applied Science in Information Technology 4+1 Graduate Track

This degree may be earned in eight semesters if students average 16 hours per semester.

The Information Technology 4+1 program leads to the degree of Master of Computing and Information Systems. The flexibility of the program allows the student many choices.

This degree may be earned in ten semesters if students average 16 hours per semester during the first 4 years and 11 hours semester during the last year.

Students wishing to receive the Bachelor of Applied Science in Information Technology - Graduate Track must complete the following:

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics Requirement ^{Included in Support Courses}		
Arts and Humanities (6 s.h.)		6
PHIL 2625	Introduction to Professional Ethics	
One additional Arts and Humanities course		
Natural Sciences (2 courses, 1 with lab) (6-7 s.h.)		6-7
Social Science (6 s.h.)		6
General Education Electives (9 s.h.) ^{Any 3 Gen Ed Courses}		9
Major Requirements		
CSIS 1525	Survey of Modern Operating Systems	3
CSIS 1570	Web Systems and Technologies	3
CSIS 1590	Foundations of Information Systems & Technologies	3
CSIS 1595 & 1595L	Fundamentals of Programming and Problem-Solving 1 and Fundamentals of Programming and Problem-Solving 1 Lab	3
CSIS 2605 & 2605L	Fundamentals of Programming and Problem- Solving 2 and Fundamentals of Programming and Problem-Solving 2 Lab	3
CSIS 2620	System Configuration and Maintenance	3
CSIS 3701	Advanced Object-oriented Programming	3

CSIS 3722	Development of Databases	3	Year 1		
CSIS 3731	Human-Computer Interaction	3	Fall		S.H.
CSIS 3755	Information Assurance	3	YSU 1500	Success Seminar	1-2
CSIS 3782	Cisco Networking Academy 1	3	or YSU 1500S	or Youngstown State University Success Seminar	
INFO 3704	Business Communication	3	or HONR 1500	or Intro to Honors	
or ENGL 3743	Introduction to Public, Professional and Technical Writing		ENGL 1550	Writing 1	3-4
INFO 4880	Information Technology Analysis and Design	3	or ENGL 1549	or Writing 1 with Support	
Concentration area -select 6 hours from one area below		6	CSIS 1525	Survey of Modern Operating Systems	3
Data Engineering Concentration			CSIS 1590	Foundations of Information Systems & Technologies	3
CSIS 3726	Visual/Object-Oriented Programming		Free Electives	Any courses to meet 120 total hours (i.e., prereq Math course for MATH 1552)	4
CSIS 3760	Electronic Commerce Programming		Semester Hours		
CSIS 4822	Database Applications		14-16		
CSCI 4851	Data Science and Machine Learning		Spring		
CSCI 4852	Deep Learning		ENGL 1551	Writing 2	3
CSCI 4871	Cloud Computing and Big Data		CSIS 1570	Web Systems and Technologies	3
Multimedia & Web Concentration			CSIS 1595	Fundamentals of Programming and Problem-Solving 1	2
INFO 3774	Digital Image Processing		CSIS 1595L	Fundamentals of Programming and Problem-Solving 1 Lab	1
INFO 3775	Digital Multimedia Design & Creation		MATH 1552	Applied Business Calculus	4
INFO 3776	Client-Side Scripting Techniques		Gen Ed Arts & Humanities		3
INFO 3777	Digital Audio & Video Production		Semester Hours		
INFO 5875	Advanced Multimedia Authoring		16		
CSIS 4878	Mobile Application Development		Year 2		
Networking Concentration			Fall		
CSIS 3783	Cisco Networking Academy 2		CSIS 2605	Fundamentals of Programming and Problem-Solving 2	2
CSIS 3784	Cisco Networking Academy 3		CSIS 2605L	Fundamentals of Programming and Problem-Solving 2 Lab	1
CSIS 4823	Data Communications Networking		CSIS 2620	System Configuration and Maintenance	3
CSIS 5883	Remote Access and Multilayer Switched Networks		CSIS 3722	Development of Databases	3
CSIS 5884	Building Scalable Networks and Advanced Internetwork Troubleshooting		STAT 2601	Introductory Statistics	3
Security Concentration			Gen Ed Arts & Humanities		3
CSIS 3756	Security Design		Semester Hours		
CSIS 3757	Computer Forensics		15		
CSIS 5828	Computer Network Security		Spring		
CSCI 5857	Encoding and Encryption		CSIS 3731	Human-Computer Interaction	3
Software Development Concentration			CSIS 3782	Cisco Networking Academy 1	3
CSIS 3700	Data Structures and Objects		INFO 3704	Business Communication	3
& 3700L	and Data Structures and Objects Lab		or ENGL 3743	or Introduction to Public, Professional and Technical Writing	
CSIS 3701	Advanced Object-oriented Programming		Minor Course		3
CSIS 3726	Visual/Object-Oriented Programming		Gen Ed Social Science		3
CSIS 3760	Electronic Commerce Programming		Semester Hours		
CSIS 4878	Mobile Application Development		15		
CSCI 4862	Server-Side Web Development and Programming		Year 3		
CSCI 5801	Software Engineering		Fall		
Dual credit requirements ^{9 credit hours from the following list of approved courses}		9	CSIS 3755	Information Assurance	3
CSCI 5801	Software Engineering		CSIS 3701	Advanced Object-oriented Programming	3
CSIS 5828	Computer Network Security		Departmental Upper Division Elective	INFO, CSIS, CSCI 37XX and above numbered courses. Up to 3 semester hours of STEM 4890 may also be used	3
Any INFO/CSIS/CSCI 5XXX level course			Minor Course		3
Departmental Upper Division Electives ^{INFO, CSIS, CSCI 37XX and above}		9	Gen Ed Electives (Any Gen Ed Course)		3
numbered courses. Up to 3 semester hours of STEM 4890 may also be used			Semester Hours		
Support Courses		7	15		
STAT 2601	Introductory Statistics		Spring		
MATH 1552	Applied Business Calculus		IT Concentration		3
Minor or Elective Hours to reach 120 hours			PHIL 2625	Introduction to Professional Ethics	3
Minor Requirements	Required hours may be greater than 12 based on the chosen minor	12	Minor Course		3
Free Electives	Any courses to meet 120 total hours	4	Gen Ed Natural Sciences with Lab		3-4
Total Semester Hours		120-123			

Gen Ed Electives (Any Gen Ed Course)	3
Request a Graduation Evaluation after completing 80-85 s.h. from the STEM Advising Center, 2325 Moser Hall, (330) 941-2512.	
Semester Hours	15-16
Year 4	
Fall	
IT Concentration	3
CSCI 5801 Software Engineering	3
Departmental Upper Division Elective INFO, CSIS, CSCI 37XX and above numbered courses. Up to 3 semester hours of STEM 4890 may also be used	3
Minor Course	3
Dual credit requirement Any INFO/CSIS/CSCI 5XXX level course	3
Semester Hours	15
Spring	
CSIS 5828 Computer Network Security	3
INFO 4880 Information Technology Analysis and Design	3
Departmental Upper Division Elective INFO, CSIS, CSCI 37XX and above numbered courses. Up to 3 semester hours of STEM 4890 may also be used	3
Gen Ed Electives (Any Gen Ed Course)	3
Gen Ed Natural Sciences	3
Semester Hours	15
Total Semester Hours	120-123

Learning Outcomes

1. The 4+1 program in Information Technology provides preparation and instruction that enables students to acquire knowledge and technical competencies to perform network design, implementation, and administration.
2. The 4+1 program in Information Technology provides preparation and instruction that enables students to acquire knowledge and technical competencies to perform information assurance and security.
3. The 4+1 program in Information Technology provides preparation and instruction that enables students to acquire knowledge and technical competencies to design, implement, and administer databases.
4. The 4+1 program in Information Technology provides preparation and instruction that enables students to acquire knowledge and technical competencies to design and implement reports and documents required by the organization through extraction of information using appropriate programs and applications.
5. The 4+1 program in Information Technology provides preparation and instruction that enables students to acquire knowledge and technical competencies to demonstrate information management skills in project management and system analysis, design, implementation, testing and monitoring.
6. The 4+1 program in Information Technology provides preparation and instruction that enables students to acquire knowledge and technical competencies to write and produce or assist in developing interactive programs.
7. The 4+1 program in Information Technology provides preparation and instruction that enables students to acquire knowledge and technical competencies to recognize technical and legal issues involved with technologies and concepts used in information technology.

Bachelor of Science in Computer Science

Computer Science spans the range from theory through programming to cutting-edge development of computing solutions. Computer Science offers a foundation that permits graduates to adapt to new technologies and new ideas. The work of computer scientists falls into three categories:

- designing and building software
- developing effective ways to solve computing problems, such as storing information in databases, sending data over networks, or providing new approaches to security problems
- devising new and better ways of using computers and addressing particular challenges in areas such as robotics, computer vision, or digital forensics

Like most Computer Science programs, the YSU Computer Science major requires a significant mathematical background.

The Computer Science program leads to the degree of Bachelor of Science. The flexibility of the program allows the student many choices including a second minor.

This degree may be earned in eight semesters if students average 15 hours per semester.

The benefits of Computer Science bachelor's degree include:

- The median annual salary of **\$120,730** for software developers
- **25% projected job growth** for software developers through 2031

The advantages of pursuing a Computer Science bachelor's degree at YSU include:

- Multiple terms throughout the year to help you start anytime to complete your degree.
- Full-time faculty access at any time
- Full-time faculty coverage of core courses
- One of the lowest tuition rates in the nation
- Intensive project-oriented courses

Computer Science spans the range from theory through programming to cutting-edge development of computing solutions. Computer Science offers a foundation that permits graduates to adapt to new technologies and new ideas. The work of computer scientists falls into three categories:

- designing and building software
- developing effective ways to solve computing problems, such as storing information in databases, sending data over networks, or providing new approaches to security problems
- devising new and better ways of using computers and addressing particular challenges in areas such as robotics, computer vision, or digital forensics

Like most Computer Science programs, the YSU Computer Science major requires significant mathematical background.

The Computer Science program leads to the degree of Bachelor of Science. The flexibility of the program allows the student many choices including a second minor.

This degree may be earned in eight semesters if students average 16 hours per semester.

In addition to completing all general University requirements, students wishing to receive the Bachelor of Science in computer science must complete the following:

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4

or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics Requirement		
MATH 1571	Calculus 1	4
Arts and Humanities (1 course)		3
PHIL 2625	Introduction to Professional Ethics	3
Natural Sciences (2 courses; one course must include a lab)		7
Social Science (2 courses)		6
General Education Electives (9 s.h.) ^{Any Gen Ed Courses}		9
Major Requirements		
CSIS 2610 & 2610L	Programming and Problem-Solving and Programming and Problem-Solving Lab	4
CSIS 3700 & 3700L	Data Structures and Objects and Data Structures and Objects Lab	4
CSIS 3701	Advanced Object-oriented Programming	3
CSIS 3740	Computer Organization	4
CSCI 3710	Introduction to Discrete Structures	3
CSCI 5806	Operating Systems	3
CSCI 5801	Software Engineering	3
CSCI 5870	Data Structures and Algorithms	3
CSCI 4890	Computer Projects ^{At least 2 s.h.}	2-4
ENGL 3743	Introduction to Public, Professional and Technical Writing	3
or INFO 3704	Business Communication	
Select at least 12 additional semester hours from CSCI or CSIS courses, or STEM 4890. This must include at least 9 s.h. from the following courses:		12
CSIS 3722	Development of Databases	
CSIS 3723	Networking Concepts and Administration	
CSIS 3755	Information Assurance	
CSCI 3770	Concepts of Programming Languages	
CSCI 5840	Automata Theory	
STEM 4890	STEM Internship	
Mathematics Minor		
MATH 1572	Calculus 2	4
MATH 3720	Linear Algebra and Matrix Theory	3
STAT 3743	Probability and Statistics	4
Additional MATH course ^{To meet 18 hour minor}		3
Free Electives ^{Any courses to meet 120 total hours}		23
Total Semester Hours		120-124
Year 1		
Fall		
YSU 1500	Success Seminar	S.H. 1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
CSIS 2610	Programming and Problem-Solving	3
CSIS 2610L	Programming and Problem-Solving Lab	1
MATH 1571	Calculus 1	4
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
Gen Ed Social Science		3
Semester Hours		15-17
Spring		
CSIS 3700	Data Structures and Objects	3
CSIS 3700L	Data Structures and Objects Lab	1
MATH 1572	Calculus 2 (minor)	4
ENGL 1551	Writing 2	3

Gen Ed Natural Science + Lab		4
Semester Hours		15
Year 2		
Fall		
CSIS 3701	Advanced Object-oriented Programming	3
CSIS 3740	Computer Organization	4
PHIL 2625	Introduction to Professional Ethics (AH)	3
Gen Ed Arts & Humanities ^{PHIL 2625 counts toward the remaining 3 cr AH Gen Ed req.}		3
Free Elective ^{Any YSU course}		3
Semester Hours		16
Spring		
CSCI 3710	Introduction to Discrete Structures	3
MATH 3720	Linear Algebra and Matrix Theory	3
ENGL 3743	Introduction to Public, Professional and Technical Writing	3
or INFO 3704	or Business Communication	
Gen Ed Social Science		3
Gen Ed Elective ^{Any Gen Ed course in AH, NS, or SS}		3
Semester Hours		15
Year 3		
Fall		
CSCI 5801	Software Engineering	3
CSCI/CSIS Upper Division Elective ^{or STEM 4890}		3
STAT 3743	Probability and Statistics	4
Free Elective ^{Any YSU Course}		3
Free Elective ^{Any YSU Course}		3
Semester Hours		16
Spring		
CSCI/CSIS Upper Division Elective ^{or STEM 4890}		3
CSCI/CSIS Upper Division Elective ^{or STEM 4890}		3
Math Minor Upper Division Elective		3
Gen Ed Natural Science		3
Gen Ed Elective ^{Any Gen Ed course in AH, NS, or SS}		3
Semester Hours		15
Year 4		
Fall		
CSCI 5870	Data Structures and Algorithms	3
CSCI 4890	Computer Projects	2-4
Free Elective ^{Any YSU course}		3
Free Elective ^{Any YSU course}		3
Gen Ed Elective ^{Any Gen Ed course in AH, NS, or SS}		3
Semester Hours		14-16
Spring		
CSCI 5806	Operating Systems	3
CSCI/CSIS Upper Division Elective ^{or STEM 4890}		3
Free Elective ^{Any YSU course}		3
Free Elective ^{Any YSU course}		3
Free Elective ^{Any course}		2
Semester Hours		14
Total Semester Hours		120-124

Request a Graduation Evaluation after completing 80-85 s.h. from the STEM Advising Center, 2325 Moser Hall, (330) 941-2512.

Learning Outcomes

Computer science students in the BS degree program will:

- be able to analyze, design, implement and test computer programs by using the appropriate data structures and algorithms.
- obtain full-time employment as programmers, systems analysts, computer specialists and in other closely related fields or/and acceptance to graduate programs.
- communicate effectively with written reports and presentations.

Bachelor of Science in Computer Science 4+1 Graduate Track

Computer Science spans the range from theory through programming to cutting-edge development of computing solutions. Computer Science offers a foundation that permits graduates to adapt to new technologies and new ideas. The work of computer scientists falls into three categories:

- designing and building software
- developing effective ways to solve computing problems, such as storing information in databases, sending data over networks, or providing new approaches to security problems
- devising new and better ways of using computers and addressing particular challenges in areas such as robotics, computer vision, or digital forensics

Like most Computer Science programs, the YSU Computer Science major requires significant mathematical background.

The Computer Science 4+1 program leads to the degree of Master of Computing and Information Systems. The flexibility of the program allows the student many choices.

This degree may be earned in ten semesters if students average 16 hours per semester during the first 4 years and 11 hours semester during the last year.

In addition to completing all general University requirements, students wishing to receive the Bachelor of Science in Computer Science - Graduate Track must complete the following:

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
MATH 1571	Calculus 1	4
PHIL 2625	Introduction to Professional Ethics	3
Arts and Humanities (1 course)		3
Natural Sciences (2 courses; one course must include a lab)		6-7
Social Science (2 courses)		6
General Education Electives (9 s.h.)	Any Gen Ed Courses	9
Major Requirements		
CSIS 2610 & 2610L	Programming and Problem-Solving and Programming and Problem-Solving Lab	4
CSIS 3700 & 3700L	Data Structures and Objects and Data Structures and Objects Lab	4
CSIS 3701	Advanced Object-oriented Programming	3
CSIS 3740	Computer Organization	4

CSCI 3710	Introduction to Discrete Structures	3
CSCI 4890	Computer Projects	2
ENGL 3743	Introduction to Public, Professional and Technical Writing	3
or INFO 3704	Business Communication	
Select at least 12 additional semester hours from CSCI or CSIS upper division level courses, or STEM 4890. This must include at least 9 s.h. from the following courses:		12
CSIS 3722:	Development of Databases	
CSIS 3723:	Networking Concepts and Administration	
CSIS 3755:	Information Assurance	
CSCI 3770:	Survey of Programming Languages	
CSCI 5840:	Theory of Finite Automata	
STEM 4890	STEM Internship	
Dual credit requirements		9 credit hours from the following list of approved courses
CSCI 5801	Software Engineering	3
CSCI 5806	Operating Systems	3
CSCI 5870	Data Structures and Algorithms	3
Mathematics Minor		
MATH 1572	Calculus 2	4
MATH 3720	Linear Algebra and Matrix Theory	3
STAT 3743	Probability and Statistics	4
Additional MATH course	To meet 18 hour minor	3
Departmental Free Electives	Any CSIS/INFO/CSCI/CIS courses	12
Free Electives	Any courses to meet 120 total hours	12
Total Semester Hours		120-123

Year 1

Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
CSIS 2610	Programming and Problem-Solving	3
CSIS 2610L	Programming and Problem-Solving Lab	1
MATH 1571	Calculus 1	4
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
Gen Ed Social Science		3
Semester Hours		15-17

Spring

CSIS 3700	Data Structures and Objects	3
CSIS 3700L	Data Structures and Objects Lab	1
MATH 1572	Calculus 2 (minor)	4
ENGL 1551	Writing 2	3
Gen Ed Natural Science + Lab		3-4
Semester Hours		14-15

Year 2

Fall		
CSIS 3701	Advanced Object-oriented Programming	3
CSIS 3740	Computer Organization	4
PHIL 2625	Introduction to Professional Ethics (AH)	3
Gen Ed Electives (Any Gen Ed Course)		3
Gen Ed Arts & Humanities		3
Semester Hours		16
Spring		
CSCI 3710	Introduction to Discrete Structures	3
MATH 3720	Linear Algebra and Matrix Theory	3

ENGL 3743 or INFO 3704	Introduction to Public, Professional and Technical Writing or Business Communication	3
Gen Ed Social Science		3
Gen Ed Electives (any Gen Ed Course)		3
Semester Hours		15
Year 3		
Fall		
CSCI 5801	Software Engineering	3
CSCI/CSIS Upper Division Elective		3
STAT 3743	Probability and Statistics	4
Departmental Free Elective	Any CSIS/INFO/CSCI/CIS courses	3
Free Elective		3
Semester Hours		16
Spring		
CSCI/CSIS Upper Division Elective		3
CSCI/CSIS Upper Division Elective		3
Math Minor Upper Division Elective		3
Gen Ed Natural Science		3
Gen Ed Electives (Any Gen Ed Course)		3
Semester Hours		15
Year 4		
Fall		
CSCI 5870	Data Structures and Algorithms	3
CSCI 4890	Computer Projects	2
Departmental Free Elective	Any CSIS/INFO/CSCI/CIS courses	3
Free Elective		3
Free Elective		3
Semester Hours		14
Spring		
CSCI 5806	Operating Systems	3
CSCI/CSIS Upper Division Elective or STEM 4890		3
Departmental Free Elective	Any CSIS/INFO/CSCI/CIS courses	3
Departmental Free Elective	Any CSIS/INFO/CSCI/CIS courses	3
Free Elective		3
Semester Hours		15
Total Semester Hours		120-123

Highly qualified undergraduate students can apply for admission into the combined "4+1" Bachelors/Masters program for the MC&IS in Computer Science.

Request admission into the program after completing 80-85 s.h. from the MC&IS Graduate Coordinator, Alina Lazar, 308 Meshel Hall, (330) 941-3468.

Learning Outcomes

Computer science students in the BS degree program will:

- be able to analyze, design, implement and test computer programs by using the appropriate data structures and algorithms.
- obtain full-time employment as programmers, systems analysts, computer specialists and in other closely related fields or/and acceptance to graduate programs.
- communicate effectively with written reports and presentations.

Bachelor of Science in Computer Science Cybersecurity Track

Cybersecurity is a concentration within Computer Science that encompasses a variety of subjects, including software development, networking, database management, data security, software security, network security, and system security. The cybersecurity track provides foundational knowledge and skills to enable graduates to create, manage, execute, analyze, and evaluate secure computing systems.

COURSE	TITLE	S.H.
First Year Requirement - Student Success		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
MATH 1571	Calculus 1	4
Natural Sciences ((2 courses; one course must include a lab)		7
PHIL 2625	Introduction to Professional Ethics	3
Arts and Humanities (1 course)		3
Social Science (2 courses)		6
General Education Electives (9 s.h.) Any Gen Ed Courses		9
Major Requirements		
CSIS 2610	Programming and Problem-Solving	3
CSIS 2610L	Programming and Problem-Solving Lab	1
CSIS 3700	Data Structures and Objects	3
CSIS 3700L	Data Structures and Objects Lab	1
CSIS 3701	Advanced Object-oriented Programming	3
CSIS 3740	Computer Organization	4
CSCI 3710	Introduction to Discrete Structures	3
CSCI 5806	Operating Systems	3
CSCI 5801	Software Engineering	3
CSCI 5870	Data Structures and Algorithms	3
CSCI 4890	Computer Projects	2-4
ENGL 3743	Introduction to Public, Professional and Technical Writing	3
or INFO 3704	Business Communication	
Cybersecurity Track Courses		
CSIS 3722	Development of Databases	3
CSIS 3723	Networking Concepts and Administration	3
CSIS 3755	Information Assurance	3
CSIS 3756	Security Design	3
CSIS 3757	Computer Forensics	3
CSIS 5828	Computer Network Security	3
CSCI 5857	Encoding and Encryption	3
Mathematics Minor		
MATH 1572	Calculus 2	4
MATH 3720	Linear Algebra and Matrix Theory	3
STAT 3743	Probability and Statistics	4
Additional MATH course To meet 18 hour minor		3
Free Electives Any course to meet 120 total hours		14
Total Semester Hours		120-124

Year 1**Fall**

YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2
CSIS 2610	Programming and Problem-Solving	3
CSIS 2610L	Programming and Problem-Solving Lab	1
MATH 1571	Calculus 1	4
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
Gen Ed Social Science		3
Semester Hours		15-17

Spring

CSIS 3700	Data Structures and Objects	3
CSIS 3700L	Data Structures and Objects Lab	1
MATH 1572	Calculus 2	4
ENGL 1551	Writing 2	3
Gen Ed Natural Science + Lab		4
Semester Hours		15

Year 2**Fall**

PHIL 2625	Introduction to Professional Ethics	3
CSIS 3701	Advanced Object-oriented Programming	3
CSIS 3740	Computer Organization	4
Gen Ed Arts & Humanities		3
Free Elective	Any course to meet 120 total hours	3
Semester Hours		16

Spring

CSCI 3710	Introduction to Discrete Structures	3
MATH 3720	Linear Algebra and Matrix Theory	3
ENGL 3743 or INFO 3704	Introduction to Public, Professional and Technical Writing or Business Communication	3
Gen Ed Social Science		3
Gen Ed Natural Science		3
Semester Hours		15

Year 3**Fall**

CSIS 3722	Development of Databases	3
CSIS 3723	Networking Concepts and Administration	3
CSIS 3755	Information Assurance	3
STAT 3743	Probability and Statistics	4
Gen Ed Electives	Any Gen Ed Course	3
Semester Hours		16

Spring

CSCI 5801	Software Engineering	3
CSIS 3756	Security Design	3
CSIS 3757	Computer Forensics	3
Math Minor Upper Division Elective		3
Gen Ed Elective	Any Gen Ed Course	3
Semester Hours		15

Year 4**Fall**

CSCI 5857	Encoding and Encryption	3
CSCI 5870	Data Structures and Algorithms	3
CSIS 5828	Computer Network Security	3

Gen Ed Electives	Any Gen Ed Course	3
Free Elective	Any course to meet 120 total hours	3

Semester Hours**15****Spring**

CSCI 4890	Computer Projects	2-4
CSCI 5806	Operating Systems	3
Free Electives	Any course to meet a total of 120 hours	8
Semester Hours		13-15
Total Semester Hours		120-124

1. Demonstrate fundamental knowledge and skills in data security.
2. Exhibit understanding of basic cryptography principles.
3. Demonstrate foundational knowledge in digital investigation and the use of forensic tools.
4. Demonstrate proficiency in data integrity and authentication techniques.
5. Display expertise in software security.
6. Demonstrate competencies in ensuring security in both physical and logical connections between components.
7. Demonstrate a basic understanding of system security principles.

Minor in Computer Networking

COURSE	TITLE	S.H.
CSIS 1590	Survey of Computer Science and Information Systems	3
Select at least 15 hours from the following:		15-16
CSIS 3723	Networking Concepts and Administration	
CSIS 3782	Cisco Networking Academy 1	
CSIS 3783	Cisco Networking Academy 2	
CSIS 4823	Data Communications Networking	
CSIS 5883	Remote Access and Multilayer Switched Networks	
CSIS 5884	Building Scalable Networks and Advanced Internetwork Troubleshooting	
CSCI 5823		
Total Semester Hours		18-19

Minor in Computer Science

COURSE	TITLE	S.H.
CSIS 2610 or CSIS 2605	Programming and Problem-Solving Fundamentals of Programming and Problem- Solving 2	3
CSIS 2610L or CSIS 2605L	Programming and Problem-Solving Lab Fundamentals of Programming and Problem- Solving 2 Lab	1
CSIS 3700	Data Structures and Objects	3
CSIS 3700L	Data Structures and Objects Lab	1
CSIS 3701 or CSIS 3726	Advanced Object-oriented Programming Visual/Object-Oriented Programming	3
Any two CSCI or CSIS courses at the 3700 level or above		6
Total Semester Hours		17

Minor in Information Technology

COURSE	TITLE	S.H.
CSIS 1525	Survey of Modern Operating Systems	3
CSIS 1570	Web Systems and Technologies	3
CSIS 1590	Foundations of Information Systems & Technologies	3
Select 3 of the followings:		9
CSIS 2620	System Configuration and Maintenance	

CSIS 3722	Development of Databases
CSIS 3755	Information Assurance
CSIS 3723	Networking Concepts and Administration
or CSIS 3782	Cisco Networking Academy 1
CSIS 3731	Human-Computer Interaction

Total Semester Hours 18

Minor in Interdisciplinary Game Studies

Art Faculty

Dana Sperry (<https://academics.ysu.edu/art/j-dana-sperry/>), M.F.A.

Professor

Bliss Hall 4081

330.941.3627

jdsperry@ysu.edu

Music Faculty

Bryan Helsel (<https://ysu.edu/people/bryan-helsel/>), Ph.D.

Lecturer

Bliss Hall 3035

330.941.3639

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About the Minor

The Minor in Interdisciplinary Game Studies is a collaboration between the Department of Art (<https://academics.ysu.edu/art/>), the Dana School of Music (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/>), and CSIS (<https://academics.ysu.edu/computer-science-and-information-systems/>). Students who pursue this minor will take courses across all departments, learning a combination of different creative and technical skills. Our minor also expands students' understanding of how game studies and design can intersect with other fields and allows them to develop additional skills that complement the marketable competencies and knowledge they acquire in their majors.

Students who earn the Minor in Interdisciplinary Game Studies often pursue careers in animation, music composition, computer science, software engineering or software development, visual effects, and other similar professions.

Contact Information

To learn more about our degree programs, scholarships, professional development and careers, exhibitions, faculty, and students, visit Department of Art (<https://academics.ysu.edu/art/>) or Dana School of Music (<https://ysu.edu/academics/cliffe-college-creative-arts/dana-school-of-music/>) or contact us at 330.941.3625.

To schedule a personalized campus visit, contact the Cliffe College of Creative Arts (<https://academics.ysu.edu/cliffe-college-of-creative-arts/>) Program Coordinator of Admissions and Recruitment at 330.941.2346 or sawaltman@ysu.edu.

COURSE	TITLE	S.H.
ART 2691	Introduction to Digital Media	3
ART 3748	Special Topics in Studio Art	3
CSIS 1595	Fundamentals of Programming and Problem-Solving 1	2
CSIS 3737	Game Programming	3

MUIN 1561	Recording Workshop	4
MUIN 3762	Digital Sound Production	2

If any of the above are required for your major, you must find an appropriate replacement course from the list below. The replacement course(s) must be in a department different from your own.

ART 1501	Fundamentals of 2D Design	3
ART 1521	Foundation Drawing	3
CSIS 3738	Graphics and Animation for Gaming	3
CSIS 5837	Artificial Intelligence in Game Design	3

Minor in Multimedia and Web Design

COURSE	TITLE	S.H.
CSIS 1590	Survey of Computer Science and Information Systems	3
INFO 3774	Digital Image Processing	4
INFO 3775	Digital Multimedia Design & Creation	4
INFO 3776	Client-Side Scripting Techniques	4
INFO 3777	Digital Audio & Video Production	4

Total Semester Hours 19

Minor in Object-Oriented Programming

COURSE	TITLE	S.H.
CSIS 1590	Foundations of Information Systems & Technologies	3
CSIS 2610	Programming and Problem-Solving	3
CSIS 2610L	Programming and Problem-Solving Lab	1
CSIS 3701	Advanced Object-oriented Programming	3
CSIS 3700	Data Structures and Objects	3
CSIS 3700L	Data Structures and Objects Lab	1
CSIS 3726	Visual/Object-Oriented Programming	4

Total Semester Hours 18

Minor in Web Communications

COURSE	TITLE	S.H.
CSIS 1590	Survey of Computer Science and Information Systems	3
INFO 3774	Digital Image Processing	4
INFO 3776	Client-Side Scripting Techniques	4
ENGL 3743	Introduction to Public, Professional and Technical Writing	3
ENGL 3744	Writing with Data	3
ENGL 4843	Advanced Professional and Technical Writing	3
or ENGL 4849	Copyediting	

Total Semester Hours 20

Minor in Electronic Commerce Technology

Certificate in IT Professional - Linux and Security

COURSE	TITLE	S.H.
CSIS 1514	Business Computer Systems	3
CSIS 1525	Survey of Modern Operating Systems	3
CSIS 1590	Foundations of Information Systems & Technologies	3

CSIS 2620	System Configuration and Maintenance	3
CSIS 3722	Development of Databases	3
CSIS 3755	Information Assurance	3
CSIS 3756	Security Design	3
Total Semester Hours		21

- Civil and Construction Engineering Technology
- Electrical Engineering Technology
- Mechanical Engineering Technology

Graduates of these programs are awarded the Associate of Applied Science degree and may serve as engineering technicians.

Certificate in IT Professional - Networking

COURSE	TITLE	S.H.
CSIS 1514	Business Computer Systems	3
CSIS 1525	Survey of Modern Operating Systems	3
CSIS 1590	Foundations of Information Systems & Technologies	3
CSIS 2620	System Configuration and Maintenance	3
CSIS 3722	Development of Databases	3
CSIS 3782	Cisco Networking Academy 1	3
CSIS 3783	Cisco Networking Academy 2	3
Total Semester Hours		21

Graduates of the associate degree programs having enough technical knowledge to support scientists and engineers and therefore can obtain an internship or full-time employment. Their work is in the design, drafting (CAD), development, testing, and production phases of engineering projects. Their tasks include laboratory testing, data gathering, evaluation, and instrument calibration. They may perform quality-control tests, inspectors, serve as technical sales representatives, or serve as technical writers in the formulation of specifications or trade manuals.

Degrees in these programs may be earned in four semesters if students average 17-18 hours per semester.

Bachelor of Science in Applied Science Degree

The Civil and Construction Engineering Technology (CCET), Electrical Engineering Technology (EET), and Mechanical Engineering Technology (MET) programs are based on the "two-plus-two" educational system which provides the student with the flexibility of earning an associate degree and a bachelor's degree according to his or her needs. After completing the requirements of the associate degree, the student may elect to: a) continue their education in pursuit of a bachelor degree which is two years of full-time study (averaging 17 hours per semester) or equivalent part-time study, earn the Bachelor of Science in Applied Science (BSAS); b) pursue professional employment; or c) enter industry and continue their education in pursuit of a bachelor degree.

Graduates of a BSAS degree program obtain employment as engineers or engineering designers for government agencies, consulting engineers, architects, industry and manufacturing, and contractors. Because their education is more extensive, they are prepared for more responsibility and more-rapid advancement. BSAS engineering technology graduates work as engineers doing design work, inspectors, project managers, production and maintenance managers/supervisors.

Based on an evaluation of their work, transfer students who have a related associate degree from a regionally accredited institution may be admitted to the bachelor's degree program at the junior level.

Accreditation and Registration

The Bachelor of Science in Applied Science in Electrical Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET, <https://www.abet.org>, under the General Criteria and the Program Criteria for Electrical Engineering Technology. In most states, including Ohio, West Virginia and Pennsylvania, bachelor's degree graduates are qualified to take the Fundamentals of Engineering (FE) exam, and, with sufficient work experience, the Professional Engineers (PE) exam. Graduates are also qualified to apply to the National Institute for Certification in Engineering Technologies (NICET) for certification procedures in various specialty areas, depending on academic major and employment area.

Admission Requirements

Admission to all of engineering technology programs requires at least one year of high school algebra and one year of high school geometry with grades of "C" or better. Transfer students must be in good standing at their previous institution. All freshmen must take the Mathematics Placement Test prior to admission into an engineering technology program.

Students not meeting the admission requirements are enrolled as pre-majors in the College of Science, Technology, Engineering, and Mathematics. While advising is provided by professional advisors within the college, these

Certificate in Programmable Logic Controllers

COURSE	TITLE	S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
MATH 1510	College Algebra	4-6
or MATH 1510C	College Algebra with Co-requisite Support	
MATH 1511	Trigonometry	3-4
or MATH 1511C	Trigonometry with Co-requisite Support	
EET 1501	Circuit Theory 1	3
EET 1501L	Circuit Theory 1 Lab	1
EET 2620	Digital Electronics	2
EET 2620L	Digital Electronics Lab	1
EET 1502	Circuit Theory 2	3
EET 1502L	Circuit Theory 2 Lab	1
EET 1504	AC/DC Machinery	3
EET 2605	Electronics 1	3
EET 2605L	Electronics 1 Laboratory	1
EET 2608	Industrial Controls	3
EET 3712	Programmable Logic Controllers	3
PHYS 1501	Fundamentals of Physics 1	4
PHYS 1501L	Fundamentals of Physics Laboratory 1	1
Total Semester Hours		40-45

Engineering Technology

Civil & Construction, Electrical, and Mechanical Engineering Technology Associate of Applied Science Degree

Students can earn an associate degrees in:

students are also encouraged to see the coordinator of the program in which they are interested for further orientation.

Qualified engineering technology students must enroll in the ENTC 1505 Engineering Technology Concepts course. It is designed to acquaint students with the nature of the engineering career area, and therefore assist prospective students in determining the level of their interest. ENTC 1505 Engineering Technology Concepts is required of all engineering technology majors.

Professor

Michael D. Costarell, M.S.M.E., Professor

Robert J. Korenic, M.S.E., Professor

Daniel J. Opalewski, Ph.D., Assistant Professor

Joseph S. Sanson, M.S., Associate Professor

Brian D. Vuksanovich, M.S.M.E., Professor

Jason Zapka, M.S., Assistant Professor

Lecturer

Brian M. Ennis, Ph.D., Lecturer

Majors

- Civil and Construction Engineering Technology Associate Degree Program (p. 420)
- Civil and Construction Engineering Technology Bachelor's Degree Program (p. 425)
- Electrical Engineering Technology Associate Degree Program (p. 422)
- Electrical Engineering Technology Bachelor's Degree Program (p. 428)
- Mechanical Engineering Technology Associate Degree Program (p. 423)
- Mechanical Engineering Technology Bachelor's Degree Program (p. 430)
- Machining Associate Degree Program (p. 423)

Minors

- Minor in Electrical Engineering Technology (p. 432)
- Construction Management (<http://catalog.ysu.edu/undergraduate/colleges-programs/college-science-technology-engineering-mathematics/departments-engineering-technology/construction-management-certificate/>)

Certificates

- Certificate in Advanced Welding (p. 432)
- Certificate in Welding (p. 432)

Civil and Construction Engineering Technology

CCET 1503 CAD Technology 2 s.h.

Basic instruction in the use of AutoCAD computer-aided drafting system. Includes primary 2D skills including dimensioning, blocks, external reference and plotting. Customization methods and an introduction to application programming. One and one-half hours lecture, one and one-half hours lab per week. Grading is A, B, C, NC.

Prereq.: C or better in MATH 1510 or MATH 1510C.

Prereq. or Coreq.: MATH 1513 or MATH 1511 or 1511C or at least Level 45 on the Mathematics Placement test.

CCET 1504 Drafting and Plan Reading 2 s.h.

Drafting basics including plan, section, and elevation views; orthographic projections; line types and weights; drafting scales; dimensioning; tolerances; grading and contours, and construction layout for the civil, mechanical, and electrical technology disciplines. Development of skills in the interpretation and preparation of plans used for civil, mechanical, and electrical construction and fabrication. One and one-half hours lecture, one and one-half hours laboratory per week. Grading is A, B, C, NC.

Prereq.: C or better in MATH 1510 or MATH 1510C.

Coreq.: MATH 1513 or MATH 1511 or MATH 1511C or at least level 45 on Mathematics Placement Test.

CCET 2604 Properties and Strength of Materials 3 s.h.

Introduction to the physical and chemical properties of materials and their behavior under various loads and environments. Concepts of stress and strain developed and evaluated for the application of axial, shear, torsional, and bending loads. Four (4) hours lecture per week.

Prereq.: Grade of "C" or better in ENTC 1505 and MATH 1513 or MATH 1510 or MATH 1510C and MATH 1511 or MATH 1511C.

Prereq. or Coreq.: MET 1515.

CCET 2607 Civil 3D 3 s.h.

Civil 3D is a course intended to prepare students for entry-level production use of AutoCAD Civil 3D 2015. The primary goal of this class is to teach students how to use the software, but it is also an opportunity to show them how projects are executed and what types of roles they will play in completing them. One (1) hour lecture and three (3) hours lab per week.

Prereq.: "C" or better in CCET 1503 and CCET 1504.

CCET 2614L Materials Laboratory 1 2 s.h.

Use and care of testing equipment, data retrieval, data reduction and report preparation. Physical testing of metals, concrete, aggregates, asphalts, soils and woods. Three hours per week.

Prereq. or Coreq.: CCET 2604.

CCET 2617 Construction Methods and Materials 3 s.h.

Basic properties of construction materials. Processing and placement methods. Purchase, use and replacement of construction equipment. Application of engineering economics to construction. Use of building codes.

Prereq.: CCET 2604, MET 1515 both with a grade of "C" or better.

CCET 2620 Transportation Technology 3 s.h.

Transportation planning and highway system design. Familiarization with AASHTO design manuals; geometric design and signalization of highway segments; capacity analysis and route selection. Cost-benefit analysis for transportation projects. Four (4) hours lecture per week. Prereq. 'C' or better in CCET 2604.

CCET 3705 Computing for Engineers 3 s.h.

Development of computer techniques used in solutions to problems in all fields of engineering technology. Students write computer programs to solve problems with which they are familiar. Use of database management, spreadsheets. Personal laptop computer required. Laptops may be rented from the university by the student if necessary. May be taken by non-CCET majors. Two hours lecture, three hours lab per week.

Prereq.: MATH 1570 or MATH 1571 grade of "C" or better and junior standing or consent of instructor.

CCET 3706 Structural Design 4 s.h.

Structural design using AISC, ACI and similar codes. Selection of members and connections in accordance with manuals and code specifications. Design and AutoCAD projects required. Three hours lecture and three hours computational lab per week.

Prereq.: "C" or better in CCET 1503, CCET 1504, MET 1515, MATH 1513, MATH 1510 or MATH 1510C and MATH 1511 or MATH 1511C, CCET 2604.

CCET 3708 Building Information Modeling 3 s.h.

Introduction and applications of Autodesk Revit 3D CAD program. Use of Revit software to assemble a complete building information model of a building and use the model to coordinate systems between disciplines, to create material take-offs, construction documents, and presentation drawings. Two hours lecture, three hours lab per week.

Prereq.: "C" or better in CCET 3706.

CCET 3709 Structural Analysis 1 3 s.h.

Fundamental determination of member forces in trusses, beams, arches, frames and cables. Calculation of member stresses and deflections. Two hours lecture, three hours computational lab per week.

Prereq.: ENTC 1505, MATH 1513 or MATH 1510 or MATH 1510C and MATH 1511 or MATH 1511C and CCET 2604, all with a grade of "C" or better.

CCET 3711 Specifications and Estimating 3 s.h.

Fundamentals of writing and interpreting specifications for materials and construction methods. Estimating materials and labor costs for construction projects. Use of computer estimating packages. Two hours lecture and three hours computational laboratory.

Prereq.: ENTC 1505, MATH 1513 or MATH 1510 or MATH 1510C and MATH 1511 or MATH 1511C, CCET 2604, MET 1515 all with grade of "C" or better.

CCET 3714 Soil Mechanics 2 s.h.

A study of soil properties, classifications, strength and behavior. Theory of consolidation, shear strength and stability analysis. Two hours lecture per week.

Prereq.: "C" or better in the following courses CCET 2614L, CCET 3706, CCET 3709.

CCET 3714L Soil Mechanics Laboratory 1 s.h.

Practice in soil identification and determination of soil properties. Use and care of basic soil testing equipment and standard test procedures. Three laboratory hours per week. Concurrent with: CCET 3714.

CCET 3719 Environmental Impact of Abandoned Mines 3 s.h.

Mining methods, types of mines, information retrieval, mine stabilization, and the effects of abandoned mines on environmental and human activities, especially deep coal mines in the Mahoning Valley and adjacent areas. Two hours lecture and three hours of lab per week. **Prereq.** GEOL 1505 or equivalent or permission of instructor.

CCET 3724 Hydraulics and Land Development 3 s.h.

Study of hydraulics and hydrologic principles and their applications to drainage requirements, storm-water management, detention/retention basin design, erosion and sedimentation control plans and land-use planning. Use of computer software for analysis and design. Two hours lecture, three hours of computational lab per week.

Prereq.: CCET 1503, CCET 1504, ENTC 1505, MATH 1513 or MATH 1510 or MATH 1510C and MATH 1511 or MATH 1511C, CCET 2604, MET 1515 all with a grade of "C" or better.

CCET 3735 Heavy Highway Technology 3 s.h.

Study of principles of heavy highway construction as it relates to the current highway system. The reading and comprehension of highway construction plans and specifications. Three (3) hours lecture per week.

Prereq.: "C" or better in CCET 2620.

CCET 3740 Construction Management 3 s.h.

Design and construction office planning and scheduling techniques. Construction reports, contracts, specifications and general conditions. Relationships among owner, architect/engineer, and constructor. Introduction to computer methods for program planning and updating. Financial, labor, and material resource allocation and tracking. Three (3) hours lecture per week.

Prereq.: "C" or better in CCET 3711.

CCET 4807 Project Planning & Scheduling 3 s.h.

Application of planning, scheduling, and control system techniques for an integrated project including theory, options, legal implications, and practices. Students plan and schedule projects using CPM computer software and set up control systems for the project. Two hours lecture, one hour laboratory per week.

Prereq.: "C" or better in CCET 3711.

CCET 4809 Structural Analysis 2 3 s.h.

Continuation of CCET 3709. Analysis techniques for common structures. Introduction to classical approaches to statically indeterminate structures and calculation of deflections. Use of standard computer programs such as StruCalc, SAP and SABLE. Three hours lecture, one hour computational lab per week.

Prereq.: "C" or better in both CCET 3709 and MATH 1570 or MATH 1571.

CCET 4810 Construction Surveying 3 s.h.

Theory and applications of advanced land surveying techniques for: route surveying and geometric design; topographic site surveys and mapping; civil engineering, utilities, and construction surveys; global positioning systems; and quantities and final surveys. Two hours lecture and three hours field surveying laboratory.

Prereq.: "C" or better in CEEN 2610, CEEN 2610L.

CCET 4812 Concrete Design 3 s.h.

Behavior and design of concrete elements subject to flexure, shear, axial and combined effects. Emphasis on reinforced concrete design in accordance with the ACI Code including beams, T-beams, slabs, walls, and columns. An introduction to prestressed and precast concrete design. Two hours lecture, one hour design lab per week.

Prereq.: "C" or better in both CCET 3706 and CCET 3709.

CCET 4813 Steel Design 3 s.h.

Loading and behavior of steel structures and design of standard rolled shapes in accordance with current LRFD and ASD specifications. Design of welded and bolted connections and an introduction to design of cold-formed steel members. Two hours lecture, one hour lab per week.

Prereq.: "C" or better in both CCET 3706 and CCET 3709.

CCET 4814 Foundation Design 3 s.h.

Application of soil mechanics to the design of foundations. Topics include spread footings, drilled piers, piles, retaining walls, sheet pile walls and underground structures. Three hours lecture per week.

Prereq.: "C" or better in CCET 3714 and CCET 3714L.

CCET 4815 Masonry Design 3 s.h.

Design of beams, columns, shear walls and bearing walls using clay and concrete masonry units. Application of allowable stress design (ASD) and strength design (SD) in accordance with the MSJC Building Code Requirements for Masonry Structures. Additional topics include prestressed and autoclaved aerated concrete (AAC) masonry. Two hours lecture, one hour lab per week.

Prereq.: "C" or better in both CCET 3706 and CCET 3709.

CCET 4816 Timber Design 3 s.h.

Design of beams, poles, piles, diaphragms, shear walls and fasteners using timber elements. Application of the National Design Specification for Wood Construction that incorporates a dual format using both allowable stress design (ASD) and load and resistance factor design (LRFD). Additional topics include glued-laminated members and design of mechanical connectors. Design, analysis, construction, and testing of scale models is required. Two hours lecture, one hour lab per week.

Prereq.: "C" or better in both CCET 3706 and CCET 3709.

CCET 4824 Environmental Technology 3 s.h.

Application of environmental principles to land planning and development. Wastewater treatment processes and system design. Application of water and wastewater management to specific sites. Permitting and endangerment assessment. Two hours lecture, one hour lab per week.

Prereq.: "C" or better in CCET 3724 and junior standing.

CCET 4884 Civil/Structural Facilities Design 3 s.h.

Interdisciplinary capstone course. An overview of the requirements and design procedures for civil and structural systems. Includes the analysis and design for site development, utilities, foundation, wall systems, framing systems, floor system and the preparation of the plans, specifications and estimate package. Includes a major interdisciplinary group project. Four (4) hours lecture per week.

Prereq.: Senior standing in CCET or EET permission of instructor.

Prereq. or Coreq.: EET 4810.

CCET 4890 Special Topics in Civil and Construction Engineering Technology 1-4 s.h.

New developments in CCET. Subject matter, special prerequisites, and credit hours to be announced in advance of each offering. May be repeated with different subject matter to a maximum of 8 s.h.

Prereq.: Senior standing in CCET or consent of the instructor.

Electrical Engineering and Technology

EET 1501 Circuit Theory 1 3 s.h.

Theoretical analysis of DC electrical circuits including units conversions, current voltage, power, Ohms Law, Kirchhoffs Laws, network theorems, capacitance, magnetic circuits, inductance and transient analysis of RL and RC circuits.

Prereq.: C or better in either MATH 1513, or in either MATH 1510 or MATH 1510C and in either MATH 1511 or MATH 1511C.

Coreq.: EET 1501L.

EET 1501L Circuit Theory 1 Lab 1 s.h.

Use of electrical components to construct circuits and use of electrical instrumentation including meters and oscilloscopes to analyze DC resistive series/parallel networks and basic RC & RL transient circuits. Computer circuit analysis with PSpice. Three hours per week. Concurrent with: EET 1501.

EET 1502 Circuit Theory 2 3 s.h.

Study of AC sinusoidal waveforms, phasor representations, phasor algebra and phasor diagrams. Solution of steady state single phase series/parallel networks including network theorems, power and power factor, resonant circuits, filters, mutual inductance, transformers and balanced three-phase systems.

Prereq.: "C" or better in EET 1501 and EET 1501L; "C" or better in either MATH 1513, or in either MATH 1510 or MATH 1510C and in either MATH 1511 or MATH 1511C.

Coreq.: EET 1502L.

EET 1502L Circuit Theory 2 Lab 1 s.h.

Measure effective values of AC currents and voltages, observe waveforms with oscilloscopes, verify impedance concepts and phasor diagrams for AC series/parallel networks and resonant circuits. Computer circuit analysis with PSpice. Three hours per week. Concurrent with: EET 1502.

EET 1504 AC/DC Machinery 3 s.h.

This course presents the principles of operation and characteristics of the basic types of direct current machines and alternating current machines. It covers in particular, series, shunt, and compound generators and motors as well as alternators, three phase and single phase motors. The course describes methods of controlling the speed of motors and discusses the basics of variable speed drives. This course is designed to enable the student to understand, specify, connect and satisfactorily apply the various existing types of electric motors and generators. Strong emphasis is placed on the use of manuals/data sheets and machine specifications. Two hours lecture, two hours lab.

Prereq.: C or better in EET 1502.

EET 2605 Electronics 1 3 s.h.

Physical basis of semiconductor materials, diodes, rectifier circuits, Zener diode regulators, clippers, clamping, special purpose diodes. Bipolar junction transistors (BJT) characteristics, bias circuits, equivalent circuit models, amplifiers and field effect transistor (FET) characteristics.

Prereq.: EET 1502 and EET 1502L or EET 3725 and EET 3725L, C or better in MATH 1513 or MATH 1510 or MATH 1510C and MATH 1511 or MATH 1511C.

Coreq.: EET 2605L.

EET 2605L Electronics 1 Laboratory 1 s.h.

Use of meters, oscilloscope, transistor curve tracer for experiments on diode characteristics, rectifier circuits, clippers, clamping, Zener regulators, BJT and FET characteristics, BJT bias circuits and amplifiers. Computer circuit analysis with PSpice. Three hours per week. Concurrent with: EET 2605.

EET 2608 Industrial Controls 3 s.h.

This course covers theory and application of control components and systems. With the use of manuals, handbooks/equipment specifications, students learn to think through the process of diagram development in connecting control devices from control pilot devices and electromagnetic motor starters to programmable logic controllers. The application area of the course is the field in which most students will be employed and will need knowledge. Consequently, control stations, in the lab, equipped with personal computers and programmable logic controllers are designed to be as state-of-the-art as possible. Two hours lecture, two hours lab.

Prereq.: None.

EET 2620 Digital Electronics 2 s.h.

An introductory study of number systems and conversions, codes, Boolean algebra, and logic gates. Includes Boolean function simplification, truth tables, Karnaugh maps, and combination circuits.

Prereq.: "C" or better in either MATH 1513 or MATH 1510 or MATH 1510C and MATH 1511 or MATH 1511C.

Coreq.: EET 2620L.

EET 2620L Digital Electronics Lab 1 s.h.

Experiments utilizing digital integrated circuits to implement various logic functions discussed in EET 2620. Three hours per week. Concurrent with: EET 2620.

EET 3700 Methods in Circuit Analysis 3 s.h.

Review of circuit analysis techniques using phasor algebra; mesh and nodal analysis; Thevenin and Norton equivalents; superposition theorem; three phase circuits; circuit solutions using matrix methods; and Fourier analysis of periodic waveforms with applications to circuit analysis. Two hours lecture and three hours computational lab per week.

Prereq.: Grade of C or better in EET 3710 and EET 3710L and EET 3712 and EET 3712L and EET 3715 and MATH 1570 or MATH 1571.

Prereq. or Coreq.: MATH 2670.

EET 3701 Transform Circuit Analysis 3 s.h.

Introduction to LaPlace transforms and the use of LaPlace transforms in circuit analysis, transfer functions, frequency response of networks, poles and zeroes, stability, Bode plots. Two hours lecture and three hours of computational lab per week.

Prereq.: MATH 2670 and EET 3700 with a grade of "C" or better.

EET 3706 Electronics 2 3 s.h.

Field effect transistor (FET) bias circuits and amplifiers, thyristor circuits, frequency effects (Bode plots), differential amplifiers, linear and non-linear op amp circuits, active filters, oscillators and regulated power supplies. Concurrent with: EET 3706L.

Prereq.: "C" or better in EET 1502 and EET 1502L and EET 2605 and EET 2605L and MATH 1570.

EET 3706L Electronics 2 Laboratory 1 s.h.

Experiments involving field effect transistors (FETs), integrated circuits (ICs), operational amplifiers, frequency effects on gain, oscillator circuits and regulated power supplies. Computer circuit analysis with PSpice. Three hours per week. Concurrent with: EET 3706.

EET 3710 Electrical Machines 3 s.h.

Construction, operating principles and characteristics, efficiency and control of DC motors, generators, and specialized machines. AC single and 3-phase transformers, alternators, induction and synchronous motor principles, characteristics, efficiency and control. Concurrent with: EET 3710L.

Prereq.: "C" or better in EET 1502 and EET 1502L and ENTC 1505 and MATH 1570.

EET 3710L Electrical Machines Lab 1 s.h.

Experiments with DC motors and generators and AC transformers, alternators, induction and synchronous motors to observe operation, efficiency, control and machine characteristics. Three hours per week. Concurrent with: EET 3710.

EET 3712 Programmable Logic Controllers 3 s.h.

Development of ladder logic programming and application to programmable logic controllers (PLCs). Examination of input/output (I/O) device characteristics and interfacing including both digital and analog I/O. Installation, maintenance and safety practices for PLCs.

Prereq.: "C" or better in EET 1502 and EET 1502L and EET 2620 and EET 2620L and EET 3710 and EET 3710L or EET 3725 and EET 3725L and MATH 1570 or MATH 1571.

EET 3712L PLC Laboratory 1 s.h.

Exercises in ladder logic programming for programmable logic controllers (PLCs) using concepts developed in EET 3712. Input/Output (I/O) concepts related to PLCs. Three hours per week. Concurrent with: EET 3712.

EET 3715 Industrial Instrumentation and Control 3 s.h.

Introduction to industrial instrumentation and process control. Application of calculus, thermodynamics, and fluid flow to instrumentation and control systems. Characteristics of sensing devices including temperature, pressure, flow, level, position, analytical, vibration, etc. Analog electronic instrumentation and instrument calibration. Concepts of closed loop control, process dynamics and loop tuning, feedforward, feedback, and cascade control in industrial process systems. 2 hours lecture, 3 hours lab per week.

Prereq.: (EET 3710 and EET 3710L and EET 2605 and EET 2605L and EET 2620 and EET 2620L) or (EET 3725 and EET 3725L) and CHEM 1515 and CHEM 1515L and PHYS 1501 and (MATH 1570 or MATH 1571) with letter grade of C or better.

EET 3725 Electromechanical Systems 3 s.h.

AC/DC circuit analysis techniques including network theorems, MultiSim computer circuit analysis with applications to AC/DC machinery, electronics, digital circuits and control systems. Three hours lecture per week. Concurrent with: EET 3725L.

Prereq.: C or better in MATH 1570.

EET 3725L Electromechanical Systems Lab 1 s.h.

Lab experiences to accompany EET 3725 Electromechanical Systems. Topics include lab safety, resistor color code, DC and AC circuits, oscilloscope and function generator, diode rectifiers, transistor switching circuits and amplifiers, three phase power measurements, transformer testing, DC and AC motor characteristics.

Prereq.: none.

Coreq.: EET 3725.

EET 3730 Logic Systems Design 2 s.h.

The characteristics and applications of integrated circuit logic families and various memory devices. Emphasis on the design of digital systems with SSI, MSI, and LSI as system components. Concurrent with: EET 3730L.

Prereq.: "C" or better in EET 2620 and EET 2620L and EET 2605 and EET 2605L and EET 1502 and EET 1502L and MATH 1570.

EET 3730L Logic Systems Design Lab 1 s.h.

Laboratory exercises dealing with applications of concepts developed in EET 3730. Three hours per week.

Coreq.: EET 3730.

EET 3735 Microprocessor Architecture and Programming 2 s.h.

An introduction to microprocessor architecture, memory organization, and input/output addressing. Emphasis on machine/assembly language programming to teach concepts of buses, machine cycles, and internal data flow. Two hours lecture per week.

Prereq.: "C" or better in CSIS 1590, or in EET 1501 and EET 1501L and EET 2620 and EET 2620L; "C" or better in either MATH 1513, or in either MATH 1510 or MATH 1510C and in either MATH 1511 or MATH 1511C.

Coreq.: EET 3735L.

EET 3735L Microprocessor Architecture and Programming Laboratory 1 s.h.

Laboratory exercises dealing with applications of concepts developed in EET 3735. Three hours per week.

Coreq.: EET 3735.

EET 3745 Microprocessor Systems 2 2 s.h.

Continuation of EET 3735 with emphasis on advanced programming techniques, memory mapping, I/O ports, and basic I/O interfacing. Two hours lecture per week.

Prereq.: "C" or better in EET 3735 and EET 3735L and EET 1502 and EET 1502L and MATH 1570.

Coreq.: EET 3745L.

EET 3745L Microprocessor Systems 2 Lab 1 s.h.

Laboratory exercises utilizing a microcomputer to provide practical applications of concepts developed in EET 3745. Three hours per week. Concurrent with: EET 3745.

Prereq.: Concurrent with EET 3745.

EET 3760 Variable Speed Drives 2 s.h.

Variable Speed Drive. Introduction to electronic speed control of direct and alternating current motors. Power conversion and waveform modulation techniques, drive sizing, harmonics, and motor performance. Concurrent with: EET 3760L.

Prereq.: "C" or better in EET 3710 and EET 3710L and EET 2605 and EET 2605L, EET 3700, and MATH 2670.

EET 3760L Variable Speed Drives Lab 1 s.h.

Exercises in variable speed drive applications, demonstrating the concepts developed in EET 3760. Three hours per week.

Coreq.: EET 3760.

EET 3780 Communication Systems 2 s.h.

Communication System. Audio signals, noise, untuned and RF amplifiers, amplitude, frequency, pulse modulation, transmission lines, antennas, and multiplexing of communication channels. Concurrent with: EET 3780L.

Prereq.: "C" or better in the following: EET 1502, EET 1502L, EET 2605, EET 2605L, EET 3700, and MATH 2670.

EET 3780L Communication Systems Lab 1 s.h.

Laboratory exercises dealing with application of concepts developed in EET 3780. Three hours per week. Concurrent with: EET 3780.

Coreq.: EET 3780.

EET 4810 Electrical System Design 3 s.h.

The design and layout of electrical systems for power, light, heat, signals, and communications in commercial, industrial, and residential buildings. Two hours lecture, three hours of lab per week.

Prereq.: EET 3710 and EET 3710L or EET 3725 and EET 3725L, with grade of C or better.

EET 4812 Automation Systems Integration 3 s.h.

Network technologies that support system integration of process/manufacturing automation, building automation (smart buildings), environment management, as well as energy management and electricity systems automation (smart grid systems). Hardware and software, including NetDDE, OPC, and SCADA Systems comprising the infrastructure of Industrial Internet of Things (IIoT) and Industry 4.0. IIoT infrastructure components such as Artificial Intelligence based control systems, wireless technology in automation systems, safety systems, and organizational approach to automation. Two hours lecture and three hours lab per week.

Prereq.: EET 3701 and EET 3760 and EET 3760L and EET 3745 and EET 3745L and CSIS 2610 and MATH 2670 and completion of one upper division technical elective with letter grade C or better.

EET 4815 Power System Studies 3 s.h.

Introduction to electrical power system studies including system modelling, load flow and voltage drop, short circuit, protective device coordination, motor transient starting, power quality, and arc flash calculations. Two hours lecture and three hours computational lab per week.

Prereq.: EET 3710 and EET 3710L and EET 3700 and MATH 2670 all with grades of "C" or better.

EET 4820 Power System Protection and Control 2 s.h.

Power System Protection Control. An introduction to electrical power system protection and control utilizing intelligent smart grid technologies. Topics include power system analysis, real time data acquisition and control, synchrophasor measurements, communications, and application of microprocessor-based protective relaying. Two hours lecture per week. Concurrent with: EET 4820L.

Prereq.: "C" or better in EET 3710 and EET 3710L and EET 3712 and EET 3712L, EET 3700 and MATH 2670.

EET 4820L Power System Protection and Control Lab 1 s.h.

Establishing communications, programming, and testing of various microprocessor based power system protective relays, including time-overcurrent, bus, differential, motor, distributed generation, and transformer relays. Three hours lab per week.

Prereq.: "C" or better in EET 3710 and EET 3710L and EET 3712 and EET 3712L.

Coreq.: EET 4820.

EET 4845 Microprocessor Systems 3 2 s.h.

Continuation of EET 3745 with emphasis on real data acquisition, A/D and D/A conversions, and industrial applications.

Prereq.: "C" or better in EET 3730 and EET 3730L and EET 3745 and EET 3745L and MATH 2670.

Coreq.: EET 4845L.

EET 4845L Microprocessor Systems 3 Lab 1 s.h.

Laboratory exercises utilizing a microcomputer to provide practical applications of concepts developed in EET 4845. Three hours per week.

Coreq.: EET 4845.

EET 4850 Integrated Circuit Applications 2 s.h.

Introduction to integrated circuits technology and typical application. Concurrent with: EET 4850L.

Prereq.: "C" or better in EET 2605 and EET 2605L and EET 1502 and EET 1502L and MATH 2670.

EET 4850L Integrated Circuit Applications Lab 1 s.h.

Laboratory exercises dealing with the application of concepts developed in EET 4850. Three hours per week.

Coreq.: EET 4850.

EET 4870 Process Control Technology 4 s.h.

Interdisciplinary capstone course. Analysis and design of control systems for industrial processes, utility automation, and electromechanical systems. Includes preparation of schematic, control, and wiring diagrams; specifications, estimates, project schedule, and presentation of results. Three hours lecture, three hours lab per week.

Prereq.: Grades of C or better in EET 3712 and EET 3712L and EET 3760 and EET 3760L and EET 3701 and MATH 2670 and EET 4810 and two EET electives and Senior standing in EET and permission of EET program coordinator.

EET 4890 Special Topics in EET 1-4 s.h.

Special topics/new developments in electrical engineering technology. Subject matter, special prerequisites, and credit hours to be announced in advance of each offering. May be repeated with different subject matter to a maximum of 8 s.h.

Prereq.: Senior standing in EET or consent of the instructor.

EET 4890A Special Topics in EET Process Control and Instrumentation 1-4 s.h.

Special topics/new developments in electrical engineering technology. Subject matter, special prerequisites, and credit hours to be announced in advance of each offering. May be repeated with different subject matter to a maximum of 8 s.h.

Prereq.: Senior standing in EET or consent of the instructor.

Engineering Technology

ENTC 1505 Engineering Technology Concepts 4 s.h.

The role of the technician, technologist, engineer and scientist in the technology team; a study of basic mathematical, scientific, and communicative techniques as applied to the work of engineering technologists; ethical, global, and societal issues facing the engineering technology professional. Three hours lecture, three hours lab per week. Grading is A, B, C, NC.

Prereq.: Grade of "C" or better in MATH 1510 or 1510C or higher.

Prereq. or Coreq.: MATH 1511 or 1511C or 1513.

ENTC 3799 Professional Practice in Engineering Technology 1 s.h.

This course provides students with cooperative education experiences in various engineering technology disciplines. To receive credit for the course, the student is expected to work at the assignment a minimum of 400 hours, submit a report of activities, and obtain approval of the department Professional Practice Committee. Course may be repeated up to a maximum of 3 s.h. toward the BSAS. Students are considered full-time even though only 1 s.h. is given for each course. Grading: PR, CR, NC.

Prereq.: Consent of department chairperson.

ENTC 4895 Independent Engineering Technology Project 1-4 s.h.

Individual study under direction of a faculty member. Written and oral report required. May be repeated for a maximum of 4 s.h.

Prereq.: Junior standing, consent of instructor, and prior approval of the project by the IETP committee of engineering technology faculty.

Electrical Utility Technology

EUT 1504 Maintenance Fundamentals 1 4 s.h.

Introduction to blueprint reading and technical diagrams, use of hand tools and power tools, safety and health, development of troubleshooting skills, chemical hazards, and material safety data sheets. Three hours lecture, and three hours lab per week.

Prereq. or Coreq.: ENTC 1500.

EUT 1505 Maintenance Fundamentals 2 4 s.h.

Introduction to piping systems, basic hydraulics and pneumatics, hydraulic and pneumatic troubleshooting, rigging and equipment installation, welding principals, oxyacetylene cutting and welding. Three hours lecture, three hours lab per week.

Prereq.: EUT 1502 and EUT 1504, concurrent or prerequisite EUT 1503.

EUT 2600 Electric Utility Distribution Systems 4 s.h.

Applications of transformers, switchgear, regulators, overhead conductors and underground cable. Power factor correction, voltage regulation, coordination and overcurrent protection of distribution circuits.

Prereq.: EUT 1500.

EUT 2601 Electrical Codes and Standards 4 s.h.

National Electrical Code and National Electrical Safety Code as applied to overhead and underground electric utility distribution systems. Pole guying, overhead conductor sag and tension, cable pulling, and clearances. Four hours lecture per week.

Prereq.: EUT 2600.

EUT 2604 Power Plant Electrical Equipment 3 s.h.

Study of three-phase power systems including motors, generators, transformers, and switchgear. NEC and NESC Code requirements, automatic and manual motor controls, variable speed drives, circuit protection. Three hours lecture per week. Concurrent with: EUT 2604L.

Prereq.: EUT 1500 and EUT 1500L.

EUT 2604L Power Plant Electrical Equipment Lab 1 s.h.

Lab component to accompany EUT 2604. Provides hands-on activities related to three-phase power systems, motors, generators, transformers, and switchgear. Three hours lab per week. Concurrent with: EUT 2604.

Prereq.: EUT 1500 and EUT 1500L.

EUT 2605 Intermediate Power Plant Systems 3 s.h.

Continuation of EUT 1502. Study of power plant cycles, thermodynamic properties of water and steam, and use of steam tables. Includes thermodynamic analysis of boiler system, feedwater, superheat, and reheat systems, heat transfer in pre-heaters, turbine, condensers, and pumps. Three hours lecture per week. Concurrent with: EUT 2605L.

Prereq.: EUT 1503, and EUT 1503L.

EUT 2605L Intermediate Power Plant Systems Lab 1 s.h.

Lab component to accompany EUT 2605. Provides hands-on and computational methods to dynamic analysis of boiler system, feedwater, superheat, and reheat systems, heat transfer in pre-heaters, turbine, condenser, and pumps. Three hours per week. Concurrent with: EUT 2605.

Prereq.: EUT 1503, and EUT 1503L.

EUT 2606 Power Plant Operator Practice 3 s.h.

Discusses the operation of large utility power plants including start-up and shut-down of all major systems, disturbance response, and safe operation of plant systems. Three hours lecture per week. Concurrent and EUT 2605/ EUT 2605L.

Prereq.: EUT 1503 and EUT 1503, EUT 1503L.

EUT 2607 Power Plant Instrumentation and Control 3 s.h.

Introduces basic principles of process instrumentation and control systems. Measurement parameters such as flow, pressure, level, temperature, and pH. Includes coverage of programmable logic controllers, and distributed control systems. Three hours lecture per week. Concurrent with: EUT 2607L.

Prereq.: EUT 2604, EUT 2604L and EUT 2605, EUT 2605L.

EUT 2607L Power Plant Instrumentation & Control Lab 1 s.h.

Lab component to accompany EUT 2607. Provides hands-on activities related to process instrumentation and control systems. Three hours per week. Concurrent with: EUT 2607.

Prereq.: EUT 2604L, and EUT 2605L.

EUT 2608 Advanced Power Plant Systems 3 s.h.

Continuation of EUT 2605. Examines on-line boiler control concepts, including combustion, feedwater, header pressure, oxygen content, power demand, and other processes as applied to utility boilers and process heat supply boilers. Also examines pollution control systems, gas turbines and diesel generators. Three hours lecture per week. Concurrent with: EUT 2607, EUT 2607L and EUT 2608L.

Prereq.: EUT 2605, EUT 2605L.

EUT 2608L Advanced Power Plant Systems Lab 1 s.h.

Lab component to accompany EUT 2608. Provides hands-on activities related to on-line boiler control concepts, pollution control systems, gas turbines and diesel generators. Three hours per week. Concurrent with: EUT 2607, EUT 2607L and EUT 2608.

Prereq.: EUT 2605, EUT 2605L.

Mechanical Engineering Technology

MET 1515 Mechanics 1 3 s.h.

Study of forces as vector quantities; resultants of force systems; principles of mechanical equilibrium; application of principles to problems, devices and structures commonly encountered in industry. Three hours lecture per week.

Prereq.: "C" or better in ENTC 1505 and MATH 1513 or MATH 1510 and MATH 1511 or MATH 1510C and MATH 1511C.

MET 2606 Solid Modeling 4 s.h.

Study of parametric solid modeling and other 3D techniques using Solid Works and Inventor software, including work with geometric dimensioning and tolerancing. Four hours lecture per week.

MET 2607 Geometric Dimensioning and Tolerancing 3 s.h.

Content develops the principles of Geometric Dimensioning and Tolerancing (GD&T) from ASME Y14.5 – 2018 as introduced in MET 2606 Solid Modeling. Specific topics emphasize mechanical detailing to generate production drawings.

Prereq.: MET 2606.

MET 2616 Mechanics 2 3 s.h.

Introduction to dynamics of solids, study of various types of motion, Newton's second law, work and energy, impulse and momentum. Three hours lecture per week.

Prereq.: MET 1515 "C" or better.

MET 2630 Manufacturing Techniques 3 s.h.

The study of materials and processes used in manufacturing, including casting, heat treatment, hot and cold working, plastics processing and machining, Geometric Dimensioning and Tolerancing.

Prereq.: "C" or better in ENTC 1505.

MET 2630L Manufacturing Techniques Laboratory 1 s.h.

Practice and procedures of machine tool operation including lathes, drill presses, shapers, and milling machines. Two hours lab per week. "C" or better in MET 2630 or concurrent with MET 2630.

MET 3705 Thermodynamics 4 s.h.

Properties of ideal and real gases, first and second laws of thermodynamics, application to thermodynamic cycles involving power plants and cyclic machinery.

Prereq.: "C" or better in CHEM 1515 or CHEM 1505, "C" or better in EET 3725.

MET 3706 Machine Design 1 4 s.h.

Principles of stresses and deflections, shear and moment diagrams, combined stresses, fatigue, measurement of strain, and theories of failure. Application of these principles to design of machine components. Includes a capstone experience for MET AAS degrees. 4 s.h.

Prereq.: "C" or better in CCET 2604, "C" or better in CCET 1503.

MET 3707 Machine Design 2 3 s.h.

Continuation of MET 3706, progressing to the design of machine elements such as gears, belts, clutches, chains, bearings, welded and bolted joints.

Prereq.: "C" or better in MET 3706.

MET 3710 Tool Design 3 s.h.

Design and selection of cutting tools, fixtures, bending and forming dies, inspection and gauging instruments, and material feed mechanisms.

Prereq.: "C" or better in MET 3706.

MET 3711 Heat and Power Cycles 4 s.h.

A continuation of MET 3705, including the study of heat transfer, the Rankine cycle, the Otto cycle, the Diesel cycle, and the performance of pumps and heat exchangers.

Prereq.: "C" or better in MET 3714, "C" or better in MET 3705.

MET 3713 Fluid Power Systems 3 s.h.

Principles of hydraulic and pneumatic systems, including device selection and application. Typical industrial systems are constructed and tested. Three hours lecture per week.

Prereq.: MET 1515.

MET 3714 Fluid Mechanics 4 s.h.

Principles of fluid statics and fluid dynamics and their application to incompressible flow in pipes and channels; Bernoulli's equation, laminar and turbulent flow; energy and momentum in fluid flow.

Prereq.: "C" or better in MET 1515.

MET 3714L Fluid Mechanics Laboratory 1 s.h.

Fluid Mechanics Lab. Experiments and applications of concepts covered in MET 3714. One hour lab per week.

Prereq.: C or better in MET 3714 or concurrent with MET 3714.

MET 3720 Mechanisms 3 s.h.

Graphical and analytical solution of problems involving displacement, velocity, and acceleration in machine mechanisms. Design of linkages with drafting software to provide required motions of machine members. Three hours lecture per week.

Prereq.: C or better in MET 2616, "C" or better in MATH 1570 or "C" or better in MATH 1571.

MET 4810 Manufacturing Systems Analysis 3 s.h.

Study of manufacturing systems including manufacturing process design, analysis, selection and sequencing; value analysis, machine tool cost and functions; computer and statistical simulation of production systems. Three hours lecture per week.

Prereq.: "C" or better in MET 3706.

MET 4812 Numerical Control 2 s.h.

A study of the programming of numerically-controlled machine tools. Students program NC machines using manual and computer-assisted techniques.

Prereq.: C or better in MET 2606, and C or better in MET 2630 and MET 2630L.

Coreq.: MET 4812L.

MET 4812L Numerical Control Lab 1 s.h.

A study of the programming of numerically-controlled machine tools. Students program NC machines using manual and computer-assisted techniques. Two hours lab per week.

Prereq.: none.

Coreq.: MET 4812.

MET 4820 Machine Systems 3 s.h.

Interdisciplinary capstone course. Analysis and design of complex machine systems incorporating previous coursework in solid mechanics, fluid power, machine design, and thermodynamics. Three hours lecture per week.

Prereq.: Senior standing in MET and permission of instructor.

MET 4830 Intro to Additive Manufacturing 3 s.h.

Covered topics include learning about the seven different additive manufacturing (AM) technologies and the AM process chain. Other topics covered include software issues, post-processing, rapid tooling, and other applications. Upon completion of this course, students will be able to determine if and when it is appropriate to implement AM technology for a particular application or process line and understand both the positive and negative implications of doing so. Three hours lecture per week.

Prereq.: "C" or better in MET 2630.

MET 4860 Robotics Technology 2 s.h.

An application-oriented course on the technology and use of industrial robots, including classification, tooling, sensors, workcell design, safety, and programming.

Prereq.: "C" or better in ENTC 1505.

Coreq.: MET 4860L.

MET 4860L Robotics Technology Laboratory 1 s.h.

Practice in the programming and application of industrial robots and associated equipment. Construction of simulated robotic workcells using actual industrial robots, programmable controllers, sensors, and grippers. Two hours lab per week.

Coreq.: MET 4860.

MET 4870 Applied Finite Element Method 3 s.h.

Introduction of the finite element method with an emphasis on modeling and interpretation of results. Linear static problems are solved using commercial finite element analysis (FEA) software, where the results are verified using theoretical calculations. Topics include trusses, frames, plane stress/strain, and 3-D structures. Three hours lecture.

Prereq.: "C" or better in MET 3707 or CCET 3709.

MET 4890 Special Topics in Mechanical Engineering Technology 1-4 s.h.

New developments in Mechanical Engineering Technology. Subject matter, special prerequisites, and credit hours to be announced in advance of each offering. May be repeated with different subject matter to a maximum of 8 s.h.

Prereq.: Senior standing in MET or consent of the instructor.

Associate of Applied Science in Civil and Construction Engineering Technology

The associate degree program prepares technicians to support civil engineers in structural design, public works, construction, transportation, and environmental engineering. Graduates are hired by consulting engineers, architects, contractors, and government agencies.

Students in the Civil and Construction Engineering Technology (CCET) program may choose to complete two years of study and earn an Associate of Applied Science (AAS) degree. The AAS degree provides early access to employment in engineering support positions. Upon completion of the AAS degree, the student may continue on to the Bachelor of Science in Applied Science (BSAS) degree. This program provides additional coursework, continuing the student's growth to that of an engineer or engineering technologist. Exceptional students may be eligible for enrollment in a Master of Engineering or Master of Business Administration program.

Program Educational Objectives

Educational objectives for the civil and construction engineering technology programs have been developed by faculty and the program industrial advisory committee to support the university, college, and the School of Computer Science, Information, and Engineering Technology missions. Graduates of the CCET associate degree program are prepared to support civil engineers in:

- structural design
- public works
- construction
- inspection
- transportation
- environmental engineering

During their first few years after earning the AAS in civil and construction engineering technology degree at YSU, graduates will have demonstrated the ability to:

1. Secure employment and achieve recognition in a technical career related to their civil and construction engineering technology degree.
2. Continue to gain professional knowledge through lifelong learning and communicate effectively in a professional environment.
3. Advance in pursuit of the BSAS degree.

Accreditation

The Associate of Applied Science in Civil and Construction Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET, <https://www.abet.org>, under the General Criteria and the Program Criteria for Civil Engineering Technology and Construction Engineering Technology.

Date of last campus visit: October 2017

Accredited through: 2024

Next campus visit: October 2023

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Courses:		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Gen Ed Math		
MATH 1513	Algebra and Transcendental Function	5-10
or MATH 1510	College Algebra	
& MATH 1511	and Trigonometry	
or MATH 1510C	College Algebra with Co-requisite Support	
& MATH 1511C	and Trigonometry with Co-requisite Support	
CMST 1545	Communication Foundations	3
Gen Ed AH		
PHIL 2625	Introduction to Professional Ethics	3
or PHIL 2626	Engineering Ethics	
Gen Ed NS		
PHYS 1501	Fundamentals of Physics 1	4
or PHYS 2610	General Physics 1	
Courses in Major:		
MATH 1570	Applied Calculus 1	4
or MATH 1571	Calculus 1	
ENTC 1505	Engineering Technology Concepts	4
or ENGR 1550	Engineering Concepts	
& ENGR 1560	and Engineering Computing	
CCET 1503	CAD Technology	2
CCET 1504	Drafting and Plan Reading	2
MET 1515	Mechanics 1	3
CCET 2604	Properties and Strength of Materials	3
CCET 2614L	Materials Laboratory 1	2
CEEN 2610	Surveying	3
CEEN 2610L	Surveying Laboratory	1
MET 2616	Mechanics 2	3
CCET 3709	Structural Analysis 1	3
CCET 2620	Transportation Technology	3
CCET 2607	Civil 3D	3
CCET 3724	Hydraulics and Land Development	3
CCET 3706	Structural Design	4
CCET 3711	Specifications and Estimating	3
Total Semester Hours		68-75

Year 1

Fall		
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
ENTC 1505	Engineering Technology Concepts	4
or ENGR 1550	or Engineering Concepts and Engineering Computing	
and ENGR 1560		
CCET 1503	CAD Technology	2

CCET 1504	Drafting and Plan Reading	2
MATH 1513	Algebra and Transcendental Function	5-10
or MATH 1510	or College Algebra and Trigonometry	
and MATH 1511	or College Algebra with Co-requisite Support and Trigonometry with Co-requisite Support	
or MATH 1510C		
and MATH 1511C		
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	

Semester Hours**17-24****Spring**

MET 1515	Mechanics 1	3
CCET 2604	Properties and Strength of Materials	3
CCET 2614L	Materials Laboratory 1	2
ENGL 1551	Writing 2	3
PHYS 1501	Fundamentals of Physics 1	4
or PHYS 2610	or General Physics 1	

Semester Hours**15****Year 2****Fall**

CEEN 2610	Surveying	4
& 2610L	and Surveying Laboratory	
MET 2616	Mechanics 2	3
CCET 3709	Structural Analysis 1	3
CCET 2620	Transportation Technology	3
PHIL 2626	Engineering Ethics (Arts & Humanities GER)	3
or PHIL 2625	or Introduction to Professional Ethics	
CCET 2607	Civil 3D	3

Semester Hours**19****Spring**

MATH 1570	Applied Calculus 1	4
or MATH 1571	or Calculus 1	
CCET 3724	Hydraulics and Land Development	3
CCET 3706	Structural Design	4
CCET 3711	Specifications and Estimating	3
CMST 1545	Communication Foundations	3

Semester Hours**17****Total Semester Hours****68-75****Program Outcomes****ASSOCIATE OF APPLIED SCIENCE in civil and construction engineering technology**

Graduates of the Associate Degree in Civil and Construction Engineering Technology will possess the following competencies upon graduation:

- **Learning Outcome 1:** ability to use graphic techniques to produce engineering documents and use modern instruments, methods, and techniques to implement construction contracts, documents, and codes
- **Learning Outcome 2:** conduct standardized field/laboratory testing on civil engineering materials and evaluate materials/methods for construction projects
- **Learning Outcome 3:** utilize modern surveying methods for land measurement and/or construction layout
- **Learning Outcome 4:** determine forces and stresses in elementary structural systems
- **Learning Outcome 5:** estimate material quantities and costs for technical projects

- **Learning Outcome 6:** employ productivity software to solve technical problems

Associate of Applied Science in Electrical Engineering Technology

Graduates of the two-year electrical engineering technology program generally function as assistants to electrical engineers in the design, analysis, and laboratory testing of electrical and electronic systems and of rotating machinery. Most graduates are employed by electrical and electronic equipment manufacturers, utility companies, the aerospace industry, and manufacturing companies in general.

Students in the electrical engineering technology (EET) program may choose to complete two years of study and earn an Associate in Applied Science (AAS) degree. The AAS provides early access to employment in engineering support positions. Upon completion of the AAS degree, the student may continue on for the Bachelor of Science in Applied Science (BSAS) degree. This program provides additional coursework, continuing the student's growth to that of an engineering technologist or designer. Exceptional students may be eligible for enrollment in a Master of Engineering or Master of Business Administration program.

Accreditation

The Associate of Applied Science in Electrical Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET, <https://www.abet.org>, under the General Criteria and the Program Criteria for Electrical Engineering Technology.

Date of last campus visit: October 2017

Accredited through: 2024

Next campus visit: October 2023

Curriculum Sheet

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Courses:		
MATH 1513	Algebra and Transcendental Function	5-10
or MATH 1510 & MATH 1511	College Algebra and Trigonometry	
or MATH 1510C & MATH 1511C	College Algebra with Co-requisite Support and Trigonometry with Co-requisite Support	
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
PHIL 2626	Engineering Ethics	3
or PHIL 2625	Introduction to Professional Ethics	
PHYS 1501	Fundamentals of Physics 1	4
or PHYS 2610	General Physics 1	
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
Courses in Major:		
MATH 1570	Applied Calculus 1	4
or MATH 1571	Calculus 1	
ENTC 1505	Engineering Technology Concepts	4

or ENGR 1550 & ENGR 1560	Engineering Concepts and Engineering Computing	
EET 1501 & 1501L	Circuit Theory 1 and Circuit Theory 1 Lab	4
EET 1502 & 1502L	Circuit Theory 2 and Circuit Theory 2 Lab	4
EET 2605 & 2605L	Electronics 1 and Electronics 1 Laboratory	4
EET 2620 & 2620L	Digital Electronics and Digital Electronics Lab	3
EET 3710 & 3710L	Electrical Machines and Electrical Machines Lab	4
EET 3715	Industrial Instrumentation and Control	3
EET 3712 & 3712L	Programmable Logic Controllers and PLC Laboratory	4
CCET 1503	CAD Technology	2
CCET 1504	Drafting and Plan Reading	2
Total Semester Hours		61-68

First Year - Fall Semester

COURSE	TITLE	S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
MATH 1513	Algebra and Transcendental Function	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
ENTC 1505	Engineering Technology Concepts	4
or ENGR 1550 & ENGR 1560	Engineering Concepts and Engineering Computing	
EET 1501	Circuit Theory 1	3
EET 1501L	Circuit Theory 1 Lab	1
Total Semester Hours		10-12

First Year - Spring Semester

COURSE	TITLE	S.H.
EET 1502	Circuit Theory 2	3
EET 1502L	Circuit Theory 2 Lab	1
EET 2620	Digital Electronics	2
EET 2620L	Digital Electronics Lab	1
MATH 1570	Applied Calculus 1	4
or MATH 1571	Calculus 1	
PHYS 1501	Fundamentals of Physics 1	4
or PHYS 2610	General Physics 1	
Total Semester Hours		15

Second Year - Fall Semester

COURSE	TITLE	S.H.
EET 2605	Electronics 1	3
EET 2605L	Electronics 1 Laboratory	1
EET 3710	Electrical Machines	3
EET 3710L	Electrical Machines Lab	1
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
ENGL 1550	Writing 1	3-4

or ENGL 1549 Writing 1 with Support

Total Semester Hours 15-16

Second Year - Spring Semester

COURSE	TITLE	S.H.
EET 3712	Programmable Logic Controllers	3
EET 3712L	PLC Laboratory	1
EET 3715	Industrial Instrumentation and Control	3
CCET 1503	CAD Technology	2
CCET 1504	Drafting and Plan Reading	2
ENGL 1551	Writing 2	3
PHIL 2626	Engineering Ethics	3
or PHIL 2625	Introduction to Professional Ethics	
Total Semester Hours		17

Program Educational Objectives

Educational objectives for the electrical engineering technology programs have been developed by faculty and the program industrial advisory committee to support the university, college, and School of Engineering Technology missions. Graduates of the EET associate degree program generally function as assistants to electrical engineers in the design, analysis, and laboratory testing of electrical and electronic systems and of rotating machinery. Bachelor degree graduates are prepared to assist in the design and testing of electrical systems and may function independently in some areas.

During their first few years after earning the electrical engineering technology degree at YSU, graduates will have demonstrated the ability to:

- Secure employment in a technical career related to their Electrical Engineering Technology degree.
- Communicate effectively in a professional environment.
- Continue growth in professional knowledge and skills.
- Achieve recognition consistent with their educational achievements.

Program Learning Outcomes:

Graduates of the Associate Degree in Electrical Engineering Technology will possess the following competencies upon graduation:

1. an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve well-defined engineering problems appropriate to the discipline;
2. an ability to design solutions for well-defined technical problems and assist with the engineering design of systems, components, or processes appropriate to the discipline;
3. an ability to apply written, oral, and graphical communication in well-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;
4. an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results; and
5. an ability to function effectively as a member of a technical team.

Associate of Applied Science in Machining

COURSE	TITLE	S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
MACH 2600	Drafting for Machining	3
MACH 2601	Introduction to Machining Processes	3

ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
PHIL 2625	Introduction to Professional Ethics	3
MATH 1510	College Algebra	4
MATH 1511	Trigonometry	3
MACH 1501	OSHA 30 General Industry Training Course	3
PSYC 1560	General Psychology	3
MET 2616	Mechanics 2	3
MACH 2603	Introduction to Manufacturing Manual Lathe Process	3
MET 2630	Manufacturing Techniques	3
MET 2630L	Manufacturing Techniques Laboratory	1
MACH 2604	Computer Numerical Control Lathe Operation	3
MACH 2605	Computer Numerical Control Mill Operation	3
CCET 1503	CAD Technology	2
MACH 2608	CNC (Lathe and Milling)	3
MACH 2606	Computer Numerical Control Mill Programming and Operation	3
MACH 2607	Computer Numerical Control Lathe Programming and Operation	3
MACH 2610	Materials/Metallurgy	3
MGT 4801	Leadership in Business and Society	3

Total Semester Hours

62-64

Associate of Applied Science in Mechanical Engineering Technology

The Mechanical Engineering Technology (MET) program is designed as a "two-plus-two" program. Students may earn an Associate of Applied Science degree after two years of full-time study. With this degree, they may begin a career in industry. The associate degree graduate can continue for two more years of full-time study to earn the bachelor's degree.

The associate degree program introduces the student to the principles and practices of machine design, manufacturing processes, testing, and energy conversion. Students are also given a firm foundation in communications, mathematics, and science. Upon completion of the associate degree, graduates may find employment as engineering technicians in a wide variety of industries. They assist engineers in the design, drafting, testing, and support of mechanical products or of the industrial equipment and processes used to manufacture consumer products.

Program Educational Objectives

Educational objectives for the MET programs have been developed by faculty and the program industrial advisory committee to support the university, the college, and the School of Engineering Technology missions. Graduates of the MET associate degree program function as assistants in the design, drafting, and testing of mechanical products, equipment and processes. Bachelor's degree graduates assume greater responsibility in the design and testing of mechanical products, processes, and equipment.

During their first few years after completion of the mechanical engineering technology program at YSU, graduates will have demonstrated the ability to:

- Work competently in technical and professional careers related to the field of mechanical engineering technology.
- Communicate effectively in a professional environment.
- Continue growth in professional knowledge and skills.
- Achieve recognition and/or compensation consistent with their educational achievements.

Accreditation

The Associate of Applied Science in Mechanical Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET, <https://www.abet.org> (<https://www.abet.org/>), under the General Criteria and the Program Criteria for Mechanical Engineering Technology.

Date of last campus visit: October 2017

Accredited through: 2024

Next campus visit: October 2023

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Courses:		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
MATH 1513	Algebra and Transcendental Function	5-10
or MATH 1510	College Algebra	
& MATH 1511	and Trigonometry	
or MATH 1510C	College Algebra with Co-requisite Support	
& MATH 1511C	and Trigonometry with Co-requisite Support	
PHYS 1501	Fundamentals of Physics 1	4
or PHYS 2610	General Physics 1	
Select 1 course from AH domain		3
Courses in Major:		
CCET 2604	Properties and Strength of Materials	3
CCET 2614L	Materials Laboratory 1	2
EET 3712	Programmable Logic Controllers	4
& 3712L	and PLC Laboratory	
EET 3725	Electromechanical Systems	4
& 3725L	and Electromechanical Systems Lab	
ENTC 1505	Engineering Technology Concepts	4
or ENGR 1550 and 1560		
MATH 1570	Applied Calculus 1	4
or MATH 1571	Calculus 1	
MET 1515	Mechanics 1	3
MET 2606	Solid Modeling	4
MET 2607	Geometric Dimensioning and Tolerancing	3
MET 2630	Manufacturing Techniques	4
& 2630L	and Manufacturing Techniques Laboratory	
MET 3706	Machine Design 1	4
MET 3713	Fluid Power Systems	3
MET 4812	Numerical Control	3
& 4812L	and Numerical Control Lab	
MET 4860	Robotics Technology	3
& 4860L	and Robotics Technology Laboratory	
Total Semester Hours		67-74

Year 1

Fall		
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	

ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
ENTC 1505	Engineering Technology Concepts	4
or ENGR 1550	or Engineering Concepts and Engineering Computing	
MATH 1513	Algebra and Transcendental Function	5-10
or MATH 1510	or College Algebra and Trigonometry	
and MATH 1511	or College Algebra with Co-requisite Support and Trigonometry with Co-requisite Support	
or MATH 1510C		
and MATH 1511C		
MET 2606	Solid Modeling	4
Semester Hours		17-24
Spring		
Gen Ed AH		3
MATH 1570	Applied Calculus 1	4
or MATH 1571	or Calculus 1	
MET 1515	Mechanics 1	3
MET 2607	Geometric Dimensioning and Tolerancing	3
PHYS 1501	Fundamentals of Physics 1	4
or PHYS 2610	or General Physics 1	
Semester Hours		17
Year 2		
Fall		
CCET 2604	Properties and Strength of Materials	3
CCET 2614L	Materials Laboratory 1	2
EET 3725	Electromechanical Systems	3
EET 3725L	Electromechanical Systems Lab	1
MET 2630	Manufacturing Techniques	3
MET 2630L	Manufacturing Techniques Laboratory	1
MET 4860	Robotics Technology	2
MET 4860L	Robotics Technology Laboratory	1
Semester Hours		16
Spring		
EET 3712L	PLC Laboratory	1
EET 3712	Programmable Logic Controllers	3
ENGL 1551	Writing 2	3
MET 3706	Machine Design 1	4
MET 3713	Fluid Power Systems	3
MET 4812	Numerical Control	2
MET 4812L	Numerical Control Lab	1
Semester Hours		17
Total Semester Hours		67-74

PROGRAM OUTCOMES

ASSOCIATE OF APPLIED SCIENCE IN mechanical engineering TECHNOLOGY

Graduates of the Associate Degree in Mechanical Engineering Technology will possess the following competencies upon graduation:

(1) an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve well-defined engineering problems appropriate to the discipline;

2) an ability to design solutions for well-defined technical problems and assist with the engineering design of systems, components, or processes appropriate to the discipline;

(3) an ability to apply written, oral, and graphical communication in well-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;

(4) an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results; and

(5) an ability to function effectively as a member of a technical team.

Associate of Applied Science in Professional Office Management

COURSE	TITLE	S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
PROM 1503	Document Formatting	3
CSIS 1514	Business Computer Systems	3
MATH 2623	Quantitative Reasoning	3-5
or MATH 2623C	Quantitative Reasoning with Co-Requisite Support	
MGT 3725	Fundamentals of Management	3
PROM 2602	Introduction to Microsoft Word	3
PHIL 2625	Introduction to Professional Ethics	3
ENGL 3742	Business Writing	3
PROM 2608	PowerPoint	3
CMST 2655	Communication in Groups	3
PROM 2614	General Office Procedures	3
ACCT 1503	Essentials of Accounting	3
PROM 2603	Advanced Microsoft Word	3
BUS 2600	Business Applications of Microsoft Excel	3
PSYC 1560	General Psychology	3
PROM 2607	Office Publications	3
CMST 2630	Social Media Literacy	3
MGT 3715	Employee Relations	3
SOC 2601	Social Problems	3
PROM 2653	Professional Office Management Capstone	3
Total Semester Hours		64-68

Associate of Applied Science in Welding

COURSE	TITLE	S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
HIST 1511	World Civilization to 1500	3
MATH 1510	College Algebra	4-6
or MATH 1510C	College Algebra with Co-requisite Support	
CMST 1545	Communication Foundations	3
SOC 2601	Social Problems	3
CSIS 1514	Business Computer Systems	3
CMST 2656	Interpersonal Communication	3

WELD 1501	OSHA 30 General Industry Training Course	3
WELD 1511	Shielded Metal Arc Welding (SMAW) I	4
WELD 1521	Shielded Metal Arc Welding (SMAW) II	4
WELD 2601	Shielded Metal Arc Welding (SMAW) III	4
WELD 2602	Blueprint Reading for Welders	4
WELD 2613	Gas Metal Arc Welding (GMAW/Mig) and Flux Cored Arc Welding (FCAW)	4
WELD 2611	Open Root Groove Welds on Plate	4
WELD 2614	Gas Tungsten Arc Welding (GTAW/Tig)	4
WELD 2612	Open Root Groove Welds on Pipe	4
Total Semester Hours		61-65

Bachelor of Science in Applied Science in Civil and Construction Engineering Technology

Bachelor of Science in Applied Science Degree

Robert Korenic, CCET Program Coordinator (330) 941-3287

Students in the Civil and Construction Engineering Technology (CCET) program may choose to complete two years of study and earn an Associate of Applied Science (AAS) degree. The AAS degree provides early access to employment in engineering support positions. Upon completion of the AAS degree, the student may continue on for the Bachelor of Science in Applied Science (BSAS) degree. This program provides additional coursework, continuing the student's growth to that of an engineer or engineering designer. Exceptional students may be eligible for enrollment in a Master of Engineering or Master of Business Administration program.

The civil and construction engineering technology programs is based on the "two-plus-two" educational system which provides the student with the flexibility of earning an associate degree and a bachelor's degree according to his or her needs. After completing the requirements of the associate degree, the student may elect to either enter industry or, through an added two years of full-time study (averaging 17 hours per semester) or equivalent part-time study, earn the Bachelor of Science in Applied Science (BSAS).

Graduates of the BSAS degree program obtain employment as engineers or engineering designers for government agencies, consulting engineers and architects, industry and manufacturing, and contractors. Because their education is more extensive, they are prepared for more responsibility and more-rapid advancement. BSAS engineers design, plan, inspect, and direct construction, production, and maintenance activities.

Based on an evaluation of their work, transfer students who have a related associate degree from a regionally accredited institution may be admitted to the bachelor's degree program at the junior level.

Program Educational Objectives

Educational objectives for the civil and construction engineering technology programs have been developed by faculty and the program industrial advisory committee to support the university, college, and the School of Computer Science, Information, and Engineering Technology missions. Graduates of the CCET bachelor's degree program are prepared to support civil engineers in:

- structural design
- public works
- construction
- inspection

- transportation
- environmental engineering

Bachelor's degree graduates are prepared to assist with planning, design, inspection, and direction of the construction of projects involving buildings, roads, dams, bridges, airports, and wastewater treatment facilities.

During their first few years after earning the civil and construction engineering technology degree at YSU, graduates will have demonstrated the ability to:

1. Secure employment and achieve recognition in a technical career related to their civil and construction engineering technology degree.
2. Continue to gain professional knowledge through lifelong learning and communicate effectively in a professional environment.

Accreditation

The Bachelor of Science in Applied Science in Civil and Construction Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET, <https://www.abet.org>, under the General Criteria and the Program Criteria for Civil Engineering Technology and Construction Engineering Technology.

Date of last campus visit: October 2017

Accredited through: 2024

Next campus visit: October 2023

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Courses:		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Gen Ed Math		
MATH 1513	Algebra and Transcendental Function (or higher level 5-10 course based on Math Placement)	
or MATH 1510	College Algebra	
& MATH 1511	and Trigonometry	
or MATH 1510C	College Algebra with Co-requisite Support	
& MATH 1511C	and Trigonometry with Co-requisite Support	
Gen Ed NS		
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
PHYS 1501	Fundamentals of Physics 1	4
or PHYS 2610	General Physics 1	
Gen Ed AH		
PHIL 2626	Engineering Ethics	3
or PHIL 2625	Introduction to Professional Ethics	
Gen Ed SS		
Gen Ed SS		
Gen Ed Electives: CMST 1545, MATH 1570 and one selected by student		
CMST 1545	Communication Foundations	3
Gen Ed Elective		
MATH 1570	Applied Calculus 1 (Met in major)	
or MATH 1571	Calculus 1	
Courses in the Major:		
CCET 1503	CAD Technology	2

CCET 1504	Drafting and Plan Reading	2
ENTC 1505	Engineering Technology Concepts	4
or ENGR 1550	Engineering Concepts	
& ENGR 1560	and Engineering Computing	
MATH 1570	Applied Calculus 1	4
or MATH 1571	Calculus 1	
MET 1515	Mechanics 1	3
CCET 2604	Properties and Strength of Materials	3
CCET 2614L	Materials Laboratory 1	2
CEEN 2610	Surveying	4
& 2610L	and Surveying Laboratory	
MET 2616	Mechanics 2	3
CCET 2607	Civil 3D	3
CCET 2620	Transportation Technology	3
CCET 3705	Computing for Engineers	3
CCET 3706	Structural Design	4
CCET 3708	Building Information Modeling	3
CCET 3709	Structural Analysis 1	3
CCET 3711	Specifications and Estimating	3
CCET 3714	Soil Mechanics	3
& 3714L	and Soil Mechanics Laboratory	
EET 3725	Electromechanical Systems	4
& 3725L	and Electromechanical Systems Lab	
CCET 3724	Hydraulics and Land Development	3
CCET 3740	Construction Management	3
CCET 3735	Heavy Highway Technology	3
EET 4810	Electrical System Design	3
CCET 4884	Civil/Structural Facilities Design	3
Design Elective (3 courses required):		9
CCET 4812	Concrete Design	
CCET 4813	Steel Design	
CCET 4814	Foundation Design	
CCET 4815	Masonry Design	
CCET 4816	Timber Design	
CCET Elective (2 courses required):		6
CCET 4807	Project Planning & Scheduling	
CCET 4809	Structural Analysis 2	
CCET 4810	Construction Surveying	
CCET 4824	Environmental Technology	
CCET 4890	Special Topics in Civil and Construction Engineering Technology	
ENTC 4895	Independent Engineering Technology Project	
STEM 4890	STEM Internship	
MET 4870	Applied Finite Element Method	
CEEN 4835	Highway Design	
CEEN 5820	Pavement Material and Design	
Total Semester Hours		124-131
Year 1		
Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
ENTC 1505	Engineering Technology Concepts	4
or ENGR 1550	or Engineering Concepts	
and ENGR 1560	and Engineering Computing	
CCET 1503	CAD Technology	2

CCET 1504	Drafting and Plan Reading	2
MATH 1513 or MATH 1510 and MATH 1511 or MATH 1510C and MATH 1511C	Algebra and Transcendental Function or College Algebra and Trigonometry or College Algebra with Co-requisite Support and Trigonometry with Co-requisite Support	5-10
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4

Semester Hours 17-24

Spring

MET 1515	Mechanics 1	3
CCET 2604	Properties and Strength of Materials	3
CCET 2614L	Materials Laboratory 1	2
PHYS 1501 or PHYS 2610	Fundamentals of Physics 1 or General Physics 1	4
ENGL 1551	Writing 2	3

Semester Hours 15

Year 2

Fall

CEEN 2610 & 2610L	Surveying and Surveying Laboratory	4
MET 2616	Mechanics 2	3
CCET 3709	Structural Analysis 1	3
CCET 2620	Transportation Technology	3
PHIL 2626 or PHIL 2625	Engineering Ethics (Arts & Humanities GER) or Introduction to Professional Ethics	3
CCET 2607	Civil 3D	3

Semester Hours 19

Spring

MATH 1570 or MATH 1571	Applied Calculus 1 or Calculus 1	4
CCET 3724	Hydraulics and Land Development	3
CCET 3706	Structural Design	4
CCET 3711	Specifications and Estimating	3
CMST 1545	Communication Foundations	3

Semester Hours 17

Year 3

Fall

Design Elective		3
CCET 3705	Computing for Engineers	3
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
EET 3725	Electromechanical Systems	3
EET 3725L	Electromechanical Systems Lab	1

Semester Hours 14

Spring

Design Elective		3
CCET 3735	Heavy Highway Technology	3
CCET 3740	Construction Management	3
CCET 3708	Building Information Modeling	3
CCET Elective		3

Semester Hours 15

Year 4

Fall

Design Elective		3
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CCET Elective		3
CCET 3714	Soil Mechanics	2
CCET 3714L	Soil Mechanics Laboratory	1
Social Science GER		3

Semester Hours 12

Spring

CCET 4884	Civil/Structural Facilities Design	3
EET 4810	Electrical System Design	3
Elective GER		3
Social Science GER		3
Arts & Humanities GER		3

Semester Hours 15

Total Semester Hours 124-131

Electives

COURSE	TITLE	S.H.
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Design Electives

Select three of the following: 9

CCET 4812	Concrete Design	
CCET 4813	Steel Design	
CCET 4814	Foundation Design	
CCET 4815	Masonry Design	
CCET 4816	Timber Design	

CCET Electives

Select two of the following: 4-6

CCET 4807	Project Planning & Scheduling	
CCET 4809	Structural Analysis 2	
CCET 4810	Construction Surveying	
CCET 4824	Environmental Technology	
CCET 4890	Special Topics in Civil and Construction Engineering Technology	
ENTC 4895	Independent Engineering Technology Project	
MET 4870	Applied Finite Element Method	3
CEEN 4835	Highway Design	3
CEEN 5820	Pavement Material and Design	3

Total Semester Hours 22-24

PROGRAM OUTCOMES

BACHELOR OF SCIENCE IN APPLIED SCIENCE IN CIVIL AND CONSTRUCTION ENGINEERING TECHNOLOGY

Graduates of the Bachelor's Degree in Civil and Construction Engineering Technology will possess the following competencies upon graduation:

- **Learning Outcome 1:** ability to plan, prepare, and utilize design, construction, and operations documents, such as specifications, contacts, change orders, engineering drawings, and construction schedules
- **Learning Outcome 2:** perform economic analyses and cost estimates related to design, construction, operations, and maintenance of systems related to civil and construction engineering
- **Learning Outcome 3:** ability to select appropriate construction and engineering materials/practices
- **Learning Outcome 4:** (Construction Engineering Technology) ability to apply principles of construction law and ethics
- **Learning Outcome 5:** apply basic technical concepts related to the civil and construction engineering technology field; such as hydraulics, hydrology, geotechnics, structures, material behavior, transportation systems, and water and wastewater systems

- **Learning Outcome 6:** perform standard analysis/design in at least one technical specialty within civil and construction engineering technology

Bachelor of Science in Applied Science in Electrical Engineering Technology

Bachelor of Science in Applied Science Degree

The Electrical Engineering Technology program is based on the "two-plus-two" educational system which provides the student with the flexibility of earning an associate degree and a bachelor's degree according to his or her needs. After completing the requirements of the associate degree, the student may elect to either enter industry or, through an added two years of full-time study (averaging 17 hours per semester) or equivalent part-time study, earn the Bachelor of Science in Applied Science (BSAS).

The bachelor's degree program in electrical engineering technology prepares students for employment as engineers or engineering designers. The students focus on analog and digital electronics communication systems, smart grid and power distribution, and computer networking systems. Co-op programs with various local companies enable EET students to gain experience and income during their junior and senior years. Many students work full or part-time while completing the BSAS degree taking evening classes. Students are encouraged to take the Fundamentals of Engineering (FE) exam as the first step toward professional registration.

Program Educational Objectives

Educational objectives for the electrical engineering technology programs have been developed by faculty and the program industrial advisory committee to support the university, college, and School of Engineering Technology missions. Graduates of the EET bachelor's degree are prepared to assist in the design and testing of electrical systems and may function independently in some areas.

During their first few years after earning the electrical engineering technology degree at YSU, graduates will have demonstrated the ability to:

- Secure employment in a technical career related to their Electrical Engineering Technology degree.
- Communicate effectively in a professional environment.
- Continue growth in professional knowledge and skills.
- Achieve recognition consistent with their educational achievements.

Accreditation

The Bachelor of Science in Applied Science in Electrical Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET, <https://www.abet.org>, under the General Criteria and the Program Criteria for Electrical Engineering Technology.

Date of last campus visit: October 2017

Accredited through: 2024

Next campus visit: October 2023

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Courses:		
ENGL 1550	Writing 1	3-4

or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
MATH 1513	Algebra and Transcendental Function	5-10
or MATH 1510 & MATH 1511	College Algebra and Trigonometry	
or MATH 1510C & MATH 1511C	College Algebra with Co-requisite Support and Trigonometry with Co-requisite Support	
MATH 2670	Applied Calculus 2	4-5
or MATH 1572	Calculus 2	
MATH 1570	Applied Calculus 1	4
or MATH 1571	Calculus 1	
Natural Science Gen Ed.		
PHYS 1501	Fundamentals of Physics 1	4
or PHYS 2610	General Physics 1	
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
Social Science (6 s.h.)		
Social Science (select 1 course)		3
ECON 2610	Principles 1: Microeconomics	3
Arts and Humanities Gen Ed (6 s.h.)		
Arts and Humanities (select 1 course)		3
PHIL 2626	Engineering Ethics	3
or PHIL 2625	Introduction to Professional Ethics	
Gen Ed Electives satisfied by MATH 1570, MATH 2670 and one chosen by student		
GER Elective		3
Courses in the major:		
CSIS 2610 & 2610L	Programming and Problem-Solving and Programming and Problem-Solving Lab	4
ENTC 1505	Engineering Technology Concepts	4
or ENGR 1550 & ENGR 1560	Engineering Concepts and Engineering Computing	
CCET 1503	CAD Technology	2
CCET 1504	Drafting and Plan Reading	2
EET 1501 & 1501L	Circuit Theory 1 and Circuit Theory 1 Lab	4
EET 1502 & 1502L	Circuit Theory 2 and Circuit Theory 2 Lab	4
EET 2605 & 2605L	Electronics 1 and Electronics 1 Laboratory	4
EET 2620 & 2620L	Digital Electronics and Digital Electronics Lab	3
EET 3710 & 3710L	Electrical Machines and Electrical Machines Lab	4
EET 3712 & 3712L	Programmable Logic Controllers and PLC Laboratory	4
EET 3715	Industrial Instrumentation and Control	3
EET 3735 & 3735L	Microprocessor Architecture and Programming and Microprocessor Architecture and Programming Laboratory	3
EET 3700	Methods in Circuit Analysis	3
EET 3745 & 3745L	Microprocessor Systems 2 and Microprocessor Systems 2 Lab	3
EET 3701	Transform Circuit Analysis	3
CCET 3705	Computing for Engineers	3
EET 3760 & 3760L	Variable Speed Drives and Variable Speed Drives Lab	3
EET 4810	Electrical System Design	3

EET 4812	Automation Systems Integration	3
EET 4870	Process Control Technology	4
ENGL 3743	Introduction to Public, Professional and Technical Writing	3
Technical Elective: Select 3 hours		3
CCET 3708	Building Information Modeling	
CCET 3740	Construction Management	
CCET 4807	Project Planning & Scheduling	
MET 3705	Thermodynamics	
MET 3713	Fluid Power Systems	
MET 4860 & 4860L	Robotics Technology and Robotics Technology Laboratory	
EET Elective 37XX/48XX: Select 6 hours		6
EET 3706 & 3706L	Electronics 2 and Electronics 2 Laboratory	
EET 3730 & 3730L	Logic Systems Design and Logic Systems Design Lab	
EET 3780 & 3780L	Communication Systems and Communication Systems Lab	
EET 4815	Power System Studies	
EET 4820 & 4820L	Power System Protection and Control and Power System Protection and Control Lab	
EET 4845 & 4845L	Microprocessor Systems 3 and Microprocessor Systems 3 Lab	
EET 4850 & 4850L	Integrated Circuit Applications and Integrated Circuit Applications Lab	
EET 4890	Special Topics in EET	
STEM 4890	STEM Internship	
Any EET 48XX		
Total Semester Hours		121-129
Year 1		
Fall		
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	S.H. 1-2
ENTC 1505 or ENGR 1550 and ENGR 1560	Engineering Technology Concepts or Engineering Concepts and Engineering Computing	4
EET 1501	Circuit Theory 1	3
EET 1501L	Circuit Theory 1 Lab	1
MATH 1513 or MATH 1510 and MATH 1511 or MATH 1510C and MATH 1511C	Algebra and Transcendental Function or College Algebra and Trigonometry or College Algebra with Co-requisite Support and Trigonometry with Co-requisite Support	5-10
Semester Hours		14-20
Spring		
MATH 1570 or MATH 1571	Applied Calculus 1 or Calculus 1	4
EET 1502	Circuit Theory 2	3
EET 1502L	Circuit Theory 2 Lab	1
EET 2620	Digital Electronics	2
EET 2620L	Digital Electronics Lab	1

PHYS 1501 or PHYS 2610	Fundamentals of Physics 1 or General Physics 1	4
Semester Hours		15
Year 2		
Fall		
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
EET 2605	Electronics 1	3
EET 2605L	Electronics 1 Laboratory	1
EET 3710	Electrical Machines	3
EET 3710L	Electrical Machines Lab	1
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
Semester Hours		15-16
Spring		
CCET 1503	CAD Technology	2
CCET 1504	Drafting and Plan Reading	2
EET 3712	Programmable Logic Controllers	3
EET 3712L	PLC Laboratory	1
EET 3715	Industrial Instrumentation and Control	3
ENGL 1551	Writing 2	3
PHIL 2626 or PHIL 2625	Engineering Ethics or Introduction to Professional Ethics	3
Semester Hours		17
Year 3		
Fall		
MATH 2670 or MATH 1572	Applied Calculus 2 or Calculus 2	4-5
EET 3700	Methods in Circuit Analysis	3
CSIS 2610 or CSIS 2605	Programming and Problem-Solving or Fundamentals of Programming and Problem-Solving 2	3
CSIS 2610L or CSIS 2605L	Programming and Problem-Solving Lab or Fundamentals of Programming and Problem-Solving 2 Lab	1
EET 3735	Microprocessor Architecture and Programming	2
EET 3735L	Microprocessor Architecture and Programming Laboratory	1
Semester Hours		14-15
Spring		
EET 3701	Transform Circuit Analysis	3
EET 3745	Microprocessor Systems 2	2
EET 3745L	Microprocessor Systems 2 Lab	1
EET 3760	Variable Speed Drives	2
EET 3760L	Variable Speed Drives Lab	1
EET 4810	Electrical System Design	3
Social Science GER ¹		3
Semester Hours		15
Year 4		
Fall		
EET 4812	Automation Systems Integration	3
EET or Tech Elective ²		3
CCET 3705	Computing for Engineers	3
ENGL 3743	Introduction to Public, Professional and Technical Writing	3
ECON 2610	Principles 1: Microeconomics	3
Semester Hours		15

Spring

EET 4870	Process Control Technology	4
EET or Tech Elective ²		3
EET or Tech Elective ²		3
Arts & Humanities GER ¹		3
GER Elective ¹		3
Semester Hours		16
Total Semester Hours		121-129

¹ General Education Requirement:

SS = Social Science (2 required for BSAS)

AH = Arts & Humanities (2 required for BSAS)

Elective (3 required for BSAS)

² EET Electives: 3706/L, 3730/L, 3780/L, 4815, 4817, 4820/L, 4845/L, 4850/L, 48XX (Special Topics)

Technical Electives: CCET 3708, CCET 3740, CCET 4807, MET 3705, MET 3713, MET 4860/L, STEM 4890

Program Outcomes**BACHELOR OF SCIENCE IN APPLIED SCIENCE in Electrical engineering technology**

Graduates of the Bachelor's Degree in Electrical Engineering Technology will possess the following competencies upon graduation:

1. an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the discipline;
2. an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;
3. an ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;
4. an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes; and
5. an ability to function effectively as a member as well as a leader on technical teams.

Bachelor of Science in Applied Science in Mechanical Engineering Technology

Students who have earned the associate degree may elect to complete the bachelor's degree on either a full- or part-time basis. Courses in the bachelor's degree program further develop technical, communication, and managerial skills. Upon successful completion of the coursework, graduates are awarded the Bachelor of Science in Applied Science degree and are prepared for greater levels of responsibility and greater career advancement.

Graduates of the BSAS degree program obtain employment as engineers or engineering designers for government agencies, consulting engineers and architects, industry and manufacturing, and contractors. Because their education is more extensive, they are prepared for more responsibility and more-rapid advancement. BSAS engineers and designers plan, design, and inspect production and maintenance activities.

Based on an evaluation of their work, transfer students who have a related associate degree from a regionally accredited institution may be admitted to the bachelor's degree program at the junior level.

Program Educational Objectives

Educational objectives for the mechanical engineering technology programs have been developed by faculty and the program industrial advisory committee to support the university, the college, and the School of Engineering Technology missions. Graduates of the MET associate degree program function as assistants in the design, drafting and testing of mechanical products, equipment and processes. Bachelor's degree graduates assume greater responsibility in the design and testing of mechanical products, processes, and equipment.

During their first few years after completion of the mechanical engineering technology program at YSU, graduates will have demonstrated the ability to:

- Work competently in technical and professional careers related to the field of mechanical engineering technology.
- Communicate effectively in a professional environment.
- Continue growth in professional knowledge and skills.
- Achieve recognition and/or compensation consistent with their educational achievements.

Accreditation

The Bachelor of Science in Applied Science in Mechanical Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET, <https://www.abet.org/>, under the General Criteria and the Program Criteria for Mechanical Engineering Technology.

Date of last campus visit: October 2017

Accredited through: 2024

Next campus visit: October 2023

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT - STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Courses		
Writing		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Math		
MATH 1513	Algebra and Transcendental Function	5-10
or MATH 1510 and 1511		
or MATH 1510C and 1511C		
Natural Science		
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
PHYS 1501	Fundamentals of Physics 1	4
or PHYS 2610	General Physics 1	
GER Arts and Humanities		6
GER Social Science		6
General Education Electives		
MATH 1570	Applied Calculus 1	4
or MATH 1571	Calculus 1	
Two Additional Gen Ed Electives from any topic		6
Courses in the Major		
CCET 2604	Properties and Strength of Materials	3
CCET 2614L	Materials Laboratory 1	2
EET 3712	Programmable Logic Controllers	4
& 3712L	and PLC Laboratory	

EET 3715	Industrial Instrumentation and Control	3
EET 3725 & 3725L	Electromechanical Systems and Electromechanical Systems Lab	4
ENTC 1505	Engineering Technology Concepts	4
ENGR 1550 and ENGR 1560		
MET 1515	Mechanics 1	3
MET 2606	Solid Modeling	4
MET 2607	Geometric Dimensioning and Tolerancing	3
MET 2616	Mechanics 2	3
MET 2630	Manufacturing Techniques	3
MET 2630L	Manufacturing Techniques Laboratory	1
MET 3705	Thermodynamics	4
MET 3706	Machine Design 1	4
MET 3707	Machine Design 2	3
MET 3713	Fluid Power Systems	3
MET 3711	Heat and Power Cycles	4
MET 3714 & 3714L	Fluid Mechanics and Fluid Mechanics Laboratory	4
MET 3720	Mechanisms	3
MET 4810	Manufacturing Systems Analysis	3
MET 4820	Machine Systems	3
MET 4860 & 4860L	Robotics Technology and Robotics Technology Laboratory	3
MET 4870	Applied Finite Element Method	3
MET Elective: Select 6 hours from list below:		6
MET 3710	Tool Design	
MET 4812 & 4812L	Numerical Control and Numerical Control Lab	
MET 4890	Special Topics in Mechanical Engineering Technology	
ENTC 4895	Independent Engineering Technology Project	
ISEN/MGT Elective: Select 3 hours from list below:		3
ENT 3700	Entrepreneurship New Venture Creation	
ISEN 3720	Statistical Quality Control	
MGT 3725	Fundamentals of Management	
MGT 2604	Legal and Social Responsibilities of Business	
STEM 4890	STEM Internship	
Total Semester Hours		125-132
Year 1		
Fall		
YSU 1500 or SS 1500 or HONR 1500	Success Seminar or or Intro to Honors	1-2
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
ENTC 1505 or ENGR 1550 and 1560	Engineering Technology Concepts	4
MATH 1513 or MATH 1510 and 1511 or MATH 1510C and 1511C	Algebra and Transcendental Function	5-10
MET 2606	Solid Modeling	4
Semester Hours		17-24
Spring		
General Ed AH Elective (1 of 2)		3
MATH 1570 or MATH 1571	Applied Calculus 1 or Calculus 1	4
MET 1515	Mechanics 1	3
MET 2607	Geometric Dimensioning and Tolerancing	3

PHYS 1501 or PHYS 2610	Fundamentals of Physics 1 or General Physics 1	4
Semester Hours		17
Year 2		
Fall		
CCET 2604	Properties and Strength of Materials	3
CCET 2614L	Materials Laboratory 1	2
EET 3725	Electromechanical Systems	3
EET 3725L	Electromechanical Systems Lab	1
MET 2630	Manufacturing Techniques	3
MET 2630L	Manufacturing Techniques Laboratory	1
MET 4860	Robotics Technology	2
MET 4860L	Robotics Technology Laboratory	1
Semester Hours		16
Spring		
EET 3712	Programmable Logic Controllers	3
EET 3712L	PLC Laboratory	1
ENGL 1551	Writing 2	3
MET 3706	Machine Design 1	4
MET 3713	Fluid Power Systems	3
MET 4812	Numerical Control	2
MET 4812L	Numerical Control Lab	1
Semester Hours		17
Year 3		
Fall		
General Ed SS Elective (1 of 2)		3
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
MET 2616	Mechanics 2	3
MET 3714	Fluid Mechanics	3
MET 3714L	Fluid Mechanics Laboratory	1
MET 3707	Machine Design 2	3
Semester Hours		17
Spring		
EET 3715	Industrial Instrumentation and Control	3
MET 3705	Thermodynamics	4
MET 4870	Applied Finite Element Method	3
General Ed SS Elective (2 of 2)		3
General Ed Open Elective (2 of 3)		3
Semester Hours		16
Year 4		
Fall		
MET 3711	Heat and Power Cycles	4
MET 3720	Mechanisms	3
MET Elective (1 of 2)		3
Gen Ed Open Elective (3 of 3)		3
Semester Hours		13
Spring		
MET 4820	Machine Systems (Capstone)	3
ISEN/MGT Elective		3
MET Elective (2 of 2)		3
General Ed AH (2 of 2)		3
Semester Hours		12
Total Semester Hours		125-132

Electives

COURSE	TITLE	S.H.
MET Electives		
Select two of the following:		6
ENTC 4895	Independent Engineering Technology Project	1-4
MET 3710	Tool Design	3
MET 4812	Numerical Control	2
MET 4812L	Numerical Control Lab	1
MET 4830	Intro to Additive Manufacturing	3
MET 4890	Special Topics in Mechanical Engineering Technology	1-4
ISEN/MGT Electives		3
Select one of the following:		
ENT 3700	Entrepreneurship New Venture Creation	
ISEN 3720	Statistical Quality Control	
ISEN 3724		
MGT 3725	Fundamentals of Management	
MGT 2604	Legal and Social Responsibilities of Business	
Total Semester Hours		20-26

PROGRAM OUTCOMES

BACHELOR OF SCIENCE IN APPLIED SCIENCE IN MECHANICAL ENGINEERING TECHNOLOGY

Graduates of the Bachelor's Degree in Mechanical Engineering Technology will possess the following competencies upon graduation:

- an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the discipline;
- an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;
- an ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;
- an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes; and
- an ability to function effectively as a member as well as a leader on technical teams

Minor in Construction Management

Study of principles of construction management including AutoCAD, drafting and plan reading, properties and strengths of materials, specifications and estimating as well as scheduling techniques, construction reports, relationships among owner, architect/engineer and resource allocation and labor.

Construction Management Minor:

COURSE	TITLE	S.H.
CCET 1503	CAD Technology	2
CCET 1504	Drafting and Plan Reading	2
CCET 2604	Properties and Strength of Materials	3
CCET 3711	Specifications and Estimating	3
CCET 3740	Construction Management	3
Total Semester Hours		13

Minor in Electrical Engineering Technology

COURSE	TITLE	S.H.
Required Courses		
EET 1501 & 1501L	Circuit Theory 1 and Circuit Theory 1 Lab	4
EET 1502 & 1502L	Circuit Theory 2 and Circuit Theory 2 Lab	4
EET 2605 & 2605L	Electronics 1 and Electronics 1 Laboratory	4
EET 2620 & 2620L	Digital Electronics and Digital Electronics Lab	3
EET 3710 & 3710L	Electrical Machines and Electrical Machines Lab	4
EET 3712 & 3712L	Programmable Logic Controllers and PLC Laboratory	4
Total Semester Hours		23

Certificate in Advanced Welding

COURSE	TITLE	S.H.
WELD 2611	Open Root Groove Welds on Plate	4
WELD 2612	Open Root Groove Welds on Pipe	4
WELD 2614	Gas Tungsten Arc Welding (GTAW/Tig)	4
WELD 2622	Welding Fabrication, Layout, and Design	4
WELD 2651	Welding Practicum	5
CCET 1503	CAD Technology	2
Total Semester Hours		23

Certificate in Welding

COURSE	TITLE	S.H.
WELD 1501	OSHA 30 General Industry Training Course	3
WELD 1511	Shielded Metal Arc Welding (SMAW) I	4
WELD 1521	Shielded Metal Arc Welding (SMAW) II	4
WELD 2601	Shielded Metal Arc Welding (SMAW) III	4
WELD 2602	Blueprint Reading for Welders	4
WELD 2613	Gas Metal Arc Welding (GMAW/Mig) and Flux Cored Arc Welding (FCAW)	4
Total Semester Hours		23

Rayen School of Engineering Accreditation

The baccalaureate degree programs in the Rayen School of Engineering accredited by the Engineering Accreditation Commission (EAC) of ABET (<http://www.abet.org>) are:

- chemical engineering (jointly accredited by the American Institute of Chemical Engineers)
- civil engineering
- electrical engineering
- industrial and systems engineering
- mechanical engineering

School of Engineering Disqualification

A student who earns two grades of D, F, or NC in the same course(s) listed below will be disqualified from transferring into a degree-granting engineering major. These courses are:

COURSE	TITLE	S.H.
MATH 1513	Algebra and Transcendental Function	5
MATH 1571	Calculus 1	4
ENGL 1550	Writing 1	3
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
PHYS 2610	General Physics 1	4

Enrollment in Restricted Engineering Courses

Enrollment in most engineering courses is restricted to those admitted to a degree-granting engineering major. A few engineering courses are not restricted. They are:

COURSE	TITLE	S.H.
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
ENGR 1560	Engineering Computing	2
CEEN 2610 & 2610L	Surveying and Surveying Laboratory	4
ECEN 1521 & 1521L	Digital Circuits and Digital Circuits Laboratory	4
MECH 1560	Engineering Communication with CAD	2

All other courses require admission to a professional engineering major unless approved by the chair of the engineering department and coordinator of the engineering program offering the course and by the STEM College dean. Students will be administratively withdrawn from restricted courses in which they are improperly enrolled.

Bachelor of Engineering Degree (BE) Graduation Policies

All engineering programs have pre-college course requirements listed in the chart at the end of this section that should be completed in high school or in equivalent course work at the college level. YSU offers the equivalent high school courses for those not meeting these pre-college requirements. These high school deficiencies do not count toward graduation requirements and should be completed during the first two years of enrollment.

Each engineering program has minimum graduation requirements. These requirements can affect a student's enrollment in senior-level classes. If a senior-level student reaches a point where it is not possible to achieve graduation requirements, further enrollment in engineering classes will be denied. In addition to the overall recalculated C average required by the University, an unrecalculated C average in the major is required. Also, an unrecalculated C average in all engineering courses is required in all majors. **These minimum graduation requirements are referred to as a *triple C requirement*.**

Chemical Engineering

A student who is failing to meet the triple C requirement prior to the senior year will be denied enrollment in CHEN 4887 Process and Plant Design 1.

Civil and Environmental Engineering

A student who is failing to meet the triple C requirement prior to the senior year will be denied enrollment in:

COURSE	TITLE	S.H.
CEEN 4863	Integrated Design Project	3
CEEN 5837	Environmental Engineering Design	3
CEEN 5855	Reinforced Concrete Design	3
CEEN 4881	Geotechnical Engineering	3

Electrical and Computer Engineering

Students who have not earned a C or better grade in ECEN 3741 Electromagnetic Fields 1 and ECEN 3742 Electromagnetic Fields 2 and students who are failing to meet the triple C requirement will be denied enrollment in senior level courses.

Industrial and Systems Engineering

A student who is failing to meet the triple C requirement will be denied enrollment in 4000- and 5000-level ISEN courses.

Mechanical Engineering

A student who is failing to meet the triple C requirement will be denied permission to register in any junior level mechanical engineering course until remedial measures, as required by the department chair, are agreed to by the student. Also, at the end of the junior year, the student will be denied permission to register in MECH 4808 Mechanical Systems Design 1, MECH 4808L Mechanical Systems Design Laboratory, and MECH 4809 Mechanical Systems Design 2, until the triple C requirement is met.

Cooperative Education/Professional Practice

Several programs leading to a baccalaureate degree offer students an optional cooperative education program. Co-op students are required to complete the same academic program for graduation as those not participating in the cooperative education experience. Credit hours awarded for the cooperative education experience are considered "add-on" hours to the degree. Professional practice opportunities include working with faculty on grants and research projects as well as internship opportunities with local industry. A professional practice coordinator is available to assist in student placement.

The table below shows the minimum pre-college requirements:

COURSE	TITLE	S.H.
English		3
Algebra 1 and 2		2
Geometry		1
Trigonometry		.5
Chemistry		1
Physics		1
Other		6.5

For more information, visit the **Rayen School of Engineering**.

Civil/Environmental and Chemical Engineering

In Fall 1998, the Department of Civil and Environmental Engineering was combined with the Department of Chemical Engineering to form the Department of Civil/Environmental and Chemical Engineering. The department housed two distinct programs—Civil Engineering (CE) and

Chemical Engineering (ChE)—with separate faculty lines dedicated to each program. Both programs offer BE and MS degrees.

In Fall 2020, the department joined the other engineering programs in the YSU Rayen School of Engineering.

For more information on each program, visit the College of Science, Technology, Engineering and Mathematics (<http://www.ysu.edu/academics/science-technology-engineering-mathematics/>).

Professor

John DeSantis, Ph.D., Assistant Professor

Richard Albert Deschenes, Jr., Ph.D., Assistant Professor

Sahar Ehsani, Ph.D., Assistant Professor

AKM Anwarul Islam, Ph.D., Professor

Holly J. Martin, Ph.D., Associate Professor

Byung-Wook Park, Ph.D., Assistant Professor

Suresh Sharma, Ph.D., Associate Professor

Lecturer

Shirley Xie, Ph.D., Lecturer

Majors

- Chemical Engineering Program (p. 437)
- Chemical Engineering 4+1 Graduate Track (p. 442)
- Civil Engineering Program (p. 444)
- Civil Engineering 4+1 Graduate Track (p. 449)

Civil and Environmental Engineering

CEEN 2601 Statics 3 s.h.

Principles of engineering mechanics as applied to statics with vector applications to forces and moments; centroid and center of gravity; equilibrium; friction; moments of inertia: relationship between loads, stress and strain in tension, compression, torsion and bending.

Prereq.: MATH 1572 or MATH 1572H; PHYS 2610 or concurrent.

CEEN 2602 Strength of Materials 3 s.h.

Relationships between loads, shear and bending moments in beams; combined stresses in beams; indeterminate beam analysis; virtual load; connections; columns.

Prereq.: CEEN 2601.

CEEN 2602L Strength of Materials Lab 1 s.h.

Experimental verification of strength of materials; testing: tension, torsion, non-destructive tests of steel; concrete compression and Poisson ration, wood tests.

Coreq.: CEEN 2602.

CEEN 2610 Surveying 3 s.h.

The theory of surveying and the use of instruments. Problems in leveling, traversing, and topography. Introduction to circular and vertical curves.

Prereq.: MATH 1513 or equivalent.

CEEN 2610L Surveying Laboratory 1 s.h.

Field surveying principles and techniques. Uses of transit and level are stressed. Three laboratory hours per week.

Coreq.: CEEN 2610.

CEEN 2660 Computer Aided Design and Drafting 2 s.h.

This course is designed for students who wish to be involved with the civil engineering design fields and for those interested in computer aided design and drafting. Students will be introduced to both traditional and computer aided design and drafting skills. The aim of this course is to introduce students to basic information, skills, and concepts related to drafting and design. Special attention is given to: sketching, measurement, room planning, multi-view drawing, auxiliary views, working drawings, sectional views, orthographic drawings along with AutoCAD tools and commands. The course includes 1 s.h. lecture and 1 s.h. lab.

CEEN 3710 Civil Engineering Materials 3 s.h.

A study of the principal materials used for civil engineering and construction purposes, with special attention paid to physical and mechanical properties of the materials and their importance to the engineer.

Prereq.: CEEN 2602.

CEEN 3711 Technology and Society 3 s.h.

A critical exploration of how societal needs affect the creation of technologies and how technology affects society. The course is interdisciplinary in nature and presents various approaches to examining the complex interaction between humans and their tools. Topics include: (1) technology in human history; (2) society, science, and technology development; (3) technology and social change; (4) technology, knowledge, and power; (5) technology, population, and the environment. Listed also as SOC 3789.

Prereq.: Junior standing or consent of instructor.

CEEN 3716 Fluid Mechanics 3 s.h.

Proportions of fluids, fluid statics, kinematics; Bernoulli equation; fluid momentum; laminar and turbulent flow through simple pipes; boundary layers; dimensional analysis and similitude.

Prereq.: CEEN 2602.

CEEN 3716L Fluid Mechanics Lab 1 s.h.

Experimental verification of the principles of fluid mechanics as applied to incompressible fluid. Three hours laboratory per week.

Prereq.: CEEN 2602.

Coreq.: CEEN 3716.

CEEN 3717 Hydraulic Design 4 s.h.

Analysis of flow in complex pipe systems; pumps; open channel flow; culverts; spillways; storm water drainage. Three hours lecture and three hours of computational laboratory per week.

Prereq.: CEEN 2610 and CEEN 3716.

CEEN 3720 Transportation Engineering 3 s.h.

Introductory survey of transportation topics including transportation systems, vehicular operation and control, and transportation planning techniques; introduction to design of highways, airports, and railroads; and traffic engineering.

Prereq.: CEEN 2610.

CEEN 3736 Fundamentals of Environmental Engineering 3 s.h.

Causes and effects of water, air and land pollution; measurements of environmental quality; environmental regulations; introduction to methods of pollution control.

Prereq.: CHEM 1515.

CEEN 3749 Structural Analysis 1 3 s.h.

The determination of shears, moments, and stresses in statically determinate beams, frames, and trusses. Consideration of dead, live, moving, and wind loads. Elastic deflections of simple structures. Introduction to the analysis of statically indeterminate structures using numerical and energy methods.

Prereq.: CEEN 2602.

CEEN 3749L Structural Analysis 1 Lab 1 s.h.

Introduction to stiffness-based analysis of determinate and indeterminate structures. Computer analysis of various structural systems, including plane and space trusses, continuous beams, plane and space frames, plates. P-delta stability analysis of frames. Three hours computational lab per week.

Prereq.: CEEN 2602; concurrent with CEEN 3749.

CEEN 3751 Water Quality Analysis 3 s.h.

Introduction to physical, chemical, and biological measurements of water quality. Sample collection and laboratory analysis of natural waters, drinking water, and wastewater. Interpretation of environmental data. Two hours lecture and three hours laboratory per week. Identical to ENST 3751.

Prereq.: CEEN 3736 or ENST 2600; CHEM 1515.

CEEN 3751L Water Quality Analysis Lab 0 s.h.

Laboratory experience in the analysis of natural waters, drinking water and wastewater. Emphasizes procedures for the collection and interpretation of data on current environmental problems. Three hours laboratory per week. Must be taken concurrently with CEEN 3751.

CEEN 4800 Special Topics 3 s.h.

Special topics and new developments in Civil Engineering. Subject matter, credit hours, and special prerequisites to be announced in advance of each offering. May be repeated to a maximum of 6 s.h.

Prereq.: Senior standing or consent of instructor.

CEEN 4812 Construction Management 3 s.h.

Fundamentals of construction management: contracts, bonding, estimating, organization, finance; cost and productivity of equipment, material, and labor; and project planning and scheduling.

Prereq.: CEEN 3717 or CEEN 4881.

CEEN 4835 Highway Design 3 s.h.

Methods of highway route location; design methods and standards for highways, intersections, freeways, and interchanges. Includes extensive use of computer-aided design.

Prereq.: CEEN 3720.

CEEN 4863 Integrated Design Project 3 s.h.

Students will be required to complete a culminating design experience that focuses attention on professional practice and is predicated on the accumulated background of curriculum components. Three hours of lecture.

Prereq.: CEEN 5855 and GPA of 2.0 or better.

Coreq.: CEEN 4863L.

CEEN 4863L Integrated Design Project Lab 1 s.h.

Students will be required to complete a meaningful design experience that focuses attention on professional practice and is predicated on the accumulated background of curriculum components. Three hours of laboratory a week. **Coreq.:** CEEN 4863. 0.

CEEN 4879 Civil Engineering Analysis 3 s.h.

Application of mathematical and numerical methods to the systematic analysis and development of problems in the field of Civil Engineering.

Prereq.: CEEN 3749.

CEEN 4881 Geotechnical Engineering 3 s.h.

Properties of soil, classification, capillarity, seepage, permeability, stresses, consolidation, shear strength; analysis and design of foundation structures, retaining walls, piles, drilled piers, sheet pile walls, special footings, stability.

Prereq.: MATH 2673; CEEN 3749.

CEEN 4881L Geotechnical Lab 1 s.h.

Typical soil testing procedures and physical testing of soil samples.

Prereq.: Concurrent with: CEEN 4881.

CEEN 5820 Pavement Material and Design 3 s.h.

Design methods for flexible, rigid and other wheel-supporting pavements to include investigation, testing and preparation of subgrade, base course and pavement materials, design of various pavement mixtures, stresses in pavements, pavement design, and strengthening existing pavements.

Prereq.: CEEN 3720 and CEEN 4881.

CEEN 5829 Civil Engineering Materials - Concrete 3 s.h.

A course designed to broaden the student's understanding of Portland Cement Concrete as a construction material. Topics include the study of cement, hydration of cement, aggregates, admixtures for concrete, mix design handling and placing, curing and properties of Portland Cement Concrete. Testing of Concrete, quality control and special concretes are also included. A library research paper on a concrete-related topic of the student's choice is required.

Prereq.: CEEN 3749 or permission of instructor.

CEEN 5832 Natural Systems Engineering 3 s.h.

Introduction to the features, functions and values of natural aquatic systems, and engineering approaches to analysis and restoration design. Focus on wetlands and streams. Topics include regulations, wetland delineation, constructed wetland design, basic stream geomorphology, and stream restoration design.

Prereq.: CEEN 3736 or permission of instructor.

CEEN 5836 Environmental Water Chemistry 3 s.h.

Fundamental principles and calculations of major chemical reactions and equilibria that occur in aquatic environments, and water/wastewater treatment processes.

Prereq.: CEEN 3736.

CEEN 5837 Environmental Engineering Design 3 s.h.

Theory and design of unit operations and processes for treatment of drinking water and municipal wastewater.

Prereq.: CEEN 3736.

CEEN 5849 Structural Analysis 2 3 s.h.

Analysis of statically indeterminate beams, trusses, bents and multistory frames, utilizing concepts of strain energy, virtual work, slope-deflection, and moment distribution. Introduction to matrix methods of analysis using force and displacement methods.

Prereq.: CEEN 3749.

CEEN 5855 Reinforced Concrete Design 3 s.h.

An introduction to the behavior, analysis, and design of reinforced concrete members. Included are singly and doubly reinforced beams, tee-beams, slabs, short and long columns.

Prereq.: CEEN 3749.

CEEN 5856 Steel Design 3 s.h.

An introduction to the behavior and design of steel structures. Included is the design of rolled and built-up tension members, beams, columns, beam-columns, welded and bolted connections.

Prereq.: CEEN 3749.

CEEN 5869 Design of Air Pollution Control Systems 3 s.h.

Engineering analysis, procedures, and techniques for the selection, applications and operation of air pollution control methods in various operational situations.

Prereq.: CEEN 3736.

CEEN 5877 Systems Engineering and Project Management 3 s.h.

Systems approach to engineering design; non-linear models; linear programming; dynamic programming; network analysis; project management.

Prereq.: MATH 3705.

CEEN 5880 Advanced Hydraulics 3 s.h.

Application of hydraulic principles for one dimensional river modeling; understanding the fundamental processes of open channel hydraulics; application of HEC-RAS/HEC-GeoRAS models for river system modeling.

Prereq.: A "C" or better in CEEN 3717.

CEEN 5882 Foundation Engineering 3 s.h.

Analysis and design of various foundations, including abutments, piers, piles, and footings; slope stability of embankments.

Prereq.: CEEN 4881 and CEEN 5855.

CEEN 5883 Bridge Engineering 3 s.h.

Analysis and design of concrete and steel bridges; specifications and code requirements; design detailing; effects of natural and man-made hazards on bridges; implications of bridge failures.

Prereq.: CEEN 5855 and CEEN 5856.

CEEN 5884 Solid and Hazardous Waste Management 3 s.h.

Sources, characteristics, handling and disposal options for solid waste and hazardous waste; topics include regulations, health effects, waste minimization, collection systems, landfill design, treatment and processing methods, and site assessment.

Prereq.: CEEN 3736.

Chemical Engineering

CHEN 2650 Computer Methods in Chemical Engineering 2 s.h.

Application of computational software packages and spreadsheets to solve chemical engineering problems. Utilization of process simulation packages. Real-time computing applications in laboratory automation.

Prereq.: ENGR 1550, ENGR 1550H or consent of instructor.

CHEN 2683 Chemical Engineering Principles 1 3 s.h.

Engineering units and dimensions. Hydrostatics. Material balances for non-reacting and reacting processes. Ideal and non-ideal gas relationships. Ideal multi-phase equilibrium calculations.

Prereq.: MATH 1571, MATH 1571H or MATH 1585H, CHEM 1515.

CHEN 2684 Chemical Engineering Principles 2 3 s.h.

Energy balances on reacting and non-reacting processes. Utilization of energy balances on multi-phase processes. Mass and energy balances on transient processes.

Prereq.: CHEN 2683.

CHEN 2688 Energy Assessment 3 s.h.

Concept of energy assessment. Technology of energy production that includes coal gasification, liquefaction, magnetohydrodynamics, utilization of shale oil, solar, geothermal, and chemical energy. Nuclear energy utilization. Fuel from wastes. Energy resource distribution and future supply and demand. Simple calculations relating to fuel saving, production, and consumption. Primarily for non-engineering students.

CHEN 3700 Measurements and Instrumentation 3 s.h.

Sensors, measurements, and instrumentation are the cornerstones of hands-on learning in engineering, which prepares students for careers and advanced research. This course is much more about measurement science than about computer science or scientific computing. It helps students make the most productive use of computers in the engineering research laboratory. Understand and implement the techniques of computer-based real-time instrumentation and design operational and analytical software using Laboratory Virtual Instrument Engineering Workbench (LabVIEW) for Data Acquisition (DAQ) device and simulation of engineering laboratory measurement instruments. Measure physical and chemical properties with various sensors and interfacing LabVIEW and DAQ device.

Prereq.: CHEN 2683.

CHEN 3718 Women, Science, and Technology 3 s.h.

An overview of the role women have played in scientific and technological advances. Problems unique to women entering scientific professions will be addressed, information about scientific and technical careers and job opportunities and contacts with professionals in the community will be provided.

Prereq.: ENGL 1550.

CHEN 3721 Engineering Plastics 3 s.h.

Preparation, characterization, manufacture, properties and applications of commercial polymers.

Prereq.: CHEN 2684 and CHEM 3719; or consent of instructor.

CHEN 3726 Elementary Nuclear Reactor Engineering 3 s.h.

Basic engineering science to serve as background material for nuclear reactor design. Nuclear fission as an energy source. Reactor use and classification. Comprehensive discussion of reactor design problems such as neutron distribution in the core, type of moderator, heat removal, and radiation protection.

Prereq.: MATH 2673, PHYS 2610.

CHEN 3771 Chemical Engineering Thermodynamics 1 3 s.h.

Development of the concepts and formalisms of thermodynamics and their applications to chemical engineering systems. Real and ideal behavior of single and multicomponent systems. Introduction to the thermodynamics of phase equilibria. Analysis and design of thermal systems. Additional topics include applications in transport phenomena and plant design.

Prereq.: MATH 2673 or MATH 2686H and CHEN 2684.

CHEN 3785L Transport Phenomena Laboratory 1 s.h.

Experimental studies of transport properties and momentum, energy and mass transfer using industrial type equipment. Correlation of data and comparison with theory. Oral presentations and preparation of technical reports. Three hours laboratory.

Prereq.: CHEN 3786 or concurrent.

CHEN 3786 Transport Phenomena 1 4 s.h.

Mathematical formulation of conversion laws. Dimensional analysis. Mechanism and fundamentals of momentum and energy transfer with selected applications to analysis and design of chemical engineering equipment. Three hours lecture and three hours computational lab per week.

Prereq.: MATH 2673 or MATH 2686H and CHEN 2684.

CHEN 3787 Transport Phenomena 2/Unit Operations 1 3 s.h.

Mass transfer processes. Diffusional operations and separation processes with emphasis on evaporation, humidification and drying. Derivation of design equations from mass and energy balances, and application to equipment design. Solution of simultaneous differential equations of mass, momentum, and energy.

Prereq.: CHEN 3786.

CHEN 3787L Unit Operations Laboratory 1 1 s.h.

Experiments in absorption, cascade operations, reaction kinetics, mixing and other chemical engineering operations employing industrial and pilot plant size equipment and instrumentation. Treatment of experimental data, correlations and comparison with theory. Oral presentations and preparation of technical reports. Three hour laboratory.

Prereq.: CHEN 3787.

CHEN 4801 Chemical Engineering Projects 3 s.h.

Chemical engineering projects under the guidance of a faculty member. Literature search, design and construction of apparatus, experimentation and preparation of a comprehensive report.

Prereq.: Consent of instructor.

CHEN 4802 Chemical Engineering Projects 3 s.h.

Chemical engineering projects under the guidance of a faculty member. Literature search, design and construction of apparatus, experimentation and preparation of a comprehensive report.

Prereq.: Consent of instructor.

CHEN 4803 Chemical Engineering Projects 3 s.h.

Chemical engineering projects under the guidance of a faculty member. Literature search, design and construction of apparatus, experimentation and preparation of a comprehensive report.

Prereq.: Consent of instructor.

CHEN 4815 Unit Operations 2 3 s.h.

Gas absorption and desorption, interphase mass transfer processes, liquid extraction and leaching. Physical separation processes including filtration, settling, and size reduction. Derivation of the design equations for the above processes, and applications of the design equations to equipment design.

Prereq.: CHEN 3787.

CHEN 4815L Unit Operations Laboratory 2 1 s.h.

Experiments in absorption, cascade operations, reaction kinetics, mixing and other chemical engineering operations employing industrial and pilot plant size equipment and instrumentation. Treatment of experimental data, correlations and comparison with theory. Oral presentations and preparation of technical reports. Three hour laboratory.

Prereq.: CHEN 4815.

CHEN 4815R Unit Operations 2 Applications 1 s.h.

Utilizing computer programs for gas absorption and desorption, interphase mass transfer processes, liquid extraction and leaching. Includes applications of the design equations to equipment design.

Prereq.: CHEN 3787.

CHEN 4822 Reinforced Polymer Structures 3 s.h.

Survey of raw materials, manufacturing methods, and design of products utilizing reinforcing materials combined with an elastomer or polymer binder.

Prereq.: CHEN 2684 or consent of instructor.

CHEN 4840 Biochemical Engineering Fundamentals 3 s.h.

Design of biological reactors, bioremediation schemes, methods for the purification and mass production of chemical species from living organisms or cultures, extraction, and fermentation. Technologies and processing of recombinant DNA, antibiotics, antibodies, vitamins, steroids, and methane are included. Essentials of microbiology, biochemistry, and genetics will precede industrial applications. Prereq.: junior standing.

Prereq.: CHEN 2684 or consent of instructor.

CHEN 4880 Chemical Reactor Design 1 3 s.h.

Chemical reaction equilibria. Theoretical developments and methods of interpreting experimental data pertaining to chemical kinetics. General design principles and construction features of reactors with application of these principles to the design of specific reactors.

Prereq.: CHEN 3771.

CHEN 4880R Reactor Design Applications 1 s.h.

Utilizing computer programs for determination of chemical reaction equilibria, chemical kinetics, and designing reactors.

Prereq.: CHEN 3771.

CHEN 4881 Chemical Reactor Design 2 3 s.h.

Chemical reaction equilibria. Theoretical developments and methods of interpreting experimental data pertaining to chemical kinetics. General design principles and construction features of reactors with application of these principles to the design of specific reactors.

Prereq.: CHEN 4880.

CHEN 4882 Process Dynamics 3 s.h.

Introduction to automatic control and control loop concepts. Laplace transform techniques. Linear open-loop and closed-loop systems. Root-locus and frequency response methods. Design of control systems.

Prereq.: CHEN 3786.

CHEN 4887 Process and Plant Design 1 3 s.h.

An examination of engineering economic analysis to include: cost estimation, profitability, optimum design, principles of fixed and operating costs, materials and site selection, and general and specialized design techniques.

Prereq.: CHEN 3787 Minimum grade of C, CHEN 4880 Minimum grade of C and unrecalculated GPA of 2.0 or better in major courses.

CHEN 4888 Process and Plant Design 2 3 s.h.

The application of chemical engineering and cost principles to the component design and selection of process equipment. The application of chemical engineering and cost principles to the design of chemical plants and processes including societal aesthetic, environmental, and safety considerations.

Prereq.: CHEN 4887 minimum grade of C.

Gen Ed: Capstone.

CHEN 5800 Special Topics 1-4 s.h.

Special topics and new developments in chemical engineering. Subject matter, credit hours, and special prerequisites to be announced in advance of each offering.

Prereq.: Consent of instructor.

CHEN 5805 Principles of Biomedical Engineering 3 s.h.

Application of engineering principles and methods of analysis to processes in the human body. Rheological, physical and chemical properties of body fluids. Dynamics of the circulatory system. The human thermal system. Transport through cell membranes. Analysis and design of artificial organs.

Prereq.: CHEN 2684 or consent of instructor.

CHEN 5811 Advanced Transport Phenomena 3 s.h.

Development of basic differential balance equations for mass, momentum and energy. Analytical and approximate solutions to the equation of change with application to the analysis of common engineering problems.

Prereq.: CHEN 3786.

CHEN 5820 Industrial Pollution Control 3 s.h.

Types, sources and effects of industrial and hazardous waste; principles of industrial and hazardous waste control; discussion and design of biological, physical, and chemical treatment processes.

Prereq.: CHEN 2684 or consent of instructor.

CHEN 5821 Fundamentals of Polymer Science 3 s.h.

The survey of polymerization mechanisms, polymer structure-property relationships, transport properties, flammability-related plasticizers and solvents as well as design applications.

Prereq.: CHEN 2684 or consent of instructor.

CHEN 5830 Nuclear Reactors 3 s.h.

Neutron interactions and scattering; moderation ratio, the steady state reactor core and four factor equation, the diffusion equation for various reactor geometries and the reflected reactor core.

Prereq.: CHEN 3726 or consent of instructor.

CHEN 5835 Introduction to Nuclear Fusion 3 s.h.

Fusion reactors; the kinetics of fusion reactions. Plasma confinement technology.

Prereq.: CHEN 3726.

CHEN 5845 Corrosion Engineering 3 s.h.

Introduction to causes and forms of corrosion, corrosion rate calculations, electrode potentials, electrochemistry, corrosion testing, and effects of corrosion on mechanical properties. Theory and use of corrosion inhibition methods.

Prereq.: CHEN 2684.

CHEN 5850 Industrial Processes 3 s.h.

A fundamental approach to the design of industrial chemical processes. Emphasis upon flow-charting, chemical reactions, separations involved, thermodynamics, and economic considerations. Food and pharmaceutical processing is a major focus.

Prereq.: CHEN 2684 or consent of instructor.

CHEN 5854 Corrosion Engineering 3 s.h.

Introduction to causes and forms of corrosion, corrosion rate calculations, electrode potentials, electro-chemistry, corrosion testing, and effects of corrosion on mechanical properties. Theory and use of corrosion inhibition methods.

Prereq.: Junior or Senior Standing or Approval of the Instructor.

CHEN 5883 Mathematical Methods in Chemical Engineering 3 s.h.

The applications of advanced mathematics to the solution of chemical engineering problems. Topics covered include treatment and interpretation of engineering data, modeling of chemical engineering systems and formulation of ordinary and partial differential equations governing chemical engineering operations and their solutions by use of numerical and analytical techniques.

Prereq.: CHEN 3786.

CHEN 5886 Nuclear Reactor Design 3 s.h.

The steady state reactor core; four-factor equation, resonance escape probability, neutron flux distribution in various geometries, two-group and multigroup theories. Transient reactor behavior and control; effect of delayed neutrons, fission product poisoning, nuclear fuels, nuclear heat transfer and burnout problems, reactor economy; fuel burnup and power cost. Thermal breeder and fast reactors. Neutron flux distribution measurements. Radiation detection and monitoring.

Prereq.: CHEN 3726 or consent of instructor.

Bachelor of Engineering in Chemical Engineering

Introduction

The Chemical Engineering Program at Youngstown State University--supplemented with courses in chemistry, physics, mathematics, and general engineering--provides a broad preparation for design, operation, and management in the chemical, biomedical, biological, nuclear, pharmaceutical, and energy-conversion industries, as well as graduate study leading to research positions in industry and government and to academic careers.

Program Contact Information

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Educational Objectives

Graduates of the chemical engineering program at YSU:

- Pursue careers as practicing chemical engineers in chemical and energy-related industries as well as in areas of materials, environmental, and biomedical engineering and biotechnology.
- Demonstrate strong, functional command of chemical engineering fundamentals and hold safety as paramount in the operation and design of chemical processes.
- Are aware of the scope of the chemical engineering profession and its global opportunities and requirements.
- Exhibit professional responsibility and a sensitivity to a broad range of societal concerns including ethical, environmental, political, regulatory, and global issues in making decisions.

Mission

The mission of the Chemical Engineering program is to:

1. Offer a wide variety of electives to students according to the global trend in chemical engineering
2. Provide real world experiences to students through laboratory study and capstone experiences
3. Conduct research with faculty in the areas commonly associated with traditional chemical engineering disciplines and their impact on the local and global environment
4. Participate in interdisciplinary programs.

Admission into the Program

To be admitted into the program, students are required to have an overall GPA of 2.3 and a grade of "C" or higher in CHEM 1515/L, MATH 1571, and ENGL 1550. Students can only repeat these courses one time.

Graduation Policy

In addition to the overall recalculated "C" average required by the University, an unrecalculated "C" average in the major is required. Also, an unrecalculated "C" average in all engineering courses is required.

Student Outcomes

The curriculum is structured to achieve the following outcomes as prescribed by ABET:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must

consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

Accreditation

The Chemical Engineering BE program has been accredited by Engineering Accreditation Commission of ABET, <https://www.abet.org> (<https://www.abet.org/>), under the commission's General Criteria and Program Criteria for Chemical, Biochemical, Biomolecular and Similarly Named Engineering Programs.

CHEMICAL ENGINEERING ANNUAL ENROLLMENT AND GRADUATION DATA

Academic Year	Bachelor of Engineering Enrollment	Fall Enrollment	Spring Enrollment
Degrees Awarded			
2010-2011	18	57	62
2011-2012	25	58	58
2012-2013	10	49	48
2013-2014	16	58	55
2014-2015	17	66	77
2015-2016	24	100	101
2016-2017	24	127	123
2017-2018	35	141	117
2018-2019	36	115	112
2019-2020	39	126	128
2020-2021	37	112	103
2021-2022	34	80	74
2022-2023	21	47	41
2023-2024		48	44

Co-Operative Education and Internships

The Chemical Engineering Program encourages all of its students to participate in co-ops and internships prior to graduation. Students should register with the STEM Office of Professional Practice in order to participate.

Facilities

The chemical engineering laboratories are well-equipped for undergraduate instruction and student and faculty research. The equipment includes fluid flow apparatus, concentric tube and plate and frame heat exchangers, thermal conductivity apparatus, boiling heat transfer apparatus, tray dryer, double effect evaporator, computer-controlled distillation tower, gas absorption and liquid-liquid extraction columns, chemical reactors, electrostatic particle separator, centrifuges, filter presses, and other miscellaneous equipment.

For more information, contact Holly J. Martin, Program Coordinator.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics requirement (met with MATH in major)		
Select one Arts and Humanities:		3
PHIL 1561	Technology and Human Values	
PHIL 2625	Introduction to Professional Ethics	
PHIL 2626	Engineering Ethics	
PHIL 2628	Business Ethics	
Arts and Humanities (Select 1 course)		3
Natural Science (met with CHEM and PHYS required for major)		
Social Sciences (6 s.h. Select 2 courses)		6
Required General Education Elective		3
CMST 1545	Communication Foundations	
General Education Electives (6 s.h. Select 2 courses)		6
General Engineering Courses		
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
ENGR 1560	Engineering Computing	2
Chemical Engineering Courses		
CHEN 2650	Computer Methods in Chemical Engineering	2
CHEN 2683	Chemical Engineering Principles 1	3
CHEN 2684	Chemical Engineering Principles 2	3
CHEN 3771	Chemical Engineering Thermodynamics 1	3
CHEN 5800A	Special Topics Thermo Dynamics Lab	1
CHEN 3785L	Transport Phenomena Laboratory	1
CHEN 3786	Transport Phenomena 1	4
CHEN 3787	Transport Phenomena 2/Unit Operations 1	3
CHEN 3787L	Unit Operations Laboratory 1	1
CHEN 4815	Unit Operations 2	3
CHEN 4815R	Unit Operations 2 Applications	1
CHEN 4815L	Unit Operations Laboratory 2	1
CHEN 4880	Chemical Reactor Design 1	3
CHEN 4880R	Reactor Design Applications	1
CHEN 4882	Process Dynamics	3
CHEN 4887	Process and Plant Design 1	3
CHEN 4888	Process and Plant Design 2	3
Chemical Engineering Electives (select two courses from the following)		6
STEM 4890	STEM Internship	
CHEN 2688	Energy Assessment	
CHEN 3700	Measurements and Instrumentation	
CHEN 4801	Chemical Engineering Projects	
CHEN 4840	Biochemical Engineering Fundamentals	
CHEN 5800	Special Topics	
CHEN 5800I	Special Topics Green Engineering	
CHEN 5805	Principles of Biomedical Engineering	
CHEN 5811	Advanced Transport Phenomena	
CHEN 5820	Industrial Pollution Control	
CHEN 5821	Fundamentals of Polymer Science	

CHEN 5845	Corrosion Engineering	
CHEN 5850	Industrial Processes	
CHEN 5883	Mathematical Methods in Chemical Engineering	
CHEN 6981	Advanced Chemical Reaction Engineering	
Mathematics/Statistics Courses		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
Accelerated Honors Calculus 1 and 2 can be substituted for Calculus 1, 2, and 3		
MATH 3705	Differential Equations	3
STAT 3743	Probability and Statistics	4
Chemistry Courses		
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
CHEM 3719	Organic Chemistry 1	3
CHEM 3719L	Organic Chemistry 1 Laboratory	1
CHEM 3719R	Organic Chemistry Recitation 1	1
CHEM 3720	Organic Chemistry 2	3
CHEM 3720L	Organic Chemistry 2 Laboratory	1
CHEM 3720R	Organic Chemistry Recitation 2	1
CHEM 3739	Physical Chemistry 1	3
Physics Courses		
PHYS 2610	General Physics 1	4
PHYS 2611	General Physics 2	4
Regulatory Safety (choose one of the following)		2-3
CHEM 4860	Regulatory Aspects of Industrial Chemistry	
ENST 5810	Environmental Safety	
ENST 5860	Environmental Regulations	
Total Semester Hours		128-131
Year 1		
Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
MATH 1571	Calculus 1	4
GER AH-1	Arts and Humanities Elective	3
Semester Hours		18-20
Spring		
ENGL 1551	Writing 2	3
GER GE-1	CMST 1545 Communication Foundations	3
ENGR 1560	Engineering Computing	2
CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
MATH 1572	Calculus 2	4
Semester Hours		16

Year 2			counseling to develop a program of study that fully uses their educational background and requires a minimum of time to satisfy the requirements for the degree of Bachelor of Engineering in chemical engineering.		
Fall			COURSE	TITLE	S.H.
CHEM 3719	Organic Chemistry 1	3	1. Ethics Elective 3		
CHEM 3719L	Organic Chemistry 1 Laboratory	1	Select one of the following:		
CHEM 3719R	Organic Chemistry Recitation 1	1	PHIL 1561	Technology and Human Values	
MATH 2673	Calculus 3	4	PHIL 2625	Introduction to Professional Ethics	
PHYS 2610	General Physics 1	4	PHIL 2626	Engineering Ethics	
CHEN 2683	Chemical Engineering Principles 1	3	PHIL 2628	Business Ethics	
CHEN 2650	Computer Methods in Chemical Engineering	2	Select one course from the following:		
Semester Hours		18	2. Chemical Engineering Elective 6		
Spring			Select 2 courses from the following:		
CHEM 3720	Organic Chemistry 2	3	STEM 4890	STEM Internship	
CHEM 3720L	Organic Chemistry 2 Laboratory	1	CHEN 2688	Energy Assessment	
CHEM 3720R	Organic Chemistry Recitation 2	1	CHEN 3700	Measurements and Instrumentation	
MATH 3705	Differential Equations	3	CHEN 4801	Chemical Engineering Projects	
PHYS 2611	General Physics 2	4	CHEN 4840	Biochemical Engineering Fundamentals	
CHEN 2684	Chemical Engineering Principles 2	3	CHEN 5800	Special Topics	
Semester Hours		15	CHEN 5800I	Special Topics Green Engineering	
Year 3			CHEN 5805	Principles of Biomedical Engineering	
Fall			CHEN 5811	Advanced Transport Phenomena	
CHEM 3739	Physical Chemistry 1	3	CHEN 5820	Industrial Pollution Control	
STAT 3743	Probability and Statistics	4	CHEN 5821	Fundamentals of Polymer Science	
CHEN 3771	Chemical Engineering Thermodynamics 1	3	CHEN 5845	Corrosion Engineering	
CHEN 5800A	Special Topics Thermo Dynamics Lab	1	CHEN 5850	Industrial Processes	
CHEN 3786	Transport Phenomena 1	4	CHEN 5883	Mathematical Methods in Chemical Engineering	
Semester Hours		15	CHEN 6981	Advanced Chemical Reaction Engineering	
Spring			Other courses may be used at the discretion of the program coordinator		
GER SS-1 Social Science Elective		3	3. Regulatory Safety Course		
GER GE-2 General Education Elective		3	Choose one of the following:		
Regulatory Safety Course ³		2-3	CHEM 4860	Regulatory Aspects of Industrial Chemistry	
CHEN 3787	Transport Phenomena 2/Unit Operations 1	3	ENST 5810	Environmental Safety	
CHEN 4880	Chemical Reactor Design 1	3	ENST 5860	Environmental Regulations	
CHEN 4880R	Reactor Design Applications	1	ENGR 1500 Engineering Orientation 1 s.h.		
CHEN 3785L	Transport Phenomena Laboratory	1	Introduction to engineering careers and the different engineering disciplines. Academic success strategies and university resources to support student success.		
Semester Hours		16-17	ENGR 1550 Engineering Concepts 2 s.h.		
Year 4			Introduction to the basic skills needed in engineering including engineering computing and an introduction to the engineering design process utilizing science, technology, engineering, and mathematics (STEM) fundamentals. One hour lecture and three hours laboratory per week.		
Fall			Prereq.: Eligibility to take MATH 1513 or higher level math course.		
GER AH-2 Arts and Humanities Elective: Ethics ¹		3	ENGR 1560 Engineering Computing 2 s.h.		
CHEN 3787L	Unit Operations Laboratory 1	1	Computing skills required in engineering. Structured programming. Engineering problems and open ended design projects are solved in teams with results professionally presented. 1.5 hours lecture, 1.5 hours lab.		
CHEN 4815	Unit Operations 2	3	Prereq.: ENGR 1550 or ENGR 1550H.		
CHEN 4815R	Unit Operations 2 Applications	1	Prereq. or Coreq.: MATH 1571 or MATH 1571H or MATH 1585H.		
CHEN 4887	Process and Plant Design 1	3			
CHEN Elective-1 Chemical Engineering Elective ²		3			
Semester Hours		14			
Spring					
GER SS-2 Social Science Elective		3			
GER GE-3 General Education Elective		3			
CHEN 4815L	Unit Operations Laboratory 2	1			
CHEN 4882	Process Dynamics	3			
CHEN 4888	Process and Plant Design 2	3			
CHEN Elective-2 Chemical Engineering Elective ²		3			
Semester Hours		16			
Total Semester Hours		128-131			

Note: Transfer students from any two- or four-year academic program at other institutions or at this University who wish to pursue studies in chemical engineering should consult with the program coordinator for individual

CHEM 1515 General Chemistry 1 3 s.h.

An introduction to the fundamental principles of chemistry, including measurement and calculation; chemical stoichiometry; the properties of gases; atomic and molecular structure; bonding; thermochemistry; and periodic properties. Intended for majors in the natural sciences and engineering. Three hours lecture.

Prereq.: "C" or better in CHEM 1501 or equivalent; "C" or better in MATH 1513 or "C" or better in MATH 1510.

Coreq.: CHEM 1515L; CHEM 1515R if major or repeating CHEM 1515.

Gen Ed: Natural Science.

CHEM 1515L General Chemistry 1 Laboratory 1 s.h.

Quantitative experiments focusing on topics covered in CHEM 1515 lectures. Three hours lab.

Prereq.: "C" or better in CHEM 1501 or equivalent; "C" or better in MATH 1513 or "C" or better in MATH 1510.

Coreq.: CHEM 1515.

CHEM 1516 General Chemistry 2 3 s.h.

A continuation of the study of the principles of chemistry, including solution properties; acids and bases; chemical equilibrium; thermodynamics; reaction kinetics; and electrochemistry. Intended for majors in the natural sciences and engineering. Three hours lecture.

Prereq.: "C" or better in CHEM 1515 and "C" or better in CHEM 1515L.

Coreq.: CHEM 1516L; CHEM 1516R if major or repeating CHEM 1516.

Gen Ed: Natural Science.

CHEM 1516L General Chemistry 2 Laboratory 1 s.h.

Quantitative experiments focusing on topics covered in CHEM 1516 lectures. Three hours lab.

Prereq.: "C" or better in CHEM 1515L; "C" or better in CHEM 1515.

Coreq.: CHEM 1516.

CHEM 3719 Organic Chemistry 1 3 s.h.

Organic compounds, names, structures, reactions, and mechanisms. Three hours lecture.

Prereq.: "C" or better in CHEM 1516 and "C" or better in CHEM 1516L.

Coreq.: CHEM 3719L.

CHEM 3719L Organic Chemistry 1 Laboratory 1 s.h.

Typical techniques, preparations, and procedures of analysis of organic compounds. Three hours lab.

Prereq.: "C" or better in CHEM 1516 and "C" or better in CHEM 1516L.

Coreq.: CHEM 3719.

CHEM 3720 Organic Chemistry 2 3 s.h.

Organic compounds, names, structures, spectroscopic properties, reactions, and mechanisms. Three hours lecture.

Prereq.: "C" or better in CHEM 3719 and "C" or better in CHEM 3719L.

Coreq.: CHEM 3720L.

CHEM 3720L Organic Chemistry 2 Laboratory 1 s.h.

Typical techniques, preparations, and procedures of spectroscopic analysis of organic compounds. Three hours lab.

Prereq.: "C" or better in CHEM 3719 and "C" or better in CHEM 3719L.

Coreq.: CHEM 3720.

CHEM 3739 Physical Chemistry 1 3 s.h.

Principles and applications of thermodynamics and kinetics to chemical systems.

Prereq.: "C" or better in CHEM 3720, PHYS 2610, MATH 1572.

CHEM 4860 Regulatory Aspects of Industrial Chemistry 2 s.h.

Roles and responsibilities of industrial chemists. Industrial hygiene and safety. Industrial chemical processes, their waste products, their environmental effects, and the treatment of pollutants. Governmental regulations relating to waste disposal, product safety, occupational safety, resource conservation, environmental protection, and problems of awareness and compliance.

Prereq.: CHEM 3720.

MATH 1571 Calculus 1 4 s.h.

This course is an introduction to calculus. The main concepts to be studied are limits, continuity, rates of change, derivatives, integrals and applications.

Prereq.: At least Level 70 on the YSU Mathematics Placement Test or C or better in either MATH 1510 and MATH 1511, MATH 1510C and MATH 1511C, or MATH 1513.

Gen Ed: Mathematics.

MATH 1572 Calculus 2 4 s.h.

A sequence of integrated courses in analytic geometry and calculus. A detailed study of limits, derivatives, and integrals of functions of one and several variables with applications.

Prereq.: C or better in MATH 1571, MATH 1571H, MATH 1581, MATH 1581H, or MATH 1585H.

MATH 2673 Calculus 3 4 s.h.

A sequence of integrated courses in analytic geometry and calculus. A detailed study of limits, derivatives, and integrals of functions of one and several variables with applications.

Prereq.: MATH 1572 with a "C" or better.

MATH 3705 Differential Equations 3 s.h.

Methods and theory of solving differential equations with applications.

Existence, uniqueness. First order equations. Higher order linear equations.

Introduction to partial differential equations and boundary value problems, including Laplace's equation.

Prereq.: C or better in one of MATH 2673, MATH 2673H, or MATH 2686H.

STAT 3743 Probability and Statistics 4 s.h.

A calculus-based probability and statistics course. Topics include descriptive statistics, probability models and related concepts and applications, statistical estimation, and hypothesis testing. Credit will not be given for both STAT 3717 and STAT 3743.

Prereq.: "C" or better in MATH 1572, MATH 1572H, MATH 1581, MATH 1581H or MATH 1585H.

PHYS 2610 General Physics 1 4 s.h.

A course in mechanics; the kinematics and dynamics of masses in translation and rotation; Newton's Laws; gravity; the conservation laws of energy and momentum; simple harmonic motion and introduction to wave motion and sound.

Prereq.: High school physics or PHYS 1501.

Prereq. or Coreq.: MATH 1571.

Gen Ed: Natural Science.

PHYS 2611 General Physics 2 4 s.h.

Study of electric and magnetic fields and their effects; introduction to electric circuits; light as an electromagnetic wave; introduction to geometrical and physical optics.

Prereq.: PHYS 2610.

Prereq. or Coreq.: MATH 1572.

Gen Ed: Natural Science.

CHEN 2650 Computer Methods in Chemical Engineering 2 s.h.

Application of computational software packages and spreadsheets to solve chemical engineering problems. Utilization of process simulation packages. Real-time computing applications in laboratory automation.

Prereq.: ENGR 1550, ENGR 1550H or consent of instructor.

CHEN 2683 Chemical Engineering Principles 1 3 s.h.

Engineering units and dimensions. Hydrostatics. Material balances for non-reacting and reacting processes. Ideal and non-ideal gas relationships. Ideal multi-phase equilibrium calculations.

Prereq.: MATH 1571, MATH 1571H or MATH 1585H, CHEM 1515.

CHEN 2684 Chemical Engineering Principles 2 3 s.h.

Energy balances on reacting and non-reacting processes. Utilization of energy balances on multi-phase processes. Mass and energy balances on transient processes.

Prereq.: CHEN 2683.

CHEN 3771 Chemical Engineering Thermodynamics 1 3 s.h.

Development of the concepts and formalisms of thermodynamics and their applications to chemical engineering systems. Real and ideal behavior of single and multicomponent systems. Introduction to the thermodynamics of phase equilibria. Analysis and design of thermal systems. Additional topics include applications in transport phenomena and plant design.

Prereq.: MATH 2673 or MATH 2686H and CHEN 2684.

CHEN 3786 Transport Phenomena 1 4 s.h.

Mathematical formulation of conversion laws. Dimensional analysis. Mechanism and fundamentals of momentum and energy transfer with selected applications to analysis and design of chemical engineering equipment. Three hours lecture and three hours computational lab per week.

Prereq.: MATH 2673 or MATH 2686H and CHEN 2684.

CHEN 3785L Transport Phenomena Laboratory 1 s.h.

Experimental studies of transport properties and momentum, energy and mass transfer using industrial type equipment. Correlation of data and comparison with theory. Oral presentations and preparation of technical reports. Three hours laboratory.

Prereq.: CHEN 3786 or concurrent.

CHEN 3787 Transport Phenomena 2/Unit Operations 1 3 s.h.

Mass transfer processes. Diffusional operations and separation processes with emphasis on evaporation, humidification and drying. Derivation of design equations from mass and energy balances, and application to equipment design. Solution of simultaneous differential equations of mass, momentum, and energy.

Prereq.: CHEN 3786.

CHEN 3787L Unit Operations Laboratory 1 1 s.h.

Experiments in absorption, cascade operations, reaction kinetics, mixing and other chemical engineering operations employing industrial and pilot plant size equipment and instrumentation. Treatment of experimental data, correlations and comparison with theory. Oral presentations and preparation of technical reports. Three hour laboratory.

Prereq.: CHEN 3787.

CHEN 4815 Unit Operations 2 3 s.h.

Gas absorption and desorption, interphase mass transfer processes, liquid extraction and leaching. Physical separation processes including filtration, settling, and size reduction. Derivation of the design equations for the above processes, and applications of the design equations to equipment design.

Prereq.: CHEN 3787.

CHEN 4815R Unit Operations 2 Applications 1 s.h.

Utilizing computer programs for gas absorption and desorption, interphase mass transfer processes, liquid extraction and leaching. Includes applications of the design equations to equipment design.

Prereq.: CHEN 3787.

CHEN 4815L Unit Operations Laboratory 2 1 s.h.

Experiments in absorption, cascade operations, reaction kinetics, mixing and other chemical engineering operations employing industrial and pilot plant size equipment and instrumentation. Treatment of experimental data, correlations and comparison with theory. Oral presentations and preparation of technical reports. Three hour laboratory.

Prereq.: CHEN 4815.

CHEN 4880 Chemical Reactor Design 1 3 s.h.

Chemical reaction equilibria. Theoretical developments and methods of interpreting experimental data pertaining to chemical kinetics. General design principles and construction features of reactors with application of these principles to the design of specific reactors.

Prereq.: CHEN 3771.

CHEN 4880R Reactor Design Applications 1 s.h.

Utilizing computer programs for determination of chemical reaction equilibria, chemical kinetics, and designing reactors.

Prereq.: CHEN 3771.

CHEN 4882 Process Dynamics 3 s.h.

Introduction to automatic control and control loop concepts. Laplace transform techniques. Linear open-loop and closed-loop systems. Root-locus and frequency response methods. Design of control systems.

Prereq.: CHEN 3786.

CHEN 4887 Process and Plant Design 1 3 s.h.

An examination of engineering economic analysis to include: cost estimation, profitability, optimum design, principles of fixed and operating costs, materials and site selection, and general and specialized design techniques.

Prereq.: CHEN 3787 Minimum grade of C, CHEN 4880 Minimum grade of C and unrecalculated GPA of 2.0 or better in major courses.

CHEN 4888 Process and Plant Design 2 3 s.h.

The application of chemical engineering and cost principles to the component design and selection of process equipment. The application of chemical engineering and cost principles to the design of chemical plants and processes including societal aesthetic, environmental, and safety considerations.

Prereq.: CHEN 4887 minimum grade of C.

Gen Ed: Capstone.

Student Outcomes

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

Bachelor of Engineering in Chemical Engineering, 4+ 1 Graduate Track

Introduction

The Chemical Engineering Program at Youngstown State University--supplemented with courses in chemistry, physics, mathematics, and general engineering--provides a broad preparation for design, operation, and management in the chemical, biomedical, biological, nuclear, pharmaceutical, and energy-conversion industries, as well as graduate study leading to research positions in industry and government and to academic careers.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Gen Ed Math met in major		
Natural Science (7 s.h.)		

CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics Laboratory 1	1
Arts and Humanities (6 s.h. select one course)		3
PHIL 2626	Engineering Ethics	3
Social Science (6 s.h. select one course)		3
ECON 2610	Principles 1: Microeconomics	3
General Education Elective (9 s.h. select 2 courses)		6
CMST 1545	Communication Foundations	3
Major Requirements		
ECEN 1521	Digital Circuits	3
ECEN 1521L	Digital Circuits Laboratory	1
ECEN 2611	Instrumentation and Computation Lab 1	1
ECEN 2612	Instrumentation and Computation Lab 2	1
ECEN 2632	Basic Circuit Theory 1	3
ECEN 2633	Basic Circuit Theory 2	3
ECEN 3710	Signals and Systems	3
ECEN 3711	Intermediate Laboratory 1	1
ECEN 3712	Intermediate Laboratory 2	1
ECEN 3733	Digital Circuit Design	3
ECEN 3741	Electromagnetic Fields 1	3
ECEN 3742	Electromagnetic Fields 2	3
ECEN 3771	Digital and Analog Circuits 1	3
ECEN 3772	Digital and Analog Circuits 2	3
ECEN 4803	Linear Control Systems	3
ECEN 4803L	Linear Control Systems Laboratory	1
ECEN 4811	Senior Laboratory	1
ECEN 4844	Electromagnetic Energy Conversion	3
ENGR 1500	Engineering Orientation	1
ECEN 4899	Senior Design Project	3
ECEN 4899L	Senior Design Project Lab	1
ENGR 1550	Engineering Concepts	2
ENGR 1560	Engineering Computing	2
MECH 2620	Statics and Dynamics	3
ISEN 2610	Engineering Statistics	3
PHYS 3705	Thermodynamics and Classical Statistical Dynamics	3
CSIS 2610	Programming and Problem-Solving	3
CSIS 2610L	Programming and Problem-Solving Lab	1

Dual Credit Requirements

Select 9 s.h. of 5800 or 6900 level or higher CSCI/ECEN electives below

ECEN 5800	Special Topics	9
ECEN 5808	Advanced Signals and Systems	
ECEN 5830	Digital Signal Processing	
ECEN 5835	Computer Architecture with VHDL	
ECEN 5840	Electric Power Systems	
ECEN 5860	Fundamental of Antenna Design and Application	
ECEN 5890	Power Electronics	
ECEN 6900	Seminar	
ECEN 6901	Control Systems 1	
ECEN 6902	Control Systems 2	
ECEN 6933	Digital Systems: VHDL Design	
ECEN 6934	Digital Systems: Computer Arithmetic	

Mathematics Minor -one course counts toward Gen Ed

MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4

MATH 3705	Differential Equations	3
MATH 3718	Linear Algebra and Discrete Mathematics for Engineers	3

Total Semester Hours 126-128**Course List****Dual Credit Requirements****Accelerated 4+1 Program**

Undergraduate Chemical Engineering students can apply for admission into the accelerated 4+1 MSE in Chemical Engineering graduate program after completing 78 undergraduate semester hours with a GPA of 3.3 or higher. After being admitted to the accelerated 4+1 MSE program, students will be allowed a maximum of nine semester hours of graduate coursework, specified as 5000 level or higher, to be double counted toward both a bachelor's and master's degrees. The courses chosen to count for both undergraduate and graduate coursework must be approved by the Graduate Program Director. An additional three hours of graduate coursework can be completed as an undergraduate and used exclusively for graduate credit. This allows the student to graduate with a master's degree with one year of additional full-time study beyond the bachelor's degree, as the total hours counted towards the Master's degree is greater than or equal to 30 hours.

Courses Counting Towards Requirements

Select 3 of these courses, as only 3 can be double counted. Can select a 4th that would only count for the Master's degree.

Year 1**Fall**

YSU 1500	Success Seminar	S.H.
or YSU 1500S	or Youngstown State University Success Seminar	1-2
or HONR 1500	or Intro to Honors	

ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	

ENGR 1500	Engineering Orientation	1
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ENGR 1550	Engineering Concepts	2
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CHEM 1515	General Chemistry 1	3
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CHEM 1515L	General Chemistry 1 Laboratory	1
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MATH 1571	Calculus 1	4
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GER AH-1 Arts and Humanities Elective		3
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Semester Hours 18-20**Spring**

ENGL 1551	Writing 2	3
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ENGR 1560	Engineering Computing	2
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GER GE-1 CMST 1545 Communication Foundations		3
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CHEM 1516	General Chemistry 2	3
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CHEM 1516L	General Chemistry 2 Laboratory	1
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MATH 1572	Calculus 2	4
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Semester Hours 16**Year 2****Fall**

CHEM 3719	Organic Chemistry 1	3
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CHEM 3719L	Organic Chemistry 1 Laboratory	1
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CHEM 3719R	Organic Chemistry Recitation 1	1
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MATH 2673	Calculus 3	4
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PHYS 2610	General Physics 1	4
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CHEN 2683	Chemical Engineering Principles 1	3
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CHEN 2650	Computer Methods in Chemical Engineering	2
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Semester Hours 18

Spring

CHEM 3720	Organic Chemistry 2	3
CHEM 3720L	Organic Chemistry 2 Laboratory	1
CHEM 3720R	Organic Chemistry Recitation 2	1
MATH 3705	Differential Equations	3
PHYS 2611	General Physics 2	4
CHEN 2684	Chemical Engineering Principles 2	3

Semester Hours	15
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Year 3**Fall**

CHEM 3739	Physical Chemistry 1	3
STAT 3743	Probability and Statistics	4
CHEN 3771	Chemical Engineering Thermodynamics 1	3
CHEN 5800A	Special Topics Thermo Dynamics Lab	1
CHEN 3786	Transport Phenomena 1	4

Semester Hours	15
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Spring

GER SS-1 Social Science Elective		3
GER GE-2 General Education Elective		3
CHEN 3787	Transport Phenomena 2/Unit Operations 1	3
CHEN 4880	Chemical Reactor Design 1	3
Regulatory Safety Course ³		2-3
CHEN 4880R	Reactor Design Applications	1
CHEN 3785L	Transport Phenomena Laboratory	1

Semester Hours	16-17
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Year 4**Fall**

GER AH-2 Arts and Humanities Elective: Ethics ¹		3
CHEN 3787L	Unit Operations Laboratory 1	1
CHEN 4815	Unit Operations 2	3
CHEN 4815R	Unit Operations 2 Applications	1
CHEN 4887	Process and Plant Design 1	3
CHEN Elective-1 Chemical Engineering Elective ²		3

Semester Hours	14
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Spring

GER SS-2 Social Science Elective		3
GER GE-3 General Education Elective		3
CHEN 4815L	Unit Operations Laboratory 2	1
CHEN 4882	Process Dynamics	3
CHEN 4888	Process and Plant Design 2	3
CHEN Elective-2 Chemical Engineering Elective ²		3

Semester Hours	16
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Total Semester Hours	128-131
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Note: Transfer students from any two- or four-year academic program at other institutions or at this University who wish to pursue studies in chemical engineering should consult with the program coordinator for individual counseling to develop a program of study that fully uses their educational background and requires a minimum of time to satisfy the requirements for the degree of Bachelor of Engineering in chemical engineering.

COURSE	TITLE	S.H.
1. Ethics Elective		3
Select one of the following:		
PHIL 1561	Technology and Human Values	
PHIL 2625	Introduction to Professional Ethics	
PHIL 2626	Engineering Ethics	
PHIL 2628	Business Ethics	

2. Chemical Engineering Elective**6**

Select 2 courses from the following:

Can select 3 from this list, over the 5000 level, to double count towards Bachelor's and Master's, after acceptance into the MSE program. Can select a 4th that counts only towards Master's Degree.

STEM 4890	STEM Internship
CHEN 2688	Energy Assessment
CHEN 3700	Measurements and Instrumentation
CHEN 4801	Chemical Engineering Projects
CHEN 4840	Biochemical Engineering Fundamentals
CHEN 5800	Special Topics
CHEN 5800I	Special Topics Green Engineering
CHEN 5805	Principles of Biomedical Engineering
CHEN 5811	Advanced Transport Phenomena
CHEN 5820	Industrial Pollution Control
CHEN 5821	Fundamentals of Polymer Science
CHEN 5845	Corrosion Engineering
CHEN 5850	Industrial Processes
CHEN 5883	Mathematical Methods in Chemical Engineering
CHEN 6981	Advanced Chemical Reaction Engineering

Other courses may be used at the discretion of the program coordinator

3. Regulatory Safety Course

Choose one of the following:

CHEM 4860	Regulatory Aspects of Industrial Chemistry	2
ENST 5810	Environmental Safety	3
ENST 5860	Environmental Regulations	3

Total Semester Hours	17
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Student Outcomes

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

Bachelor of Engineering in Civil Engineering

Welcome from the Program Coordinator

Civil engineers are responsible for planning, designing, and supervising construction of infrastructure including buildings, bridges, highways, levees, dams, drinking water and wastewater treatment facilities, ports, railroads, airports, etc. The undergraduate program in Civil Engineering (CE) at YSU offers a Bachelor of Engineering (B.E.) in Civil Engineering degree through an ABET accredited [curriculum designed for students to graduate](#) in four years. Students receive a fundamental background in math and science to

prepare for core courses in civil engineering. **Our students** learn not only from faculty lectures, but also gain real-world experience through participating in co-ops/internships, undergraduate research, laboratory activities, concrete canoe and steel bridge competitions.

Civil engineers make the world a better place. With that philosophy in mind, we educate our students to undertake challenging civil engineering jobs and leadership roles in building our community and infrastructure. At the time of graduation, our students are well-prepared to enter the workforce in all five sub-disciplines of civil engineering including structural, transportation, geotechnical, water resources, and environmental. Faculty members have the highest degree in their respective sub-disciplines and the professional engineering licensure that requires them to remain active in the profession through continuing education.

Our CE students engage in real-world projects through **participating in** various activities of the ASCE Student Chapter at YSU. They design and build steel bridges and concrete canoes from scratch every year, and compete in the regional and national competitions. YSU Steel Bridge team ranked second in the 2023 National Student Steel Bridge Competition, and the Concrete Canoe Team also ranked second in the 2023 National Concrete Canoe Competition. Moreover, our CE students have plenty of networking opportunities through active participation in the chapter activities, internships and co-ops.

For more information **about the CE program at YSU**, please contact:

Anwarul Islam, PhD, PE, FASCE

Professor and Program Coordinator

Civil Engineering

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Mission

The mission of the Civil Engineering program is to:

1. offer high-quality bachelor's degree in civil engineering that encompasses basic engineering sciences, as well as both traditional and emerging areas of the discipline;
2. prepare graduates to adapt to global and domestic engineering challenges and changing industry practices;
3. foster student-faculty relationships that enrich teaching and learning, develop scholarship, and encourage public service;
4. maintain an academic structure characterized by integrity, and by respect for students, society, the environment, and the civil engineering profession;
5. prepare graduates for, and facilitate, lifelong intellectual and professional development; and
6. contribute to economic prosperity of the region, state, and nation by enhancing the size and competitiveness of the civil engineering workforce.

Program Educational Objectives

The Civil Engineering program will provide graduates with the foundation of knowledge and skills necessary for productive and rewarding careers. The program prepares graduate to achieve the following program educational objectives within a few years after graduation:

1. Perform essential functions on multidisciplinary teams in their professional careers in civil engineering.
2. Demonstrate necessary communication, management, leadership, and interdisciplinary technical skills to excel in engineering and non-engineering sectors.

3. Continue their intellectual, social, and professional growth through lifelong learning and advanced degrees;
4. Obtain professional engineering licensure.

Student Outcomes

The YSU undergraduate program in Civil Engineering adopted the following student outcomes that prepare its graduates to attain the program educational objectives listed above. At the time of graduation, the program graduates should have:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. an ability to communicate effectively with a range of audiences.
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Program Description and Accreditation

In the first two years into the program, students take coursework in the fundamentals of engineering, mathematics and basic science in order to strengthen their technical background and develop intellectual maturity. They continue in a broad-based civil engineering program that helps them develop competency in a variety of areas within the discipline. Topics include structural, geotechnical, transportation, environmental, and water resources engineering, as well as surveying and construction management. In their last two years, students choose elective courses in various sub-disciplines of civil engineering based on their academic and career interests.

Instruction on the design process is fully integrated throughout the curriculum to foster the depth of understanding and self-confidence that students will need to think creatively and become productive engineers. The curriculum is based on the fundamental concept that students can best develop their creative skills through a series of progressively more demanding design experiences leading up to a major, comprehensive senior-level complex engineering design project.

Students in the CE program earn a Bachelor of Engineering in Civil Engineering degree. Graduates are prepared for advanced studies at the master's and doctoral levels in engineering, or for employment in the engineering profession.

The CE program offers the atmosphere of a small school in maintaining a close contact between faculty and students. Faculty members and staff serve as academic advisors and are engaged in all phases of instruction from freshman to graduation. All **facilities of the** CE program are located within Moser Hall. The program maintains laboratories for strength of materials, concrete testing, soil mechanics, surveying, environmental engineering, and fluid mechanics. A wide variety of equipment is available in these laboratories to support both teaching and research activities.

The YSU undergraduate program in Civil Engineering has been accredited by the Engineering Accreditation Commission of ABET, <https://www.abet.org> (<http://www.abet.org>), under the commission's General Criteria and Program Criteria for Civil and Similarly Named Engineering Programs.

Civil Engineering Faculty

Anwarul Islam, PhD, PE, FASCE

Professor and Program Coordinator

Structural Health Monitoring using Artificial Intelligence and Wireless Sensors

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Environmental Engineering, Fate and Transport of Selenium

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John DeSantis, PhD

Assistant Professor

Transportation Engineering, Concrete Pavements and Overlays

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Ronghuan Xu, PhD

Assistant Professor

Geotechnical Engineering, Soil Dynamics

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Co-ops/Internships in Civil Engineering

The Civil Engineering program strongly encourages its students to participate in co-ops and internships. A co-op is defined as a structured developmental program with increasing responsibilities in a full time position. An internship is a project-specific learning program that lasts several weeks to a semester. Students can work full-time or part-time as an intern while attending classes. Appropriate academic credits are awarded for both co-ops and internships, **although those credits** are not counted towards the B.E. in Civil Engineering degree. Students should register with the STEM Professional Services office in order to participate in co-ops and internships.

For more information on co-ops and internships, contact Dr. Anwarul Islam, Professor and Program Coordinator of Civil Engineering.

COURSE	TITLE	S.H.
First Year Requirement - Student Success		
YSU 1500	Success Seminar	1-2
or HONR 1500	Intro to Honors	
or YSU 1500S	Youngstown State University Success Seminar	
General Education Requirements		
ENGL 1550	Writing 1	3-4

or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Mathematics requirement (met with MATH in major)		
Select one Arts and Humanities:		3
PHIL 2625	Introduction to Professional Ethics	
PHIL 2626	Engineering Ethics	
PHIL 2628	Business Ethics	
Arts and Humanities (Select 1 course)		3
Natural Science (met with CHEM and PHYS required for major)		
Social Sciences (6 S.H., Select 2 courses)		6
General Education Electives (6 S.H., Select 2 courses)		6
Civil Engineering Courses		
CEEN 2601	Statics	3
CEEN 2602	Strength of Materials	3
CEEN 2602L	Strength of Materials Lab	1
CEEN 2610	Surveying	3
CEEN 2610L	Surveying Laboratory	1
CEEN 2660	Computer Aided Design and Drafting	2
CEEN 3716	Fluid Mechanics	3
CEEN 3716L	Fluid Mechanics Lab	1
CEEN 3717	Hydraulic Design	4
CEEN 3720	Transportation Engineering	3
CEEN 3736	Fundamentals of Environmental Engineering	3
CEEN 3749	Structural Analysis 1	3
CEEN 3749L	Structural Analysis 1 Lab	1
CEEN 4812	Construction Management	3
CEEN 4863	Integrated Design Project	3
CEEN 4881	Geotechnical Engineering	3
CEEN 4881L	Geotechnical Lab	1
CEEN 5855	Reinforced Concrete Design	3
CEEN 5856	Steel Design	3
CEEN Elective 1: Must be a design elective. Select one course.		3
CEEN 4835	Highway Design	
CEEN 5820	Pavement Material and Design	
CEEN 5837	Environmental Engineering Design	
CEEN 5869	Design of Air Pollution Control Systems	
CEEN 5882	Foundation Engineering	
CEEN 5883	Bridge Engineering	
CEEN Electives 2 & 3: Select two courses.		6
CEEN 3751 & 3751L	Water Quality Analysis and Water Quality Analysis Lab	
CEEN 4835	Highway Design	
CEEN 4879	Civil Engineering Analysis	
CEEN 5820	Pavement Material and Design	
CEEN 5829	Civil Engineering Materials - Concrete	
CEEN 5832	Natural Systems Engineering	
CEEN 5836	Environmental Water Chemistry	
CEEN 5837	Environmental Engineering Design	
CEEN 5849	Structural Analysis 2	
CEEN 5869	Design of Air Pollution Control Systems	
CEEN 5877	Systems Engineering and Project Management	
CEEN 5880	Advanced Hydraulics	
CEEN 5882	Foundation Engineering	
CEEN 5883	Bridge Engineering	
CEEN 5884	Solid and Hazardous Waste Management	
General Engineering Courses		

ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
ENGR 1560	Engineering Computing	2
Engineering Fundamentals Courses		
MECH 2641	Dynamics	3
ISEN 2624	Engineering Economy	3
Mathematics/Statistics Courses		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
MATH 3705	Differential Equations	3
ISEN 2610	Engineering Statistics	3-4
or STAT 3743	Probability and Statistics	
Basic Science Courses		
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
PHYS 2610	General Physics 1	4
GEOL 2611	Geology for Engineers	3
or BIOL 2601	General Biology 1: Molecules and Cells	
CHEM 1516	General Chemistry 2	4
& 1516L	and General Chemistry 2 Laboratory	
or PHYS 2611	General Physics 2	
Total Semester Hours		128-131

Four-year Plan

Year 1

Fall			S.H.
YSU 1500	Success Seminar	1-2	
or YSU 1500S	or Youngstown State University Success Seminar		
or HONR 1500	or Intro to Honors		
ENGL 1550	Writing 1	3-4	
or ENGL 1549	or Writing 1 with Support		
CHEM 1515	General Chemistry 1	4	
& 1515L	and General Chemistry 1 Laboratory		
ENGR 1500	Engineering Orientation	1	
ENGR 1550	Engineering Concepts	2	
MATH 1571	Calculus 1	4	
PHIL 2625	Introduction to Professional Ethics	3	
or PHIL 2626	or Engineering Ethics		
or PHIL 2628	or Business Ethics		
Semester Hours		18-20	
Spring			
ENGL 1551	Writing 2	3	
ENGR 1560	Engineering Computing	2	
MATH 1572	Calculus 2	4	
CMST 1545	Communication Foundations	3	
GER AH-2: Arts & Humanities		3	
Semester Hours		15	
Year 2			
Fall			
MATH 2673	Calculus 3	4	
CEEN 2601	Statics	3	
CEEN 2610	Surveying	3	
CEEN 2610L	Surveying Laboratory	1	
PHYS 2610	General Physics 1	4	
Semester Hours		15	

Spring		
MATH 3705	Differential Equations	3
CEEN 2602	Strength of Materials	3
CEEN 2602L	Strength of Materials Lab	1
GEOL 2611	Geology for Engineers	3
or BIOL 2601	or General Biology 1: Molecules and Cells	
CEEN 2660	Computer Aided Design and Drafting	2
PHYS 2611	General Physics 2	4
or CHEM 1516	or General Chemistry 2 and General Chemistry 2 Laboratory	
and		
CHEM 1516L		
Semester Hours		16

Year 3

Fall		
CEEN 3716	Fluid Mechanics	3
CEEN 3716L	Fluid Mechanics Lab	1
CEEN 3720	Transportation Engineering	3
CEEN 3736	Fundamentals of Environmental Engineering	3
CEEN 3749	Structural Analysis 1	3
CEEN 3749L	Structural Analysis 1 Lab	1
Semester Hours		14

Spring

CEEN Elective-1: CE Elective		3
CEEN 3717	Hydraulic Design	4
CEEN 4881	Geotechnical Engineering	3
CEEN 4881L	Geotechnical Lab	1
ISEN 2610	Engineering Statistics	3-4
or STAT 3743	or Probability and Statistics	
Semester Hours		14-15

Year 4

Fall		
CEEN 4812	Construction Management	3
CEEN 5855	Reinforced Concrete Design	3
CEEN 5856	Steel Design	3
CEEN Elective-2: CE Design Elective		3
ISEN 2624	Engineering Economy	3
Semester Hours		15

Spring

CEEN 4863	Integrated Design Project	3
CEEN Elective-3: CE Elective. May substitute with approval of CE Program Coordinator.		3
MECH 2641	Dynamics	3
GER SS-1: Social Sciences		3
GER SS-2: Social Sciences		3
Semester Hours		15
Total Semester Hours		122-125

Student Outcomes

The YSU undergraduate program in Civil Engineering adopted the following student outcomes that prepare its graduates to attain the program educational objectives listed above. At the time of graduation, the program graduates should have:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors

3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

CEEN 2601 Statics 3 s.h.

Principles of engineering mechanics as applied to statics with vector applications to forces and moments; centroid and center of gravity; equilibrium; friction; moments of inertia: relationship between loads, stress and strain in tension, compression, torsion and bending.

Prereq.: MATH 1572 or MATH 1572H; PHYS 2610 or concurrent.

CEEN 2602 Strength of Materials 3 s.h.

Relationships between loads, shear and bending moments in beams; combined stresses in beams; indeterminate beam analysis; virtual load; connections; columns.

Prereq.: CEEN 2601.

CEEN 2602L Strength of Materials Lab 1 s.h.

Experimental verification of strength of materials; testing: tension, torsion, non-destructive tests of steel; concrete compression and Poisson ration, wood tests.

Coreq.: CEEN 2602.

CEEN 2610 Surveying 3 s.h.

The theory of surveying and the use of instruments. Problems in leveling, traversing, and topography. Introduction to circular and vertical curves.

Prereq.: MATH 1513 or equivalent.

CEEN 2610L Surveying Laboratory 1 s.h.

Field surveying principles and techniques. Uses of transit and level are stressed. Three laboratory hours per week.

Coreq.: CEEN 2610.

CEEN 2660 Computer Aided Design and Drafting 2 s.h.

This course is designed for students who wish to be involved with the civil engineering design fields and for those interested in computer aided design and drafting. Students will be introduced to both traditional and computer aided design and drafting skills. The aim of this course is to introduce students to basic information, skills, and concepts related to drafting and design. Special attention is given to: sketching, measurement, room planning, multi-view drawing, auxiliary views, working drawings, sectional views, orthographic drawings along with AutoCAD tools and commands. The course includes 1 s.h. lecture and 1 s.h. lab.

CEEN 3710 Civil Engineering Materials 3 s.h.

A study of the principal materials used for civil engineering and construction purposes, with special attention paid to physical and mechanical properties of the materials and their importance to the engineer.

Prereq.: CEEN 2602.

CEEN 3711 Technology and Society 3 s.h.

A critical exploration of how societal needs affect the creation of technologies and how technology affects society. The course is interdisciplinary in nature and presents various approaches to examining the complex interaction between humans and their tools. Topics include: (1) technology in human history; (2) society, science, and technology development; (3) technology and social change; (4) technology, knowledge, and power; (5) technology, population, and the environment. Listed also as SOC 3789.

Prereq.: Junior standing or consent of instructor.

CEEN 3716 Fluid Mechanics 3 s.h.

Proportions of fluids, fluid statics, kinematics; Bernoulli equation; fluid momentum; laminar and turbulent flow through simple pipes; boundary layers; dimensional analysis and similitude.

Prereq.: CEEN 2602.

CEEN 3716L Fluid Mechanics Lab 1 s.h.

Experimental verification of the principles of fluid mechanics as applied to incompressible fluid. Three hours laboratory per week.

Prereq.: CEEN 2602.

Coreq.: CEEN 3716.

CEEN 3717 Hydraulic Design 4 s.h.

Analysis of flow in complex pipe systems; pumps; open channel flow; culverts; spillways; storm water drainage. Three hours lecture and three hours of computational laboratory per week.

Prereq.: CEEN 2610 and CEEN 3716.

CEEN 3720 Transportation Engineering 3 s.h.

Introductory survey of transportation topics including transportation systems, vehicular operation and control, and transportation planning techniques; introduction to design of highways, airports, and railroads; and traffic engineering.

Prereq.: CEEN 2610.

CEEN 3736 Fundamentals of Environmental Engineering 3 s.h.

Causes and effects of water, air and land pollution; measurements of environmental quality; environmental regulations; introduction to methods of pollution control.

Prereq.: CHEM 1515.

CEEN 3749 Structural Analysis 1 3 s.h.

The determination of shears, moments, and stresses in statically determinate beams, frames, and trusses. Consideration of dead, live, moving, and wind loads. Elastic deflections of simple structures. Introduction to the analysis of statically indeterminate structures using numerical and energy methods.

Prereq.: CEEN 2602.

CEEN 3749L Structural Analysis 1 Lab 1 s.h.

Introduction to stiffness-based analysis of determinate and indeterminate structures. Computer analysis of various structural systems, including plane and space trusses, continuous beams, plane and space frames, plates. P-delta stability analysis of frames. Three hours computational lab per week.

Prereq.: CEEN 2602; concurrent with CEEN 3749.

CEEN 3751 Water Quality Analysis 3 s.h.

Introduction to physical, chemical, and biological measurements of water quality. Sample collection and laboratory analysis of natural waters, drinking water, and wastewater. Interpretation of environmental data. Two hours lecture and three hours laboratory per week. Identical to ENST 3751.

Prereq.: CEEN 3736 or ENST 2600; CHEM 1515.

CEEN 3751L Water Quality Analysis Lab 0 s.h.

Laboratory experience in the analysis of natural waters, drinking water and wastewater. Emphasizes procedures for the collection and interpretation of data on current environmental problems. Three hours laboratory per week. Must be taken concurrently with CEEN 3751.

CEEN 4800 Special Topics 3 s.h.

Special topics and new developments in Civil Engineering. Subject matter, credit hours, and special prerequisites to be announced in advance of each offering. May be repeated to a maximum of 6 s.h.

Prereq.: Senior standing or consent of instructor.

CEEN 4812 Construction Management 3 s.h.

Fundamentals of construction management: contracts, bonding, estimating, organization, finance; cost and productivity of equipment, material, and labor; and project planning and scheduling.

Prereq.: CEEN 3717 or CEEN 4881.

CEEN 4835 Highway Design 3 s.h.

Methods of highway route location; design methods and standards for highways, intersections, freeways, and interchanges. Includes extensive use of computer-aided design.

Prereq.: CEEN 3720.

CEEN 4863 Integrated Design Project 3 s.h.

Students will be required to complete a culminating design experience that focuses attention on professional practice and is predicated on the accumulated background of curriculum components. Three hours of lecture.

Prereq.: CEEN 5855 and GPA of 2.0 or better.

Coreq.: CEEN 4863L.

CEEN 4863L Integrated Design Project Lab 1 s.h.

Students will be required to complete a meaningful design experience that focuses attention on professional practice and is predicated on the accumulated background of curriculum components. Three hours of laboratory a week. **Coreq.:** CEEN 4863. 0.

CEEN 4879 Civil Engineering Analysis 3 s.h.

Application of mathematical and numerical methods to the systematic analysis and development of problems in the field of Civil Engineering.

Prereq.: CEEN 3749.

CEEN 4881 Geotechnical Engineering 3 s.h.

Properties of soil, classification, capillarity, seepage, permeability, stresses, consolidation, shear strength; analysis and design of foundation structures, retaining walls, piles, drilled piers, sheet pile walls, special footings, stability.

Prereq.: MATH 2673; CEEN 3749.

CEEN 4881L Geotechnical Lab 1 s.h.

Typical soil testing procedures and physical testing of soil samples.

Prereq.: Concurrent with: CEEN 4881.

CEEN 5820 Pavement Material and Design 3 s.h.

Design methods for flexible, rigid and other wheel-supporting pavements to include investigation, testing and preparation of subgrade, base course and pavement materials, design of various pavement mixtures, stresses in pavements, pavement design, and strengthening existing pavements.

Prereq.: CEEN 3720 and CEEN 4881.

CEEN 5829 Civil Engineering Materials - Concrete 3 s.h.

A course designed to broaden the student's understanding of Portland Cement Concrete as a construction material. Topics include the study of cement, hydration of cement, aggregates, admixtures for concrete, mix design handling and placing, curing and properties of Portland Cement Concrete. Testing of Concrete, quality control and special concretes are also included. A library research paper on a concrete-related topic of the student's choice is required.

Prereq.: CEEN 3749 or permission of instructor.

CEEN 5832 Natural Systems Engineering 3 s.h.

Introduction to the features, functions and values of natural aquatic systems, and engineering approaches to analysis and restoration design. Focus on wetlands and streams. Topics include regulations, wetland delineation, constructed wetland design, basic stream geomorphology, and stream restoration design.

Prereq.: CEEN 3736 or permission of instructor.

CEEN 5836 Environmental Water Chemistry 3 s.h.

Fundamental principles and calculations of major chemical reactions and equilibria that occur in aquatic environments, and water/wastewater treatment processes.

Prereq.: CEEN 3736.

CEEN 5837 Environmental Engineering Design 3 s.h.

Theory and design of unit operations and processes for treatment of drinking water and municipal wastewater.

Prereq.: CEEN 3736.

CEEN 5849 Structural Analysis 2 3 s.h.

Analysis of statically indeterminate beams, trusses, bents and multistory frames, utilizing concepts of strain energy, virtual work, slope-deflection, and moment distribution. Introduction to matrix methods of analysis using force and displacement methods.

Prereq.: CEEN 3749.

CEEN 5855 Reinforced Concrete Design 3 s.h.

An introduction to the behavior, analysis, and design of reinforced concrete members. Included are singly and doubly reinforced beams, tee-beams, slabs, short and long columns.

Prereq.: CEEN 3749.

CEEN 5856 Steel Design 3 s.h.

An introduction to the behavior and design of steel structures. Included is the design of rolled and built-up tension members, beams, columns, beam-columns, welded and bolted connections.

Prereq.: CEEN 3749.

CEEN 5869 Design of Air Pollution Control Systems 3 s.h.

Engineering analysis, procedures, and techniques for the selection, applications and operation of air pollution control methods in various operational situations.

Prereq.: CEEN 3736.

CEEN 5877 Systems Engineering and Project Management 3 s.h.

Systems approach to engineering design; non-linear models; linear programming; dynamic programming; network analysis; project management.

Prereq.: MATH 3705.

CEEN 5880 Advanced Hydraulics 3 s.h.

Application of hydraulic principles for one dimensional river modeling; understanding the fundamental processes of open channel hydraulics; application of HEC-RAS/HEC-GeoRAS models for river system modeling.

Prereq.: A "C" or better in CEEN 3717.

CEEN 5882 Foundation Engineering 3 s.h.

Analysis and design of various foundations, including abutments, piers, piles, and footings; slope stability of embankments.

Prereq.: CEEN 4881 and CEEN 5855.

CEEN 5883 Bridge Engineering 3 s.h.

Analysis and design of concrete and steel bridges; specifications and code requirements; design detailing; effects of natural and man-made hazards on bridges; implications of bridge failures.

Prereq.: CEEN 5855 and CEEN 5856.

CEEN 5884 Solid and Hazardous Waste Management 3 s.h.

Sources, characteristics, handling and disposal options for solid waste and hazardous waste; topics include regulations, health effects, waste minimization, collection systems, landfill design, treatment and processing methods, and site assessment.

Prereq.: CEEN 3736.

Bachelor of Engineering in Civil Engineering 4+1 Graduate Track

Introduction

Civil engineers are responsible for planning, designing, and supervising construction of infrastructure including buildings, bridges, highways, levees, dams, drinking water and wastewater treatment facilities, ports, railroads, airports, etc. The undergraduate program in Civil Engineering (CE) at YSU offers a Bachelor of Engineering (B.E.) in Civil Engineering degree through an ABET accredited curriculum designed for students to graduate in four years. Students receive a fundamental background in math and science to prepare for core courses in civil engineering. They not only learn from faculty lectures, but also gain real-world experience through participating in co-ops/internships, undergraduate research, laboratory activities, and building concrete canoe and steel bridge from scratch and competing in regional and national competitions.

Civil engineers make the world a better place. With that philosophy in mind, we educate our students to undertake challenging civil engineering jobs and leadership roles in building our community and infrastructure. At the time of graduation, our students are well-prepared to enter the workforce in all five sub-disciplines of civil engineering including structural, transportation, geotechnical, water resources, and environmental. Faculty members have the highest degree in their respective sub-disciplines and the professional engineering licensure that requires them to remain active in the profession through continuing education and research.

In order to support ASCE's 'Bachelor+30' initiative to facilitate lifelong learning and to improve knowledge base of future civil engineers, an accelerated 4+1 BE/MSE in Civil Engineering track is being offered. Students already in the YSU Civil Engineering undergraduate program can apply for admission into this accelerated track after completing 78 semester hours with a GPA of 3.3 or higher. After being admitted into the accelerated track, students will be allowed a maximum of nine semester hours of graduate coursework to be double-counted towards both Bachelor's and Master's degrees upon approval by the Graduate Program Director. An additional 6000 level graduate coursework of three semester hours can be completed as an undergraduate and used exclusively for graduate credit. This will allow students to obtain a graduate degree with 30 semester hours or more within a year after the Bachelor's degree.

For more information about the 4+1 BE/MSE in Civil Engineering track, please contact:

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Email: aaislam@ysu.edu

Bachelor of Engineering program

COURSE	TITLE	S.H.
First Year Requirement - Student Success		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Mathematics requirement (met with MATH in major)		
Select one Arts and Humanities:		3
PHIL 2625	Introduction to Professional Ethics	
PHIL 2626	Engineering Ethics	
PHIL 2628	Business Ethics	
Arts and Humanities (Select 1 course)		3
Natural Science (met with CHEM and PHYS required for major)		
Social Sciences (6 S.H., Select 2 courses)		6
General Education Electives (6 S.H., Select 2 courses)		6
Civil Engineering Courses		
CEEN 2601	Statics	3
CEEN 2602	Strength of Materials	3
CEEN 2602L	Strength of Materials Lab	1
CEEN 2610	Surveying	3
CEEN 2610L	Surveying Laboratory	1

CEEN 2660	Computer Aided Design and Drafting	2
CEEN 3716	Fluid Mechanics	3
CEEN 3716L	Fluid Mechanics Lab	1
CEEN 3717	Hydraulic Design	4
CEEN 3720	Transportation Engineering	3
CEEN 3736	Fundamentals of Environmental Engineering	3
CEEN 3749	Structural Analysis 1	3
CEEN 3749L	Structural Analysis 1 Lab	1
CEEN 4812	Construction Management	3
CEEN 4863	Integrated Design Project	3
CEEN 4881	Geotechnical Engineering	3
CEEN 4881L	Geotechnical Lab	1
CEEN 5855	Reinforced Concrete Design	3
CEEN 5856	Steel Design	3
CEEN Elective 1: Must be a design elective. Select one course.		3
CEEN 4835	Highway Design	
CEEN 5820	Pavement Material and Design	
CEEN 5837	Environmental Engineering Design	
CEEN 5869	Design of Air Pollution Control Systems	
CEEN 5882	Foundation Engineering	
CEEN 5883	Bridge Engineering	
CEEN Electives 2 & 3: Select two courses.		6
CEEN 3751 & 3751L	Water Quality Analysis and Water Quality Analysis Lab	
CEEN 4835	Highway Design	
CEEN 4879	Civil Engineering Analysis	
CEEN 5820	Pavement Material and Design	
CEEN 5829	Civil Engineering Materials - Concrete	
CEEN 5832	Natural Systems Engineering	
CEEN 5836	Environmental Water Chemistry	
CEEN 5837	Environmental Engineering Design	
CEEN 5849	Structural Analysis 2	
CEEN 5869	Design of Air Pollution Control Systems	
CEEN 5880	Advanced Hydraulics	
CEEN 5882	Foundation Engineering	
CEEN 5883	Bridge Engineering	
CEEN 5884	Solid and Hazardous Waste Management	
General Engineering Courses		
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
ENGR 1560	Engineering Computing	2
Engineering Fundamentals Courses		
MECH 2641	Dynamics	3
ISEN 2624	Engineering Economy	3
Mathematics/Statistics Courses		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
MATH 3705	Differential Equations	3
ISEN 2610	Engineering Statistics	3-4
or STAT 3743	Probability and Statistics	
Basic Science Courses		
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
PHYS 2610	General Physics 1	4
GEOL 2611	Geology for Engineers	3
or BIOL 2601	General Biology 1: Molecules and Cells	

CHEM 1516 & 1516L or PHYS 2611	General Chemistry 2 and General Chemistry 2 Laboratory General Physics 2	4
Total Semester Hours		128-131

4+1 BE/MSE in civil engineering

Students already in the YSU Civil Engineering undergraduate program can apply for admission into the 4+1 BE/MSE in Civil Engineering track after completing 78 semester hours with a GPA of 3.3 or higher. After being admitted into this accelerated track, students will be allowed a maximum of nine semester hours of graduate coursework to be double-counted towards both Bachelor's and Master's degrees upon approval by the Graduate Program Director. An additional 6000 level graduate coursework of three semester hours can be completed as an undergraduate and used exclusively for graduate credit. This will allow students to obtain a graduate degree with 30 semester hours or more within a year after their Bachelor's degree.

Dual credit courses

COURSE	TITLE	S.H.
Select 3 of these courses at 5800 level, as only 3 courses can be double-counted. You can select an additional 6000 level course that will only be counted towards the Master's degree.		
CEEN 5820	Pavement Material and Design	9-12
CEEN 5829	Civil Engineering Materials - Concrete	
CEEN 5832	Natural Systems Engineering	
CEEN 5836	Environmental Water Chemistry	
CEEN 5837	Environmental Engineering Design	
CEEN 5849	Structural Analysis 2	
CEEN 5855	Reinforced Concrete Design	
CEEN 5856	Steel Design	
CEEN 5869	Design of Air Pollution Control Systems	
CEEN 5880	Advanced Hydraulics	
CEEN 5882	Foundation Engineering	

CEEN 5883	Bridge Engineering
CEEN 5884	Solid and Hazardous Waste Management
CEEN 6956	Advanced Soil Mechanics
CEEN 6958	Structural Dynamics
CEEN 6967	Biological Treatment Processes
CEEN 6973	Watershed Modeling
CEEN 6977	Hydrology
CEEN 6979	Water Quality Modeling

FOUR-YEAR PLAN

Year 1

Fall		S.H.
YSU 1500	Success Seminar	1
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
MATH 1571	Calculus 1	4
GER AH-1: Arts & Humanities Elective		3
PHIL 2625 or PHIL 2626 or PHIL 2628	Introduction to Professional Ethics or Engineering Ethics or Business Ethics	

Semester Hours

18-19

Spring

ENGL 1551	Writing 2	3
ENGR 1560	Engineering Computing	2
MATH 1572	Calculus 2	4
CMST 1545	Communication Foundations	3
GER AH-2: Arts & Humanities Elective		3

Semester Hours

15

Year 2

Fall

MATH 2673	Calculus 3	4
CEEN 2610	Surveying	3
CEEN 2610L	Surveying Laboratory	1
CEEN 2601	Statics	3
PHYS 2610	General Physics 1	4

Semester Hours

15

Spring

MATH 3705	Differential Equations	3
CEEN 2602	Strength of Materials	3
CEEN 2602L	Strength of Materials Lab	1
GEOL 2611 or BIOL 2601	Geology for Engineers or General Biology 1: Molecules and Cells	3
CEEN 2660	Computer Aided Design and Drafting	2
PHYS 2611 or CHEM 1516 and CHEM 1516L	General Physics 2 or General Chemistry 2 and General Chemistry 2 Laboratory	4

Semester Hours

16

Year 3

Fall

CEEN 3716	Fluid Mechanics	3
CEEN 3716L	Fluid Mechanics Lab	1

CEEN 3720	Transportation Engineering	3
CEEN 3736	Fundamentals of Environmental Engineering	3
CEEN 3749	Structural Analysis 1	3
CEEN 3749L	Structural Analysis 1 Lab	1
ISEN 2610 or STAT 3743	Engineering Statistics or Probability and Statistics	3-4
Semester Hours		17-18
Spring		
CEEN 3717	Hydraulic Design	4
CEEN 4881	Geotechnical Engineering	3
CEEN 4881L	Geotechnical Lab	1
CEEN Elective 1: CE Elective		3
GER-1: General Education Elective		3
GER-2: General Education Elective		3
Semester Hours		17
Year 4		
Fall		
CEEN 4812	Construction Management	3
CEEN 5855	Reinforced Concrete Design	3
CEEN 5856	Steel Design	3
CEEN Elective 2: CE Design Elective		3
ISEN 2624	Engineering Economy	3
Semester Hours		15
Spring		
CEEN 4863	Integrated Design Project	3
MECH 2641	Dynamics	3
CEEN Elective 3: CE Elective. May substitute with approval of CE Program Coordinator.		3
GER SS-1: Social Science Elective		3
GER SS-2: Social Science Elective		3
Semester Hours		15
Total Semester Hours		128-130

Program Educational Objectives

The Civil Engineering program will provide graduates with the foundation of knowledge and skills necessary for productive and rewarding careers. The program prepares graduate to achieve the following educational objectives within a few years after graduation:

1. Perform essential functions on multidisciplinary teams in their professional careers in civil engineering.
2. Demonstrate necessary communication, management, leadership, and interdisciplinary technical skills to excel in engineering and non-engineering sectors.
3. Continue their intellectual, social, and professional growth through lifelong learning and advanced degrees.
4. Obtain professional engineering licensure.

Student Outcomes

The YSU undergraduate program in Civil Engineering adopted the following student outcomes that prepare its graduates to attain the program educational objectives listed above. At the time of graduation, the program graduates should have:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors

3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Electrical and Computer Engineering

(330) 941-3012

This program offers coursework leading to the Bachelor of Engineering with a major in electrical engineering. Traditional, computer/digital, and biomedical options are available. The first courses in the electrical and computer engineering are ECEN 1521 Digital Circuits and ECEN 1521L Digital Circuits Laboratory, and are available to all University students without prerequisites. Visit the office or website for details.

Mission

The Electrical and Computer Engineering program is committed to academic excellence, and it provides educational opportunities in electrical and computer engineering. We provide students at baccalaureate and master levels with diverse and comprehensive educational experiences which meet the highly demanding standards required by industry and preparation for further education.

We utilize the resources of the university and interact with industry to evaluate, optimize, and upgrade our teaching, research, scholarship, service and facilities to continue offering a high-standard educational environment. We promote students' intellectual growth to become fully developed, informed, and productive in order to serve themselves and their local and global communities effectively.

Program Educational Objectives

The Electrical and Computer Engineering program at Youngstown State University offers students a high standard of engineering education. In fulfillment of its mission, as well as the missions of the College of Science, Technology, Engineering, and Mathematics, and the University, the following Program Educational Objectives are established for the Electrical Engineering Program.

Within a few years of graduation, our graduates should:

- Competently design, analyze, test, and implement systems, devices, and processes in the field of electrical engineering within the constraints set by the client and by society, and disseminate the results. (SO-1,2,3,6)
- Commit to practicing engineering ethically and responsibly, both individually and within diverse teams, while holding paramount the impact of engineering decisions on society and ecology. (SO-1,2,4,5)
- Pursue career-long growth through continued learning in their engineering profession and/or pursuit of post graduate education, and to demonstrate leadership and influence within their profession. (SO-3,5,7)

Student Outcomes

The following (1 through 7) Student Outcomes support the program educational objectives. Attainment of these outcomes by students by the time of their graduation prepares graduating students to enter the professional practice of engineering.

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. An ability to communicate effectively with a range of audiences.
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Electrical Engineering Annual Enrollment and Graduation Data

The Electrical Engineering BE Program has been accredited by the engineering accreditation commission of ABET, <http://www.abet.org> (<http://www.abet.org/>).

Term Enrollment

Fall 2012	103
Fall 2013	103
Fall 2014	117
Fall 2015	108
Fall 2016	123
Fall 2017	123
Fall 2018	141

Academic Year Degrees Awarded

2012-2013	19
2013-2014	16
2014-2015	29
2015-2016	23
2016-2017	35
2017-2018	30

Laboratory Facilities

The Electrical and Computer Engineering program maintains well-equipped laboratory facilities for circuits, electronics, communications, electromagnetics, energy conversion, power systems, control systems, and digital systems. PC computing and wireless networking are available, as well as various licensed software packages.

Professional Practice

The Electrical and Computer Engineering program participates in the College of STEM Professional Practice Program.

Students who complete course and internship requirements related to the field may receive up to 2 s.h. of credit toward ECEN elective courses. Contact the department for details.

Tracks

Traditional, computer/digital, and biomedical options with design projects, computer simulation, and hands-on laboratory sessions are the pillars of the Bachelor of Engineering with a major in electrical engineering. These features provide students with the opportunity to prepare for a vast array of entry-level positions or advanced studies.

With faculty assistance, students tailor their programs to meet their educational objectives. This individualized approach includes choices of options and elective courses, participation in a co-op, and semester-by-semester scheduling of courses.

Traditional TRACK

The traditional option:

COURSE	TITLE	S.H.
	Electrical Engineering Core	53
	Other Engineering	11
	Math	18
	Science	15
	Writing and Speech	9
	General Education Courses	18
Total Semester Hours		124

Computer/digital TRACK

The computer/digital option:

COURSE	TITLE	S.H.
	Electrical Engineering Core	41
	Other Engineering	11
	Computer Engineering/Science	19
	Math	18
	Science	15
	Writing and Speech	9
	General Education Courses	18
Total Semester Hours		131

Biomedical TRACK

The biomedical option:

COURSE	TITLE	S.H.
	Electrical Engineering Core	41
	Other Engineering	11
	Math	18
	Science including Biology and Organic Chemistry	32
	Writing and Speech	9
	General Education Courses	18
Total Semester Hours		129

Students in any of these options can participate in the co-op program. Scheduling is reasonably flexible, but there are some restrictions.

Course Scheduling

Scheduling of courses will depend upon your particular situation. Are you working part time? Will you pursue an internship? Do you wish a full or part-time academic pursuit of the degree? Answers to these questions will affect your scheduling of courses. The Electrical and Computer Engineering program

attempts to schedule junior and senior courses to accommodate these situations.

Advising is mandatory, and students are required to meet with their department advisors to choose their semester-by-semester courses. Also, up-to-date recommended schedule and curriculum lists are available on-line and at the department office.

For more information, visit **Electrical Engineering Major** (<https://ysu.edu/academics/science-technology-engineering-mathematics/electrical-engineering-major/>).

Chair

Frank Xiyang Li, Ph.D., Professor, Chair

Professor

Vamsi Borra, Ph.D., Assistant Professor

Christopher Andrew Mela, Ph.D., Assistant Professor

Lecturer

Edward Burden, M.S., Senior Lecturer

Subashini DeSilva, M.S., Lecturer

Teresa Ren, M.S., Lecturer

Ghasan Salim, Ph.D., Lecturer

Major

- Electrical Engineering (p. 462)

Major Tracks

- Electrical Engineering, Traditional Track (p. 462)
- Electrical Engineering, Traditional 4+1 Graduate Track (p. 464)
- Electrical Engineering, Computer/Digital Track (p. 458)
- Electrical Engineering, Computer/Digital 4+1 Graduate Track (p. 460)
- Electrical Engineering, Biomedical Track (p. 456)

Minor

- Minor in Electrical and Computer Engineering (p. 468)
- Minor in Mathematics (p. 488)

ECEN 1521 Digital Circuits 3 s.h.

Digital concepts and design techniques; number systems, switching algebra, logic gates, truth tables. Combinational logic circuits with an introduction to sequential circuits. Practical applications.

ECEN 1521L Digital Circuits Laboratory 1 s.h.

Laboratory exercises to accompany ECEN 1521. Design and testing of combinational and sequential logic circuits. Experiments with digital hardware.

Prereq. or Coreq.: ECEN 1521.

ECEN 1555 Computer Engineering 3 s.h.

Introduction to the personal computer, applications software, technologies, microprocessors, microcomputer programming and applications. Basic operations of digital circuits, interfacing using integrated chips, and analog computers. Experiments accompany lectures, providing practical experience for students.

ECEN 1555H Honors Computer Engineering 3 s.h.

The personal computer, its components, and the role it plays in control applications, instrumentation, and engineering design. Basic experiments using digital circuits, microcomputers, integrated circuits, and design software integrated into a project with the personal computer and instrumentation.

Prereq. or Coreq.: ENGL 1550H and admission to the Honors Program, or permission of instructor and Director of Honors Program.

ECEN 1560 Electrical Engineering Computing 2 s.h.

Problem solving techniques for the fields of electrical and computer engineering; procedural program development using the C/C++ programming language. Fundamentals of engineering drawing using AutoCAD commercial software packages. One hour lecture, three hours lab. ENGR 1555 may be taken concurrently.

Prereq.: MATH 1571 or concurrent high school technical drawing proficiency or ENGR 1555.

ECEN 2610 Computer Tools for Electrical and Computer Engineering 1 s.h.

Introduction to software packages and resources such as MATLAB, PSpice, and Quartus II for analysis and design of circuits and systems. Prereq. or Coreq.: ECEN 2632 and ECEN 2611.

ECEN 2611 Instrumentation and Computation Lab 1 1 s.h.

Laboratory experiments and computer exercises to accompany ECEN 2632. Laboratory experimentation and basic instrumentation. Computer-aided analysis and simulation.

Prereq. or Coreq.: ECEN 2632.

ECEN 2612 Instrumentation and Computation Lab 2 1 s.h.

Laboratory experiments and computer exercises to accompany ECEN 2633. Laboratory experimentation and basic instrumentation. Computer-aided analysis and simulation.

Prereq.: ECEN 2611.

Prereq. or Coreq.: ECEN 2633.

ECEN 2614 Basics of Electrical Engineering 3 s.h.

Introduction to electrical circuit elements and laws; DC and AC analysis. Introduction to digital devices and circuits with applications. Applications of electromagnetics. Intended for non-electrical engineering majors.

Prereq.: MATH 1571.

ECEN 2632 Basic Circuit Theory 1 3 s.h.

Basic principles of linear circuits. Circuits concepts and laws, methods of analysis, network theorems. Source-resistor circuits. Inductors and capacitors. Analysis of AC circuits using phasors; impedance and admittance. Power calculations in DC and AC circuits.

Prereq. or Coreq.: MATH 1572.

ECEN 2633 Basic Circuit Theory 2 3 s.h.

Continuation of ECEN 2632. First- and second-order transients in RLC circuits. Mutual inductance and transformers. Three-phase circuits. Transform methods in circuit analysis, transfer functions, resonance.

Prereq.: ECEN 2632.

Prereq. or Coreq.: MATH 2673.

ECEN 3710 Signals and Systems 3 s.h.

Operation and analysis of communication, control, and computer systems at the signal level. Computer aided design tools and methods to analyze signals and systems. Continuous and discrete-time transforms. Noise analysis, signal detections, line codes, and multiplexing.

Prereq.: ECEN 2633, ECEN 1521 and MATH 3705.

ECEN 3711 Intermediate Laboratory 1 1 s.h.

Laboratory experiments and computer exercises in the areas of digital and analog electronics and logic and computer circuits. Designed to accompany the co-requisite courses.

Prereq.: ECEN 2612.

Prereq. or Coreq.: ECEN 3733 and ECEN 3771.

ECEN 3712 Intermediate Laboratory 2 1 s.h.

Laboratory experiments and computer exercises in the areas of digital and analog electronics, logic and computer circuits, and electromagnetics. Designed to accompany the co-requisite courses.

Prereq.: ECEN 3711.

Prereq. or Coreq.: ECEN 3742 and either ECEN 3772 or ECEN 3734.

ECEN 3717 Sensor Fundamentals 3 s.h.

Basic principles of sensors such as electro-chemical, -mechanical, -optical, and -thermal transducers. Signal conditioning and smart sensors. Applications to process control and environmental systems.

Prereq.: MATH 3705, and either PHYS 2611 or ECEN 2632.

ECEN 3730 Microprocessors and Microcontrollers 3 s.h.

Organization and structured assembly language programming. Digital controller devices and their relationships to processors and physical environments. Two hours lecture and three hours laboratory per week.

Prereq.: ECEN 3733.

ECEN 3733 Digital Circuit Design 3 s.h.

Modern digital circuit analysis and design. Latches, flip-flops, registers, counters, memories, programmable logic arrays, and arithmetic logic units. Logic gate-level synthesis and computer simulation using CAD tools.

Synchronous and asynchronous finite-state machines.

Prereq.: ECEN 1521, ECEN 2633.

ECEN 3734 Computer Design 3 s.h.

Systematic methodologies for digital computer hardware and software designs. VLSI circuits. SOPC, CPLD, and FPGA designs. Hardware description languages.

Prereq.: ECEN 3733.

ECEN 3741 Electromagnetic Fields 1 3 s.h.

Maxwell's equations. Static electric and magnetic fields. Magnetic materials and forces, dielectrics, conductance, capacitance, and inductance. Poisson's and Laplace's equations.

Prereq.: ECEN 2633, prerequisite or concurrent MATH 3705.

ECEN 3742 Electromagnetic Fields 2 3 s.h.

Maxwell's equations. Time varying electric and magnetic fields. Electro-mechanical devices, transmission lines, microwaves. Antennas and radiation.

Prereq.: ECEN 3741.

ECEN 3771 Digital and Analog Circuits 1 3 s.h.

Terminal characteristics of electronic devices such as diodes, BJTs (bipolar junction transistors), FETs (field effect transistors), and operational amplifiers. The design of digital circuits with these devices. Basic bias and small-signal models for analog amplifiers. Computer-aided design and analysis.

Prereq.: ECEN 2633.

ECEN 3772 Digital and Analog Circuits 2 3 s.h.

Continuation of ECEN 3771. Bias and signal modeling for amplifier design. Large-signal, small-signal and DC amplifiers. Single-stage, multistage and power amplifiers. Frequency response. Applications with op amps such as amplifiers, comparators, filters, and oscillators. Computer-aided design and analysis.

Prereq.: ECEN 3771.

ECEN 4803 Linear Control Systems 3 s.h.

System modeling, responses and performance measures. Stability analysis by root locus, Bode, and Nyquist plots. Computer-aided control system design. Compensator design. Three hours lecture per week.

Prereq.: ECEN 2633, ECEN 3712, MATH 3705, MECH 2620.

ECEN 4803L Linear Control Systems Laboratory 1 s.h.

Laboratory exercises to accompany ECEN 4803. Three hours laboratory per week. 1 s.h.

Prereq.: ECEN 2633, ECEN 3712, MATH 3705, MECH 2620.

Prereq. or Coreq.: ECEN 4803.

ECEN 4811 Senior Laboratory 1 s.h.

Laboratory experiments and computer exercises in the areas of applied electromagnetics, energy conversion. Designed to accompany the co-requisite course.

Prereq.: ECEN 3712.

Prereq. or Coreq.: ECEN 4844.

ECEN 4820 5G Wireless Networks 3 s.h.

This course will cover the fundamental aspects of wireless networks, with emphasis on current and next-generation wireless networks. Various aspects of wireless networking will be covered including: Introduction to Wireless networks and technical challenges, Coding and Modulation Techniques, Multiplexing Techniques (SDMA, TDMA, FDMA, CDMA), Cellular Systems (1G, 2G, 3G, 4G, 5G), Wireless LAN/PAN/MAN, Internet of Things.

Prereq. or Coreq.: ECEN 3710.

ECEN 4844 Electromagnetic Energy Conversion 3 s.h.

An examination of lumped electromagnetic parameters with development of theoretical, experimental, and design parameters for electrical energy conversion devices such as transformers, motors, and generators. Typical and special applications.

Prereq.: ECEN 3741 or concurrent: MECH 2620.

ECEN 4851 VLSI System Design 3 s.h.

Basic MOSFET models. Layout of inverters, NAND, NOR, PLA, PAL and ROMs. CMOS process and design rules. VLSI system design methodology and computer EDA tools such as PSpice and layout editors.

Prereq.: ECEN 3771, ECEN 3733.

ECEN 4852 Neural Networks and Robotics 3 s.h.

Principles for control applications and robotics, direct inverse control, neural networks, and fuzzy set theory. Applications including adaptive control, neural networks for motion control and path planning in robotics.

Prereq.: ECEN 3733.

ECEN 4854 Principles of Electromagnetic Compatibility 3 s.h.

Review of electromagnetic theories. Techniques of electromagnetic compatibility in electronic systems and computer hardware. Modeling and simulation of transmission lines and circuits. Electromagnetic discharge and grounding problems for high-frequency applications. Radio-frequency emissions from electronic devices. Shielding techniques to prevent ESD and EMI.

Prereq.: ECEN 3742 and MATH 3705.

ECEN 4855 Advanced Digital Control 3 s.h.

Fundamentals of sampled linear control systems, digital controllers and observers. Analysis techniques including difference and state-variable equations, transfer functions, transforms. Sampling, stability, and discrete approximation.

Prereq.: ECEN 3733.

ECEN 4856 Embedded System Design 4 s.h.

Fundamentals of small-scale and medium-scale embedded systems. Design techniques for processors, timers, input device interfacing, interrupt controllers, and drive circuits. Real-time operating system programming tools. Hardware-software co-designs. Three hours lecture, three hours laboratory.

Prereq.: ECEN 3733.

ECEN 4881 Modern Control System Design 3 s.h.

Advanced control system analysis and design. LQR, pole placement, state observer design. Introduction to system identification and adaptive controllers. MATLAB simulation and real-time implementation of controllers. Three hours lecture, three hours laboratory per week.

Prereq.: ECEN 4803.

ECEN 4899 Senior Design Project 3 s.h.

An electrical/computer engineering design problem is chosen or assigned; students work in teams. Proposals are presented which describe the design problem and approaches to it. The final design is presented in written and oral forms. This capstone course is intended to mimic a typical industrial or research project and includes ethical and economical considerations with the engineering work. Three-hour lecture/discussion per week.

Prereq.: ECEN 4811 and 27 semester hours of ECEN courses.

Gen Ed: Capstone.

ECEN 4899L Senior Design Project Lab 1 s.h.

Laboratory exercises to accompany ECEN 4899. Three hours laboratory per week.

Prereq.: ECEN 4811 and 27 semester hours of ECEN courses.

Prereq. or Coreq.: ECEN 4899.

ECEN 5800 Special Topics 1-3 s.h.

Special topics, new developments in Electrical Engineering. Subject matter, special prerequisites, and credit hours to be announced in advance of each offering. May be repeated with different subject matter to a maximum of 6 s.h.

Prereq.: Senior standing in Electrical and Computer Engineering.

ECEN 5807 Advanced Digital and Analog Circuits 3 s.h.

Chip circuitry for devices such as BJT, CMOS, and ECL-based digital logic chips. Switching devices such as SCRs, triacs, and timers. Switching power supplies. Power amplifiers. Applications and specifications of off-the-shelf IC devices. Computer-aided design and analysis.

Prereq.: ECEN 3772.

ECEN 5808 Advanced Signals and Systems 3 s.h.

Communication and control system modeling and simulations; signal analysis in continuous-time, discrete-time and frequency domains. Advanced communication system applications.

Prereq.: ECEN 3710 and MATH 3705.

ECEN 5816 Theory and Fabrication of Solid-State Devices 3 s.h.

An introductory study of physical theory, design, and fabrication of discrete devices and integrated circuits. Electronic properties of semiconductors such as carrier concentration, energy gap, mobility, lifetime. Techniques of fabrication such as oxidation, diffusion, alloying ion implantation, metallization, masking.

Prereq.: ECEN 3741 and ECEN 3771.

ECEN 5817 Sensor Design and Application 3 s.h.

Designs and applications for measurement and control; includes electro-chemical, -mechanical, -optical, and -thermal transducers. Signal conditioning and smart sensors.

Prereq.: ECEN 3771 or ECEN 3717.

ECEN 5820 Function, Design, and Application of Medical Imaging Systems 3 s.h.

Introduction to the Physics, Instrumentation, Image Processing Methods used in common medical imaging modalities. Systems covered include X-Ray, CT, Ultrasound, MRI, nuclear medicine, and fluorescence. Primary foci will be system construction as well as image reconstruction and processing. Students will engage in limited hands-on image acquisition and code-based processing.

Prereq.: PHYS 2611 or ECEN 3741.

Prereq. or Coreq.: ECEN 3710.

ECEN 5830 Digital Signal Processing 3 s.h.

Discrete time signals and systems; discrete, fast, and inverse Fourier transforms. Digital filter analysis and design, digital signal processing applications. Two hours lecture, three hours laboratory.

Prereq.: ECEN 3710.

ECEN 5835 Computer Architecture with VHDL 4 s.h.

Use of hardware description languages to design computer components and systems. Arithmetic and logic units, control units, VHDL models for memories and busses, interfacing, transfer design. Survey of modern computer systems.

Prereq.: ECEN 3734.

ECEN 5840 Electric Power Systems 4 s.h.

Modeling of power system components. Power flow, faults, protection systems, and stability problems. Special projects and laboratory experiments including CAD applications for analysis, design, and simulation of power system networks. Three hours lecture, three hours laboratory per week.

Prereq. or Coreq.: ECEN 4844.

ECEN 5850 Communications Applications 3 s.h.

Applicable technologies and "real-world" communication components and systems. Design and analysis tools. Emerging technologies, "killer apps", networking, data acquisition, and convergence.

Prereq.: ECEN 3710 or ECEN 5808.

ECEN 5860 Fundamental of Antenna Design and Application 3 s.h.

Examination of dipole, loop aperture, and microstrip antennas; array theory; radiation resistance, directivity, equivalent circuits, input impedance, and basic transceiver architecture. Investigation of practical applications of antennas and arrays in communications systems, radar systems and airborne navigation systems.

Prereq.: ECEN 3742 grade of "C" or better and 21 s.h. of ECEN courses.

ECEN 5879 Computer-Aided Design 3 s.h.

The design, analysis, and modeling of linear and nonlinear networks and systems using a simulation and modeling computer program. Development and use of library models of devices, subcircuits, and subsystems.

Prereq.: ECEN 2611 and 21 s.h. of ECEN courses.

ECEN 5890 Power Electronics 4 s.h.

SCRs, rectifier circuits, commutation techniques, AC controllers, converters, and inverters. Special projects and laboratory experiments including computer applications for analysis, design, and simulation of power electronics network. Three hours lecture, three hours laboratory per week.

Prereq.: ECEN 3771 and 21 s.h. of ECEN courses.

Bachelor of Engineering in Electrical Engineering, Biomedical Track

Through the Electrical Engineering program at Youngstown State University, you'll develop competency in all aspects of electrical engineering and its related fields. You'll take coursework anchored in engineering, math, and physics that will allow you to solve complex problems and design intricate systems. Along the way, you'll also refine your communication skills and learn how to ethically and responsibly deploy your engineering skills.

Electrical engineers have homes in a large assortment of industries, from power generation and automotive manufacturing to biomedical development and consumer product design. You may even find yourself using your engineering expertise to serve your country in the military.

With your bachelor's degree in hand, you'll be the person advancing the products and systems that advance society.

MAJOR

Design projects, computer simulation and hands-on laboratory sessions are the pillars of the Electrical Engineering major at YSU. Students enrolled in the program may choose from three options that prepare graduates for a large variety of professional positions or advanced studies:

- Traditional Option (<https://ysu.edu/academics/science-technology-engineering-mathematics/electrical-engineering-major/#panel0>)
- Computer/Digital Option (<https://ysu.edu/academics/science-technology-engineering-mathematics/electrical-engineering-major/#panel1>)
- Biomedical Option (<https://ysu.edu/academics/science-technology-engineering-mathematics/electrical-engineering-major/#panel2>)

Summary for Biomedical Track

COURSE	TITLE	S.H.
Elec & Comp Engin		42
Engineering ¹		11
Mathematics/CSIS ¹		22
Science ¹		32
Writing and Speech ¹		9
General Education Courses ¹		18
First Year Student Success		1
Total Semester Hours		135

¹ See Curriculum section for courses in these areas that are common to the three options.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirement		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Gen Ed Math Met in Major		
Natural Science Gen Ed (8 s.h.)		
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
Arts and Humanities (6 s.h.)		
Arts and Humanities (select 1 course)		
PHIL 2626	Engineering Ethics	3
Social Science (6 s.h.)		
Social Science (select 1 course)		
ECON 2610	Principles 1: Microeconomics	3
General Education Electives (9 s.h. select 2 courses)		
CMST 1545	Communication Foundations	3
Major Requirements		
ECEN 1521	Digital Circuits	3
ECEN 1521L	Digital Circuits Laboratory	1
ECEN 2611	Instrumentation and Computation Lab 1	1
ECEN 2612	Instrumentation and Computation Lab 2	1
ECEN 2632	Basic Circuit Theory 1	3
ECEN 2633	Basic Circuit Theory 2	3
ECEN 3711	Intermediate Laboratory 1	1
ECEN 3712	Intermediate Laboratory 2	1
Select one of the following:		
ECEN 3710	Signals and Systems	
ECEN 3734	Computer Design	
ECEN 3772	Digital and Analog Circuits 2	
ECEN 3733	Digital Circuit Design	3
ECEN 3741	Electromagnetic Fields 1	3
ECEN 3742	Electromagnetic Fields 2	3
ECEN 3771	Digital and Analog Circuits 1	3
ECEN 4803	Linear Control Systems	4
& 4803L	and Linear Control Systems Laboratory	
ECEN 4811	Senior Laboratory	1

ECEN 4844	Electromagnetic Energy Conversion	3
ECEN 4899	Senior Design Project	3
ECEN 4899L	Senior Design Project Lab	1
Engineering		
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
ENGR 1560	Engineering Computing	2
MECH 2620	Statics and Dynamics	3
ISEN 2610	Engineering Statistics	3
Science		
CHEM 3719	Organic Chemistry 1	3
CHEM 3719L	Organic Chemistry 1 Laboratory	1
CHEM 3720	Organic Chemistry 2	3
CHEM 3720L	Organic Chemistry 2 Laboratory	1
BIOL 2601	General Biology 1: Molecules and Cells	3
BIOL 2601L	General Biology I: Molecules and Cells Laboratory	1
BIOL 2602	General Biology 2: Organisms and Ecology	3
BIOL 2602L	General Biology: Organisms and Ecology Laboratory	1
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics Laboratory 1	1
PHYS 3705	Thermodynamics and Classical Statistical Dynamics	3
CSIS 2610	Programming and Problem-Solving	3
CSIS 2610L	Programming and Problem-Solving Lab	1
Mathematics Minor -one course counts toward Gen Ed		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
MATH 3705	Differential Equations	3
MATH 3718	Linear Algebra and Discrete Mathematics for Engineers	3
Internships (Optional)		
The following internship courses are recommended, but not required		
STEM 3790	STEM Internship Experience	
STEM 4890	STEM Internship	
The following two science courses are recommended for students to prepare for the MCAT test, but are not part of the degree requirements:		
CHEM 3785	Biochemistry 1	
BIOL 3702	Microbiology	
Total Semester Hours		134-136

Year 1

Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success	
or HONR 1500	Seminar	
	or Intro to Honors	
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
CHEM 1515	General Chemistry 1	4
& 1515L	and General Chemistry 1 Laboratory	
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
MATH 1571	Calculus 1	4
Semester Hours		15-17

Spring

MATH 1572	Calculus 2	4
ENGR 1560	Engineering Computing	2

CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
ENGL 1551	Writing 2	3
ECEN 1521 & 1521L	Digital Circuits and Digital Circuits Laboratory	4
Semester Hours		17
Year 2		
Fall		
MATH 2673	Calculus 3	4
ECEN 2632	Basic Circuit Theory 1	3
ECEN 2611	Instrumentation and Computation Lab 1	1
PHYS 2610 & 2610L	General Physics 1 and General Physics Laboratory 1	5
PHIL 2626	Engineering Ethics	3
Semester Hours		16
Spring		
MATH 3705	Differential Equations	3
MATH 3718	Linear Algebra and Discrete Mathematics for Engineers	3
ECEN 2633	Basic Circuit Theory 2	3
ECEN 2612	Instrumentation and Computation Lab 2	1
MECH 2620	Statics and Dynamics	3
CMST 1545	Communication Foundations	3
Semester Hours		16
Year 3		
Fall		
ECEN 3711	Intermediate Laboratory 1	1
ECEN 3733	Digital Circuit Design	3
ECEN 3741	Electromagnetic Fields 1	3
ECEN 3771	Digital and Analog Circuits 1	3
BIOL 2601 & 2601L	General Biology 1: Molecules and Cells and General Biology I: Molecules and Cells Laboratory	4
ISEN 2610	Engineering Statistics	3
Semester Hours		17
Spring		
ECEN 3712	Intermediate Laboratory 2	1
ECEN 3734 or ECEN 3772 or ECEN 3710	Computer Design or Digital and Analog Circuits 2 or Signals and Systems	3
ECEN 3742	Electromagnetic Fields 2	3
ECEN 4844	Electromagnetic Energy Conversion	3
BIOL 2602 & 2602L	General Biology 2: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	4
CSIS 2610	Programming and Problem-Solving	3
CSIS 2610L	Programming and Problem-Solving Lab	1
Semester Hours		18
Year 4		
Fall		
ECEN 4803 & 4803L	Linear Control Systems and Linear Control Systems Laboratory	4
ECEN 4811	Senior Laboratory	1
PHYS 3705	Thermodynamics and Classical Statistical Dynamics	3
CHEM 3719 & 3719L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	4
ECON 2610	Principles 1: Microeconomics	3

General Education Requirement		3
Semester Hours		18
Spring		
ECEN 4899	Senior Design Project	3
ECEN 4899L	Senior Design Project Lab	1
CHEM 3720 & 3720L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	4
General Education Requirement		3
General Education Requirement		3
General Education Requirement		3
Semester Hours		17
Total Semester Hours		134-136

Student Outcomes

The following (1 through 7) Student Outcomes support the program educational objectives. Attainment of these outcomes by students by the time of their graduation prepares graduating students to enter the professional practice of engineering.

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. An ability to communicate effectively with a range of audiences.
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Bachelor of Engineering in Electrical Engineering, Computer/Digital Track

Through the Electrical Engineering program at Youngstown State University, you'll develop competency in all aspects of electrical engineering and its related fields. You'll take coursework anchored in engineering, math and physics that will allow you to solve complex problems and design intricate systems. Along the way, you'll also refine your communication skills and learn how to ethically and responsibly deploy your engineering skills.

Electrical engineers have homes in a large assortment of industries, from power generation and automotive manufacturing to biomedical development and consumer product design. You may even find yourself using your engineering expertise to serve your country in the military.

With your bachelor's degree in hand, you'll be the person advancing the products and systems that advance society.

MAJOR

Design projects, computer simulations, and hands-on laboratory sessions are the pillars of the Electrical Engineering major at YSU. Students enrolled in the program may choose from three options that prepare graduates for a large variety of professional positions or advanced studies:

- Traditional Option (<https://ysu.edu/academics/science-technology-engineering-mathematics/electrical-engineering-major/#panel0>)

- Computer/Digital Option (<https://ysu.edu/academics/science-technology-engineering-mathematics/electrical-engineering-major/#panel1>)
- Biomedical Option (<https://ysu.edu/academics/science-technology-engineering-mathematics/electrical-engineering-major/#panel2>)

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Gen Ed Math met through major		
Natural Science Gen Ed (9 s.h.)		
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics Laboratory 1	1
Arts and Humanities (6 s.h.)		
PHIL 2626	Engineering Ethics	3
Arts and Humanities (select 1 course)		
Social Science (6 s.h.)		
ECON 2610	Principles 1: Microeconomics	3
Social Science (select 1 course)		
General Education Electives (1 course met by MATH 1572 in major)		
CMST 1545	Communication Foundations	3
General Education Elective select any course		
Major Requirements		
ECEN 1521 & 1521L	Digital Circuits and Digital Circuits Laboratory <small>Lecture is 3 sh lab is 1 sh</small>	4
ECEN 2611	Instrumentation and Computation Lab 1	1
ECEN 2612	Instrumentation and Computation Lab 2	1
ECEN 2632	Basic Circuit Theory 1	3
ECEN 2633	Basic Circuit Theory 2	3
ECEN 3710	Signals and Systems	3
ECEN 3711	Intermediate Laboratory 1	1
ECEN 3712	Intermediate Laboratory 2	1
ECEN 3733	Digital Circuit Design	3
ECEN 3741	Electromagnetic Fields 1	3
ECEN 3742	Electromagnetic Fields 2	3
ECEN 3771	Digital and Analog Circuits 1	3
ECEN 4803 & 4803L	Linear Control Systems and Linear Control Systems Laboratory	4
ECEN 4811	Senior Laboratory	1
ECEN 4844	Electromagnetic Energy Conversion	3
ECEN 4899	Senior Design Project	3
ECEN 4899L	Senior Design Project Lab	1
Computer Engineering/Science		
CSIS 2610	Programming and Problem-Solving	3
CSIS 2610L	Programming and Problem-Solving Lab	1
ECEN 3734	Computer Design	3
CSIS 3700	Data Structures and Objects	3
CSIS 3700L	Data Structures and Objects Lab	1
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
ENGR 1560	Engineering Computing	2

MECH 2620	Statics and Dynamics	3
ISEN 2610	Engineering Statistics	3
CSCI/ECEN Electives		
Select 8 s.h. of 3700 level or higher CSCI/ECEN electives.		8
Science		
PHYS 3705	Thermodynamics and Classical Statistical Dynamics	3
Math Minor -one course counts toward Gen Ed		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
MATH 3705	Differential Equations	3
MATH 3718	Linear Algebra and Discrete Mathematics for Engineers	3
Total Semester Hours		126-128
Year 1		
Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
MATH 1571	Calculus 1	4
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
Gen Ed Elective Course		3
Semester Hours		18-20
Spring		
MATH 1572	Calculus 2	4
ENGR 1560	Engineering Computing	2
ECEN 1521 & 1521L	Digital Circuits and Digital Circuits Laboratory	4
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Semester Hours		16
Year 2		
Fall		
MATH 2673	Calculus 3	4
ECEN 2632	Basic Circuit Theory 1	3
ECEN 2611	Instrumentation and Computation Lab 1	1
PHYS 2610 & 2610L	General Physics 1 and General Physics Laboratory 1	5
Semester Hours		13
Spring		
MATH 3705	Differential Equations	3
ECEN 2633	Basic Circuit Theory 2	3
MATH 3718	Linear Algebra and Discrete Mathematics for Engineers	3
ECEN 2612	Instrumentation and Computation Lab 2	1
MECH 2620	Statics and Dynamics	3
Semester Hours		13
Year 3		
Fall		
ECEN 3711	Intermediate Laboratory 1	1
ECEN 3733	Digital Circuit Design	3

ECEN 3741	Electromagnetic Fields 1	3
ECEN 3771	Digital and Analog Circuits 1	3
CSIS 2610	Programming and Problem-Solving	3
CSIS 2610L	Programming and Problem-Solving Lab	1
ISEN 2610	Engineering Statistics	3

Semester Hours 17

Spring

ECEN 3712	Intermediate Laboratory 2	1
ECEN 3710	Signals and Systems	3
ECEN 3734	Computer Design	3
ECEN 3742	Electromagnetic Fields 2	3
ECEN 4844	Electromagnetic Energy Conversion	3
CSIS 3700	Data Structures and Objects	3
CSIS 3700L	Data Structures and Objects Lab	1

Semester Hours 17

Year 4

Fall

ECEN 4803 & 4803L	Linear Control Systems and Linear Control Systems Laboratory	4
ECEN 4811	Senior Laboratory	1
CSCI/ECEN Elective		4
PHYS 3705	Thermodynamics and Classical Statistical Dynamics	3
ECON 2610	Principles 1: Microeconomics	3

Semester Hours 15

Spring

ECEN 4899	Senior Design Project	3
ECEN 4899L	Senior Design Project Lab	1
PHIL 2626	Engineering Ethics	3
CSCI/ECEN Elective		4
AH General Education Requirement		3
AH General Education Requirement		3

Semester Hours 17

Total Semester Hours 126-128

Student Outcomes

The following (1 through 7) Student Outcomes support the program educational objectives. Attainment of these outcomes by students by the time of their graduation prepares graduating students to enter the professional practice of engineering.

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2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. An ability to communicate effectively with a range of audiences.
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Electrical Engineering Computer Digital 4+1 Graduate Track

Through the Electrical Engineering program at Youngstown State University, you'll develop competency in all aspects of electrical engineering and its related fields. You'll take coursework anchored in engineering, math and physics that will allow you to solve complex problems and design intricate systems. Along the way, you'll also refine your communication skills and learn how to ethically and responsibly deploy your engineering skills.

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With your bachelor's degree in hand, you'll be the person advancing the products and systems that advance society.

MAJOR

Design projects, computer simulations, and hands-on laboratory sessions are the pillars of the Electrical Engineering major at YSU. Students enrolled in the program may choose from three options that prepare graduates for a large variety of professional positions or advanced studies:

- Traditional Option (<https://ysu.edu/academics/science-technology-engineering-mathematics/electrical-engineering-major/#panel0>)
- Computer/Digital Option (<https://ysu.edu/academics/science-technology-engineering-mathematics/electrical-engineering-major/#panel1>)
- Biomedical Option (<https://ysu.edu/academics/science-technology-engineering-mathematics/electrical-engineering-major/#panel2>)

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	

General Education Requirements

ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Gen Ed Math met through major		
Natural Science Gen Ed (9 s.h.)		
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics Laboratory 1	1
Arts and Humanities (6 s.h.)		
Arts and Humanities (select 1 course)		
PHIL 2626	Engineering Ethics	3
Social Science (6 s.h.)		
Social Science (select 1 course)		
ECON 2610	Principles 1: Microeconomics	3
General Education Elective (9 s.h. select 2 courses)		
CMST 1545	Communication Foundations	3

Major Requirements

ECEN 1521 & 1521L	Digital Circuits and Digital Circuits Laboratory	4
ECEN 2611	Instrumentation and Computation Lab 1	1
ECEN 2612	Instrumentation and Computation Lab 2	1
ECEN 2632	Basic Circuit Theory 1	3
ECEN 2633	Basic Circuit Theory 2	3

ECEN 3710	Signals and Systems	3
ECEN 3711	Intermediate Laboratory 1	1
ECEN 3712	Intermediate Laboratory 2	1
ECEN 3733	Digital Circuit Design	3
ECEN 3741	Electromagnetic Fields 1	3
ECEN 3742	Electromagnetic Fields 2	3
ECEN 3771	Digital and Analog Circuits 1	3
ECEN 4803 & 4803L	Linear Control Systems and Linear Control Systems Laboratory	4
ECEN 4811	Senior Laboratory	1
ECEN 4844	Electromagnetic Energy Conversion	3
ECEN 4899	Senior Design Project	3
ECEN 4899L	Senior Design Project Lab	1

Computer Engineering/Science

CSIS 2610	Programming and Problem-Solving	3
CSIS 2610L	Programming and Problem-Solving Lab	1
ECEN 3734	Computer Design	3
CSIS 3700	Data Structures and Objects	3
CSIS 3700L	Data Structures and Objects Lab	1
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
ENGR 1560	Engineering Computing	2
MECH 2620	Statics and Dynamics	3
ISEN 2610	Engineering Statistics	3

Dual Credit Requirements

Select 9 s.h. of 5800 or 6900 level or higher CSCI/ECEN electives below 9

ECEN 5800	Special Topics	
ECEN 5808	Advanced Signals and Systems	
ECEN 5830	Digital Signal Processing	
ECEN 5835	Computer Architecture with VHDL	
ECEN 5840	Electric Power Systems	
ECEN 5860	Fundamental of Antenna Design and Application	
ECEN 5890	Power Electronics	
ECEN 6900	Seminar	
ECEN 6901	Control Systems 1	
ECEN 6902	Control Systems 2	
ECEN 6933	Digital Systems: VHDL Design	
ECEN 6934	Digital Systems: Computer Arithmetic	

Science

PHYS 3705	Thermodynamics and Classical Statistical Dynamics	3
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Math Minor -one course counts toward Gen Ed

MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
MATH 3705	Differential Equations	3
MATH 3718	Linear Algebra and Discrete Mathematics for Engineers	3

Total Semester Hours 130-132

Dual Credit Requirements**Accelerated 4+1 Program**

Undergraduate Electrical Engineering students can apply for admission into the accelerated 4+1 MSE in Electrical Engineering graduate program after completing 78 undergraduate semester hours with a GPA of 3.3 or higher. After being admitted to the accelerated 4+1 MSE program, students will be allowed a maximum of nine semester hours of graduate coursework, specified as 5000 level or higher, to be double counted toward both a bachelor's and master's

degrees. The courses chosen to count for both undergraduate and graduate coursework must be approved by the Graduate Program Director. An additional three hours of graduate coursework can be completed as an undergraduate and used exclusively for graduate credit. This allows the student to graduate with a master's degree with one year of additional full-time study beyond the bachelor's degree, as the total hours counted towards the Master's degree is greater than or equal to 30 hours.

Courses Counting Towards Requirements

Select 3 of these courses, as only 3 can be double counted. Can select a 4th that would only count for the Master's degree.

Year 1

Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
MATH 1571	Calculus 1	4
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
CHEM 1515	General Chemistry 1	4
& 1515L	and General Chemistry 1 Laboratory	
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
Semester Hours		15-17

Spring

MATH 1572	Calculus 2	4
ENGR 1560	Engineering Computing	2
ECEN 1521	Digital Circuits	4
& 1521L	and Digital Circuits Laboratory	
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Semester Hours		16

Year 2**Fall**

MATH 2673	Calculus 3	4
ECEN 2632	Basic Circuit Theory 1	3
ECEN 2611	Instrumentation and Computation Lab 1	1
PHYS 2610	General Physics 1	5
& 2610L	and General Physics Laboratory 1	
General Education Requirement		3
Semester Hours		16

Spring

MATH 3705	Differential Equations	3
ECEN 2633	Basic Circuit Theory 2	3
MATH 3718	Linear Algebra and Discrete Mathematics for Engineers	3
ECEN 2612	Instrumentation and Computation Lab 2	1
MECH 2620	Statics and Dynamics	3
General Education Requirement		3
Semester Hours		16

Year 3**Fall**

ECEN 3711	Intermediate Laboratory 1	1
ECEN 3733	Digital Circuit Design	3
ECEN 3741	Electromagnetic Fields 1	3
ECEN 3771	Digital and Analog Circuits 1	3
CSIS 2610	Programming and Problem-Solving	3

CSIS 2610L	Programming and Problem-Solving Lab	1
ISEN 2610	Engineering Statistics	3
Semester Hours		17
Spring		
ECEN 3712	Intermediate Laboratory 2	1
ECEN 3710	Signals and Systems	3
ECEN 3734	Computer Design	3
ECEN 3742	Electromagnetic Fields 2	3
ECEN 4844	Electromagnetic Energy Conversion	3
CSIS 3700	Data Structures and Objects	3
CSIS 3700L	Data Structures and Objects Lab	1
Semester Hours		17
Year 4		
Fall		
ECEN 4803 & 4803L	Linear Control Systems and Linear Control Systems Laboratory	4
ECEN 4811	Senior Laboratory	1
CSCI/ECEN Elective		6
PHYS 3705	Thermodynamics and Classical Statistical Dynamics	3
ECON 2610	Principles 1: Microeconomics	3
Semester Hours		17
Spring		
ECEN 4899	Senior Design Project	3
ECEN 4899L	Senior Design Project Lab	1
PHIL 2626	Engineering Ethics	3
CSCI/ECEN Elective		3
General Education Requirement		3
General Education Requirement		3
Semester Hours		16
Total Semester Hours		130-132

Student Outcomes

The following (1 through 7) Student Outcomes support the program educational objectives. Attainment of these outcomes by students by the time of their graduation prepares graduating students to enter the professional practice of engineering.

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. An ability to communicate effectively with a range of audiences.
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Bachelor of Engineering in Electrical Engineering, Traditional Track

Through the Electrical Engineering program at Youngstown State University, you'll develop competency in all aspects of electrical engineering and its related fields. You'll take coursework anchored in engineering, math and physics that will allow you to solve complex problems and design intricate systems. Along the way, you'll also refine your communication skills and learn how to ethically and responsibly deploy your engineering skills.

Electrical engineers have homes in a large assortment of industries, from power generation and automotive manufacturing to biomedical development and consumer product design. You may even find yourself using your engineering expertise to serve your country in the military.

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MAJOR

Design projects, computer simulations, and hands-on laboratory sessions are the pillars of the Electrical Engineering major at YSU. Students enrolled in the program may choose from three options that prepare graduates for a large variety of professional positions or advanced studies:

- Traditional Option (<https://ysu.edu/academics/science-technology-engineering-mathematics/electrical-engineering-major/#panel0>)
- Computer/Digital Option (<https://ysu.edu/academics/science-technology-engineering-mathematics/electrical-engineering-major/#panel1>)
- Biomedical Option (<https://ysu.edu/academics/science-technology-engineering-mathematics/electrical-engineering-major/#panel2>)

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Gen Ed Math met in major		
Natural Science (7 s.h.)		
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics Laboratory 1	1
Arts and Humanities (6 s.h. select one course)		
PHIL 2626	Engineering Ethics	3
Social Science (6 s.h. select one course)		
ECON 2610	Principles 1: Microeconomics	3
General Education Electives (1 course met by MATH 1572 in major)		
CMST 1545	Communication Foundations	3
General Education Elective (select any course)		
Major Requirements		
ECEN 1521	Digital Circuits	3
ECEN 1521L	Digital Circuits Laboratory	1
ECEN 2611	Instrumentation and Computation Lab 1	1
ECEN 2612	Instrumentation and Computation Lab 2	1
ECEN 2632	Basic Circuit Theory 1	3
ECEN 2633	Basic Circuit Theory 2	3
ECEN 3710	Signals and Systems	3

ECEN 3711	Intermediate Laboratory 1	1
ECEN 3712	Intermediate Laboratory 2	1
ECEN 3733	Digital Circuit Design	3
ECEN 3741	Electromagnetic Fields 1	3
ECEN 3742	Electromagnetic Fields 2	3
ECEN 3771	Digital and Analog Circuits 1	3
ECEN 3772	Digital and Analog Circuits 2	3
ECEN 4803	Linear Control Systems	3
ECEN 4803L	Linear Control Systems Laboratory	1
ECEN 4811	Senior Laboratory	1
ECEN 4844	Electromagnetic Energy Conversion	3
ENGR 1500	Engineering Orientation	1
ECEN 4899	Senior Design Project	3
ECEN 4899L	Senior Design Project Lab	1
ENGR 1550	Engineering Concepts	2
ENGR 1560	Engineering Computing	2
MECH 2620	Statics and Dynamics	3
ISEN 2610	Engineering Statistics	3
PHYS 3705	Thermodynamics and Classical Statistical Dynamics	3
CSIS 2610	Programming and Problem-Solving	3
CSIS 2610L	Programming and Problem-Solving Lab	1
ECEN Electives/Internship -Students have the option of one of the following:		
9 s.h. of ECEN Electives or (6) ECEN elective hours + (3) STEM internship credits or (3) ECEN elective hours + (6) STEM internship credits		9
Mathematics Minor -one course counts toward Gen Ed		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
MATH 3705	Differential Equations	3
MATH 3718	Linear Algebra and Discrete Mathematics for Engineers	3
Total Semester Hours		123-125
Course List		
Year 1		
Fall		
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2
MATH 1571	Calculus 1	4
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
Semester Hours		15-17
Spring		
MATH 1572	Calculus 2	4
ENGR 1560	Engineering Computing	2
ECEN 1521 & 1521L	Digital Circuits and Digital Circuits Laboratory	4
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Any Gen Ed Elective Course		3
Semester Hours		19

Year 2**Fall**

MATH 2673	Calculus 3	4
ECEN 2632	Basic Circuit Theory 1	3
ECEN 2611	Instrumentation and Computation Lab 1	1
PHYS 2610 & 2610L	General Physics 1 and General Physics Laboratory 1	5

Semester Hours**13****Spring**

MATH 3705	Differential Equations	3
MATH 3718	Linear Algebra and Discrete Mathematics for Engineers	3
ECEN 2633	Basic Circuit Theory 2	3
ECEN 2612	Instrumentation and Computation Lab 2	1
MECH 2620	Statics and Dynamics	3
CSIS 2610	Programming and Problem-Solving	3
CSIS 2610L	Programming and Problem-Solving Lab	1

Semester Hours**17****Year 3****Fall**

ECEN 3711	Intermediate Laboratory 1	1
ECEN 3733	Digital Circuit Design	3
ECEN 3741	Electromagnetic Fields 1	3
ECEN 3771	Digital and Analog Circuits 1	3
PHIL 2626	Engineering Ethics	3
ISEN 2610	Engineering Statistics	3

Semester Hours**16****Spring**

ECEN 3712	Intermediate Laboratory 2	1
ECEN 3710	Signals and Systems	3
ECEN 3742	Electromagnetic Fields 2	3
ECEN 3772	Digital and Analog Circuits 2	3
ECEN 4844	Electromagnetic Energy Conversion	3
ECON 2610	Principles 1: Microeconomics	3

Semester Hours**16****Year 4****Fall**

ECEN 4803 & 4803L	Linear Control Systems and Linear Control Systems Laboratory	4
ECEN 4811	Senior Laboratory	1
ECEN elective		3
ECEN elective		3
PHYS 3705	Thermodynamics and Classical Statistical Dynamics	3

Semester Hours**14****Spring**

ECEN Elective		3
ECEN 4899	Senior Design Project	3
ECEN 4899L	Senior Design Project Lab	1
General Education Requirement		3
General Education Requirement		3

Semester Hours**13****Total Semester Hours****123-125**

Student Outcomes

The following (1 through 7) Student Outcomes support the program educational objectives. Attainment of these outcomes by students by the time

of their graduation prepares graduating students to enter the professional practice of engineering.

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. An ability to communicate effectively with a range of audiences.
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Electrical Engineering Traditional 4+1 Graduate Track

Through the Electrical Engineering program at Youngstown State University, you'll develop competency in all aspects of electrical engineering and its related fields. You'll take coursework anchored in engineering, math and physics that will allow you to solve complex problems and design intricate systems. Along the way, you'll also refine your communication skills and learn how to ethically and responsibly deploy your engineering skills.

Electrical engineers have homes in a large assortment of industries, from power generation and automotive manufacturing to biomedical development and consumer product design. You may even find yourself using your engineering expertise to serve your country in the military.

With your bachelor's degree in hand, you'll be the person advancing the products and systems that advance society.

MAJOR

Design projects, computer simulations, and hands-on laboratory sessions are the pillars of the Electrical Engineering major at YSU. Students enrolled in the program may choose from three options that prepare graduates for a large variety of professional positions or advanced studies:

- Traditional Option (<https://ysu.edu/academics/science-technology-engineering-mathematics/electrical-engineering-major/#panel0>)
- Computer/Digital Option (<https://ysu.edu/academics/science-technology-engineering-mathematics/electrical-engineering-major/#panel1>)
- Biomedical Option (<https://ysu.edu/academics/science-technology-engineering-mathematics/electrical-engineering-major/#panel2>)

Through the Electrical Engineering program at Youngstown State University, you'll develop competency in all aspects of electrical engineering and its related fields. You'll take coursework anchored in engineering, math and physics that will allow you to solve complex problems and design intricate systems. Along the way, you'll also refine your communication skills and learn how to ethically and responsibly deploy your engineering skills.

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- Computer/Digital Option (<https://ysu.edu/academics/science-technology-engineering-mathematics/electrical-engineering-major/#panel1>)
- Biomedical Option (<https://ysu.edu/academics/science-technology-engineering-mathematics/electrical-engineering-major/#panel2>)

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar Youngstown State University Success Seminar Intro to Honors	1-2
General Education Requirements		
ENGL 1550 or ENGL 1549	Writing 1 Writing 1 with Support	3-4
ENGL 1551	Writing 2	3
Gen Ed Math met in major		
Natural Science (7 s.h.)		
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics Laboratory 1	1
Arts and Humanities (6 s.h. select one course)		3
PHIL 2626	Engineering Ethics	3
Social Science (6 s.h. select one course)		3
ECON 2610	Principles 1: Microeconomics	3
General Education Elective (9 s.h. select 2 courses)		6
CMST 1545	Communication Foundations	3
Major Requirements		
ECEN 1521	Digital Circuits	3
ECEN 1521L	Digital Circuits Laboratory	1
ECEN 2611	Instrumentation and Computation Lab 1	1
ECEN 2612	Instrumentation and Computation Lab 2	1
ECEN 2632	Basic Circuit Theory 1	3
ECEN 2633	Basic Circuit Theory 2	3
ECEN 3710	Signals and Systems	3
ECEN 3711	Intermediate Laboratory 1	1
ECEN 3712	Intermediate Laboratory 2	1
ECEN 3733	Digital Circuit Design	3
ECEN 3741	Electromagnetic Fields 1	3
ECEN 3742	Electromagnetic Fields 2	3
ECEN 3771	Digital and Analog Circuits 1	3
ECEN 3772	Digital and Analog Circuits 2	3
ECEN 4803	Linear Control Systems	3
ECEN 4803L	Linear Control Systems Laboratory	1
ECEN 4811	Senior Laboratory	1
ECEN 4844	Electromagnetic Energy Conversion	3
ENGR 1500	Engineering Orientation	1
ECEN 4899	Senior Design Project	3
ECEN 4899L	Senior Design Project Lab	1

ENGR 1550	Engineering Concepts	2
ENGR 1560	Engineering Computing	2
MECH 2620	Statics and Dynamics	3
ISEN 2610	Engineering Statistics	3
PHYS 3705	Thermodynamics and Classical Statistical Dynamics	3
CSIS 2610	Programming and Problem-Solving	3
CSIS 2610L	Programming and Problem-Solving Lab	1

Dual Credit Requirements

Select 9 s.h. of 5800 or 6900 level or higher CSCI/ECEN electives below 9

ECEN 5800	Special Topics	
ECEN 5808	Advanced Signals and Systems	
ECEN 5830	Digital Signal Processing	
ECEN 5835	Computer Architecture with VHDL	
ECEN 5840	Electric Power Systems	
ECEN 5860	Fundamental of Antenna Design and Application	
ECEN 5890	Power Electronics	
ECEN 6900	Seminar	
ECEN 6901	Control Systems 1	
ECEN 6902	Control Systems 2	
ECEN 6933	Digital Systems: VHDL Design	
ECEN 6934	Digital Systems: Computer Arithmetic	

Mathematics Minor -one course counts toward Gen Ed

MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
MATH 3705	Differential Equations	3
MATH 3718	Linear Algebra and Discrete Mathematics for Engineers	3

Total Semester Hours **126-128**

Course List**Dual Credit Requirements****Accelerated 4+1 Program**

Undergraduate Chemical Engineering students can apply for admission into the accelerated 4+1 MSE in Chemical Engineering graduate program after completing 78 undergraduate semester hours with a GPA of 3.3 or higher. After being admitted to the accelerated 4+1 MSE program, students will be allowed a maximum of nine semester hours of graduate coursework, specified as 5000 level or higher, to be double counted toward both a bachelor's and master's degrees. The courses chosen to count for both undergraduate and graduate coursework must be approved by the Graduate Program Director. An additional three hours of graduate coursework can be completed as an undergraduate and used exclusively for graduate credit. This allows the student to graduate with a master's degree with one year of additional full-time study beyond the bachelor's degree, as the total hours counted towards the Master's degree is greater than or equal to 30 hours.

Courses Counting Towards Requirements

Select 3 of these courses, as only 3 can be double counted. Can select a 4th that would only count for the Master's degree.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4

or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Gen Ed Math met through major		
Natural Science Gen Ed (9 s.h.)		
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics Laboratory 1	1
Arts and Humanities (6 s.h.)		
Arts and Humanities (select 1 course)		3
PHIL 2626	Engineering Ethics	3
Social Science (6 s.h.)		
Social Science (select 1 course)		3
ECON 2610	Principles 1: Microeconomics	3
General Education Elective (9 s.h. select 2 courses)		6
CMST 1545	Communication Foundations	3

Major Requirements

ECEN 1521	Digital Circuits	4
& 1521L	and Digital Circuits Laboratory	
Lecture is 3 sh lab is 1 sh		
ECEN 2611	Instrumentation and Computation Lab 1	1
ECEN 2612	Instrumentation and Computation Lab 2	1
ECEN 2632	Basic Circuit Theory 1	3
ECEN 2633	Basic Circuit Theory 2	3
ECEN 3710	Signals and Systems	3
ECEN 3711	Intermediate Laboratory 1	1
ECEN 3712	Intermediate Laboratory 2	1
ECEN 3733	Digital Circuit Design	3
ECEN 3741	Electromagnetic Fields 1	3
ECEN 3742	Electromagnetic Fields 2	3
ECEN 3771	Digital and Analog Circuits 1	3
ECEN 4803	Linear Control Systems	4
& 4803L	and Linear Control Systems Laboratory	
ECEN 4811	Senior Laboratory	1
ECEN 4844	Electromagnetic Energy Conversion	3
ECEN 4899	Senior Design Project	3
ECEN 4899L	Senior Design Project Lab	1

Computer Engineering/Science

CSIS 2610	Programming and Problem-Solving	3
CSIS 2610L	Programming and Problem-Solving Lab	1
ECEN 3734	Computer Design	3
CSIS 3700	Data Structures and Objects	3
CSIS 3700L	Data Structures and Objects Lab	1
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
ENGR 1560	Engineering Computing	2
MECH 2620	Statics and Dynamics	3
ISEN 2610	Engineering Statistics	3

Dual Credit Requirements

Select 9 s.h. of 5800 or 6900 level or higher CSCI/ECEN electives below 9

ECEN 5800	Special Topics	
ECEN 5808	Advanced Signals and Systems	
ECEN 5830	Digital Signal Processing	
ECEN 5835	Computer Architecture with VHDL	
ECEN 5840	Electric Power Systems	
ECEN 5860	Fundamental of Antenna Design and Application	
ECEN 5890	Power Electronics	
ECEN 6900	Seminar	

ECEN 6901	Control Systems 1	
ECEN 6902	Control Systems 2	
ECEN 6933	Digital Systems: VHDL Design	
ECEN 6934	Digital Systems: Computer Arithmetic	
Science		
PHYS 3705	Thermodynamics and Classical Statistical Dynamics	3
Math Minor -one course counts toward Gen Ed		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
MATH 3705	Differential Equations	3
MATH 3718	Linear Algebra and Discrete Mathematics for Engineers	3
Total Semester Hours		130-132

Dual Credit Requirements**Accelerated 4+1 Program**

Undergraduate Electrical Engineering students can apply for admission into the accelerated 4+1 MSE in Electrical Engineering graduate program after completing 78 undergraduate semester hours with a GPA of 3.3 or higher. After being admitted to the accelerated 4+1 MSE program, students will be allowed a maximum of nine semester hours of graduate coursework, specified as 5000 level or higher, to be double counted toward both a bachelor's and master's degrees. The courses chosen to count for both undergraduate and graduate coursework must be approved by the Graduate Program Director. An additional three hours of graduate coursework can be completed as an undergraduate and used exclusively for graduate credit. This allows the student to graduate with a master's degree with one year of additional full-time study beyond the bachelor's degree, as the total hours counted towards the Master's degree is greater than or equal to 30 hours.

Courses Counting Towards Requirements

Select 3 of these courses, as only 3 can be double counted. Can select a 4th that would only count for the Master's degree.

Year 1		
Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
MATH 1571	Calculus 1	4
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
Semester Hours		15-17
Spring		
MATH 1572	Calculus 2	4
ENGR 1560	Engineering Computing	2
ECEN 1521 & 1521L	Digital Circuits and Digital Circuits Laboratory	4
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Semester Hours		16

Year 2

Fall		
MATH 2673	Calculus 3	4
ECEN 2632	Basic Circuit Theory 1	3
ECEN 2611	Instrumentation and Computation Lab 1	1
PHYS 2610 & 2610L	General Physics 1 and General Physics Laboratory 1	5
General Education Requirement		3
Semester Hours		16
Spring		
MATH 3705	Differential Equations	3
MATH 3718	Linear Algebra and Discrete Mathematics for Engineers	3
ECEN 2633	Basic Circuit Theory 2	3
ECEN 2612	Instrumentation and Computation Lab 2	1
MECH 2620	Statics and Dynamics	3
CSIS 2610	Programming and Problem-Solving	3
CSIS 2610L	Programming and Problem-Solving Lab	1
Semester Hours		17

Year 3

Fall		
ECEN 3711	Intermediate Laboratory 1	1
ECEN 3733	Digital Circuit Design	3
ECEN 3741	Electromagnetic Fields 1	3
ECEN 3771	Digital and Analog Circuits 1	3
PHIL 2626	Engineering Ethics	3
ISEN 2610	Engineering Statistics	3
Semester Hours		16
Spring		
ECEN 3712	Intermediate Laboratory 2	1
ECEN 3710	Signals and Systems	3
ECEN 3742	Electromagnetic Fields 2	3
ECEN 3772	Digital and Analog Circuits 2	3
ECEN 4844	Electromagnetic Energy Conversion	3
ECON 2610	Principles 1: Microeconomics	3
Semester Hours		16

Year 4

Fall		
ECEN 4803 & 4803L	Linear Control Systems and Linear Control Systems Laboratory	4
ECEN 4811	Senior Laboratory	1
ECEN elective		3
ECEN elective		3
PHYS 3705	Thermodynamics and Classical Statistical Dynamics	3
General Education Requirement		3
Semester Hours		17
Spring		
ECEN Elective		3
ECEN 4899	Senior Design Project	3
ECEN 4899L	Senior Design Project Lab	1
General Education Requirement		3
General Education Requirement		3
Semester Hours		13
Total Semester Hours		126-128

Year 1**Fall**

YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	S.H. 1-2
MATH 1571	Calculus 1	4
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
Semester Hours		15-17

Spring

MATH 1572	Calculus 2	4
ENGR 1560	Engineering Computing	2
ECEN 1521 & 1521L	Digital Circuits and Digital Circuits Laboratory	4
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Semester Hours		16

Year 2**Fall**

MATH 2673	Calculus 3	4
ECEN 2632	Basic Circuit Theory 1	3
ECEN 2611	Instrumentation and Computation Lab 1	1
PHYS 2610 & 2610L	General Physics 1 and General Physics Laboratory 1	5
General Education Requirement		3
Semester Hours		16

Spring

MATH 3705	Differential Equations	3
ECEN 2633	Basic Circuit Theory 2	3
MATH 3718	Linear Algebra and Discrete Mathematics for Engineers	3
ECEN 2612	Instrumentation and Computation Lab 2	1
MECH 2620	Statics and Dynamics	3
General Education Requirement		3
Semester Hours		16

Year 3**Fall**

ECEN 3711	Intermediate Laboratory 1	1
ECEN 3733	Digital Circuit Design	3
ECEN 3741	Electromagnetic Fields 1	3
ECEN 3771	Digital and Analog Circuits 1	3
CSIS 2610	Programming and Problem-Solving	3
CSIS 2610L	Programming and Problem-Solving Lab	1
ISEN 2610	Engineering Statistics	3
Semester Hours		17

Spring

ECEN 3712	Intermediate Laboratory 2	1
ECEN 3710	Signals and Systems	3
ECEN 3734	Computer Design	3
ECEN 3742	Electromagnetic Fields 2	3
ECEN 4844	Electromagnetic Energy Conversion	3
CSIS 3700	Data Structures and Objects	3

CSIS 3700L	Data Structures and Objects Lab	1
Semester Hours		17

Year 4**Fall**

ECEN 4803 & 4803L	Linear Control Systems and Linear Control Systems Laboratory	4
ECEN 4811	Senior Laboratory	1
CSCI/ECEN Elective		6
PHYS 3705	Thermodynamics and Classical Statistical Dynamics	3
ECON 2610	Principles 1: Microeconomics	3
Semester Hours		17

Spring

ECEN 4899	Senior Design Project	3
ECEN 4899L	Senior Design Project Lab	1
PHIL 2626	Engineering Ethics	3
CSCI/ECEN Elective		3
General Education Requirement		3
General Education Requirement		3
Semester Hours		16
Total Semester Hours		130-132

Student Outcomes

The following (1 through 7) Student Outcomes support the program educational objectives. Attainment of these outcomes by students by the time of their graduation prepares graduating students to enter the professional practice of engineering.

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. An ability to communicate effectively with a range of audiences.
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

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The following (1 through 7) Student Outcomes support the program educational objectives. Attainment of these outcomes by students by the time of their graduation prepares graduating students to enter the professional practice of engineering.

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5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Minor in Electrical and Computer Engineering

For students with little or no background:

COURSE	TITLE	S.H.
ECEN 1521 & 1521L	Digital Circuits and Digital Circuits Laboratory	4
ECEN 2632	Basic Circuit Theory 1	3
ECEN 2611	Instrumentation and Computation Lab 1	1
ECEN 2633	Basic Circuit Theory 2	3
ECEN 2612	Instrumentation and Computation Lab 2	1
ECEN 3733	Digital Circuit Design	3
ECEN 3771	Digital and Analog Circuits 1	3
ECEN 3711	Intermediate Laboratory 1	1
Total Semester Hours		19

For students with background in math or computer science:

COURSE	TITLE	S.H.
ECEN 1521L	Digital Circuits Laboratory	1
ECEN 2632	Basic Circuit Theory 1	3
ECEN 2611	Instrumentation and Computation Lab 1	1
ECEN 2633	Basic Circuit Theory 2	3
ECEN 2612	Instrumentation and Computation Lab 2	1
ECEN 3733	Digital Circuit Design	3
ECEN 3734	Computer Design	3
ECEN 3771	Digital and Analog Circuits 1	3
ECEN 3711	Intermediate Laboratory 1	1
Total Semester Hours		19

For students with background in physics:

COURSE	TITLE	S.H.
ECEN 1521 & 1521L	Digital Circuits and Digital Circuits Laboratory	4
ECEN 3710	Signals and Systems	3
ECEN 3733	Digital Circuit Design	3
ECEN 3771	Digital and Analog Circuits 1	3
ECEN 3772	Digital and Analog Circuits 2	3
ECEN 4803 & 4803L	Linear Control Systems and Linear Control Systems Laboratory	4
Total Semester Hours		20

Mechanical and Industrial Engineering

(330) 941-3016

Moser Hall, Room 2510

The Mechanical and Industrial Engineering program is dedicated to furthering the missions and objectives of the university and the College of Science, Technology, Engineering, and Mathematics. We focus on providing an opportunity for quality education in mechanical engineering and industrial and systems engineering while offering professional service to local and regional industry and to the public. The program is committed to providing its students with a broad, general education and an up-to-date technological curriculum in a four-year undergraduate program. It also offers an application-oriented evening Master of Science in Engineering program to practicing engineers and recent engineering graduates. An online Master of Engineering Management is also available.

Professor

S. Cory Brozina, Ph.D., Assistant Professor

Kyosung Choo, Ph.D., Associate Professor

Seok Gi Lee, Ph.D., Assistant Professor

Zefeng Lyu, Ph.D., Assistant Professor

Hazel Marie, Ph.D., Professor

Stefan Moldovan, Ph.D., Assistant Professor

Alexander H. Pesch, Ph.D., Assistant Professor

Jae Joong Ryu, Ph.D., Associate Professor

Elvin B. Shields, Ph.D., Professor

Virgil C. Solomon, Ph.D., Professor

Bharat Yelamanchi, Ph.D., Assistant Professor

Lecturer

Eric Haake, M.A., Lecturer

Kelsey Lyda, M.S., Senior Lecturer

Sharmin N. Mithy, M.S., Lecturer

Mark Sindelar, Ph.D., Lecturer

Anthony Viviano, M.S., Senior Lecturer

Majors

- Industrial and Systems Engineering Program (p. 472)
- Mechanical Engineering Program (p. 474)

Minors

- Minor in Industrial and Systems Engineering (p. 478)
- Minor in Mechanical Engineering (p. 479)
- Minor in Manufacturing Engineering (p. 479)

Mechanical Engineering

MECH 1500 Drawing Fundamentals 3 s.h.

Visualization of objects for engineering communication. Freehand sketching, orthographic projection, multiview drawing, auxiliary views, sectional views, and dimensioning.

Prereq.: High school geometry or equivalent.

MECH 1501 Engineering Communication with CAD 3 s.h.

Computer-aided drawing for engineering communication. 2D multiview drawings, 3D modeling including wire frame, solid, and surface models. Final design project using these tools is required. Two hours lecture, three hours laboratory per week.

Prereq.: MECH 1500 or equivalent.

MECH 1560 Engineering Communication with CAD 2 s.h.

Commercially available software typically used in engineering practice will be used to develop traditional 2D engineering drawings and 3D solid models representing engineering components and systems. Teams of students will complete an engineering design project. One hour lecture and three hours laboratory per week.

Prereq.: ENGR 1560.

MECH 2603 Thermodynamics 1 3 s.h.

Thermodynamic properties of gases and vapors, and their relationships in energy transformations. The First and Second Laws of thermodynamics. Introduction to thermodynamic cycles and efficiencies of power and refrigeration systems.

Prereq.: MATH 1572, CHEM 1515.

MECH 2604 Thermodynamics 2 3 s.h.

Irreversibility and exergy, mixtures and solutions; psychometry. Introduction to phase and chemical equilibrium.

Prereq.: MECH 2603.

MECH 2606 Engineering Materials 3 s.h.

Properties and uses of engineering materials, manufacturing processes, including heat treatments and forming operations. Introduction to mechanical testing methods. Listed also as MTEN 2606.

Prereq.: MATH 1571 or MATH 1585H.

MECH 2620 Statics and Dynamics 3 s.h.

Principles of engineering mechanics as applied to statics and dynamics, Vector applications to forces and moments; centroid and center of gravity; static equilibrium. Kinematics of particles; Newton's laws; work-energy; and impulse momentum techniques using vector approach.

Prereq.: MATH 1572 and PHYS 2610 or concurrent.

MECH 2641 Dynamics 3 s.h.

Kinematics of particles and rigid bodies. Newton's laws of motion, work-energy, and impulse momentum techniques applied to particle and rigid body motion using a vector approach.

Prereq.: CEEN 2601.

MECH 3708 Dynamic Systems Modeling 4 s.h.

Mathematical modeling of linear mechanical, electrical, thermal, fluid, and mixed systems. State space variables. Frequency response. Computer simulation using modern computer tools. Three hours lecture and three hours laboratory per week.

Prereq.: MECH 2641, ECEN 2614, MATH 3705.

MECH 3720 Fluid Dynamics 3 s.h.

Physical properties of fluids. Governing equations of fluid dynamics; forces on bodies due to incompressible fluid motion. Dimensional analysis and similitude. Analysis of energy losses in pipe flows. Concept of the viscous boundary layer.

Prereq.: MECH 2603; MECH 2641; MATH 3705.

MECH 3720L Fluid Dynamics Laboratory 1 s.h.

Introduction to equipment, data acquisition, and techniques for measurement and computation of fluid flows in engineering applications. Effective technical communication skills, analysis and interpretation of data in teams are emphasized.

Prereq.: MECH 3720.

MECH 3725 Heat Transfer 1 3 s.h.

Fundamentals of heat transfer by conduction, convection, and radiation. Heat transfer by combined modes.

Prereq.: MECH 3720 or concurrent.

MECH 3742 Kinematics of Machines 3 s.h.

Position, velocity, and acceleration analysis of mechanisms. Design of link and cam mechanisms to perform desired machine functions. Graphical, analytical, and commercial software applications.

Prereq.: MECH 2641, ENGR 1560 or MECH 1560.

MECH 3751 Stress and Strain Analysis 1 3 s.h.

Analysis of internal forces, stresses, strains, and deflections in three dimensions. Dynamic loading including impact and fatigue. Theories of failure and energy methods. Must be taken concurrently with MECH 3751L.

Prereq.: CEEN 2602, MECH 2606.

MECH 3751L Stress and Strain Analysis 1 Laboratory 1 s.h.

Transmission and reflection photoelasticity. State and dynamic strain gage applications using computer-aided data acquisition. Three hours laboratory per week. Concurrent with: MECH 3751.

MECH 3762 Design of Machine Elements 3 s.h.

Application of fundamental engineering principles to the design of various elements found in machines. Elements include connections, shafts, keys, couplings, springs, gears, belts, chains, bearings, clutches, brakes, screws, etc. Must be taken concurrently with MECH 3762L.

Prereq.: MECH 2641 and MECH 3751.

MECH 3762L Design of Machine Elements Laboratory 1 s.h.

Practical design problems incorporating analysis, material selection, and sizing of machine components utilizing the computer. Three hours laboratory per week. Must be taken concurrently with MECH 3762.

MECH 4800 Special Topics 3 s.h.

Special topics and new developments in mechanical engineering. Subject matter, credit hours, and special prerequisites are announced in advance of each offering. May be repeated to a maximum of 8 s.h. with different content.

Prereq.: Junior standing in Mechanical Engineering, or consent of instructor.

MECH 4808 Mechanical Systems Design 1 2 s.h.

Detailed design of a mechanical engineering system utilizing expertise expected of a new graduate in an industry setting. Design methodology, case studies, oral presentations, and written reports prepare the student to function as part of a design team on a capstone project. MECH 4809 must be taken at the next offering after completing 4808. Grading in MECH 4808 is Traditional/PR. Two hours lecture per week.

Prereq.: MECH 3708, MECH 3725, MECH 3742, and MECH 3762.

Gen Ed: Capstone.

MECH 4808L Mechanical Systems Design Laboratory 1 s.h.

Supplemental activities related to MECH 4808, such as discussion and seminars on industry practices and standards, computer software applications, experimental verification, etc. Three hours laboratory per week. Must be taken concurrently with MECH 4808.

Gen Ed: Capstone.

MECH 4809 Mechanical Systems Design 2 3 s.h.

Detailed design of a mechanical engineering system utilizing expertise expected of a new graduate in an industry setting. Design methodology, case studies, oral presentations, and written reports prepare the student to function as part of a design team on a capstone project. MECH 4809 must be taken at the next offering after completing 4808. Three hours lecture per week.

Prereq.: MECH 4808.

Gen Ed: Capstone.

MECH 4809L Mechanical Systems Design Laboratory 2 1 s.h.

Supplemental activities related to MECH 4808 and MECH 4809, such as discussions and seminars on industry practices and standards, computer software applications, experimental verifications, etc. Three hours laboratory per week. MECH 4808L must be taken concurrently with MECH 4808 and MECH 4809L must be taken concurrently with MECH 4809.

MECH 4823 Heating, Ventilation, and Air Conditioning 3 s.h.

Design of heating and air conditioning systems for residential, commercial, and industrial complexes. Human comfort, psychometries, and environmental issues. Computer simulation of heating and cooling load for steady-state and transient conditions. Selection of controls and equipment.

Prereq.: MECH 3725.

MECH 4825L Heat Transfer and Thermodynamics Laboratory 1 s.h.

Experiments involving basic measurement techniques, power and refrigeration cycles, heat transfer, heat exchangers, and energy systems. Three hours laboratory per week.

Prereq.: MECH 3720, MECH 3725.

MECH 4835 Thermal Fluid Applications 3 s.h.

Application of the principles of thermodynamics, fluid dynamics, and heat transfer to design. Design, analysis and computer simulation of thermal fluid systems and components.

Prereq.: MECH 3725.

MECH 5811 Solar Engineering 3 s.h.

Radiational characteristics of solar energy, glass materials and selective coatings. Analysis of flat plate collectors, concentrators, and thermal storage. System simulation and economic analysis for optimization of basic solar systems.

Prereq.: PHYS 2611, MECH 3725 or consent of chairperson.

MECH 5820 Turbulence 3 s.h.

Physics of turbulence in thermal-fluid engineering systems; statistical descriptions, energy cascade and scales of turbulent motion. Modeling and simulation of turbulent flows. Examples of turbulence in mixing layers, combustion, and wall-bounded flows.

Prereq.: MECH 3720 or PHYS 3705 or CHEN 3786 (or equivalent).

MECH 5825 Heat Transfer 2 3 s.h.

Advanced topics in heat transfer. Multi-dimensional conduction, free convection, phase change heat transfer and thermal radiation. Integration of analytical, numerical, and computational methods into design projects.

Prereq.: MECH 3708 and MECH 3725.

MECH 5836 Fluid Power and Control 3 s.h.

Theory of prime movers, turbomachinery, and control systems. Modeling of hydraulic and pneumatic systems and components. Hydraulic fluids, pumps, cylinders, valves, motors, compressors, and actuators. Hydraulic and pneumatic circuit applications and control.

Prereq.: MECH 3725.

MECH 5842 Kinetics of Machines 3 s.h.

Three dimensional kinematics and dynamics of machines. Dynamic analysis and design; balancing of machines.

Prereq.: MECH 3742.

MECH 5852 Stress and Strain Analysis 2 3 s.h.

Continuation of MECH 3751. Introduction to applied elasticity theory including plane stress and strain and stress functions. Plastic and creep behavior of materials. Introduction to instability. Emphasis on design applications.

Prereq.: MECH 3751, MECH 3751L, MATH 3705.

MECH 5872 Engineering Acoustics 3 s.h.

The nature of sound and its propagation; analysis and control of sound and noise production in mechanical equipment; transmission and absorption of sound in engineering materials, ultrasonics, structural acoustics, base measurements, and equipment.

Prereq.: MECH 3708.

MECH 5881 Mechanical Vibrations 3 s.h.

Introduction to mechanical vibrations: single and multi-degree of freedom systems, free and forced vibrations, impedance and modal analysis including applications.

Prereq.: MECH 3708.

MECH 5881L Mechanical Vibrations Laboratory 1 s.h.

Introduction to vibrations measurements. Experiments with mechanical systems, computer simulation of vibration systems. Experimental determination of component models and parameters. Three hours laboratory per week.

Prereq.: MECH 5881.

MECH 5884 Finite Element Analysis 3 s.h.

Fundamental principles of finite element analysis with emphasis on applications to design in areas of stress analysis, vibrations, and heat transfer. Use of commercial software.

Prereq.: MECH 3708, MECH 3725, MECH 3751.

MECH 5885 Computational Fluid Dynamics 3 s.h.

Applied numerical analysis, including solution of linear algebraic equations and ordinary and partial differential equations; modeling of physical processes, including fluid flow and heat and mass transfer; use of general purpose computer codes, including commercial computational fluid dynamics software packages.

Prereq.: MECH 3720 and MECH 3725.

MECH 5892 Control of Mechanical Systems 3 s.h.

Introduction to theory of feedback and control. Performance and stability of linear systems. Design of feedback control systems. Practical application and introduction to state-space methods. Two hours lecture and three hours laboratory per week.

Prereq.: MECH 3708.

Industrial Engineering

ISEN 1560 Principles of Industrial & Systems Engineering 3 s.h.

An introduction to creative thought processes and analytical tools that are used to develop human usable systems within industrial engineering.

Prereq.: ENGR 1550.

ISEN 2610 Engineering Statistics 3 s.h.

Applications of data collection and analysis techniques to engineering problems. Techniques for data structuring, data modeling, parameter estimation, and design of experiments utilizing engineering data.

Prereq.: MATH 1571 or MATH 1571H or MATH 1585H, ENGR 1550 or ENGR 1550H.

ISEN 2616 Systems Analysis and Design 3 s.h.

Analysis and design of systems. Decomposition of large systems into subsystems. Analysis, modeling, and design of subsystems. Integration of subsystems.

Prereq.: MATH 1571 or MATH 1571H or MATH 1585H.

Coreq.: ENGR 1560 or ENGR 1560H.

ISEN 2620 IE Applied Statistics 3 s.h.

The course is an introduction to the basic concepts and methods of applied statistics.

The course is an introduction to the basic concepts and methods of applied statistics. **Prereq.:** ISEN 2610.

ISEN 2624 Engineering Economy 3 s.h.

The analysis and evaluation of factors that affect the economic success of engineering projects. Topics include interest, depreciation, cost classification, comparison of alternatives, make-buy decisions, replacement models and after-tax analysis.

Prereq.: MATH 1571 or MATH 1571H or MATH 1585H.

Coreq.: ENGR 1560 or ENGR 1560H.

ISEN 3720 Statistical Quality Control 3 s.h.

Concepts of data-based quality control techniques. Intermediate design of experiments as an off-line quality control technique using ANOVA techniques. Process control chart construction and applications as on-line quality control techniques. Basics of acceptance sampling systems and standards.

Prereq.: ISEN 2610 or equivalent.

ISEN 3723 Manufacturing Processes 3 s.h.

Introduction to properties and uses of engineering materials. Introduction to mechanical testing methods, metrology, tolerances, testing and inspection; semi-finished product manufacturing; macro-processing (forming, casting, powder metallurgy, metal working, composite fabrication); joining; nontraditional manufacturing processes; and surface processing.

Prereq.: MATH 1572, MECH 1560.

ISEN 3723L Manufacturing Processes Lab 1 s.h.

This lab is an introduction to a variety of manufacturing processes. This course divided into formative, subtractive, and additive manufacturing concepts and practices through a series of introductory tutorial labs and a term-long design and fabrication project. Processes covered include CAD design, metallurgy, metrology, 3D printing, casting, forming, welding, and inspection. A selection of additional processes will be available should students upon availability. These include investment casting, injection molding, and destructive and non-destructive tests.

Prereq.: MECH 1560.

Prereq. or Coreq.: ISEN 3723 or MFG 3723.

ISEN 3727 Simulation of Industrial Engineering Systems 3 s.h.

Techniques for the digital simulation of industrial engineering systems which can be represented via discrete event models. The generation of random variables, shaping of probability distributions, model structuring, model verification, and the simulation of inventory, queuing, and quality control systems in a high-level structured programming language. A special-purpose simulation language for expanding the class of problems which can be economically modeled.

Prereq.: ISEN 2610, ISEN 2616.

ISEN 3730 Materials Handling and Facilities Planning 3 s.h.

The course focuses on operational facility planning through comprehensive layout design. Considerations include product flow, space and activity relationships, workforce requirements, and material handling. Topics include flow analysis, facility location, group technology and layout, just-in-time, material handling equipment such as AGV, motion and time studies, and work sampling.

Prereq.: ISEN 2616.

ISEN 3736 Methods Engineering 2 s.h.

Techniques for analysis of task performance, the use of process charts, and various methods of work simplification, human-machine relation analysis. Theory and practice of time study and other methods of measuring and establishing performance level and productivity.

Prereq.: ISEN 3710 or equivalent.

ISEN 3736L Methods Engineering Laboratory 1 s.h.

Practice in analyzing and recording tasks. Determination of time standards and productivity requirements. Analysis and evaluation of actual plant operations. Taken concurrently with ISEN 3736. Three hours laboratory per week.

ISEN 3740 Prod Planning and Supply Chain 3 s.h.

This course introduces the issues underlying the design and operation of traditional and current supply chains, focusing on the logistics of the material and information movement inside manufacturing and service networks.

Prereq.: ISEN 2610 and ISEN 3730.

Prereq. or Coreq.: ISEN 2616.

ISEN 3745 Accounting for Engineers 3 s.h.

Review of labor and material costing systems. Introduction to cost accounting systems. Practice in development of forecasting and estimating systems. Process, operation and product costing systems. Elements of financial accounting systems that affect engineering decisions.

Prereq.: ISEN 3724 or equivalent.

ISEN 4810 Special Topics 3 s.h.

Special topics and new developments in Industrial Engineering. Subject matter, credit hours, and special prerequisites to be announced in advance of each offering.

Prereq.: senior standing in Industrial Engineering or consent of instructor.

ISEN 4821 Capstone Design 1 3 s.h.

The application of engineering techniques to the analysis, design, layout, and justification of manufacturing and service facilities. Subjects covered include, equipment selection, process flow, and material flow. The system design involves field investigation, acquisition and analysis of data, use of computer-aided facilities planning and design software, preparation of drawings, and writing a final report.

Prereq.: ISEN 3723, ISEN 3720, ISEN 3727, and DATX 5801.

Coreq.: ISEN 5801.

Gen Ed: Capstone.

ISEN 4822 Capstone Design 2 3 s.h.

This course will focus on project management and completing the two-semester design project with industry. Project analyses will be highlighted by both written and oral communication of design outcomes.

Prereq.: ISEN 4821 (C or better).

Gen Ed: Capstone.

ISEN 5801 Operations Research 1 3 s.h.

Formulation and solution of engineering problems using linear programming. Model formulation, the primal, dual, and transportation simplex methods, duality theory, and sensitivity analysis.

Prereq.: MATH 2673.

ISEN 5811L Manufacturing Practices I Laboratory 1 s.h.

Experimental analysis of manufacturing processes. Process control and data acquisition. Experimental design applied to processes including polymer processes, casting, machining, and joining. Three hours laboratory.

Prereq. or Coreq.: ISEN 3723.

ISEN 5812L Manufacturing Practices 2 Laboratory 1 s.h.

Experimental analysis of advanced manufacturing techniques. Advanced sensing and controlling technologies. Real-time monitoring, metrology, and data acquisition. Numerically controlled (NC) machines and programming. Net-shape and additive manufacturing.

Prereq. or Coreq.: ISEN 5823.

ISEN 5820 Advanced Quality for Engineers 3 s.h.

Applications and practices of quality control in industry. Engineering and administrative aspects of quality control programs, process control, and acceptance sampling. Application of quantitative methods to the design and evaluation of engineered products, processes, and systems.

Prereq.: ISEN 3720.

ISEN 5823 Automation 3 s.h.

Principles and applications of sensing, actuation and control. Emphasis on hydraulic and pneumatic systems. Industrial process controllers, sensors and machine vision. Design and cost considerations for industrial automation applications.

Prereq.: MECH 2641, ECEN 2614 or consent of instructor.

ISEN 5825 Advanced Engineering Economy 3 s.h.

An extension of the topics in engineering economy. Analysis of rationale and norm of decision making, risk and uncertainty models, utility theory, measurement of productivity, and advanced project comparison methods.

Prereq.: ISEN 2624.

ISEN 5830 Human Factors Engineering 3 s.h.

Various aspects of human factors in the design of human-machine systems and environments. Study of human sensory, perceptual, mental, psychomotor, and other characteristics; techniques of measuring human capabilities, limitations, safety, comfort, and productivity.

Prereq.: MATH 2673.

ISEN 5850 Operations Research 2 3 s.h.

Formulation and solution of industrial engineering problems using operational research models. Topics include queuing models and the specialization of linear models to equipment replacement, project planning, assignment, and transshipment problems.

Prereq.: ISEN 5801.

ISEN 5880 Management of Technology 3 s.h.

The course discusses major topics in management of technology and innovations. Dynamics of technology innovation, sources of technology innovations, corporate technology strategy, collaboration and intellectual property, structures and process for innovations, idea generation, commercialization of technology and innovations, and market entry.

Prereq.: Senior standing or consent of instructor.

ISEN 5881 Competitive Manufacturing Management 3 s.h.

Basic principles of manufacturing competitiveness. The role of engineers in promoting competitiveness. Discussion of new technologies used in modern manufacturing management including, continuous improvement, waste elimination, JIT, lean production systems, setup time reduction, equipment maintenance/improvement, total quality management, and supply chain management.

Prereq.: ISEN 3723 or consent of instructor.

Bachelor of Engineering in Industrial and Systems Engineering

Welcome to the Youngstown State University (YSU) Industrial & Systems Engineering program webpage. We offer a Bachelor of Engineering (BE) degree in Industrial & Systems Engineering. This program offers a strong background in mathematics, the sciences, management principles, and principles of engineering analysis and design. Also, in addition to receiving a quality education in this program, many students participate in co-op or internship job assignments during their time with us, making them highly marketable upon completion of their degrees. Graduates of the program enjoy placement in many areas of the diverse industrial engineering job market.

I hope that you find this webpage informative. If you have any additional questions, please contact me.

Bharat Yelamanchi, Ph.D.

Assistant Professor and Program Coordinator

Phone: (330) 941-3466

E-mail: byelamanchi@ysu.edu

Moser Hall 2420

The industrial and systems engineer functions as a problem-solver, innovator, coordinator, and agent of change in a wide variety of positions in manufacturing industries, service industries, and government. The industrial and systems engineer's unique background combines a study of science, mathematics, and management principles with the principles of engineering analysis and design to provide access to a wide variety of flexible technical and managerial careers.

The aim of the industrial and systems engineering program is to produce graduates who secure professional engineering positions, practice the profession ethically and effectively, maintain their professional competency through lifelong learning, and advance in one of the many technical and managerial career paths available to industrial and systems engineers.

The program prepares its students for these accomplishments by providing them with a broad scientific and engineering base via courses in mathematics, physics, chemistry, and the engineering sciences. In addition, courses in the social sciences and the humanities develop sensitivity to the social context within which the profession must be ethically practiced. Finally, industrial and systems engineering courses in the areas of manufacturing systems, human-machine systems, management systems, and management science develop the technical expertise required by professional practice.

Program Educational Objectives

The industrial and systems engineering program at Youngstown State University is committed to offering its students a high standard of educational training. In fulfillment of its mission, as well as the missions of the College of STEM and the University, the program has established educational objectives that ensure graduating engineers have the educational knowledge and skills to practice industrial engineering effectively. The objectives of the Industrial and Systems Engineering Program are for our graduates to be:

- Professionals who are technically competent in modern industrial engineering based careers, as well as other emerging disciplines.
- World citizens who exhibit leadership qualities in their chosen disciplines, and who pursue continuing education through advanced degrees, certifications, licensure, etc.
- Active contributors to their professions, industries and/or communities.

Student Outcomes

The curriculum is structured to achieve the following outcomes as prescribed by ABET:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

Industrial and Systems Engineering Annual Enrollment and Graduation Data

The Industrial and Systems Engineering BE Program has been accredited by the engineering accreditation commission of ABET, <http://www.abet.org> (<http://www.abet.org/>).

Term Enrollment

Fall 2012	35
Fall 2013	40
Fall 2014	38
Fall 2015	46
Fall 2016	54
Fall 2017	78
Fall 2018	78

Academic Year Degree Awarded

2012-2013	10
2013-2014	15

2014-2015	10
2015-2016	16
2016-2017	14
2017-2018	18

Industrial and Systems Engineering Laboratories

The industrial and systems engineering laboratory spaces are located in Moser Hall and are equipped with hardware, software and networks to serve experiences within the curriculum that are hands on, team based, and communications or computational intensive. Laboratory experiences develop capabilities to design detailed components and to integrate solutions into large scale systems. Successively more challenging assignments are taken on throughout the curriculum and culminate in comprehensive experiences in the capstone facilities design sequence.

The industrial and systems engineering program makes optimum use of the Engineering Computing Complex, which is equipped with state-of-the-art computation, design, and communication hardware and software of a multi-disciplinary nature.

The ISE Project Laboratory is focused on team-based activities throughout the curriculum and particularly serves the methods engineering, human factors engineering and facilities design areas. At its core is a network of computing stations equipped with modern industrial and systems engineering software. Data collection and processing software supports video analysis of human performance, workspace and manufacturing cell design, facility layout, flow analysis and line balancing. The goal of this laboratory is to be able to cover any topic from the planning of initial resources for a start-up enterprise to the distribution of goods and services in global networks.

The Automation Laboratory Suite is a collection of spaces where students at all levels can learn and achieve together with an opportunity to make sustainable contributions to an initial or on-going project experience. It encompasses programmable robots, programmable logic controllers, vibratory bowl feeders, reciprocating feeders, power conveyors and numerous actuator and sensing devices.

The Manufacturing Laboratory Suite consists of several spaces containing equipment for rapid prototyping, casting processes, plastic injection molding and blow molding processes, CNC machining processes, sheet metal processing and instrumentation for inspection, measurement, and testing.

For more information, visit **Industrial And Systems Engineering** (<http://www.ysu.edu/academics/science-technology-engineering-mathematics/industrial-and-systems-engineering-major/>).

Cooperative Education

The industrial and systems engineering program strongly encourages its students to actively participate in the optional cooperative education program. The parallel co-op arrangement which combines work and study each semester is recommended. However, full-time employment in the summer can also be included. Students must register for a co-op course and submit documentation as specified by professional practice office. Currently a substitution of one elective course with three co-op experiences is allowed.

Advisement

The industrial and systems engineering program specifies mandatory advisement. Every student in the program is advised every semester before his or her registration. Students cannot finalize their registration without approval of the faculty advisor or program coordinator.

Accreditation

The Industrial Engineering BE program has been accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org/>

Industrial & Systems Engineering Program

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics requirement (met through MATH in the major)		
Arts and Humanities (6 s.h.)		
Social Science (6 s.h.)		
General Education Electives (9 s.h. select 2 courses)		
CMST 1545	Communication Foundations	3
Industrial Engineering Courses		
ISEN 1560	Principles of Industrial & Systems Engineering	3
ISEN 2610	Engineering Statistics	3
ISEN 2616	Systems Analysis and Design	3
ISEN 2620	IE Applied Statistics	3
ISEN 2624	Engineering Economy	3
ISEN 3720	Statistical Quality Control	3
ISEN 3723	Manufacturing Processes	3
ISEN 3723L	Manufacturing Processes Lab	1
ISEN 3727	Simulation of Industrial Engineering Systems	3
ISEN 3730	Materials Handling and Facilities Planning	3
ISEN 3740	Prod Planning and Supply Chain	3
ISEN 4821	Capstone Design 1	3
ISEN 4822	Capstone Design 2	3
ISEN 5801	Operations Research 1	3
ISEN 5881	Competitive Manufacturing Management	3
ISEN Electives (2 courses from the list below)		
ISEN 5823	Automation	
ISEN 5830	Human Factors Engineering	
ISEN 5850	Operations Research 2	
ISEN 4810	Special Topics	
ISEN 5820	Advanced Quality for Engineers	
ISEN 5825	Advanced Engineering Economy	
ISEN 5880	Management of Technology	
Other Engineering Courses		
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
ENGR 1560	Engineering Computing	2
ECEN 2614	Basics of Electrical Engineering	3
MECH 1560	Engineering Communication with CAD	2
MECH 2620	Statics and Dynamics	3
STEM Required Courses		
CSIS 2610	Programming and Problem-Solving	3
CSIS 2610L	Programming and Problem-Solving Lab	1
DATX 5801	Data Management	3
DATX 5803	Data Visualization	3
ENGR Elective (Select 1)		3

Any IE Elective Course		
Any engineering course 3000+		
DATX 5805	Predictive Modeling Algorithms	
Mathematics Courses		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
MATH 3720	Linear Algebra and Matrix Theory	3
Science Courses		
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
PHYS 2610	General Physics 1	4
PHYS 2611	General Physics 2	4
Total Semester Hours		130-132
Year 1		
Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
MATH 1571	Calculus 1	4
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
Semester Hours		15-17
Spring		
ENGL 1551	Writing 2	3
MATH 1572	Calculus 2	4
PHYS 2610	General Physics 1	4
ENGR 1560	Engineering Computing	2
CMST 1545	Communication Foundations	3
Semester Hours		16
Year 2		
Fall		
ISEN 1560	Principles of Industrial & Systems Engineering	3
ISEN 2610	Engineering Statistics	3
MATH 2673	Calculus 3	4
CSIS 2610	Programming and Problem-Solving	3
CSIS 2610L	Programming and Problem-Solving Lab	1
PHYS 2611	General Physics 2	4
Semester Hours		18
Spring		
ISEN 2616	Systems Analysis and Design	3
ISEN 2620	IE Applied Statistics	3
ISEN 2624	Engineering Economy	3
MECH 1560	Engineering Communication with CAD	2
MECH 2620	Statics and Dynamics	3
MATH 3720	Linear Algebra and Matrix Theory	3
Semester Hours		17
Year 3		
Fall		
ISEN 3723	Manufacturing Processes	3
ISEN 3723L	Manufacturing Processes Lab	1

ISEN 3730	Materials Handling and Facilities Planning	3
ECEN 2614	Basics of Electrical Engineering (others with consent of Program Coordinator)	3
GER Elective 1 (SS)		3
GER Elective 2 (SS)		3
Semester Hours		16
Spring		
ISEN 3720	Statistical Quality Control	3
ISEN 3727	Simulation of Industrial Engineering Systems	3
ISEN 3740	Prod Planning and Supply Chain	3
DATX 5801	Data Management	3
GER Elective 3 (AH)		3
Semester Hours		15
Year 4		
Fall		
ISEN 4821	Capstone Design 1	3
ISEN 5801	Operations Research 1	3
DATX 5803	Data Visualization	3
ISEN 5880	Management of Technology	3
ISEN Elective 1		3
GER Elective 4 (AH)		3
Semester Hours		18
Spring		
ISEN 4822	Capstone Design 2	3
ISEN Elective 2		3
ENGR Elective		3
GER Elective 5		3
GER Elective 6		3
Semester Hours		15
Total Semester Hours		130-132

Student Outcomes

The curriculum is structured to achieve the following outcomes as prescribed by ABET:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

Bachelor of Engineering in Mechanical Engineering

Welcome to YSU's Mechanical Engineering program. We offer Bachelor of Engineering (BE) and Master of Science in Engineering (MSE) degrees in Mechanical Engineering. The undergraduate program provides a strong

background in mathematics, the sciences, and fundamentals of engineering, as well as tracks in the design and analysis of solid mechanics systems, thermal fluid flow systems, and dynamic systems. In addition to a quality education, most students participate in co-op or internship job assignments during their time with us, making them more marketable upon completion of their degrees. Graduates of the program enjoy placement in many areas of the diverse mechanical engineering job market.

I hope that you find this web page informative. If you have any additional questions, please contact me.

Hazel Marie, Ph.D., P.E.

Department of Mechanical, Industrial and Manufacturing Engineering

Phone: (330) 941-3015

E-mail: hmarie@ysu.edu

Mechanical engineering is the branch of the engineering profession that is concerned with harnessing the power of machines to accomplish tasks and goals faster, safer, and more efficiently. Within the broad field of mechanical engineering, this can vary greatly in complexity and magnitude, from athletic equipment for enhancing performance to household items for living comfort to cars that get us where we're going to medical devices that keep us healthy.

The challenge of mechanical engineering is to weave together fundamental knowledge of not just mathematics, physics and chemistry, but also fluid and thermal sciences, kinetics and dynamics in order to approach problem solving creatively and design real-world solutions. Our curriculum prepares students for a wide variety of technical and professional careers areas that have their roots in mechanical engineering: aerospace, power generation, transportation, biotechnology, manufacturing, product design, robotics and controls, and many more.

Program Mission

The mission of the mechanical engineering program is to further the missions and objectives of the University and the College of Science, Technology, Engineering and Mathematics by providing an opportunity for a quality education in Mechanical Engineering to the people it serves, particularly those in northeast Ohio and western Pennsylvania. The program also strives to provide professional service to the local and regional industry and to the public. The program is committed to meeting regional and state-wide priorities in higher education by providing its students with a broad, general education and an up-to-date technological curriculum in a four-year undergraduate program, and an application-oriented evening graduate program, offering a Master of Science in Engineering degree to practicing engineers and recent engineering graduates. The program also strives to enhance quality research and scholarly activities to be integrated with teaching and meet the needs of the region by providing area schools, businesses, industries, and government agencies with technical expertise.

Program Educational Objectives

The program educational objectives of the mechanical engineering undergraduate program are to educate graduates who will be professional, productive, and ethical members of society. As they progress professionally after graduation, our alumni will do the following:

1. Demonstrate **successful application of mechanical engineering knowledge and skills** through:
 - a. employment in leadership roles in industry, academia, government, or other organizations
 - b. engagement in research and development in graduate study or industry
 - c. analytical problem solving in less traditional careers such as law, medicine, business, public policy, secondary education, service industries, etc.

- d. mentorship of younger engineers in careers involving management or entrepreneurship
2. Demonstrate the **commitment to lifelong learning** through:
 - a. active participation in professional development opportunities in their disciplines; such as conferences, short courses, graduate education
 - b. development of new knowledge and skills necessary for new areas of expertise or careers
 - c. adaption of their fundamental engineering knowledge for effectiveness in changing global markets and workforce trends
 3. Demonstrate **active engagement in professional service** through:
 - a. application of their engineering knowledge to advance society and to help solve technical and societal problems
 - b. engagement in activities that promote sustainable economic development that enhances the quality of life
 - c. promotion of the engineering profession as a source of societal good
 - d. participation in community activities where their engineering knowledge adds significantly to their contributions

These Program Educational Objectives describe long-term accomplishments for which we seek to prepare the graduates of Youngstown State University mechanical engineering program. It is expected that progress toward these objectives is measurable.

Student Outcomes

The YSU mechanical engineering program student outcomes ensure that our graduates have been given the skills to attain the program educational objectives after graduation. Student outcomes for direct assessment are ABET specified outcomes (1) through (7). Our students are expected to graduate with:

1. **Engineering Expertise** - an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. **Design Expertise** - an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. **Communication Skills** - an ability to communicate effectively with a range of audiences
4. **Professional Responsibility** - an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. **Teamwork Competency** - an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. **Experimental Competency** - an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. **Life-long Learning** - an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

Accreditation

The Mechanical Engineering BE program has been accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org> (<http://www.abet.org>).

Annual Enrollment and Graduation Data

Term	Enrollment
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Fall 2012	154
Fall 2013	167
Fall 2014	194
Fall 2015	210
Fall 2016	253
Fall 2017	252
Fall 2018	239
<u>Academic Year</u>	<u>Degree Awarded</u>
2012-2013	27
2013-2014	34
2014-2015	46
2015-2016	41
2016-2017	59
2017-2018	65

Vision Statement

Mechanical engineering and mechanical engineering education, in particular, face dramatic challenges in the future due to rapidly changing technologies and a new pattern of societal and industrial demands. The vision of the program is to meet these challenges and exceed the expectations of its constituents by focusing on the following primary strategies of the program:

- Continuous improvement of an educational environment for outstanding teaching and learning
- Development of a productive research program through a strategic focus on technology development in emerging areas such as green energy, computer simulation, and nanotechnology
- Successful co-op and internship programs that provides students with on-the-job training opportunities
- An assessment program and procedures in order to insure a high quality program focusing on the needs of the program's constituents (the students, alumni, employers, faculty, administrations, community and the general public)
- Healthy enrollment that facilitates diversification of curriculum and faculty research and professional development

In order to achieve its educational objectives and to further the missions and objectives of the University and the College, the program provides an educational environment, teeming with opportunities for students to learn and acquire essential knowledge and skills that are defined in the ABET Criteria 2000, through its curriculum and extra-curricular activities. The program maintains undergraduate and graduate curricula that are well balanced in engineering fundamentals, state-of-the-art technology, and real-world engineering applications, in the primary specialty areas of fluid thermal sciences, and mechanics of deformable bodies. The undergraduate curriculum also contains courses that foster:

- critical and independent thinking
- decision making
- development of interpersonal communication and a life-long learning attitude
- working within a team
- integration of knowledge, skills, ethics, and personal responsibility

Although the program intends to cultivate the capabilities of its students' problem solving, fundamental and advanced engineering analyses, design,

research, and development, it also intends to provide the students with maximum exposure to hands-on, experimental skills to insure the high quality of its graduates. Through courses like stress analysis, thermal fluid applications, and finite element analysis, students will acquire strong tools for design and pertinent knowledge to solve real-world engineering problems. Our emphasis on engineering applications, computer simulation, and hands-on experience are complementary to each other and encourage students to apply analytical methods to engineering problems.

This approach enhances the effectiveness of teaching and also facilitates the students' understanding of abstract and difficult subjects. The ultimate goal of the program is to provide the society and industry with "whole person" mechanical engineers with superior technical capability.

Mechanical Engineering Laboratories

The mechanical engineering program maintains six physical experimental laboratories in Moser Hall. A wide array of modern equipment, instrumentation devices, and department-owned computers are housed in spacious rooms that support academic instruction and research activities in applied thermodynamics, heating and air conditioning, fluid mechanics, heat transfer, stress analysis, vibrations, and material property characterization. Other mechanical engineering laboratories are simulation and computing-related laboratories that include computer-aided design, machine design, kinematic and dynamic systems, and finite-element analysis. The College and the mechanical engineering program maintain modern computing facilities in Moser Hall and constantly upgrade hardware and software. The students and faculty also use the university computing facilities in Meshel Hall and Kilcawley Center.

For more information, visit **Mechanical Engineering** (<http://www.ysu.edu/academics/science-technology-engineering-mathematics/mechanical-engineering-major/>).

Cooperative Education

The mechanical engineering program strongly encourages its students to actively participate in the optional cooperative education program. The parallel co-op arrangement which combines work and study each semester is recommended. However, full time employment in the summer can also be included. Students must register for a co-op course and submit documentation as specified by professional practice office.

Advisement

The mechanical engineering program specifies mandatory advisement. Every student in the program is advised every semester before his or her registration. Students cannot finalize their registration without approval of the faculty advisor or chair.

Industrial Advisory Board

The Industrial Advisory Board is another valuable resource in ensuring a quality program. It is composed of members of various local industries, having a vital interest and purpose in the school and/or department. The industry advisory board members can also serve as mentors on an industry sponsored project, as well as to advise the department in the area of curriculum development and research. Our board members include:

David Drabison – Board Chair
Design Engineer
Babcock & Wilcox Company, Nuclear Operations Group

John Divitto
Business Development Manager
Babcock & Wilcox Company, Power Generation Group

Tony Ghioldi
Vice President Sales

Quality Bridge & Fab, Inc.

Don Helle
Director – Global Process Engineering
The Goodyear Tire & Rubber Company

Patrick Kiraly
Tooling Specialist
V&M Star

Mike Malito
Babcock & Wilcox Company (Retired)

Anthony J Nackino
Engineering Manager
Advanced Recycling Systems, Inc.

Gorman Ng
Regional Manager
O.E.M. and Government
Linde Hydraulics Corporation

David Peterson
Babcock & Wilcox Company (Retired)

Courtney A. Puhl
Delphi Corporation

Richard Ulam
Business Development Manager
ABB Power Systems Power Generation

Douglas Verenski
President and Chief Engineer
Hunter Lift

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics requirement (met with MATH in major)		
Arts and Humanities (2 courses)		
PHIL 2626	Engineering Ethics	3
or PHIL 2625	Introduction to Professional Ethics	
Arts and Humanities elective		3
Social Sciences (2 courses)		
ECON 2610	Principles 1: Microeconomics	3
Social Science elective		3
Natural Sciences (2 courses, 1 with lab) (6-7 s.h.)		
Met with two of the following required courses: CHEM 1515, PHYS 2610, PHYS 2611 and one lab: PHYS 2610L or CHEM 1515L		
General Education Elective (9 s.h. select 2 other courses)		6
CMST 1545	Communication Foundations	3
Mechanical Engineering Courses		
MECH 1560	Engineering Communication with CAD	2
MECH 2603	Thermodynamics 1	3
MECH 2604	Thermodynamics 2	3
MECH 2606	Engineering Materials	3
MECH 2641	Dynamics	3

MECH 3708	Dynamic Systems Modeling	4
MECH 3720	Fluid Dynamics	3
MECH 3720L	Fluid Dynamics Laboratory	1
MECH 3725	Heat Transfer 1	3
MECH 3742	Kinematics of Machines	3
MECH 3751	Stress and Strain Analysis 1	3
MECH 3751L	Stress and Strain Analysis 1 Laboratory	1
MECH 3762	Design of Machine Elements	3
MECH 3762L	Design of Machine Elements Laboratory	1
MECH 4808	Mechanical Systems Design 1	2
MECH 4808L	Mechanical Systems Design Laboratory	1
MECH 4809	Mechanical Systems Design 2	3
MECH 4809L	Mechanical Systems Design Laboratory 2	1
MECH 4825L	Heat Transfer and Thermodynamics Laboratory	1
MECH 5881	Mechanical Vibrations	3
MECH 5881L	Mechanical Vibrations Laboratory	1
MECH electives (3)		9

Other Engineering Courses

ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
ENGR 1560	Engineering Computing	2
CEEN 2601	Statics	3
CEEN 2602	Strength of Materials	3
CEEN 2602L	Strength of Materials Lab	1
ECEN 2614	Basics of Electrical Engineering	3
ISEN 2610	Engineering Statistics	3-4
or STAT 3743	Probability and Statistics	

Mathematics courses

MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
MATH 3705	Differential Equations	3

Chemistry and Physics courses

CHEM 1515	General Chemistry 1	3
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics Laboratory 1	1
or CHEM 1515L	General Chemistry 1 Laboratory	
PHYS 2611	General Physics 2	4

Total Semester Hours **130-133**

Year 1

Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
ENGL 1550	Writing 1	
or ENGL 1549	or Writing 1 with Support	3-4
CHEM 1515	General Chemistry 1	3
MATH 1571	Calculus 1	4
ENGR 1500	Engineering Orientation	1
ENGR 1550	Engineering Concepts	2
GER Elective		3
Semester Hours		17-19

Spring

ENGL 1551	Writing 2	3
MATH 1572	Calculus 2	4

PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics Laboratory 1	1
CMST 1545	Communication Foundations	3
ENGR 1560	Engineering Computing	2
Semester Hours		17

Year 2**Fall**

MECH 1560	Engineering Communication with CAD	2
MECH 2606	Engineering Materials	3
MATH 2673	Calculus 3	4
PHYS 2611	General Physics 2	4
CEEN 2601	Statics	3
Semester Hours		16

Spring

MECH 2603	Thermodynamics 1	3
MECH 2641	Dynamics	3
MATH 3705	Differential Equations	3
CEEN 2602	Strength of Materials	3
CEEN 2602L	Strength of Materials Lab	1
ECEN 2614	Basics of Electrical Engineering	3
Semester Hours		16

Year 3**Fall**

MECH 2604	Thermodynamics 2	3
MECH 3720	Fluid Dynamics	3
MECH 3742	Kinematics of Machines	3
MECH 3751	Stress and Strain Analysis 1	3
MECH 3751L	Stress and Strain Analysis 1 Laboratory	1
ECON 2610	Principles 1: Microeconomics	3
Semester Hours		16

Spring

MECH 3708	Dynamic Systems Modeling	4
MECH 3720L	Fluid Dynamics Laboratory	1
MECH 3725	Heat Transfer 1	3
MECH 3762	Design of Machine Elements	3
MECH 3762L	Design of Machine Elements Laboratory	1
ISEN 2610 or STAT 3743	Engineering Statistics or Probability and Statistics	3-4
Semester Hours		15-16

Year 4**Fall**

MECH 4808	Mechanical Systems Design 1	2
MECH 4808L	Mechanical Systems Design Laboratory	1
MECH 4825L	Heat Transfer and Thermodynamics Laboratory	1
MECH 5881	Mechanical Vibrations	3
MECH Elective		3
PHIL 2626	Engineering Ethics	3
GER Elective (SS)		3
Semester Hours		16

Spring

MECH 4809	Mechanical Systems Design 2	3
MECH 4809L	Mechanical Systems Design Laboratory 2	1
MECH 5881L	Mechanical Vibrations Laboratory	1
MECH Elective		3
MECH Elective		3
GER Elective (AH)		3

GER Elective	3
Semester Hours	17
Total Semester Hours	130-133

Mechanical Engineering Electives

COURSE	TITLE	S.H.
Heat & Fluid Flow		
MECH 4800	Special Topics	3
MECH 4823	Heating, Ventilation, and Air Conditioning	3
MECH 4835	Thermal Fluid Applications	3
MECH 5825	Heat Transfer 2	3
MECH 5836	Fluid Power and Control	3
MECH 5885	Computational Fluid Dynamics	4
Solid Mechanics		
MECH 4800	Special Topics	3
MECH 5842	Kinetics of Machines	3
MECH 5852	Stress and Strain Analysis 2	3
MECH 5884	Finite Element Analysis	3
MECH 5892	Control of Mechanical Systems	3
MTEN 5868	Failure Analysis Using the SEM	3

Student Outcomes

The YSU mechanical engineering program student outcomes ensure that our graduates have been given the skills to attain the program educational objectives after graduation. Student outcomes for direct assessment are ABET specified outcomes (1) through (7). Our students are expected to graduate with:

- 1. Engineering Expertise** - an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
- 2. Design Expertise** - an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
- 3. Communication Skills** - an ability to communicate effectively with a range of audiences
- 4. Professional Responsibility** - an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
- 5. Teamwork Competency** - an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
- 6. Experimental Competency** - an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
- 7. Life-long Learning** - an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

Minor in Industrial and Systems Engineering

COURSE	TITLE	S.H.
ISEN 3710		3
ISEN 3716	Systems Analysis and Design	3

ISEN 3720	Statistical Quality Control	3
ISEN 3723	Manufacturing Processes	3
ISEN 3724	Engineering Economy	3
ISEN 3736 & 3736L	Methods Engineering and Methods Engineering Laboratory	3

Total Semester Hours 18

Minor in Mechanical Engineering

COURSE	TITLE	S.H.
MECH 2603	Thermodynamics 1	3
MECH 2604	Thermodynamics 2	3
MECH 2641	Dynamics	3
MECH 3720	Fluid Dynamics	3
MECH 3742	Kinematics of Machines	3
MECH 3751	Stress and Strain Analysis 1	3

Total Semester Hours 18

Minor in Manufacturing Engineering

The Minor in Manufacturing Engineering program provides students broad familiarity with the principles of design and analysis of manufacturing processes and strategies. Cost and manufacturability considerations are explored for components and assemblies produced by traditional, advanced, and digital manufacturing processes (e.g. additive manufacturing / 3D printing).

COURSE	TITLE	S.H.
MFG 3723	Manufacturing Processes	3
MFG 4823	Manufacturing Processes 2	3
MFG 4861	Design for Manufacturability	3

Students must take all of the following (9 s.h.):

MFG 3723	Manufacturing Processes	3
MFG 4823	Manufacturing Processes 2	3
MFG 4861	Design for Manufacturability	3

Students must take at least one course from the following (3 s.h.): 3

MFG 3771	Additive and Digital Manufacturing	
ISEN 3720	Statistical Quality Control	
ISEN 5823	Automation	
ISEN 3716	Systems Analysis and Design	
MECH 5836	Fluid Power and Control	
MET 4860	Robotics Technology	
MET 4860L	Robotics Technology Laboratory	MET 4860 and MET 4860/L must be taken concurrently..

Total Semester Hours 12

Department of Mathematics and Statistics

501 Cafaro Hall
(330) 941-3302

Welcome to the Youngstown State University Department of Mathematics and Statistics!

If you are attempting to register for a mathematics course and receive a registration error, please complete the Math Department Override Request Form (<https://forms.office.com/Pages/ResponsePage.aspx?id=F4pyOAeXSU-MmyecGkA4wbQmJL4wz7RjTBDyl9fB1-JUNVlIMVJKWTVBU1ZHM01aMkc0OFcwOTRGri4u>). Please contact the Department of Mathematics and Statistics at (330) 941-3302 with any questions. Please visit the "Placements and Pathways" tab for more information about mathematics placement.

The Department of Mathematics and Statistics builds scholarship in mathematics and exhibits leadership in the teaching and learning of mathematics. We maintain broad strength in mathematics and strengthen multidisciplinary collaborations that provide the foundations of scientific principles and prepare students for a technological society. We provide our students with a quality educational experience in mathematics that is responsive to the needs of all students while recognizing student achievement in mathematics and enthusiasm for creative thinking. Students may select mathematics as their major for the following degree program:

- Bachelor of Science (BS)

Students may concentrate in mathematics in the following degree program:

- Bachelor of Science in Education (BSEd)

In addition to satisfying general University requirements, all students majoring in mathematics must complete the following core courses:

COURSE	TITLE	S.H.
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
MATH 3715	Discrete Mathematics	3
MATH 3720	Linear Algebra and Matrix Theory	3
MATH 3721	Abstract Algebra 1	4
MATH 3751	Real Analysis 1	4
STAT 3743	Probability and Statistics	4
CSIS 2610	Programming and Problem-Solving	3
CSIS 2610L	Programming and Problem-Solving Lab	1

Proficiency in a language (foreign language, programming, or data analytics)

One of the following: 2

MATH 4896	Senior Undergraduate Research Project	
MATH 4897H	Thesis	
STEM 4890	STEM Internship	

In addition, students must complete 12 semester hours in mathematics, statistics, or data analytics at the 3700-level or above, with at least two courses chosen from the 4800-level or higher. The total number of hours of mathematics is 40 semester hours.

In selecting appropriate courses, the student should consult a department advisor, since certain courses are recommended based upon whether the student plans graduate study in mathematics or statistics, secondary school teaching, or a career in business, industry, or government. The following general recommendations are based upon these areas.

Traditional Mathematics

In addition to the core, students seeking classical training in mathematics are recommended to take MATH 4822, MATH 4852, MATH 4880, and one additional 4800-level or higher course in mathematics. The minor course of study may be any discipline. Students will study the nature of mathematics in fields such as algebra, real analysis, complex analysis, and topology. Connections to, and generalizations of, earlier formulations of mathematical concepts will constantly occur. Generally, new results in mathematics are developed and proven by those with a Ph.D. in mathematics. Students planning to pursue a Ph.D. will be well prepared for graduate school with these courses.

Applied Mathematics

Applied mathematics courses emphasize areas of mathematics used in government and industry. Students learn mathematical models for the study of physical and computational processes. Mathematical techniques are used to study uncertainty, scheduling, and decision theory. Many graduates find employment in consulting firms and large corporations where computing and

mathematical problem solving skills are valued. Students are also prepared to pursue advanced degrees in applied mathematics.

In addition to the core, students interested in applied mathematics are recommended to take MATH 3705, 3745, 4847, 4826, 4855, 5835, 5845, or 5860 and complete a recognized minor in any discipline. Suggested minors include statistics, computer science, engineering, physics, geology, chemistry, biology, or economics.

Statistics

Statistical techniques are utilized in many fields of research such as medicine, biology, business, and sociology. Statisticians learn proper methodology for collecting, summarizing, and interpreting data subject to sampling variability. The increase in affordable computing and the ease of statistical software have placed statistical expertise in demand. Generally, students interested in statistics pursue further study at the graduate level, but positions are available for students upon completion of a bachelor's degree.

In addition to the core, students interested in statistics are recommended to fulfill their upper-level course requirements with statistics courses and complete a minor in statistics.

Actuarial Mathematics

Students interested in using mathematics and statistics to quantify risk and develop models to better predict and study risk should consider actuarial mathematics. Actuaries work for insurance companies, investment and consulting firms, as well as the government and seek ways to manage risk and avoid potential exposure to excessive risk. Actuaries assess pension plans, mortality rates, and accident rates. Students will study the mathematical and statistical foundations of actuarial models as they prepare for the examination sequence to become a licensed actuary.

In addition to the core, students interested in actuarial mathematics are recommended to take STAT 4843, STAT 4844, and STAT 5802 and complete a minor in actuarial science.

Accelerated 4+1 Program

Undergraduate students can apply for admission into the accelerated program for the MS in Mathematics after completing 78 undergraduate semester hours with a GPA of 3.3 or higher. After being admitted to the accelerated MS program, students can take a maximum of nine semester hours of graduate coursework that can count toward both a bachelor's and master's degree from the Department of Mathematics and Statistics. The courses chosen to count for both undergraduate and graduate coursework must be approved by the Graduate Executive Committee within the Department upon admission into the program. An additional six hours of graduate coursework can be completed as an undergraduate and used exclusively for graduate credit. This allows the student to graduate with a master's degree with one year of additional full-time study beyond the bachelor's degree.

Chair

Thomas P. Wakefield, Ph.D., Professor, Chair

Professor

Jozsi Z. Jalics, Ph.D., Professor

G. Jay Kerns, Ph.D., Professor

Lucy Xiaojing Kerns, Ph.D., Associate Professor

Thomas L. Madsen, Ph.D., Associate Professor

Nguyet Thi Nguyen, Ph.D., Associate Professor

Anita C. O'Mellan, Ph.D., Professor

Alicia Prieto Langarica, Ph.D., Professor

Thomas Smotzer, Ph.D., Professor

Jamal K. Tartir, Ph.D., Professor

Padraic ("Paddy") W. Taylor, Ph.D., Associate Professor

Lecturer

Lori A. Carlson, M.S., Senior Lecturer

Emily Dolsak, M.S., Senior Lecturer

Michele Fredrick-Jacobson, M.S., Lecturer

Sepideh Khavari, M.S., Senior Lecturer

Alayne Leone, M.S., Senior Lecturer

Majors

- BS in Mathematics (p. 486)

Minors

- Mathematics Minor (p. 488)
- Statistics Minor (p. 489)
- Biomathematics Minor (p. 488)
- Actuarial Science Minor (p. 488)
- Data Analytics Minor (p. 488)

Certificates

- Certificate in Data Analytics (p. 487)

Mathematics

MATH 1500 Mathematics Support 0-3 s.h.

This course provides additional support to students in their mathematics courses. Does not count toward the degree. May be repeated. Grading is ABC/NC.

Prereq.: Permission of the Department of Mathematics and Statistics.

MATH 1500R Mathematics Support Calculus 2 1-3 s.h.

This course is for students in the algebra pathway (mainly pre-STEM and pre-business) who wish to improve their mathematics placement and skills in desired areas of mathematics. Topics covered are uniquely determined by the student's initial placement assessment. Does not count toward the degree. May be repeated. Grading is ABC/NC.

MATH 1510 College Algebra 4 s.h.

This course is primarily intended to prepare STEM students (along with MATH 1511) for MATH 1552, 1570 or 1571. Topics include real numbers, equations and inequalities, linear, quadratic, polynomial, exponential, and logarithmic functions, graphing techniques, systems of equations, and applications. The course fulfills the general education requirements for mathematics.

Prereq.: YSU Math Placement Level 35 or higher .

Gen Ed: Mathematics.

MATH 1510C College Algebra with Co-requisite Support 6 s.h.

This course is primarily intended to prepare STEM students (along with MATH 1511C) for MATH 1552, 1570 or 1571. Topics include real numbers, equations and inequalities, linear, quadratic, polynomial, exponential, and logarithmic functions, graphing techniques, systems of equations, and applications. It includes corequisite support for students requiring remediation in mathematics while studying college algebra. Emphasis will be placed on prerequisite skills needed for college algebra as well as just in time review through the use of appropriate technology. The course fulfills the general education requirements for mathematics.

Prereq.: YSU Math Placement Level 20.

Gen Ed: Mathematics.

MATH 1511 Trigonometry 3 s.h.

This course, along with MATH 1510 is primarily intended to prepare STEM students for MATH 1570 or MATH 1571. Topics include algebraic structure and graphs of trigonometric functions and inverse trigonometric functions, angle measurements, similar triangles, trigonometric identities, vectors, complex numbers, polar coordinates and solving trigonometric equations with applications.

Prereq.: YSU Math Placement Level 35 or higher.

Gen Ed: Mathematics.

MATH 1511C Trigonometry with Co-requisite Support 4 s.h.

This course, along with MATH 1510C is primarily intended to prepare STEM students for MATH 1570 or MATH 1571. Topics include algebraic structure and graphs of trigonometric functions and inverse trigonometric functions, angle measurements, similar triangles, trigonometric identities, vectors, complex numbers, polar coordinates and solving trigonometric equations with applications. This course includes support for students requiring remediation in mathematics while they are studying trigonometry. Emphasis will be placed on prerequisite skills needed for trigonometry as well as just in time review through the use of appropriate technology.

Prereq.: YSU Math Placement Test Level 20 and a grade of C or better in MATH 1510 or MATH 1510C.

Gen Ed: Mathematics.

MATH 1513 Algebra and Transcendental Function 5 s.h.

Function concepts including trigonometric, exponential, and logarithmic functions. Application problems and graphing. Supplemental topics.

Prereq.: Math Placement Level 45 or higher.

Gen Ed: Mathematics.

MATH 1552 Applied Business Calculus 4 s.h.

Apply functions and linear systems to business including use of technology; mathematics of finance and an introduction to limits, derivatives and integrals with business, management, economics, life science and social science applications. Credit will not be given to students who have completed MATH 1570, 1571, 1571H, 1581, 1581H, or 1585H.

Prereq.: One of Math 1510, Math 1510C, or Math 1513 with grade of "C" or better or at least Level 45 on the YSU Mathematics Placement Test.

Gen Ed: Mathematics.

MATH 1564 Foundations of Middle School Mathematics 1 4 s.h.

Conceptual foundations of topics from number theory, operations, functions, algebra, and data analysis. Emphasis on multiple approaches and representations, problem solving, and communication of mathematical reasoning. Includes inquiry-based experiences with manipulatives and computing technology.

Prereq.: Level 35 on the Mathematics Placement Test or C or better in either MATH 1510 or MATH 1510C.

MATH 1570 Applied Calculus 1 4 s.h.

The elements of differential and integral calculus, with emphasis on applications. Analytical geometry, differentiation and integration techniques and series representations. Introduction to differential equations, transform calculus, and Fourier analysis. This is a basic methods course particularly adapted for those who require applied topics in mathematics. Not applicable toward the Mathematics major. Credit will not be given for both MATH 1552 and MATH 1570.

Prereq.: At least Level 70 on the YSU Mathematics Placement Test or "C" or better in either MATH 1510 and MATH 1511, MATH 1510C and MATH 1511C, or MATH 1513.

Gen Ed: Mathematics.

MATH 1571 Calculus 1 4 s.h.

This course is an introduction to calculus. The main concepts to be studied are limits, continuity, rates of change, derivatives, integrals and applications.

Prereq.: At least Level 70 on the YSU Mathematics Placement Test or C or better in either MATH 1510 and MATH 1511, MATH 1510C and MATH 1511C, or MATH 1513.

Gen Ed: Mathematics.

MATH 1571H Honors Calculus 1 4 s.h.

A sequence of integrated courses in analytic geometry and calculus. A detailed study of limits, derivatives, and integrals of functions of one and several variables with applications.

Prereq.: MATH 1513, minimum grade of "C", or MATH 1510 and MATH 1511, minimum grade of "C" in both courses, or at least Level 70 on the Mathematics Placement Test.

Gen Ed: Mathematics.

MATH 1572 Calculus 2 4 s.h.

A sequence of integrated courses in analytic geometry and calculus. A detailed study of limits, derivatives, and integrals of functions of one and several variables with applications.

Prereq.: C or better in MATH 1571, MATH 1571H, MATH 1581, MATH 1581H, or MATH 1585H.

MATH 1572H Honors Calculus 2 4 s.h.

A sequence of integrated courses in analytic geometry and calculus. A detailed study of limits, derivatives, and integrals of functions of one and several variables with applications.

Prereq.: C or better in MATH 1571, MATH 1571H, MATH 1581, MATH 1581H, or MATH 1585H.

MATH 1581 Calculus for the Health Sciences 1 4 s.h.

This is the first course in a two-semester sequence of calculus courses intended for students majoring in the biological or environmental sciences and/or preparing for admission to medical, pharmaceutical, dental, veterinary, or other life-science-related professional schools. We will cover definitions of trigonometric functions, solving trigonometric equations, functions, limits and derivatives, exponential and logarithmic functions, and applications.

Prereq.: At least Level 70 on the YSU Mathematics Placement Test or "C" or better in MATH 1510/MATH 1510C and MATH 1511/MATH 1511C or "C" or better in MATH 1513.

Gen Ed: Mathematics.

MATH 1581H Honors Calculus for the Health Sciences 1 4 s.h.

This is the first course in a two-semester sequence of calculus courses intended for students majoring in the biological or environmental sciences and/or preparing for admission to medical, pharmaceutical, dental, veterinary, or other life-science-related professional schools. We will cover definitions of trigonometric functions, solving trigonometric equations, functions, limits and derivatives, exponential and logarithmic functions, and applications.

Prereq.: At least Level 70 on the YSU Mathematics Placement Test or "C" or better in MATH 1510/MATH 1510C and MATH 1511/MATH 1511C or "C" or better in MATH 1513.

Gen Ed: Mathematics.

MATH 1582 Calculus for the Health Sciences 2 4 s.h.

This is the second course in a two-semester sequence of calculus courses intended for students majoring in the biological or environmental sciences and/or preparing for admission to medical, pharmaceutical, dental, veterinary, or other life-science-related professional schools. We will cover indefinite and definite integrals, probability, functions of several variables, least squares, differential equations.

Prereq.: "C" or better in MATH 1571, MATH 1571H, MATH 1581, or MATH 1581H.

Gen Ed: Mathematics.

MATH 1582H Honors Calculus for the Health Sciences 2 4 s.h.

This is the second course in a two-semester sequence of calculus courses intended for students majoring in the biological or environmental sciences and/or preparing for admission to medical, pharmaceutical, dental, veterinary, or other life-science-related professional schools. We will cover indefinite and definite integrals, probability, functions of several variables, least squares, differential equations.

Prereq.: "C" or better in MATH 1571, MATH 1571H, MATH 1581, or MATH 1581H.

Gen Ed: Mathematics.

MATH 1585H Honors Accelerated Calculus 1 5 s.h.

A sequence of honors courses in analytical geometry and calculus which cover essentially the same material as MATH 1571, 1572, 2673, in two semesters instead of three. A detailed study of limits, derivatives, and integrals of functions of one and several variables and their applications. This sequence will be offered at most once during each academic year.

Prereq.: ACT math subscore of 32, AP Calculus score of 4 or higher, or at least one unit of high school calculus with a score of 28 or higher on placement exam or instructor permission.

Coreq.: MATH 1586H.

Gen Ed: Mathematics.

MATH 1586H Honors Calculus Laboratory 1 1 s.h.

Introduction to mathematical modeling of topics covered in calculus. Emphasizes the use of technology such as computer algebra systems, technical document processing, and graphics software for solving problems and reporting solutions.

Coreq.: MATH 1585H.

MATH 2623 Quantitative Reasoning 3 s.h.

Mathematics models emphasizing basic ideas in mathematics and statistics, stressing concept formation rather than manipulative skills.

Prereq.: YSU Mathematics Placement Level 15 or higher.

Gen Ed: Mathematics.

MATH 2623C Quantitative Reasoning with Co-Requisite Support 5 s.h.

Mathematics models emphasizing basic ideas in mathematics and statistics, stressing concept formation rather than manipulative skills. This course includes corequisite support for students requiring remediation in mathematics while studying quantitative reasoning. Emphasis for the support will be placed on prerequisite skills needed for MATH 2623 as well as just in time review through the use of appropriate technology.

Gen Ed: Mathematics.

MATH 2623H Honors Quantitative Reasoning 3 s.h.

Mathematics models emphasizing basic ideas in mathematics and statistics, stressing concept formation rather than manipulative skills.

Prereq.: at least Level 20 on the Mathematics Placement Test or Level 10 on Mathematics Placement Test and concurrent enrollment in MATH 2623C.

Gen Ed: Mathematics.

MATH 2661 Mathematics for Elementary Teachers 1 4 s.h.

A conceptual development of mathematics topics underlying today's Pre-K-grade 5 curriculum (Number, Operations, and Algebraic Thinking). Emphasis on multiple approaches, problem solving, and communication of mathematics. Incorporates manipulatives, technology, and classroom activities developmentally appropriate for early and elementary children.

Prereq.: At least Level 15 on the Mathematics Placement Test.

Gen Ed: Mathematics.

MATH 2661C Mathematics for Elementary Teachers I with Co-Requisite Support 6 s.h.

A conceptual development of mathematics topics underlying today's Pre-K-grade 5 curriculum (Number, Operations, and Algebraic Thinking). Emphasis on multiple approaches, problem solving, and communication of mathematics. Incorporates manipulatives, technology, and classroom activities developmentally appropriate for early and elementary children. This course includes corequisite support for students requiring remediation in mathematics. Emphasis will be placed on prerequisite skills needed for Algebra, Number and Operations, and Quantity topics as well as just in time review through the use of appropriate technology.

Prereq.: Math Placement Level 10 or higher.

MATH 2662 Mathematics for Elementary Teachers 2 4 s.h.

A conceptual development of mathematics topics underlying today's Pre-K-grade 5 curriculum (Decimals, Ratios, Percents, Geometry, Measurement, Probability & Statistics). Emphasis on multiple approaches, problem solving, and communication of mathematics. Incorporates manipulatives, technology, and classroom activities developmentally appropriate for early and elementary children.

Prereq.: C or better in either MATH 2661 or MATH 2661C.

Gen Ed: Mathematics.

MATH 2665 Foundations of Middle School Mathematics 2 4 s.h.

Conceptual foundations of topics from geometry, measurement, and probability. Emphasis on multiple approaches and representations, problem solving, and communication of mathematical reasoning. Includes inquiry-based experiences with manipulatives and computing technology.

Prereq.: Level 35 on the Mathematics Placement Test or C or better in either MATH 1510 or MATH 1510C.

Gen Ed: Mathematics.

MATH 2670 Applied Calculus 2 5 s.h.

The elements of differential and integral calculus, with emphasis on applications. Analytical geometry, differentiation and integration techniques and series representations. Introduction to differential equations, transform calculus, and Fourier analysis. This is a basic methods course particularly adapted for those who require applied topics in mathematics. Not applicable toward the Mathematics major.

Prereq.: Grade of "C" or better in MATH 1570 or MATH 1571.

Gen Ed: Mathematics.

MATH 2673 Calculus 3 4 s.h.

A sequence of integrated courses in analytic geometry and calculus. A detailed study of limits, derivatives, and integrals of functions of one and several variables with applications.

Prereq.: MATH 1572 with a "C" or better.

MATH 2673H Honors Calculus 3 4 s.h.

A sequence of integrated courses in analytic geometry and calculus. A detailed study of limits, derivatives, and integrals of functions of one and several variables with applications.

Prereq.: MATH 1572 with a "C" or better.

MATH 2686H Honors Accelerated Calculus 2 5 s.h.

A sequence of honors courses in analytical geometry and calculus which cover essentially the same material as MATH 1571, 1572, 2673, in two semesters instead of three. A detailed study of limits, derivatives, and integrals of functions of one and several variables and their applications. This sequence will be offered at most once during each academic year.

Prereq.: "C" or better in MATH 1585H.

Coreq.: MATH 2687H.

Gen Ed: Mathematics.

MATH 2687H Honors Calculus Laboratory 2 1 s.h.

Introduction to mathematical modeling of topics covered in calculus. Emphasizes the use of technology such as computer algebra systems, technical document processing, and graphics software for solving problems and reporting solutions.

Coreq.: MATH 2686H.

MATH 3702 Problem Solving Techniques for Secondary Mathematics 3 s.h.
Approaches to and practice with problem solving with examples from a broad spectrum of mathematics. Emphases include problems at the level of the Ohio Assessment for Educators (OAE) examination for integrated mathematics and problems suitable for high school contests. Not applicable to the mathematics major or minor.

Prereq.: Limited to TELS majors with MATH 1572, 1572H or MATH 1585H or consent of instructor.

MATH 3705 Differential Equations 3 s.h.

Methods and theory of solving differential equations with applications. Existence, uniqueness. First order equations. Higher order linear equations. Introduction to partial differential equations and boundary value problems, including Laplace's equation.

Prereq.: C or better in one of MATH 2673, MATH 2673H, or MATH 2686H.

MATH 3705H Honors Differential Equations 3 s.h.

Methods and theory of solving differential equations with applications. Existence, uniqueness. First order equations. Higher order linear equations. Introduction to partial differential equations and boundary value problems, including Laplace's equation.

Prereq.: C or better in one of MATH 2673, MATH 2673H, or MATH 2686H.

MATH 3715 Discrete Mathematics 3 s.h.

A course in discrete mathematical structures to prepare students for advanced courses. Topics include set theory, functions and relations, logic and quantifiers, truth tables and Boolean expressions, induction and other techniques of proof, and graphs. Credit will not be given for both CSCI 3710 and MATH 3715.

Prereq.: C or better in either MATH 1572, MATH 1572H, or MATH 1585H.

MATH 3715H Honors Discrete Mathematics 3 s.h.

A course in discrete mathematical structures to prepare students for advanced courses. Topics include set theory, functions and relations, logic and quantifiers, truth tables and Boolean expressions, induction and other techniques of proof, and graphs. Credit will not be given for both CSCI 3710 and MATH 3715.

Prereq.: C or better in either MATH 1572, MATH 1572H, or MATH 1585H.

MATH 3718 Linear Algebra and Discrete Mathematics for Engineers 3 s.h.

This introduction to linear algebra and discrete mathematics covers the following topics: systems of linear equations, logic and proof, matrix algebra, determinants, vector spaces, eigenvalues and eigenvectors, set theory, and counting. The course does not count toward the mathematics major. Credit will not be given for MATH 3718 and both MATH 3715 and MATH 3720.

Prereq.: "C" or better in MATH 1572 or MATH 1572H.

MATH 3720 Linear Algebra and Matrix Theory 3 s.h.

Matrices; matrix operations; linear transformations; applications.

Prereq.: "C" or better in either MATH 1570, MATH 1571, MATH 1571H, MATH 1581, MATH 1581H, or MATH 1585H.

MATH 3720H Honors Linear Algebra and Matrix Theory 3 s.h.

Matrices; matrix operations; linear transformations; applications.

Prereq.: "C" or better in either MATH 1572, MATH 1572H, or MATH 1585H.

MATH 3721 Abstract Algebra 1 4 s.h.

Introduction to abstract algebra investigating fundamental concepts in group and ring theory. Topics include groups, subgroups, cyclic groups, permutation groups, cosets, direct products, homomorphisms, factor groups, rings, integral domains and polynomial rings.

Prereq.: "C" or better in MATH 3720 and either MATH 3715 or CSCI 3710.

MATH 3745 Topics in Mathematical Modeling 3 s.h.

This course exposes students to methods of mathematical modeling through applications. Tools used to develop, refine, test, and present mathematical models will be discussed. Topics covered and projects undertaken may vary with each course offering and are designed to expose students to the types of problems modeled by applied mathematicians working in business, government, industry, or research. Course may be repeated depending on projects or topics presented.

Prereq.: "C" or better in MATH 2673, MATH 2673H, or MATH 2686H or permission of the instructor.

MATH 3745H Honors Topics in Mathematical Modeling 3 s.h.

3745H. This course exposes students to methods of mathematical modeling through applications. Tools used to develop, refine, test, and present mathematical models will be discussed. Topics covered and projects undertaken may vary with each course offering and are designed to expose students to the types of problems modeled by applied mathematicians working in business, government, industry, or research. Course may be repeated depending on projects or topics presented.

Prereq.: "C" or better in MATH 2673, MATH 2673H, or MATH 2686H or permission of the instructor.

MATH 3750 History of Mathematics 3 s.h.

A survey of the historical development of mathematics.

Prereq. or Coreq.: MATH 3715.

MATH 3750H Honors History of Mathematics 3 s.h.

A survey of the historical development of mathematics.

Prereq. or Coreq.: MATH 3715.

MATH 3751 Real Analysis 1 4 s.h.

Introduction to the properties of the real number system and metrics and metric properties, with critical analysis of limits, continuity, differentiability, integration, and other fundamental concepts underlying the calculus.

Prereq.: "C" or better in MATH 3715 or CSCI 3710 and one of MATH 2673, MATH 2673H, or MATH 2686H.

MATH 3767 Algebra/Geometry for Middle School Teachers 1 4 s.h.

MATH 3767, MATH 3768 is an integrated, conceptual, and function-centered approach to the foundations of algebra, geometry, and trigonometry for preservice middle childhood mathematics specialists. Emphasis on multiple approaches and representations, problem solving, and communication of mathematical reasoning. Includes inquiry-based experiences. MATH 3767 focuses on conceptual foundations of algebra and parts of coordinate geometry. Not applicable to the mathematics major.

Prereq.: Level 35 on the Mathematics Placement Test or C or better in either MATH 1510 or MATH 1510C.

MATH 3768 Algebra/Geometry for Middle School Teachers 2 4 s.h.

MATH 3767 and MATH 3768 is an integrated, conceptual, and function-centered approach to the foundations of algebra, geometry, and trigonometry for preservice middle childhood mathematics specialists. Emphasis on multiple approaches and representations, problem solving, and communication of mathematical reasoning. Includes inquiry-based experiences. MATH 3768 focuses on synthetic, analytic and transformational geometry. Not applicable to the mathematics major.

Prereq.: C or better in MATH 2665 and Level 35 on the Mathematics Placement Test or C or better in MATH 2665 and C or better in either MATH 1510 or MATH 1510C.

MATH 3795 Topics in Mathematics 1-4 s.h.

The study of a mathematical topic or the development of a special area of mathematics. May be repeated once.

Prereq.: 'C' or better in a general education mathematics course and permission of the instructor.

MATH 4822 Abstract Algebra 2 3 s.h.

A continuation of MATH 3721 with special emphasis on fields. Additional topics in pure or applied algebra.

Prereq.: MATH 3721 or equivalent.

MATH 4823 Abstract Algebra 3 3 s.h.

This course introduces advanced topics in field theory. Topics may include principal ideal domains, irreducibility, quotient rings, algebraic extensions, finite fields, splitting fields, and the Galois group.

Prereq.: MATH 4822.

MATH 4826 Advanced Linear Algebra 3 s.h.

The study of more advanced topics in linear algebra, including abstract vector spaces and linear transformations. May include applications of linear algebra.

Prereq.: MATH 3721.

MATH 4830 Foundations of Geometry 3 s.h.

The development of Euclidean and non-Euclidean geometries from postulate systems.

Prereq.: "C" or better in MATH 3715.

MATH 4832 Euclidean Transformations 3 s.h.

General properties of functions and transformations; isometries and transformations of the Euclidean plane; the complex plane, its geometry and subfields; transformational, analytical, and vector approaches to Euclidean geometry; connections to other branches of mathematics and applications.

Prereq.: "C" or better in MATH 3720 and MATH 4830.

MATH 4847 Introduction to Applied Mathematics 3 s.h.

This course surveys topics in applied mathematics and may include scaling, perturbation methods, stationary phase analysis, multi-scale asymptotics, transform methods, Green's functions, discrete models, the calculus of variations, or optimization.

Prereq.: C or better in MATH 2673.

MATH 4852 Real Analysis 2 3 s.h.

This course covers topics in the analysis of functions, mainly of several variables, and may include uniform convergence of sequences of functions and some consequences, functions on n -space, derivatives in vector spaces, and results such as the mean value theorem, Taylor's formula, inverse mapping theorem, and the implicit mapping theorem.

Prereq.: MATH 3720 and MATH 3751 or equivalent.

MATH 4855 Ordinary Differential Equations 3 s.h.

A second course in differential equations with emphasis on nonlinear problems and qualitative methods or on boundary value problems. Topics are chosen from: proofs of fundamental theorems, phase plane analysis, limit cycles and the Poincaré-Bendixon theorem, biological models, stability via Liapunov functions, asymptotic methods, and boundary value problems.

Prereq.: MATH 3705 and MATH 3720.

MATH 4857 Partial Differential Equations 3 s.h.

Introduction to partial differential equations (PDE) including solution techniques and applications. Classifications of the basic types of PDE's (hyperbolic, parabolic and elliptic) and dependence on boundary and initial conditions. Topics include Fourier series, integral transforms (Fourier, Laplace), and applications in vibrations, electricity, heat transfer, fluids or other selected topics.

Prereq.: MATH 3705 and MATH 3720.

MATH 4869 Functions, Calculus, and Applications for Middle School Teachers 3 s.h.

Polynomial and exponential functions, limits, derivatives, integrals, and applications. Interpretation of slope and area in graphs of functions from applied settings. Applications of limits to the derivations of geometric formulas. Relations between tables, graphs, and the symbolic representation of functions.

Prereq.: "C" or better in MATH 3767 or consent of instructor.

MATH 4870 Mathematics Concepts for Middle School Teachers 3 s.h.

Problem solving from a broad spectrum of mathematics topics (Number Sense and Operations; Algebra, Functions, and Calculus; Measurement and Geometry; Statistics, Probability, and Discrete Mathematics) designed to prepare future middle school mathematics teachers to address Common Core Standards. May be repeated 2 times.

Prereq.: MATH 1564, 2665, MATH 3767, MATH 3768, MATH 4869, and either STAT 2601, STAT 2625 or STAT 2625C.

MATH 4872 Teaching Mathematics in Secondary Schools 3 s.h.

Techniques and materials for effective teaching of secondary school mathematics will be discussed. Not applicable toward the mathematics major or minor. May be repeated once.

Prereq.: Limited to AYA Integrated Mathematics majors who obtained a C or better in MATH 1572, 1572H or MATH 1585H or consent of instructor.

MATH 4875 Complex Variables 3 s.h.

Complex numbers and their geometric representation, analytic functions of a complex variable, contour integration, Taylor and Laurent series, residues and poles, conformal mapping.

Prereq.: MATH 3751 or equivalent.

MATH 4880 Introduction to Topology 3 s.h.

An introduction to the basic concepts of general topology: compactness, connectedness, and continuity in topological spaces.

Prereq.: MATH 3721 and MATH 3751.

MATH 4882 Mathematical Biology Research 1-3 s.h.

Introduction to research in mathematical biology through an interdisciplinary study of a topic in biology and mathematics. May be repeated once. Grading is Traditional/PR. Listed also as BIOL 4882.

Prereq.: MATH 1571 or permission of the instructor.

MATH 4896 Senior Undergraduate Research Project 2 s.h.

Individualized study of a topic in mathematics culminating in a written report and an oral presentation at a national or regional meeting or a local seminar. May be repeated once.

Prereq.: 24 s.h. of mathematics applicable to the mathematics major including either MATH 3721 or MATH 3751 and permission of the department chairperson.

Gen Ed: Capstone.

MATH 4897H Thesis 2 s.h.

Individualized study of a topic in mathematics culminating in a written report and an oral presentation at a national or regional meeting or a local seminar.

Prereq.: 24 semester hours of mathematics applicable to the mathematics major including both MATH 3721 and MATH 3751 and permission of the department chairperson.

Gen Ed: Capstone.

MATH 5821 Topics in Abstract Algebra 4 s.h.

A course in abstract algebra aimed at developing a broad understanding of the subject. Credit will not be given for both MATH 3721 and MATH 5821.

Prereq.: Permission of graduate coordinator or department chair.

MATH 5828 Number Theory 3 s.h.

A study of congruences, Diophantine equations, quadratic residues, special number theory functions, and selected applications.

Prereq.: MATH 3721.

MATH 5835 Introduction to Combinatorics and Graph Theory 3 s.h.

The pigeonhole principle; permutations, combinations, the binomial theorem; the inclusion-exclusion principle; recurrence relations; graphs and digraphs, paths and cycles, trees, bipartite graphs and matchings.

Prereq.: C or better in either MATH 3715 or CSCI 3710 and C or better in MATH 3720.

MATH 5845 Operations Research 3 s.h.

An introduction to operations research with emphasis on mathematical methods. Topics may include: linear programming, sensitivity analysis, duality theory, transportation problems, assignment problems, transshipment problems, and network problems.

Prereq.: MATH 3715 and MATH 3720.

MATH 5849 Computational Methods for Problems in the Physical Sciences 3 s.h.

Use of contemporary computational approaches to conduct research in the physical sciences using Matlab and supercomputers. Algorithm development and formal exercise tasks may vary depending on the stage of the course, student abilities, and the topic under consideration. Provides application of the techniques discussed in the class to real world situations. Cross-Listed: CSCI 5849 and PHYS 5849.

MATH 5851 Topics in Analysis 4 s.h.

A course in analysis aimed at developing a broad understanding of the subject. Credit will not be given for both MATH 3751 and MATH 5851.

Prereq.: Permission of graduate coordinator or department chair.

MATH 5860 Numerical Analysis 1 3 s.h.

The theory and techniques of numerical computation. The solution of a single equation, interpolation methods, numerical differentiation and integration, direct methods for solving linear systems.

Prereq.: MATH 3720 and CSIS 2610 and MATH 2673, MATH 2673H, or MATH 2686H.

MATH 5861 Numerical Analysis 2 3 s.h.

Numerical methods of initial-value problems, eigenvalue problems, iterative methods for linear and nonlinear systems of equations, and methods involving least squares, orthogonal polynomials, and fast Fourier transforms.

Prereq.: MATH 5860 or equivalent.

MATH 5895 Selected Topics in Mathematics 2-3 s.h.

The study of a standard mathematical topic in depth or the development of a special area of mathematics. May be repeated twice.

Prereq.: 24 s.h. of mathematics applicable to the mathematics major including either MATH 3721 or MATH 3751.

Statistics

STAT 2601 Introductory Statistics 3 s.h.

Designed for students from different disciplines who desire an introduction to statistical reasoning. Topics include collecting and summarizing data, concepts of randomness and sampling, statistical inference and reasoning, correlation and regression. Credit will not be given for both STAT 2601 and STAT 2625.

Prereq.: "C" or better in MATH 1552 or Level 35 or higher on YSU Mathematics Placement Test.

Gen Ed: Mathematics.

STAT 2625 Statistical Literacy and Critical Reasoning 4 s.h.

An introduction to statistics and its applications. Topics include descriptive statistics, experimental design, probability sampling distribution, statistical inference, correlation and regression. Emphasis on applications, critical reasoning, and data analysis using statistical software. Credit will not be given for both STAT 2601 and STAT 2625.

Prereq.: At least Mathematics Placement Level 15.

Gen Ed: Mathematics.

STAT 2625C Statistical Literacy and Critical Reasoning with Co-Requisite Support 6 s.h.

An introduction to statistics and its applications. Topics include descriptive statistics, experimental design, probability, sampling distribution, statistical inference, correlation and regression. Emphases are on applications, critical reasoning, and data analysis using statistical software. Includes co-requisite support for basic algebra skills required to be successful in the course.

Gen Ed: Mathematics.

STAT 3717 Statistical Methods 4 s.h.

Probability and statistics designed for students majoring in the natural sciences. Topics include descriptive statistics, probability, estimation, testing hypotheses, analysis of variance, regression and nonparametric statistics. Use of personal computers with computer software will be required. Credit will not be given for both STAT 3717 and STAT 3743.

Prereq.: "C" or better in one of MATH 1552, MATH 1570, MATH 1571, MATH 1571H, MATH 1581, MATH 1581H, MATH 1585H or equivalent.

STAT 3717H Honors Statistical Methods 4 s.h.

Probability and statistics designed for students majoring in the natural sciences. Topics include descriptive statistics, probability, estimation, testing hypotheses, analysis of variance, regression and nonparametric statistics. Use of personal computers with computer software will be required. Credit will not be given for both STAT 3717 and STAT 3743.

Prereq.: "C" or better in one of MATH 1552, MATH 1570, MATH 1571, MATH 1571H, MATH 1581, MATH 1581H, MATH 1585H or equivalent.

STAT 3743 Probability and Statistics 4 s.h.

A calculus-based probability and statistics course. Topics include descriptive statistics, probability models and related concepts and applications, statistical estimation, and hypothesis testing. Credit will not be given for both STAT 3717 and STAT 3743.

Prereq.: "C" or better in MATH 1572, MATH 1572H, MATH 1581, MATH 1581H or MATH 1585H.

STAT 3743H Honors Probability and Statistics 4 s.h.

A calculus-based probability and statistics course. Topics include descriptive statistics, probability models and related concepts and applications, statistical estimation, and hypothesis testing. Credit will not be given for both STAT 3717 and STAT 3743/H.

Prereq.: "C" or better in MATH 1572, MATH 1572H, MATH 1581, MATH 1581H or MATH 1585H.

STAT 4817 Applied Statistics 3 s.h.

Application of regression, survey sampling, analysis of variance, design and analysis of experiments, and related topics.

Prereq.: STAT 3717 or STAT 3743 or equivalent.

STAT 4843 Theory of Probability 3 s.h.

The mathematical foundation of probability theory including the study of discrete and continuous distributions. Other topics selected from limit theorems, generating functions, stochastic processes, and applications.

Prereq.: STAT 3743 and one of MATH 2673 or MATH 2686H or consent of department chairperson.

STAT 4844 Theory of Statistics 3 s.h.

The mathematical theory of statistical inferences including likelihood principle, sufficient statistics, theory of statistical estimation, hypothesis testing and related topics.

Prereq.: STAT 4843.

STAT 4848 Applied Regression Time Series 3 s.h.

Statistical methods for regression and time series analysis. Topics include applied linear regression with model fitting and diagnostics, data analysis, and forecasting with time series models.

Prereq.: STAT 3717 or STAT 3743.

STAT 4849 Design of Experiments 3 s.h.

The objective of this course is to learn how to plan, design and conduct experiments efficiently, and apply statistical techniques on resulting data to obtain conclusions. Topics include introduction of experiments, complete randomized designs, blocking designs, factorial designs, nested designs, and random effects models.

Prereq.: STAT 4817 or STAT 6940 or equivalent.

STAT 4896 Statistical Project 2 s.h.

Individualized study of a topic in statistics culminating in a written report and an oral presentation. May be repeated once.

Prereq.: STAT 4817 and permission of chairperson.

Gen Ed: Capstone.

STAT 5802 Mathematical Interest Theory 3 s.h.

Mathematical theory and techniques in analysis of interest. Topics include measurement of interest, force of interest, annuities, amortization, pricing of investment products, and applications to actuarial sciences.

Prereq.: C or better in one of MATH 1552, MATH 1570, MATH 1571, MATH 1571H, h.

STAT 5811 SAS Programming for Data Analytics 3 s.h.

An introduction to SAS programming for data analytics. Topics include using SAS for data processing, manipulation, visualization, reporting and statistical analysis. The objective is for students to develop statistical computing skills for problem solving and decision making. Also listed as ECON 5861.

Prereq.: STAT 3717 or STAT 3743 or STAT 2601 or ECON 3790 or equivalent.

STAT 5814 Statistical Data Mining 3 s.h.

A systematic introduction to data mining with emphasis on various data mining problems and their solutions. Topics include data mining processes and issues, exploratory data analysis, supervised and unsupervised learning, classification, and prediction methods.

Prereq.: STAT 3717 or STAT 3743, or consent of department chairperson.

STAT 5819 Bayesian Statistics 3 s.h.

An introduction to the Bayesian approach to statistical inference for data analysis in a variety of applications. Data analysis using statistical software will be emphasized. Topics include: comparison of Bayesian and frequentist methods, Bayesian model specification, prior specification, basics of decision theory, Markov chain Monte Carlo, Bayes factor, empirical Bayes, Bayesian linear regression and generalized linear models, hierarchical models.

Prereq.: STAT 3717 or STAT 3743 or STAT 4817 or STAT 6940 or equivalent.

STAT 5840 Statistical Computing 3 s.h.

Computational methods used in statistics. Topics include generation and testing of random numbers, computer intensive methods, and simulation studies.

Prereq.: STAT 3717 or STAT 3743.

STAT 5846 Categorical Data Analysis 3 s.h.

Discrete distributions, contingency table analysis, odds ratios, relative risk, logistic regression, hierarchical models.

Prereq.: STAT 3743 or equivalent.

STAT 5849 Multivariate Statistical Analysis 3 s.h.

The statistical analysis of multivariate observations. Topics include multivariate probability distribution theory, regression, analysis of variance, and techniques in data analysis.

Prereq.: MATH 3720 and STAT 3743 or equivalent.

STAT 5857 Statistical Consulting 3 s.h.

The objective of this course is to cultivate the skills necessary to competently engage in statistical consulting. Topics include problem solving, study design, power and sample size, data management, selection and application of statistical methods, ethical practice, and effective visual and literal communication of results.

Prereq.: STAT 4817 or equivalent.

STAT 5895 Special Topics in Statistics 2-3 s.h.

The study of a standard statistical topic in depth or the development of a special area of statistics. May be repeated twice.

Prereq.: STAT 3717 or STAT 3743.

Placement and Pathways

The following documents are provided to clarify mathematics placement and when a placement exam is required.

Math Placement Guidelines

Math_Placement_Guidelines-Summer_2022_ADA.pdf (http://catalog.ysu.edu/undergraduate/colleges-programs/college-science-technology-engineering-mathematics/departments-mathematics-statistics/Math_Placement_Guidelines-Summer_2022_ADA.pdf)

Placement Guides with Paths

Placement_Guides_with_Paths-Summer_2022_ADA.pdf (http://catalog.ysu.edu/undergraduate/colleges-programs/college-science-technology-engineering-mathematics/departments-mathematics-statistics/Placement_Guides_with_Paths-Summer_2022_ADA.pdf)

Decision Tool for Math Registration

Decision_Tool_for_Math_Registration-Summer_2022_ADA.pdf (http://catalog.ysu.edu/undergraduate/colleges-programs/college-science-technology-engineering-mathematics/departments-mathematics-statistics/Decision_Tool_for_Math_Registration-Summer_2022_ADA.pdf)

Bachelor of Science in Mathematics

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics Requirement (met with MATH in major)		
Arts and Humanities (6 s.h.)		6
Natural Sciences (2 courses, 1 with lab) (6-7 s.h.)		7
Social Science (6 s.h.)		6
General Education Electives (9 s.h.)		9
Major Requirements		
Foreign Language/Comp Sci/Data Analytics Requirement. Must complete two CSIS or three DATX courses or foreign language requirement		3-9
Foreign Language Course (1-2 Courses depending on testing and placement)		
CSIS 3700	Data Structures and Objects	
CSIS 3701	Advanced Object-oriented Programming	
DATX 5801	Data Management	
DATX 5803	Data Visualization	
DATX 5805	Predictive Modeling Algorithms	
Core Courses		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
MATH 3715	Discrete Mathematics	3
MATH 3720	Linear Algebra and Matrix Theory	3
MATH 3721	Abstract Algebra 1	4
MATH 3751	Real Analysis 1	4
STAT 3743	Probability and Statistics	4
CSIS 2610	Programming and Problem-Solving	3
CSIS 2610L	Programming and Problem-Solving Lab	1
Select one of the following:		2
MATH 4896	Senior Undergraduate Research Project	
MATH 4897H	Thesis	
STEM 4890	STEM Internship	
Select two 3700-level or higher MATH/STAT/DATX courses.		6
Select two 4800-level MATH/STAT/DATX courses.		6
Minor -select any discipline.		12
Electives to meet 120 hours		22
Total Semester Hours		120-128

Suggested minors include biology, chemistry, computer science, economics, geology, physics, psychology, one engineering specialty (from chemical, civil, electrical, industrial, mechanical), or statistics. The total number of required semester hours of credit in mathematics (excluding statistics courses) is 40. Students who fulfill the foreign language/comp sci/data analytics requirement by obtaining the Certificate in Data Analytics cannot apply those courses toward the upper-division math elective requirement.

Year 1**Fall**

YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	S.H. 1-2
MATH 1571	Calculus 1	4
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
GER domain (AH)		3
GER domain (SS)		4
Elective		2-3
Semester Hours		17-20

Spring

MATH 1572	Calculus 2 (Prerequisite)	4
ENGL 1551	Writing 2	3
CSIS 2610	Programming and Problem-Solving	3
CSIS 2610L	Programming and Problem-Solving Lab	1
GER domain (AH)		4
Semester Hours		15

Year 2**Fall**

MATH 2673	Calculus 3 (Prerequisite)	4
MATH 3715	Discrete Mathematics (Prerequisite)	3
GER domain (NS with lab)		4
Choose one of the following:		
Foreign Language Course		3-4
or		
CSIS 3700 & 3700L or DATX 5801	Data Structures and Objects or Data Management	
Semester Hours		14-15

Spring

MATH 3720	Linear Algebra and Matrix Theory (Prerequisite)	3
STAT 3743	Probability and Statistics (Prerequisite)	4
Minor Course		3
General Education Elective		3
Choose one of the following:		
Foreign Language Course		3-7
or		
CSIS 3701 or DATX 5803	Advanced Object-oriented Programming or Data Visualization	
Semester Hours		16-20

Year 3**Fall**

MATH 3721	Abstract Algebra 1 (Prerequisite)	4
Minor Course		3
Elective		3
General Education Elective		3
GER domain (NS)		3
Semester Hours		16

Spring

MATH 3751	Real Analysis 1 (Prerequisite)	4
MATH/STAT/DATX Elective (Upper Division)		3
Minor Course		3

General Education Elective		3
GER domain (SS)		3
Semester Hours		16

Year 4**Fall**

MATH 4896	Senior Undergraduate Research Project (Prerequisite)	2
MATH/STAT/DATX Elective (Upper Division)		3
Minor Course (Upper Division)		3
Elective		3
Elective		3
Semester Hours		14

Spring

MATH/STAT/DATX elective (4800 level or higher)		3
MATH/STAT/DATX elective (4800 level or higher)		3
Minor Course		3
Elective		3
Semester Hours		12
Total Semester Hours		120-128

Learning Outcomes

The student learning outcomes for a BS in mathematics are as follows:

- Students will develop and demonstrate the ability to reason mathematically by constructing mathematical proofs and recognizing and accurately analyzing numerical data in all core courses. Students will learn that truth in mathematics is verified by careful argument, and will demonstrate the ability to make conjectures and form hypotheses, test the accuracy of their work, and effectively solve problems.
- Students will learn to identify fundamental concepts of mathematics as applied to science and other areas of mathematics, and to interconnect the roles of pure and applied mathematics.
- Students will demonstrate that they can communicate mathematical ideas effectively by completing a senior capstone project involving an investigative mathematical project and presenting their findings and results in both a written format and as an oral presentation to faculty and other students.

Certificate in Data Analytics

Data analysis is an integral component in modern business decision-making processes. The certificate program offers students training in essential skills in data analytics. It comprises the following three courses:

1. Data Management
2. Data Visualization
3. Predictive Modeling

COURSE	TITLE	S.H.
DATX 5801	Data Management	3
or CSIS 3722	Development of Databases	
DATX 5803	Data Visualization	3
DATX 5805	Predictive Modeling Algorithms	3
or CSCI 4851	Data Science and Machine Learning	
Total Semester Hours		9

Note: The courses will be housed in a new prefix, DATX, to be created in the College of STEM.

The pre-requisite for the DATX courses is junior standing and GPA of 2.5 or higher.

Students who successfully complete this program should be able to:

- manipulate and prepare a large data set for analysis through common techniques to clean data and identify trends and outliers;
- manage a large data set through database management and build an effective database application;
- describe and apply the common techniques used in data analytics and choose an appropriate technique to model and make predictions on a dataset.

Minor in Actuarial Science

COURSE	TITLE	S.H.
BUS 2600	Business Applications of Microsoft Excel	3
ACCT 2602	Financial Accounting	3
ACCT 2603	Managerial Accounting	3
FIN 3720	Business Finance	3
ECON 3710	Intermediate Microeconomic Theory	3
ECON 3712	Intermediate Macroeconomic Theory	3
Total Semester Hours		18

If any of the above courses is part of the student's major, it may be substituted by an upper-division STAT course or BUS 3700.

Minor in Biomathematics

The biomathematics minor is designed for students who are not majoring in mathematics or biology and who are interested in biomathematics.

COURSE	TITLE	S.H.
Select one of the following:		4
BIOL 2601 & 2601L	General Biology 1: Molecules and Cells and General Biology I: Molecules and Cells Laboratory	
BIOL 2602 & 2602L	General Biology 2: Organisms and Ecology and General Biology: Organisms and Ecology Laboratory	
BIOL 2603	Integrated Biology for BaccMed	
Select at least 3 s.h. of upper-division biology courses.		3
STAT 3717 or STAT 3743	Statistical Methods Probability and Statistics	4
Select one of the following:		4
MATH 1571	Calculus 1	
MATH 1571H	Honors Calculus 1	
MATH 1581	Calculus for the Health Sciences 1	
MATH 1581H	Honors Calculus for the Health Sciences 1	
Select one of the following:		3-4
MATH 1572	Calculus 2	
MATH 1582	Calculus for the Health Sciences 2	
MATH 3705	Differential Equations	
MATH 3720	Linear Algebra and Matrix Theory	
MATH 4882	Mathematical Biology Research	
STAT 4817	Applied Statistics	
STAT 4849	Design of Experiments	
Total Semester Hours		18-19

Minor in Data Analytics

COURSE	TITLE	S.H.
Option 1: Student must participate in the YSU Data Mine for two years by registering for DATX 5895 for four semesters and DATX 5896 for four semesters. The total number of hours in this option is 16. Option 2: Satisfy the following course requirements. Choose one of the following		3-4
The courses in this list all have some form of prerequisite requirement. These are listed below the curriculum sheet. Because of this the total number of hours in this minor will exceed that listed on the requirement sheet.		
ANTH 3701 or SOC 3701	Social Statistics	
CRJS 3710	Social Statistics	
ECON 3788	Statistics for Business and Economics 1	
GEOG 2611	Geospatial Foundations	
ISEN 2610	Engineering Statistics	
PSYC 2618	Statistics for Psychology	
STAT 3717	Statistical Methods	
STAT 3743	Probability and Statistics	
DATX Minor Required Courses		
DATX 5801	Data Management	3
DATX 5803	Data Visualization	3
DATX 5805	Predictive Modeling Algorithms	3
DATX 5895	Selected Topics in Data Analytics (Only required if enrolling in DATX 5896)	1
DATX 5896	Data Analytics Project (This course may be repeated to satisfy the upper-division elective requirement.)	3
or STEM 4890	STEM Internship	
Total Semester Hours		16-17
Option 1 is open to all students. To complete Option 1, the student must participate in the YSU Data Mine for two years by registering for DATX 5895 for four semesters and DATX 5896 for four semesters. The total number of hours in this option is 16.		
Option 2 is designed for students majoring in Anthropology, Sociology, Psychology, Mathematics, Economics, Accounting, Finance, Marketing, Management, Computer Science, Biology and Engineering. Students from other programs will not be able to complete the minor within the listed credit hours and will need to take significant prerequisite courses.		
Minor in Mathematics		
COURSE	TITLE	S.H.
Option 1		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
Select at least 10 s.h. of MATH/STAT course work with MATH 1572 as a prerequisite, including at least 6 s.h. of course numbered above 3700. MATH 3720 can also be selected.		10
Total Semester Hours		18
Option 2		
MATH 1570	Applied Calculus 1	4
MATH 2670	Applied Calculus 2	5
Select at least 9 s.h. of MATH/STAT course work with MATH 1572 or MATH 2670 as a prerequisite, including at least 6 s.h. of course numbered above 3700. MATH 3720 can also be selected.		9
Total Semester Hours		18

Minor in Statistics

COURSE	TITLE	S.H.
Select one of the following courses:		4-5
MATH 1570	Applied Calculus 1	
MATH 1571	Calculus 1	
MATH 1572	Calculus 2	
MATH 1585H	Honors Accelerated Calculus 1	
One of the following statistics courses is required:		4
STAT 3717	Statistical Methods	
or STAT 3743 Probability and Statistics		
Select an additional 9 s.h. of upper division STAT courses, excluding STAT 3717 and 3743. DATX 5803 and DATX 5805 may also be chosen.		9
Total Semester Hours		17-18

For equivalent courses, consult the Department of Mathematics and Statistics.

Students whose major degree programs require one or more of the required courses for the minor may substitute other upper-division statistics electives for those requirements. In particular, mathematics majors satisfy the requirements of the minor through at least 17-18 s.h. of required courses comprised of STAT 3743 and 14 hours of STAT electives at the 4800-level or higher.

Department of Physics, Astronomy, Geology, and Environmental Science

Department of Physics, Astronomy, Geology, and Environmental Science
Room 2023 Ward Beecher Science Hall
Youngstown State University
Youngstown, Ohio 44555
(330) 941-3616 Fax: (330) 941-2131
Dr. W. Gregg Sturrrus, Chair (wgsturrrus@ysu.edu)

Welcome

Welcome to the Department of Physics, Astronomy, Geology, and Environmental Science at YSU! We are proud of the unique opportunities we provide for our students. We are dedicated to the idea that students learn best by doing the activities considered to be the work of physicists, astronomers, geologists, and environmental scientists. Housed within our department is the Clarence R. Smith Mineral Museum, a world-class collection of rare and amazing minerals and fossils from around the world, and the Ward Beecher Planetarium sporting a 40-foot projection dome, a Chronos GOTO Star Projector, and a SciDome HB full-dome 4k digital projector. The planetarium and the museum are free and open to the public and are maintained and operated in part by students.

Our students also have access to state-of-the-art research equipment in our research labs and in the field. This equipment includes an atomic force microscope and an x-ray photoemission spectrometer for surface studies; a photolithography semiconductor mask aligner; a magnetron sputtering deposition system and a HeCd laser photoluminescence spectrometer for developing and testing new semiconductor materials and devices; and a Vibrant OPOTek optical parametric oscillator and several pulsed YAG lasers for non-linear optics studies of layered polymer materials; an x-ray photoemission spectrometer for surface composition studies; an ICP spectrometer for plasma spectrophotometry; chromatography systems for both ion chromatography and gas chromatography; a laser particle size analyzer and a wide variety of other bench-top instrumentation.

Students also regularly use the Ohio Supercomputer Facility to simulate physical systems in the solid state. Some students learn to use the latest data analysis tools and work with imaging data from telescopes around the world and in space. Some students become proficient in the use of field instrumentation using remote sensing and geophysical investigations. Field instruments include a DJI Matrice 600 drone with infra-red and optical imaging

capability, ground penetrating radar, hand held x-ray fluorescence, 24 channel refraction seismograph, earth resistivity, proton magnetometer, high resolution GPS and total station surveying equipment.

Furthermore, the department has an endowment specifically for use to fund student employees working as assistants in our research labs. We strive to include students in our research projects, our planetarium shows, and in mineral museum site visits, and we are happy to discuss these opportunities with interested students.

Departmental Mission Statement

The Department of Physics, Astronomy, Geology, and Environmental Sciences strives to provide a high quality educational experience for its majors by involving undergraduate students in significant research activities to embody its philosophy of teaching through research; to continue and expand the research footprint of the department and the University; to serve the undergraduate population by offering challenging and essential course work; and to establish connections between the public and the scientific community and between the public and the University through outreach programs.

Courses are organized with the following aims:

- To provide well-rounded training in the physical sciences for those needing it for graduate study, industry, regulatory compliance, or secondary school teaching.
- To provide basic training for engineering and pre-professional students.
- To acquaint students from non-science programs with the methods, applications, and theories of the physical sciences in the modern world.

The program curricula, four-year plan, and minimum requirements for the degrees of Bachelor of Arts and Bachelor of Science are available through the links under the Programs of Study tab. These degrees may be earned in eight semesters if students average 15 hours per semester.

Program Directors / Coordinators

- **Ward Beecher Planetarium Director:**
Dr. Patrick Durrell (email: pdurrell@ysu.edu) (330) 941-7107
- **Geology Undergraduate Program Coordinator:**
Dr. Jeff Dick (Email: jcdick@ysu.edu) (330) 941-1756
- **Environmental Science Undergraduate Program Coordinator:**
Dr. Felicia Armstrong (Email: fparmstrong@ysu.edu) (330) 941-1385
- **Environmental Science Graduate Program Director:**
Dr. Jeff Dick (Email: jcdick@ysu.edu) (330) 941-1756

Geological and Environmental Science

Department of Physics, Astronomy, Geology, and Environmental Science
Room 2023 Ward Beecher Hall
(330) 941-3616 Fax: (330) 941-2131
Department Chairperson: Dr. W. Gregg Sturrrus (wgsturrrus@ysu.edu)
Academic Operations Specialist: Jill Mogg (jimmogg@ysu.edu)

Welcome

Welcome to the Geology and Environmental Science program at Youngstown State University. Our programs in Environmental Science and Geology are distinguished by our applied approach to learning. Our dedicated faculty consists of five PhD degree professors and thirteen adjunct faculty members with strong backgrounds in academics and real world experience. Our courses and degree programs prepare graduates for immediate employment and graduate studies opportunities by going well beyond the traditional class room experiences with a variety of field experiences, study abroad experiences, access to high-end analytical laboratories and instrumentation, internship opportunities and faculty-led undergraduate research experiences. Our laboratory facility instruments include plasma spectrophotometry, ion

chromatography, gas chromatography, laser particle size analysis and a wide variety of bench-top instrumentation. In addition, students have access to TEM, SEM, XRF, XRD and other high-end instrumentation through the Department of Chemical and Biological Sciences.

The program has a strong emphasis on remote sensing and geophysical investigations. Field instruments include a DJI Matrice 600 drone with infrared and optical imaging capability, ground penetrating radar, hand held x-ray fluorescence, 24 channel refraction seismograph, earth resistivity, proton magnetometer, high resolution GPS and total station surveying equipment.

Graduates of our programs find personally rewarding and high-paying careers in the fields of petroleum geology, environmental geology, public health, engineering geology, government regulations and compliance, mining, hydrogeology, environmental safety, geophysics and related fields. Many graduates choose to continue their education by pursuing master of science and doctoral degrees in geology and environmental science.

The Geological and Environmental Sciences program is also the home of the Clarence R. Smith Mineral Museum, a world-class collection of rare and amazing minerals and fossils from around the world. The museum is free and open to the public.

For more information, visit the **Department of Physics, Astronomy, Geology, and Environmental Sciences**.

Program Directors / Coordinators

- **Geology Undergraduate Program Coordinator:** Dr. Jeff Dick (Email: jcdick@ysu.edu) (330) 941-1756
- **Environmental Science Undergraduate Program Coordinator:** Dr. Felicia Armstrong (Email: fparmstrong@ysu.edu) (330) 941-1385
- **Environmental Science Graduate Program Director:** Dr. Jeff Dick (Email: jcdick@ysu.edu) (330) 941-1756

Professor

Felicia P. Armstrong, Ph.D., Professor

Colleen McLean, Ph.D., Associate Professor

Lecturer

Billie Spieler, Ph.D., Lecturer

Part-Time Faculty

Diana M. Alexander, M.S.

Rebecca Baxter, M.S.

Susie L. Beiersdorfer, M.S.

Breanna Beaver, M.S.

Anna C. Woodard (Draa), M.S.

Heidi L. Haug, M.S.

Jessie Holland, M.S.

Thomas E. Jordan, Ph.D.

Tamara M. Kerr-Sahli, M.S.

Daniel J. Kuzma, M.S.

Jason Lee, M.S.

Patrick Pruent, M.S.

Debbie A. M. Smith, M.S.

Majors

- AAS in Environmental Science (p. 495)
- BS in Environmental Science (p. 495)
- BA in Geology (p. 497)
- BS in Geology (p. 499)

Minors

- Minor in Engineering Geology (p. 501)
- Minor in Environmental Geology (p. 501)
- Minor in Environmental Science (p. 501)
- Geoscience Minor (p. 501)
-

Certificates

- Certificate in Sustainable Environments (p. 501)
- Certificate in Wastewater (p. 501)

Geology

GEOL 1500 Environmental Geology 4 s.h.

An introductory course that examines interactions between human society and our changing planet, the affects of natural/geologic hazards on humans, and anthropogenic (human-caused) impacts on nature, geology, and society. Three hours of lecture and two hours lab per week.

Gen Ed: Environmental Sustainability, Natural Science, Social and Personal Awareness.

GEOL 1503 Rock Studio: Understanding Geology Through Lapidary Experiences 4 s.h.

A discussion and studio-based course designed to develop an understanding and appreciation of earth history, earth physical processes and the formation of rocks and minerals through combined class discussions and creative studio-based discovery experiences. Students learn fundamentals of geology and reinforce their understanding by creating interesting objects and artistic pieces from rocks, minerals and earth materials using a variety of cutting, polishing and basic lapidary equipment. Approximately 3 hrs lecture and 2 hours lab weekly over the course of the term.

Gen Ed: Natural Science.

GEOL 1504 The Dynamic Earth 3 s.h.

An examination of earth as consisting of interrelated geologic systems which are dynamic and constantly changing. Includes study of surface, lithologic and tectonic systems.

Gen Ed: Natural Science.

GEOL 1505 Physical Geology 4 s.h.

A study of the various physical and chemical processes acting on and within the earth, and their products within the context of plate tectonics and their relevance to humans and modern society. The laboratory component includes identification of minerals and rocks, and the interpretation of topographic and geologic maps. Three hours of lecture, two hours of lab per week.

Gen Ed: Natural Science.

GEOL 1505H Honors Physical Geology 4 s.h.

Concepts of the earth as a dynamic planet, investigated through a variety of lectures, text and journal readings, and independent library-research assignments.

Prereq.: Eligibility for the Honors Program or consent of instructor.

Gen Ed: Natural Science.

GEOL 1505L Physical Geology Laboratory 0 s.h.

Physical Geology Laboratory.

GEOL 1508 Geology of Gemstones and Allied Minerals 3 s.h.

Formation, occurrence, and distribution of gem materials. Properties and identification of gem stones; factors affecting their value. Introduction to synthetic/artificial gem materials. Not applicable toward the geology major.

GEOL 2600 Geology in the Field 1 s.h.

An experiential field-based course designed to expose students to a variety of geological sites and development projects. Two full day field trips with class room preparation are required.

Prereq.: GEOL 1505 or GEOL 1505H.

GEOL 2602 Introduction to Oceanography 3 s.h.

Survey of geological, physical, chemical, and biological oceanography; description and distribution of properties and their relationship to circulation, shorelines, ocean features, sediments, organisms, and environments.

Gen Ed: Natural Science.

GEOL 2605 Historical Geology 4 s.h.

An in depth study of the origin and evolution of the Earth and its systems and life forms throughout geologic time. The course is designed to develop student critical thinking skills through analysis of concepts and issues, and the integration of maps, lithologic information, and fossil information. Three hours lecture and two hours lab per week. Field trips are an integral part of the course.

Prereq.: GEOL 1505 and GEOL 1505L.

GEOL 2611 Geology for Engineers 3 s.h.

Study of geologic principles, processes, and materials; focus on recognition of geologic factors as they apply to engineering operations and projects. Laboratory work includes examination of minerals, rocks, maps, and case histories. Two hours lecture, two hours laboratory per week.

Gen Ed: Natural Science.

GEOL 2620 Intro to Natural Gas and Water Resources 3 s.h.

A survey of the history, science and technology of oil and gas exploration and production and water resource related issues with an emphasis on non-conventional production in the Appalachian Basin.

Prereq.: MATH 1513, CHEM 1516 and CHEM 1516L.

GEOL 3700 Mineralogy 4 s.h.

The occurrence, composition, and crystallography of common and economically important minerals. Identification of minerals using physical, chemical, optical and x-ray properties. The theory and use of the polarizing microscope and its application to the study of crystalline material, including asbestos materials. Two hours lecture, four hours of lab per week.

Prereq.: CHEM 1515 (may be concurrent) and GEOL 2605.

GEOL 3701 Geomorphology 3 s.h.

A study of landforms and the processes which create them, using aerial photographs, geologic maps, and topographic maps. The laboratory work emphasizes recognition and interpretation of landforms. Two hours lecture, two hours laboratory per week.

Prereq.: GEOL 2605.

GEOL 3702 Glacial Geology 3 s.h.

A study of glacier types: their origin, movement, erosional/depositional contributions, and their relationship to various non-glacial features. Emphasis is on the Pleistocene glacial succession in North America. Field trips are an integral part of the course.

Prereq.: GEOL 2605.

GEOL 3703 Geological Field Methods 2 s.h.

An experiential lecture and field-based course designed to expose students to sites of geological significance and to learn basic field geology methods including data collection, field notebooks, geological feature measurements, and precision surveying methods. The course requires two different two-day field trips with scheduled class meetings to prepare students for the field experiences.

Prereq.: GEOL 2605.

GEOL 3704 Structural Geology 2 s.h.

Description and interpretation of geologic structures, mechanical properties; stress-strain relationships, regional structure of North America, and major tectonic theories. Geology majors must take GEOL 3704L concurrently with GEOL 3704.

Prereq.: GEOL 3701 and GEOL 3718.

GEOL 3704L Structural Geology Laboratory 1 s.h.

Structural geology techniques and analyses, including orthographic solutions, stereographic projections, and interpretation of maps. Two hours lab per week.

Prereq. or Coreq.: GEOL 3704.

GEOL 3705 Structures and Landscapes 4 s.h.

A study of earth surface features and their relationship to rock structure. One or more required field trips. Three hours lecture and three hours lab per week.

Prereq.: GEOL 3700.

GEOL 3706 Geology of Economic Mineral Deposits 3 s.h.

A study of the occurrence, origin, and distribution of mineral deposits, with special attention to their economic use. Field trips are mandatory.

Prereq.: GEOL 3700.

GEOL 3708 Geological Field Methods 2 s.h.

A course designed to develop skills and confidence in field-based sampling, data collection and analysis of results. Two one to two day field trips are required.

Prereq.: GEOL 2600 and 3718 or permission of instructor.

GEOL 3709 Subsurface Investigations 3 s.h.

An introduction to subsurface investigative methods that integrate principles of geophysics, geochemistry, interpretation of well logs and other bore hole data, outcrops and published information in the solution of actual geological problems. Two hours lecture, two hours lab per week. Students are expected to perform field work in addition to regularly scheduled class time.

Prereq.: GEOL 3701; MATH 1571 recommended.

GEOL 3710 Petroleum Geology of the Appalachian Basin 3 s.h.

A survey of the history, science and technology of oil and gas exploration and production within the Appalachian Basin of North America. Course content will focus on conventional and non-conventional exploration and production history, methods, technologies and production. Three hours lecture per week. Field trip mandatory.

Prereq.: GEOL 2605 or permission of instructor.

GEOL 3711 Mineralogy 3 s.h.

Advanced study of the occurrence, classification and processes that lead to the formation of minerals and the rocks and materials in which they occur. Emphasis is placed on the study of rock-forming minerals using physical, chemical and optical properties. Field trip required. Two hours lecture and two hours lab per week.

Prereq.: CHEM 1515 and CHEM 1515L (may be concurrent) and GEOL 2605.

GEOL 3714 Principles of Paleontology 3 s.h.

A detailed study of fossil invertebrates, including their origin, classification, paleoecology and stratigraphic utilization. Two hours lecture and two hours lab per week.

Prereq.: GEOL 2605.

GEOL 3717 Petrology 3 s.h.

A modern approach to understanding rocks within the context of plate tectonics and the use of rocks and minerals as natural resources in support of modern society. Emphasis is placed on investigating the formation, occurrence and classification of igneous, sedimentary and metamorphic rocks using physical, chemical and optical properties. Field Trip Required. Two hours lecture and two hours lab per week. **Prereq.** GEOL 3711 and CHEM 1516/1516L may be taken concurrently.

GEOL 3718 Igneous and Metamorphic Petrology 4 s.h.

An in-depth study of the petrogenesis of igneous and metamorphic rocks based on their chemical and petrographic characteristics. Three hours lecture, three hours lab per week.

Prereq.: GEOL 3700.

GEOL 3720 Field Investigations in Geology 1-4 s.h.

A field-based approach to the study of geologic concepts and problems. Class and travel supervised by the Geology faculty; location, duration of stay, hours, credit, and grading criteria dependent on the site and nature of the geologic concepts and problems investigated. The course may be repeated. A maximum of 4 s.h. may be applied toward Geology major requirements.

Prereq.: By permit only.

GEOL 3750 Geoscience Seminar 1 s.h.

Guest lecture and student presentation forum course designed to provide students with exposure to a broad range of topics and current research relevant to the geosciences. Course may be repeated.

Prereq.: GEOL 1505.

GEOL 3755 Geological Research Methods and Data Analysis 3 s.h.

This course introduces students to the design and execution project phases applied in the solution of real world geological problems. Emphasis is placed on the recognition of geological problems, the design and execution of research plans and experience with solution-based software commonly used in research and professional practice. Students are required to complete a geological research problem, submit a formal write up and provide an oral and/or poster presentation.

Prereq.: GEOL 3717.

GEOL 3775 Research Methods for Undergraduates 1 s.h.

This course introduces the student to the fundamental and practical aspects of conducting research. The course emphasizes the scientific method, research methodologies, literature review, writing research proposals, and how research results are presented. Learn the process of developing, funding and conducting research. This course must be taken prior to any undergraduate research.

Prereq.: junior or senior standing.

GEOL 4804 Ground Water 3 s.h.

A study of the geologic and hydrologic factors controlling the occurrence and behavior of water beneath the earth's surface. Two hours lecture, two hours lab per week.

Prereq.: GEOL 2605; MATH 1571 recommended.

GEOL 4806 Engineering Geology 3 s.h.

An introduction to the concepts of engineering geology with an emphasis on the relationship between geologic materials, construction of infrastructure and environmental issues. Topics include case studies that involve rock mass classification, soil classification, and material properties including strength, soil phase relationships, soil consolidation. Required field trip. Three hours lecture.

Prereq.: GEOL 2605 and MATH 1510/1510C and MATH 1511/1511C or permission of instructor.

GEOL 4812 GIS Applications to Geology 3 s.h.

This course covers a variety of geologic applications of GIS software; topics covered include: flood mapping, landslide hazard mapping, modeling soil erosion, watershed delineation, etc. Although you will be exposed to the basic functions of ArcGIS, the course is designed primarily to provide experience in obtaining, managing, interpreting, displaying, and presenting geo-spatial data in a meaningful context.

Prereq.: GEOL 3701, GEOG 2611.

GEOL 4820 Water Pollution Control 3 s.h.

Sources and prevention methods of water pollution, human activities and natural conditions that influence water quality, protection methods and regulations of water quality, contamination and remediation of groundwater.

Prereq.: GEOL 1505 or ENST 2600.

GEOL 4824 Tectonics 3 s.h.

Geodynamics and the workings of plate tectonics. Kinetics and dynamics of plate motion, plate driving forces, thermal structure of the earth, and thermal convection in the earth. Tectonic and structural features on the earth. Geophysical, stratigraphic and structural signatures of extensional rifting, strike-slip faulting, subduction zones, plate collisions and mountain belts.

Prereq.: GEOL 3704.

GEOL 4825 Geophysical Well Log Analysis 3 s.h.

An introduction to geophysical well logging, analysis, and interpretation applications in the oil and gas industry. Topics include well construction, drilling mud properties, and interpretation of gamma ray, SP, resistivity, sonic, neutron density, and cement bond logs.

Prereq.: GEOL 2620 or permission of instructor, GEOL 3704, PHYS 1502 or PHYS 2611 recommended.

GEOL 4830 Senior Thesis 4 s.h.

Designed to be completed during the student's senior year and is expected to be a significant research-based contribution to the geosciences. A typical senior thesis topic will support the research program of full-time GES faculty. Students may develop their own research topic provided they have the support of one or more full-time GES faculty.

Prereq.: Junior standing, minimum cumulative GPA of 3.0, submission of approved research proposal, permission of GES Chairperson.

Gen Ed: Capstone.

GEOL 4899 Special Topics 1-3 s.h.

Selected aspects of geology not covered in existing courses. Topics to be announced each time course is offered. May be repeated for different topics.

Prereq.: appropriate 3700- or 4800- geology course and permission of the chairperson.

GEOL 5802 Sedimentology and Stratigraphy 3 s.h.

The study and interpretation of sedimentary rocks, including physical characteristics, petrography, depositional environments, principles of correlation, and principles of basin analysis. Two hours lecture, two hours lab per week.

Prereq.: GEOL 3704.

Gen Ed: Capstone.

GEOL 5805 Special Problems in Geology 1-4 s.h.

An in-depth study of a specific problem in one of the branches of geology. The problem depends on the student's interest and qualifications and the equipment availability. A maximum of 8 s.h. may be taken.

Prereq.: 8 s.h. in Geology, consent of the department chairperson and instructor.

GEOL 5810 Groundwater Resource Evaluation 3 s.h.

Geologic and hydrologic interpretation of groundwater data with emphasis on regional groundwater resources, groundwater management, groundwater supplies, and design and construction of water wells.

Prereq.: GEOL 2605 or permission of instructor.

GEOL 5815 Geology and the Environment 2 3 s.h.

In-depth examination of earth processes, earth resources, and properties of earth materials as they relate to human activities, and their geologic consequences.

Prereq.: GEOL 2615 or ENST 2600.

GEOL 5817 Environmental Geochemistry 3 s.h.

An application of low-temperature aqueous geochemistry and geochemical computer modeling to environmental problems such as acid mine drainage, geochemical cycling of trace elements and nutrients, hazardous waste remediation, nuclear waste disposal, and surface and ground-water contamination.

Prereq.: GEOL 3700 and CHEM 1516.

Environmental Studies

ENST 1500 Introduction to Environmental Science 3 s.h.

Basic environmental science literacy for informed citizens as inhabitants and stewards of Earth. The use of science and the scientific method to understand, assess, and manage the environment to improve human health, conserve energy and resources, preserve nature, and sustain quality of life.

Gen Ed: Environmental Sustainability, Natural Science, Social and Personal Awareness.

ENST 1500L Introduction to Environmental Science Lab 1 s.h.

The use of the scientific method to explore various fields in environmental science including water quality, risk assessment, biodiversity and mineral uses. This field and laboratory work supplements ENST 1500.

Prereq. or Coreq.: ENST 1500.

ENST 1502 Environmental Sustainability 3 s.h.

This course will introduce students to the science of sustainability. It includes an overview of the origins of the concept of environmental sustainability and the development of sustainability science as an independent discipline and investigates the methodologies used by scientists to develop sustainable systems. The course also will explore the sustainability of technological advances in global food production. Topics include the origins of agriculture, soil energy and conservation, industrial vs. organic agriculture, integrated pest management, genetically modified organisms (GMOs), and biofuels. An overview of various renewable and non-renewable energy resources, their distribution, availability, patterns of use, and impact on the environment will be addressed. Students will evaluate relative energy efficiencies, as well as political and economic impacts on energy.

Prereq.: None.

ENST 1503 Environmental Field Biology 4 s.h.

Instrumental analysis of samples from aquatic systems involving automated calorimetry, atomic absorption spectrophotometry, gas chromatography, ion chromatography and high-performance liquid chromatography. Students will learn basic analytical techniques and apply them in group projects investigating real world water quality problems. Three hours lecture, two hours lab.

Prereq.: ENST 1500.

ENST 1504 Environmental Occupational Health and Safety 3 s.h.

Provides an overview of the field of occupational health, with a focus on the impact that chemical, physical, and biological agents have on the public's health and the environment. Presents information related to the recognition, evaluation and control of the chemical, physical and environmental factors that can impact human health. Establishment and maintenance of safety programs are discussed. Collection, analysis and interpretation of safety data are considered. Approaches to safety used by international, national and local governmental agencies are reviewed, as well as recognition, evaluation, and control of occupational safety and health hazards (chemical, physical) that may cause injury and/or illness or cause significant discomfort to employees, or residents of the community.

Provides an overview of the field of occupational health, with a focus on the impact that chemical, physical, and biological agents have on the public's health and the environment. Presents information related to the recognition, evaluation and control of the chemical, physical and environmental factors that can impact human health. Establishment and maintenance of safety programs are discussed. Collection, analysis and interpretation of safety data are considered. Approaches to safety used by international, national and local governmental agencies are reviewed, as well as recognition, evaluation, and control of occupational safety and health hazards (chemical, physical) that may cause injury and/or illness or cause significant discomfort to employees, or residents of the community. **Prereq.:** none.

ENST 1506 Environmental Principles of Water Resources 4 s.h.

This course will cover the components of a water-quality study within the focus of a watershed. Design concepts for environmental studies, aspects of data analysis, key chemical and biota indicators will be discussed. This course will also cover issues with potable water resources, including the treatment of drinking water and the post-treatment of waste water. Other topics covered will include the impacts of both urban water runoff and agricultural uses of water with a thorough review of the Clean Water Act that governs such policy, as well as Section 404 of the CWA permitting discharge to waters of the United States, including wetlands.

Prereq.: none.

ENST 1508 Environmental and Natural Resource Policy 3 s.h.

Historical, ethical, economic, legal, and policy aspects of environmental science are analyzed with an emphasis on their interrelationships. Various strategies of pollution abatement are considered.

Prereq.: none.

ENST 1509 Hazardous Waste 3 s.h.

This course will cover both solid, liquid, and hazardous waste. Technology, health, and policy issues associated with solid waste and hazardous materials are examined. Methods of managing solid and hazardous waste are introduced, and regulations are presented where appropriate. The characteristics of hazardous and solid waste materials, health frameworks, and the distribution of contaminants in the environment are reviewed. The course is extremely broad in scope spanning laws, regulations, treatment technologies, and risk assessment. While treatment technologies are presented and basic process design information is covered, the course is designed for breadth, not depth, in process design and hazardous waste management. The objective of the course is to provide a comprehensive and historical overview of hazardous waste management, drawing from both scientific and engineering principles, and prepare our students to be well-qualified and competitive in the responsibility of engineering design and permitting in the field of hazardous waste management.

Prereq.: None.

ENST 1510 Green Infrastructure 3 s.h.

This course will focus on green infrastructure as it pertains to increasing eco-friendly alternatives to outdated infrastructure with the preservation of water and soils as the major goal. Green infrastructure including urban planning, small community planning of green spaces, rain gardens, eco-roofs, and porous pavement, will mimic the natural water cycle and provide additional social, economic, and environmental benefits. This online course features case studies, demonstration projects, and interactive tools to prepare both novice and experienced professionals with the knowledge and resources they need for successful green infrastructure implementation. A particular area of focus will be the relationship between green infrastructure for improving hydrology and riparian corridors as part of comprehensive green space planning for recreation and cultural resources. The course will look at a wide range of systems including water, transportation, and food systems.

Prereq.: none.

ENST 1511 Social-Ecological Systems and Sustainability 3 s.h.

This course will cover the unprecedented environmental challenges largely as a consequence of unsustainable interactions with nature. In this course, we will explore themes related to the essentiality of biodiversity to ecosystem services, working with nature, biophilic design, permaculture and multifunctional agricultural landscapes, and collaborative decision-making, and use the tools of systems thinking and dynamics to explore linked socio-ecological systems. The class will explore the unintended environmental consequences of modern life after historical industrialization. The unintended consequences at the expense of natural resources, energy, and pollution-intensive food production, and the economic system's failure to work effectively within a socio-ecological system will be explored. Using evidence-based science, students will identify actionable strategies for sustainability.

Prereq.: none.

ENST 1515 Waste Management 3 s.h.

This course is designed to enable the learner to understand the main sources from where waste is derived, to appreciate the problems associated with waste disposal, to analyze waste reduction methods during the production phase and during the disposal cycle of a product, and to be aware of the move towards waste minimization techniques and the resulting overall benefits these will provide society. The student will acquire a range of practical skill and knowledge to be able to apply waste reduction methods in their own environment and also to an industrial/business enterprise.

Prereq.: None.

ENST 2600 Foundations of Environmental Science 3 s.h.

A survey of the principles and issues of environmental studies including basic ecology, biodiversity, hazardous and solid waste management, sustainable development, energy production and conservation, environmental ethics, air, water and soil pollution.

ENST 2600L Foundations of Environmental Science Laboratory 1 s.h.

Laboratory and field investigations identified in ENST 2600. Emphasis on the scientific method, problem solving and critical thinking skills in environmental assessment techniques, active exploration of environmental concerns and their solutions. Three hours per week. Field trips may require additional time past the scheduled lab time.

Prereq. or Coreq.: ENST 2600.

ENST 2606 Global Perspectives in Alternative Energy Sources 3 s.h.

This course will provide a global perspective to society's present needs and future energy demands. This course will provide an introduction to energy systems and renewable energy resources, with a scientific examination of the energy field and an emphasis on alternative energy sources, their technology and application. The course will examine conventional energy sources and systems, including fossil fuels and nuclear energy, and then focus on alternate, renewable energy sources such as solar, biomass (conversions), wind power, geothermal and hydroelectrical power.

Prereq.: none.

ENST 2620 Freshman/Sophomore Seminar 1 s.h.

This one credit hour course will focus on various disciplines of environmental science. Invited speakers will present on various topics in environmental science and students will engage in scientific literature searching. Active portions of the course will include online database literature searches, scientific writing, citation methods, and basic instruction in using Microsoft Word, Excel and PowerPoint.

Prereq.: Freshman or sophomore standing.

ENST 2650 Independent Study 1-3 s.h.

The introductory study of problems or issues in Environmental Studies or a review of the literature relating to a specific environmental topic. May be repeated for different topics for a total of 6 s.h.

Prereq.: Permission of the director.

ENST 3700 Environmental Chemistry 4 s.h.

Study of the fundamental chemical principles underlying common environmental problems, including water pollution, toxicology, chemical biotransformation and degradation. Chemistry of pesticides, petroleum hydrocarbons and heavy metals are also investigated.

Prereq.: ENST 2600 and CHEM 1516.

Coreq.: ENST 3700L.

ENST 3700L Environmental Chemistry Lab 0 s.h.

Students will investigate various analytical and instrumental techniques used in the examination of chemicals in environmental media (soil, water, biota). Includes proper handling, storage and precautions in the laboratory and the environment. Taken with ENST 3700.

ENST 3730 Air Quality 3 s.h.

Sources, dispersions, consequences and abatement of air pollutants emanating from industry and transportation. Topics also include the history, legislation, standards and economics of air pollution.

Prereq.: CHEM 1515.

ENST 3750 Seminar 1 s.h.

Guest lecturers will examine current topics in environmental issues, including current research, application of technology, management strategies to reduce environmental impact, environmental ethics, policy, etc.

Prereq.: ENST 2600.

ENST 3751 Water Quality Analysis 3 s.h.

Introduction to physical, chemical, and biological measurements of water quality. Sample collection and laboratory analysis of natural waters, drinking water, and wastewater. Interpretation of environmental data. Two hours lecture and three hours laboratory per week. Identical to CEEN 3751.

Prereq.: CEEN 3736 OR ENST 2600; CHEM 1515.

ENST 3751L Water Quality Analysis Lab 0 s.h.

Laboratory experience in the analysis of natural waters, drinking water and wastewater. Emphasizes procedures for the collection and interpretation of data on current environmental problems. Three hours laboratory per week. Must be taken concurrently with ENST 3751. Identical to CEEN 3751.).

Prereq.: Must be taken concurrently with ENST 3751 (Note: already in course description).

ENST 3752 Soil Quality and Analysis 3 s.h.

Soil is an important environmental medium that must be analyzed to assess quality standards. Students develop the ability to conduct laboratory experiments and to critically analyze and interpret soil data. Furthermore, this course contributes to the background knowledge students need to assess environmental impact and risk, sustainability, health and safety.

Prereq.: CHEM 1515 and CHEM 1515L or equivalent.

ENST 3775 Research Methods for Undergraduate 1 s.h.

This course introduces the student to the fundamental and practical aspects of conducting research. The course emphasizes the scientific method, research methodologies, literature review, writing research proposals and the presentation of research results. Students will gain valuable experience in identifying a problem, developing a research plan and summarizing results. This course must be taken prior to engaging in undergraduate research.

Prereq.: junior or senior standing.

ENST 3780 Environmental Research 1-4 s.h.

A research project that involves problem identification, hypothesis formation, experimentation, data analysis and interpretation. The research may be either basic or applied.

Prereq.: Junior standing in ENST and permission of the director.

ENST 3781 Environmental Sampling Methods 3 s.h.

Sampling design, including number and types of samples and procedures for taking representative samples of air, water, soil and contents of storage and shipping containers. Two hours of lecture, three hours of laboratory.

Prereq.: ENST 2600 and STAT 2601 or equivalent.

ENST 3784 Research Experience in Environmental Science 4 s.h.

This capstone course will give student the experience in the planning and execution of a research project. Graduate schools and research establishments consider an undergraduate student research experience as extremely valuable. Research provides students with an opportunity to work with faculty and graduate students on more advance research topics. Research furthers our knowledge of basic environmental science and helps us find solutions to environmental problems. The process improves student skills in gathering data, brainstorming ideas, evaluating data, and discussing the results to others through written and oral presentations. Environmental research can be focused on fieldwork, computer simulation, or laboratory analysis.

Prereq.: Senior standing, Environmental Science major, ENST 3751 or ENST 3752.

ENST 3790 Internship/Cooperative 1-4 s.h.

Students work under the direction of a faculty supervisor in a governmental agency or in the private sector as environmental specialists. An activities log and summary report are required. The course may be repeated.

Prereq.: Junior standing in ENST and permission of the director.

ENST 4822 Water Pollution Control 3 s.h.

Sources and prevention methods of water pollution, human activities and natural conditions that influence water quality, protection methods and regulations of water quality, contamination and remediation of groundwater. 3.s.h.

Prereq.: GEOL 1505 or ENST 2600.

ENST 4840 Topics 1-3 s.h.

Independent study of special topics not included in available courses. Students do extensive reading in, and write a formal report on, a specific area of Environmental Studies.

Prereq.: Junior standing or consent of instructor.

ENST 5800 Environmental Impact Assessment 3 s.h.

Analysis of the potential environmental effects resulting from the construction of buildings, highways, parking lots, mines, reservoirs, and waste disposal facilities. Standard procedures are taught for evaluating and reporting the environmental impact of these activities.

Prereq.: ENST 5860 and senior standing.

ENST 5810 Environmental Safety 3 s.h.

The proper use of environmental monitoring instruments and personal protective gear. Participation in a series of realistic, hands-on simulation exercises that address a variety of waste clean-up situations. Topics include chemical and physical hazards of chemical compounds and toxicology and adverse effects of chemical exposure. Class meets three hours per week. Successful completion of the course earns OSHA Hazwoper 40 hour training certificate.

Prereq.: ENST 2600, equivalent experience or permission of instructor.

ENST 5820 Sustainability, Climate Change, and Society 3 s.h.

This course explores environmental, economic, and social aspects of sustainable development, with an emphasis on economy and society. Through topics such as water, food, and climate change, we examine the role of humans and institutions in sustainable development and possibilities for reconfiguring relationships between our institutions and the natural world.

Prereq.: junior, senior or graduate level standing.

ENST 5830 Toxicology and Risk Assessment 3 s.h.

A study of environmental toxicology of chemicals, primarily anthropogenic pollutants, and their effect on humans and ecosystems. Includes transportation of pollutants in the environment, biochemical reactions, toxicity testing methods, and dose-response assessment. Continues with an introduction in the process of estimating risk and the perception of those risks including how risk is used to set environmental standards.

Prereq.: ENST 1516 and 9 sh >3700 in ENST, CHEM, BIOL, GEOL or CEEN, junior, senior or graduate standing.

Gen Ed: Capstone.

ENST 5860 Environmental Regulations 3 s.h.

An examination of federal and state regulations that relate to cleanup of abandoned waste sites, management of waste from current waste generators, development of new hazardous products and chemicals, safety and health issues, and control of pollution into air and water.

Prereq.: ENST 2600 or equivalent.

Associate of Applied Science in Environmental Science

The Environmental Science Program, leading to an Associate of Science Degree, is designed for the student desiring entry level positions in environmental science, green collar jobs, natural resources, resource management, or for those students transferring to a four-year institution with the desire to complete a Bachelor of Science Degree in Environmental Science. Completed course work also may lead to other fields in biological sciences. Field work, and a portfolio of the student's work will be required for completion of the Associate of Science Degree in Environmental Science.

COURSE	TITLE	S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
MATH 1510	College Algebra	4-6
or MATH 1510C	College Algebra with Co-requisite Support	
STAT 2601	Introductory Statistics	3-4
or STAT 2625	Statistical Literacy and Critical Reasoning	
BIOL 2601	General Biology 1: Molecules and Cells	3

ENST 1500	Introduction to Environmental Science	3
ENST 1500L	Introduction to Environmental Science Lab	1
BIOL 2602	General Biology 2: Organisms and Ecology	3
BIOL 2602L	General Biology: Organisms and Ecology Laboratory	1
ENST 1502	Environmental Sustainability	3
ENST 1503	Environmental Field Biology	4
PHIL 1565	Critical Thinking	3
ENST 1504	Environmental Occupational Health and Safety	3
CHEM 1500	Chemistry in Modern Living	3
CHEM 1504	Introductory Applied Chemistry for Water/Wastewater Treatment	3
GEOL 1500	Environmental Geology	3
ENST 1506	Environmental Principles of Water Resources	4
PSYC 1560	General Psychology	3
ENST 1508	Environmental and Natural Resource Policy	3
ENST 2606	Global Perspectives in Alternative Energy Sources	3
ENST 2620	Freshman/Sophomore Seminar	1
SOC 1500	Introduction to Sociology	3

Total Semester Hours 64-69

Bachelor of Science in Environmental Science

The environmental science program leading to a Bachelor of Science (BS) prepares students for graduate school or careers in health and safety, natural resource management, public health, environmental consulting, environmental regulations, environmental education, and other related fields:

- 42-44 s.h. of environmental science courses
- 30-31 s.h. of support courses in science and mathematics
- a prescribed minor of 12-19 s.h

The minor must include 9 s.h. of upper division courses (3000 level and above) and may be in:

- biology or biomathematics
- biological or forensic anthropology
- biological or forensic anthropology
- chemistry
- economics
- environmental engineering
- environmental geography or geography
- environmental health and safety
- forensic science
- geographic information science
- geoscience or environmental geology
- law enforcement
- mathematics or statistics
- mechanical engineering
- public health

Credits may include those required for support science and mathematics, as applicable. The student is welcome to take additional courses in other departments as electives. Students are encouraged to develop teamwork, communication, computer and problem-solving skills. This degree may be earned in eight semesters if students average 15 hours per semester.

Majors transferring in from other programs at YSU or from other universities may use up free electives and/or require additional semesters or summers of

study. College and university requirements apply (total hours, upper division hours, general education goals, etc.).

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics Requirement (met with MATH 1570 or 1571 in major)		6
Arts and Humanities (6 s.h.)		
Natural Sciences (2 courses, 1 with lab) (6-7 s.h.)(Requirement met through science courses in major)		6
Social Science (6 s.h.)		
General Education Electives		
General Education Electives (6 s.h. Met with science courses in the major)		
CMST 1545	Communication Foundations (Required)	3
Major Core Requirements		
ENST 2600 & 2600L	Foundations of Environmental Science and Foundations of Environmental Science Laboratory	4
ENST 2620	Freshman/Sophomore Seminar	1
ENST 3700 & 3700L	Environmental Chemistry and Environmental Chemistry Lab	4
ENST 3730	Air Quality	3
ENST 3750	Seminar	1
ENST 3751	Water Quality Analysis	3
or ENST 3752	Soil Quality and Analysis	3
ENST 3780	Environmental Research	
ENST 3790	Internship/Cooperative	4
ENST 5810	Environmental Safety	3
ENST 5860	Environmental Regulations	3
Upper Division Electives		
Select 12 credit hours from ENST 3700 level courses or higher. 3-4 credit hours of a 3700 or higher level course may come from Biology, Chemistry, Geology, Civil/Environmental Engineering or select Geography courses.		12
BIOL 2601	General Biology 1: Molecules and Cells	3
BIOL 2601L	General Biology I: Molecules and Cells Laboratory	1
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory (satisfies GER Science or Lab) ¹	4
MATH 1571	Calculus 1 ²	4
or MATH 1570	Applied Calculus 1	
GEOG 2611	Geospatial Foundations	3
PHYS 1501	Fundamentals of Physics 1	4
or PHYS 2610	General Physics 1	
Statistics--Take one of the following:		
STAT 2601	Introductory Statistics	3-4
or STAT 2625	Statistical Literacy and Critical Reasoning	
or STAT 3717	Statistical Methods	
or STAT 3743	Probability and Statistics	
Minor		12

Electives to reach 120		15
Total Semester Hours		120-123
¹ Satisfies General Education Science or Science Lab Domain. ² Satisfies General Education Mathematics Domain. ³ Satisfies General Education Science Domain.		
Year 1		
Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or STEM 1520	or STEM First Year Orientation	
or HONR 1500	or Intro to Honors	
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
ENST 2600 & 2600L	Foundations of Environmental Science and Foundations of Environmental Science Laboratory	4
GER SS or AH Course		3
Semester Hours		15-17
Spring		
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
ENGL 1551	Writing 2	3
ENST 2620	Freshman/Sophomore Seminar	1
STAT 2601	Introductory Statistics	3-4
or STAT 2625	or Statistical Literacy and Critical Reasoning	
or STAT 3717	or Statistical Methods	
or STAT 3743	or Probability and Statistics	
GER SS or AH course		3
Semester Hours		14-15
Year 2		
Fall		
MATH 1570	Applied Calculus 1	4
or MATH 1571	or Calculus 1	
BIOL 2601 & 2601L	General Biology 1: Molecules and Cells and General Biology I: Molecules and Cells Laboratory	4
CMST 1545	Communication Foundations	3
ENST 3730	Air Quality	3
Semester Hours		14
Spring		
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
GEOG 2611	Geospatial Foundations	3
ENST 3700	Environmental Chemistry	4
Elective Course (any)		3
GER SS or AH Course		3
Semester Hours		17
Year 3		
Fall		
ENST 3781	Environmental Sampling Methods	3
ENST 5860	Environmental Regulations	3
ENST 3751	Water Quality Analysis	3
or ENST 3752	or Soil Quality and Analysis	
Minor Course		3

GER SS or AH Course	3
Semester Hours	15
Spring	
ENST 5800 Environmental Impact Assessment	3
ENST 3751 Water Quality Analysis	3
ENST 3750 Seminar	1
Minor Minor Course	3
Major Course > 3700	3
PHYS 1501 Fundamentals of Physics 1 or PHYS 2610 or General Physics 1	4
Semester Hours	17
Year 4	
Fall	
ENST 5830 Toxicology and Risk Assessment	3
ENST 3790 Internship/Cooperative	4
Minor Course	3
Minor Course	3
Major Course > 3700	3
Semester Hours	16
Spring	
ENST 3780 Environmental Research	4
ENST 5810 Environmental Safety	1
Major Course > 3700	3
Major Course > 3700	3
Elective	1
Semester Hours	12
Total Semester Hours	120-123

¹ Elective support courses, select two of the following: PHYS 1501 Fundamentals of Physics 1, GEOG 2630 Weather, or STAT 2601 Introductory Statistics or STAT 3717 Statistical Methods.

Request a Graduation Evaluation after completing 80-85 s.h. from the STEM Advising Center, 2325 Moser Hall, (330) 941-2512.

Learning Outcomes

The Environmental Science Program educates students in the fundamental knowledge about the environment, its resources, processes, and the changes and problems that have occurred and potential solutions to those problems. The student learning outcomes for the BS in environmental science are:

Interdisciplinary: Demonstrate an understanding of basic environmental processes and the contributions of different scientific and social disciplines to environmental issues.

Research: Properly apply the scientific method to research an environmental question including design of experiments, acquisition of data (qualitative and quantitative), and articulate results in discussions and conclusions.

Communicate: Effectively converse using the language, concepts, and models of environmental science in written, visual, and numerical formats for specific and general audiences.

Problem Solving: Demonstrate the ability to identify and apply appropriate field, laboratory, or modeling methods to address environmental problems and propose sustainable solutions.

Critical Thinking: Students will utilize their understanding of pollution and environmental systems and published information to systematically, creatively, and analytically examine current issues.

Bachelor of Arts in Geology

The Bachelor of Arts in Geology prepares students for entry-level employment within the wide-ranging fields of geology. The dominant fields of geological employment include:

- Environmental geology
- Construction
- Petroleum geology
- Water resources
- Mining
- Hydrogeology
- Government regulations and compliance
- Pipeline construction

The Bachelor of Arts in Geology degree program can be completed in eight semesters if students average sixteen hours of coursework per semester.

For more information, visit the Department of Physics, Astronomy, Geology, and Environmental Sciences.

The Bachelor of Arts degree requires the successful completion of a minimum of 72 s.h. of core and elective courses.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics Requirement (included in the major)		
Arts and Humanities (6 s.h.)		6
Natural Sciences (2 courses, 1 with lab-included in the major)		
Social Science (6 s.h.)		6
General Education Electives		
General Education Electives		6
CMST 1545	Communication Foundations (required)	3
Foreign Language Requirement		
FNLG 1501	Conversational Foreign Language 1	3
FNLG 1502	Conversational Foreign Language 2	3
Major Requirements		
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
ENST 2600 & 2600L	Foundations of Environmental Science and Foundations of Environmental Science Laboratory	4
GEOL 2605	Historical Geology	4
GEOL 3700	Mineralogy	3
GEOL 3701	Geomorphology	3
GEOL 3705	Structures and Landscapes	4
GEOL 3717	Petrology	3
GEOL 3750	Geoscience Seminar	1
GEOL 5802	Sedimentology and Stratigraphy (Capstone course)	3
MATH 1570	Applied Calculus 1	4
Electives		
Electives (any)		10
Science Electives I:		

Select a minimum of 21 s.h. from the following:	21
ASTR 2609 Moon and Planets	
BIOL 2601 General Biology 1: Molecules and Cells	
BIOL 2601L General Biology I: Molecules and Cells Laboratory	
BIOL 2602 General Biology 2: Organisms and Ecology	
BIOL 2602L General Biology: Organisms and Ecology Laboratory	
CHEM 1515 General Chemistry 1	
CHEM 1515L General Chemistry 1 Laboratory	
CHEM 1516 General Chemistry 2	
CHEM 1516L General Chemistry 2 Laboratory	
GEOG 2630 Weather	
MATH 2670 Applied Calculus 2	
PHYS 1501 Fundamentals of Physics 1 & 1501L and Fundamentals of Physics Laboratory 1	
GEOL 2602 Introduction to Oceanography	
PHYS 1502 Fundamentals of Physics 2 & 1502L and Fundamentals of Physics Laboratory 2	
STAT 3717 Statistical Methods	
Science Electives II:	
Select a minimum of 20 s.h. from the following:	20
GEOL 3702 Glacial Geology	
GEOL 3706 Geology of Economic Mineral Deposits	
GEOL 3709 Subsurface Investigations	
GEOL 3714 Principles of Paleontology	
GEOL 3720 Field Investigations in Geology	
ENST 3751 Water Quality Analysis & 3751L and Water Quality Analysis Lab	
ENST 3752 Soil Quality and Analysis	
ENST 3781 Environmental Sampling Methods	
GEOL 4804 Ground Water	
GEOL 4824 Tectonics	
GEOL 4825 Geophysical Well Log Analysis	
GEOL 4899 Special Topics	
GEOL 48XX Geology Field Camp (4 s.h. minimum)	
GEOL 5805 Special Problems in Geology	
ENST 5810 Environmental Safety	
GEOL 5810 Groundwater Resource Evaluation	
GEOL 5815 Geology and the Environment 2	
GEOL 5817 Environmental Geochemistry	
ENST 5860 Environmental Regulations	
Electives to meet 120 Hours	2
Total Semester Hours	120-122
Year 1	
Fall	S.H.
YSU 1500 Success Seminar or YSU 1500S or Youngstown State University Success or HONR 1500 Seminar or Intro to Honors	1-2
GEOL 1505 Physical Geology & 1505L and Physical Geology Laboratory	4
ENGL 1550 Writing 1 or ENGL 1549 or Writing 1 with Support	3-4
CHEM 1515 General Chemistry 1 & 1515L and General Chemistry 1 Laboratory	4
GER Arts and Humanities Elective	3
Gen Ed Elective	3
Semester Hours	18-20

Spring	
GEOL 2605 Historical Geology	4
ENGL 1551 Writing 2	3
CHEM 1516 General Chemistry 2 & 1516L and General Chemistry 2 Laboratory	4
GEOG 2626 World Geography	3
Gen Ed Elective	3
Semester Hours	17
Year 2	
Fall	
MATH 1570 Applied Calculus 1	4
GEOL 3700 Mineralogy	3
ENST 2600 Foundations of Environmental Science & 2600L and Foundations of Environmental Science Laboratory	4
GEOL 3750 Geoscience Seminar (Optional)	1
Semester Hours	12
Spring	
GEOL 3717 Petrology	3
CMST 1545 Communication Foundations	3
Science Elective II	3-5
Science Elective I	3-5
Science Elective I	3-5
Semester Hours	15
Year 3	
Fall	
GEOL 3701 Geomorphology	3
FNLG 1501 Conversational Foreign Language 1	3
GER Social Science Elective	3
GEOL/ENST 3700+ Science Elective II	3-4
GEOL 3750 Geoscience Seminar (Optional)	1
Science Elective I	3-5
Semester Hours	16
Spring	
FNLG 1502 Conversational Foreign Language 2	3
GEOL 3705 Structures and Landscapes	4
GER Arts and Humanities	3
GEOL/ENST Science Elective II	3-4
ENST 5810 Environmental Safety	3
Semester Hours	16
Year 4	
Fall	
GEOL 3750 Geoscience Seminar (Optional)	1
GEOL/ENST 3700+ Science Elective II	3-4
GEOL/ENST 3700+ Science Elective II	3-4
Science Elective Course	3
Science Elective Course	2
Semester Hours	12
Spring	
GEOL 5802 Sedimentology and Stratigraphy (Capstone Course)	3
Science Elective I	3-5
GEOL/ENST 3700+ Science Elective II	3-4
PHIL 2631 Environmental Ethics (GER Social and Personal Awareness)	3

Elective Course	2
Semester Hours	14
Total Semester Hours	120-122

Request a Graduation Evaluation after completing 80-85 s.h. from the STEM Advising Center, 2325 Moser Hall, (330) 941-2512.

The Bachelor of Arts degree in Geology prepares students for employment by:

1. Encouraging and preparing undergraduate students for engagement in research activities,
2. Improving the preparation of graduates for the regional growth of geology careers due to the growing natural gas and petrochemical processing industry,
3. The program change places an emphasis on applied learning.

Bachelor of Science in Geology

Geology exists as a science to satisfy the needs of modern society for earth's abundant natural resources and to ensure sustainable practices for future generations. The Department of Geological and Environmental Sciences offers two different geology degrees; the **Bachelor of Arts** and the **Bachelor of Science**. Both programs prepare graduates for employment, however the Bachelor of Science is considered the flagship degree as its more rigorous curriculum provides significant employment advantages and prepares graduates for admission to Master of Science and Doctor of Philosophy (PhD) programs. The dominant fields of employment include:

- Engineering geology
- Water resources
- Construction
- Hydrogeology
- Petroleum geology
- Environmental geology
- Geophysics
- Mining
- Government regulation and compliance work
- Employment related to the energy industry

The Bachelor of Arts and the Bachelor of Science degrees in Geology can be completed in eight semesters if students average 16 hours of coursework per semester.

For more information, visit the Department of Geological and Environmental Sciences (<https://catalog.ysu.edu/undergraduate/colleges-programs/college-science-technology-engineering-mathematics/department-geological-environmental-sciences/>)

The Bachelor of Science in Applied Geology degree requires the successful completion of a minimum of 91 s.h. of core and elective courses. These courses include a Geology capstone experience of Geology Field Camp which is normally completed during summer following the junior year. Alternatively, students may opt for an internship (STEM 4890 STEM Internship) experience or a Senior Thesis research experience (GEOL 4830 Senior Thesis).

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or SS 1500	Strong Start Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3

CMST 1545	Communication Foundations	3
Mathematics Requirement (met with MATH in major)		
Arts and Humanities (6 s.h.)		6
Natural Sciences (2 courses, 1 with lab) (6-7 s.h.)		Met with courses in the major
Social Science (6 s.h.)		6
Social and Personal Awareness (6 s.h.)		6
Major Requirements		
GEOL 1505	Physical Geology	4
ENST 2600 & 2600L	Foundations of Environmental Science and Foundations of Environmental Science Laboratory	4
GEOL 2605	Historical Geology	4
GEOL 2600	Geology in the Field	1
GEOG 2611	Geospatial Foundations	3
GEOL 3711	Mineralogy	3
GEOL 3717	Petrology	3
GEOL 3705	Structures and Landscapes	4
GEOL 3708	Geological Field Methods	2
GEOL 3750	Geoscience Seminar	2
		must be taken twice in fall terms for a total of 2 hours
GEOL 3755	Geological Research Methods and Data Analysis	3
GEOL 5802	Sedimentology and Stratigraphy	3
GEOG 3701	Introduction to Geographic Information Science	3
Capstone Experience		
Select one of the following:		4
GEOL 48XX Field Camp (4 s.h. minimum)		
STEM 4890	STEM Internship (4 s.h. maximum)	
GEOL 4830	Senior Thesis	
Electives		
Select a minimum 24 s.h. of Upper Division elective courses (at least 2 courses must be non GEOL):		24
ENST 3700 & 3700L	Environmental Chemistry and Environmental Chemistry Lab	
GEOL 3702	Glacial Geology	
GEOL 3706	Geology of Economic Mineral Deposits	
GEOL 3709	Subsurface Investigations	
GEOL 3710	Petroleum Geology of the Appalachian Basin	
GEOL 3714	Principles of Paleontology	
GEOL 3716		
ENST 3751 & 3751L	Water Quality Analysis and Water Quality Analysis Lab	
GEOL 3720	Field Investigations in Geology	
ENST 3780	Environmental Research	
ENST 3781	Environmental Sampling Methods	
GEOL 4804	Ground Water	
GEOL 4806	Engineering Geology	
GEOL 4812	GIS Applications to Geology	
GEOL 4824	Tectonics	
GEOL 4825	Geophysical Well Log Analysis	
GEOL 4899	Special Topics	
GEOL 5805	Special Problems in Geology	
GEOL 5808	Introduction to Energy Resources	
GEOL 5810	Groundwater Resource Evaluation	
ENST 5810	Environmental Safety	
GEOG 4801	Advanced Geographic Information Science	
GEOL 5815	Geology and the Environment 2	
GEOL 5817	Environmental Geochemistry	
ENST 5860	Environmental Regulations	

Ancillary Science Courses		
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
MATH 1570 or MATH 1571	Applied Calculus 1 Calculus 1	4
STAT 3717 or MATH 1572	Statistical Methods Calculus 2	4
PHYS 1501 & 1501L or PHYS 2610	Fundamentals of Physics 1 and Fundamentals of Physics Laboratory 1 General Physics 1	5
PHYS 1502 & 1502L or PHYS 2611	Fundamentals of Physics 2 and Fundamentals of Physics Laboratory 2 General Physics 2	4
Total Prescribed Semester Hours: 120-122 s.h.		
Total Semester Hours		120-122
Year 1		
Fall		S.H.
YSU 1500 or SS 1500	Success Seminar or Strong Start Success Seminar	1-2
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
GEOL 2600	Geology in the Field	1
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
Semester Hours		13-15
Spring		
GEOL 2605	Historical Geology	4
ENGL 1551	Writing 2	3
GEOG 2626	World Geography	3
GEOG 2611	Geospatial Foundations	3
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
Semester Hours		17
Year 2		
Fall		
GEOL 3711	Mineralogy	3
GEOG 3701	Introduction to Geographic Information Science	3
MATH 1570	Applied Calculus 1	4
PHIL 1565	Critical Thinking	3
Upper Division Elective		3
Semester Hours		16
Spring		
GEOL 3717	Petrology	3
STAT 3717	Statistical Methods	4
Upper Division Elective		3
ENST 2600 & 2600L	Foundations of Environmental Science and Foundations of Environmental Science Laboratory	4
CMST 1545	Communication Foundations	3
Semester Hours		17
Year 3		
Fall		
GEOL 3708	Geological Field Methods	2

GEOL 3755	Geological Research Methods and Data Analysis	3
PHYS 1501 & 1501L	Fundamentals of Physics 1 and Fundamentals of Physics Laboratory 1	5
GEOL 3750	Geoscience Seminar	1
Upper Division Elective		3
PHIL 2625	Introduction to Professional Ethics	3
Semester Hours		17
Spring		
PHYS 1502 & 1502L	Fundamentals of Physics 2 and Fundamentals of Physics Laboratory 2	4
GEOG 2650		3
Upper Division Elective		3
ENST 5810	Environmental Safety (Recommended Upper Division Elective)	3
Semester Hours		13

Year 4**Fall**

GEOL 3750	Geoscience Seminar	1
GER Social Personal Awareness		3
Upper Division Elective		3
Upper Division Elective		3
Upper Division Elective		4
Semester Hours		14

Spring

GEOL 3750	Geoscience Seminar	1
GEOL 5802	Sedimentology and Stratigraphy	3
Upper Division Elective		3
Upper Division Elective		3
Spa Gen Ed Elective Course		3
Semester Hours		13

Total Semester Hours 120-122

COURSE	TITLE	S.H.
Capstone Experience Options		
GEOL 48XX	Geology Field Camp: Preferred (Summer Junior or Senior Year)	4-6
STEM 4890	STEM Internship (Optional (Summer Junior or Senior Year))	4
GEOL 4830	Senior Thesis (Restricted)	4

Learning Outcomes

The learning outcomes for the Bachelor of Science in Applied Geology are as follows:

- Communicate effectively using the language, concepts, and models of geology in written, visual, and numerical formats.
- Properly apply the scientific method to research a geologic problem and formulate conclusions.
- Demonstrate ability to apply appropriate field- and laboratory-based methods (of acquiring, quantitatively and qualitatively analyzing, and interpreting geologic data and information).
- Demonstrate understanding of plate tectonics regarding the petrologic, stratigraphic, and structural evolution of continents and oceans.

Minor in Engineering Geology

COURSE	TITLE	S.H.
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
GEOL 2605	Historical Geology	4
GEOL 3704 & 3704L	Structural Geology and Structural Geology Laboratory	3
GEOL 3706	Geology of Economic Mineral Deposits	3
GEOL 3709	Subsurface Investigations	3
GEOL 4804	Ground Water	3
Total Semester Hours		20

Minor in Environmental Geology

COURSE	TITLE	S.H.
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
GEOL 2605	Historical Geology	4
GEOL 2615		3
Select at least 9 hours from the following:		9
GEOL 3701	Geomorphology	
GEOL 3702	Glacial Geology	
GEOL 3709	Subsurface Investigations	
GEOL 3720	Field Investigations in Geology	
GEOL 4804	Ground Water	
GEOL 5815	Geology and the Environment 2	
GEOL 5817	Environmental Geochemistry	
Total Semester Hours		20

Minor in Environmental Science

COURSE	TITLE	S.H.
ENST 2600 & 2600L	Foundations of Environmental Science and Foundations of Environmental Science Laboratory	4
Select one of the following:		3
ENST 5800	Environmental Impact Assessment	
ENST 5830	Toxicology and Risk Assessment	
ENST 5860	Environmental Regulations	
Select 9 s.h. of Upper-division Environmental Studies courses.		9
Total Semester Hours		16

Minor in Geoscience

COURSE	TITLE	S.H.
GEOL 1505	Physical Geology	4
GEOL 2605	Historical Geology	4
Select a minimum of 10 semester hours upper division Geology courses.		10
Total Semester Hours		18

Certificate in Sustainable Environments

COURSE	TITLE	S.H.
ENST 1502	Environmental Sustainability	3
ENST 1508	Environmental and Natural Resource Policy	3
ENST 1510	Green Infrastructure	3

ENST 1511	Social-Ecological Systems and Sustainability	3
ENST 3750	Seminar	1
MGT 3725	Fundamentals of Management	3
Total Semester Hours		16

Certificate in Wastewater

COURSE	TITLE	S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
MATH 1510	College Algebra	4-6
or MATH 1510C	College Algebra with Co-requisite Support	
MGT 3725	Fundamentals of Management	3
CHEM 1504	Introductory Applied Chemistry for Water/Wastewater Treatment	3
CSIS 1514	Business Computer Systems	3
Total Semester Hours		17-21

Physics and Astronomy

Department of Physics, Astronomy, Geology, and Environmental Science

Room 2023 Ward Beecher Hall
(330) 941-3616 Fax: (330) 941-2131
Department Chairperson: Dr. W. Gregg Sturuss (wgsturuss@ysu.edu)
Academic Operations Specialist: Jill Mogg (jimmogg@ysu.edu)

Welcome

Welcome to the Physics and Astronomy program at YSU! We are proud of the unique opportunities we provide for our students. We are dedicated to the idea that students learn best by doing the activities considered to be the work of physicists and astronomers. Our Ward Beecher Planetarium sports a 40-foot projection dome, a Chronos GOTO Star Projector, and a SciDome HB full-dome digital projector, all of which are maintained and operated by our students. Our physics students also have access to state-of-the-art research equipment in our research labs. This equipment includes an atomic force microscope and an x-ray photoemission spectrometer for surface studies; a photolithography semiconductor mask aligner; magnetron sputtering deposition system and a HeCd laser photoluminescence spectrometer for developing and testing new semiconductor materials and devices; and a Vibrant OPOTek optical parametric oscillator; an x-ray photoemission spectrometer for surface composition studies; and several pulsed YAG lasers for non-linear optics studies of layered polymer materials.

The astronomy research students learn to use the latest data analysis tools and work with imaging data from telescopes around the world. Students have access to the Ohio Supercomputer Facility to perform simulations studies on solid state systems. Furthermore, the department has an endowment specifically for use to pay students who work as assistants in our research labs. We strive to include students in all our research projects and our planetarium shows, and we are happy to discuss these opportunities with interested students.

Ward Beecher Planetarium general and programming information may be found by calling (330) 941-1370 or on the website at <https://www.wbplanetarium.org/>

Mission Statement

The Physics and Astronomy program strives to provide a high quality educational experience for its majors by involving undergraduate students in significant research activities to embody its philosophy of teaching through research; to continue and expand the research footprint of the department and the University; to serve the undergraduate population by offering challenging and essential course work; and to establish connections between the public and the scientific community and between the public and the University through outreach programs.

Courses are organized with the following aims:

- To provide well-rounded training in physics and astronomy for those needing it for graduate study, industry, or for secondary school teaching.
- To provide basic training for engineering and pre-professional students.
- To acquaint students from non-science programs with the methods, applications, and theories of physics and astronomy in the modern world.

The program curricula, four-year plan, and minimum requirements for the degrees of Bachelor of Arts and Bachelor of Science with a major in physics and a Bachelor of Science degree with a combined major in physics and astronomy are available through the links under the *Programs of Study* tab. These degrees may be earned in eight semesters if students average 15 hours per semester.

Degree Options

The BA degree program in physics is designed for students who are interested in fields that benefit from a strong background in physics or for students planning to terminate their education at the bachelor's degree level. The BS degree program in physics is designed for students who plan to pursue graduate studies in physics or technical positions in an industrial setting. The BS degree program with a combined physics and astronomy major is designed for students who plan to pursue graduate studies in astronomy or space science. For advising questions, please contact us at (330) 941-3616 or email Dr. Sturuss at wgsturuss@ysu.edu.

Students pursuing the BA degree must complete Foreign Language through the 2600 level.

A student desiring to teach physics or astronomy in secondary schools should consult the dean of the Beeghly College of Liberal Arts, Social Sciences, and Education.

Students are urged to come to the department office early in their first year for advising by the department chair.

For more information, visit the **Department of Physics, Astronomy, Geology, and Environmental Sciences**.

Department Program Directors:

Ward Beecher Planetarium Director: Dr. Patrick Durrell (Email: prdurrell@ysu.edu) (330)-941-7107

Chair

William Gregg Sturuss, Ph.D., Professor, Chair

Professor

Snjezana Balaz, Ph.D., Associate Professor

Michael J. Crescimanno, Ph.D., Professor

Patrick R. Durrell, Ph.D., Professor

John J. Feldmeier, Ph.D., Professor

Donald Priour, Ph.D., Associate Professor

Majors

- BS in Physics with a Minor in Mathematics (p. 506)
- BA in Physics with a Minor in Mathematics (p. 504)
- BS with a Combined Major in Physics and Astronomy and a Minor in Mathematics (p. 507)

Minors

- Physics Minor (p. 508)
- Astronomy Minor (p. 508)

Physics

PHYS 1500 Conceptual Physics 3 s.h.

A conceptual treatment of selected theories and laws of classical and modern physics and their application to the understanding of natural phenomena. The evolution of these laws from hypotheses to functional relationships examined in a historical context. Not applicable to the major in Physics or to the combined major in Physics and Astronomy.

Gen Ed: Natural Science.

PHYS 1500L Conceptual Physics Laboratory 1 s.h.

Experimental work designed to supplement PHYS 1500. Three hours per week.

Prereq. or Coreq.: PHYS 1500.

PHYS 1501 Fundamentals of Physics 1 4 s.h.

Topics include kinematics, forces, energy, momentum, rotational kinematics, torque, angular momentum, simple harmonic motion, and mechanical waves. Not recommended for mathematics, chemistry, physics, or engineering majors.

Prereq.: C or better in MATH 1507 or MATH 1510 and MATH 1511, or readiness for MATH 1571 or equivalent, or at least level 40 on the Mathematics Placement Test.

Gen Ed: Natural Science.

PHYS 1501L Fundamentals of Physics Laboratory 1 1 s.h.

Experimental work designed to supplement the PHYS 1501, PHYS 1502 sequence. Three hours per week.

Prereq. or Coreq.: PHYS 1501.

PHYS 1501R Fundamentals of Physics 1 Recitation 1 s.h.

Discussion and problem solving based on current material in PHYS 1501. Concurrent with: PHYS 1501.

PHYS 1502 Fundamentals of Physics 2 3 s.h.

Study of electricity, magnetism, and light. Topics include electric charge, electric forces and fields, electric potential, capacitance and resistance in direct current circuits, basic circuit analysis, magnetic forces and fields, induced emf, inductance, reflections, refraction, geometric optics as applied to lenses and mirrors, interference, and diffraction.

Prereq.: PHYS 1501 or equivalent.

Gen Ed: Natural Science.

PHYS 1502L Fundamentals of Physics Laboratory 2 1 s.h.

Experimental work designed to supplement the PHYS 1501, PHYS 1502 sequence. Three hours per week.

Prereq. or Coreq.: PHYS 1502.

PHYS 1506 Physics for Health Care 3 s.h.

The basic laws of physics applied to various biological and physiological problems. Designed for majors in the allied health fields, e.g., Respiratory care. Not applicable to the major in Physics or to the combined major in Physics and Astronomy.

PHYS 2607 Physical Science for Middle and Secondary Education 4 s.h.

Selected topics in physical science appropriate to the middle- and secondary-level curriculum. Emphasis on diverse hands-on classroom activities, and multiple approaches to communicating basic concepts in physical science. Topics include simple machines, light and sound, batteries and bulbs, physical properties of solids, liquids and gases.

Prereq.: MATH 1501 or at least level 3 on the Mathematics Placement Test and admission to TELS Upper Division Status.

Gen Ed: Natural Science.

PHYS 2608 Sound 3 s.h.

The physical principles accounting for the production, propagation, and perception of sound waves. The relevance of these principles to phenomena ranging from hearing to the operation of various musical instruments. Introduction to auditorium acoustics. This course is designed for Music majors. Not applicable to the Physics major or to the combined Astronomy and Physics major.

Gen Ed: Natural Science.

PHYS 2610 General Physics 1 4 s.h.

A course in mechanics; the kinematics and dynamics of masses in translation and rotation; Newton's Laws; gravity; the conservation laws of energy and momentum; simple harmonic motion and introduction to wave motion and sound.

Prereq.: High school physics or PHYS 1501.

Prereq. or Coreq.: MATH 1571.

Gen Ed: Natural Science.

PHYS 2610L General Physics Laboratory 1 1 s.h.

Experimental work designed to supplement the PHYS 2610, 2611 sequence. Three hours per week.

Prereq. or Coreq.: PHYS 2610 or PHYS 2601 for PHYS 2610L.

PHYS 2610R General Physics 1 Recitation 1 s.h.

Discussion and problem solving based on current material in PHYS 2610. Concurrent with: PHYS 2610.

PHYS 2611 General Physics 2 4 s.h.

Study of electric and magnetic fields and their effects; introduction to electric circuits; light as an electromagnetic wave; introduction to geometrical and physical optics.

Prereq.: PHYS 2610.

Prereq. or Coreq.: MATH 1572.

Gen Ed: Natural Science.

PHYS 2611L General Physics laboratory 2 1 s.h.

Experimental work designed to supplement the PHYS 2610, 2611 sequence. Three hours per week.

Prereq. or Coreq.: PHYS 2611 or PHYS 2602.

PHYS 2617 Physical Science for Middle and High School Teachers 3 s.h.

Selected topics in physical science appropriate to the middle- and secondary-level curriculum. Emphasis on diverse hands-on classroom activities, and multiple approaches to communicating basic concepts in physical science. Topics include motion, forces, simple machines, light and sound, batteries and bulbs, physical properties of solids, liquids and gases.

Prereq.: At least level 35 on the Mathematics Placement Test (ALEKS 46-60) and admission to TELS Upper Division Status.

Gen Ed: Natural Science.

PHYS 2617L Laboratory Physical Science for Middle School and High School Teachers 1 s.h.

Laboratory course to accompany PHYS 2617 Physical Science for Middle School and Secondary Teachers.

Coreq.: PHYS 2617.

Gen Ed: Natural Science.

PHYS 3703 Classical Mechanics and Dynamics 4 s.h.

Kinematics and dynamics of particles and rigid bodies in inertial and non-inertial reference systems. Linear and non-linear oscillations and oscillating systems. Conditions for chaotic motion. Gravitational and central forces. Lagrangian and Hamiltonian mechanics.

Prereq.: PHYS 2611 or ECEN 2633 and prerequisite or concurrent with MATH 3705.

PHYS 3704 Modern Physics 4 s.h.

Special Theory of Relativity. Quantum phenomena related to electromagnetic radiation and material particles. The Bohr model of the hydrogen atom; the Schrodinger equation; the Heisenberg Uncertainty Principle. Wave mechanics of single particles in one-dimensional potentials. Selected topics in atomic, nuclear and condensed matter physics.

Prereq.: PHYS 2611 or ECEN 2633 and prerequisite or concurrent with MATH 2673.

PHYS 3704L Modern Physics Laboratory 1 s.h.

Experimental work designed to supplement PHYS 3704. Three hours per week.

Prereq. or Coreq.: PHYS 3704.

PHYS 3705 Thermodynamics and Classical Statistical Dynamics 3 s.h.

Principles and theorems of thermodynamics derived from the observable macroscopic properties related to temperature, heat, and the underlying statistical origins of thermodynamic processes. Includes the laws of thermodynamics, entropy, state functions, differential equations of state, Maxwell relations, and Maxwell-Boltzmann statistics.

Prereq.: PHYS 2611 or ECEN 2633 and prerequisite or concurrent with MATH 2673.

PHYS 3705L Thermodynamics and Classical Statistical Mechanics Laboratory 1 s.h.

Experimental work designed to supplement PHYS 3705. Three hours per week.

Prereq. or Coreq.: PHYS 3705.

PHYS 3741 Electromagnetic Field Theory 1 3 s.h.

Intermediate theory of electric and magnetic fields. Topics include electric field, scalar potential, techniques for calculating scalar potential (method of images, Laplace's and Poisson's equations, multipole expansion, Green's Function approach), dielectrics and polarization, Maxwell's equations and their application to the propagation of electromagnetic waves including reflection, refraction, transmission, and absorption; guided waves, retarded potentials, radiating systems, special relativity. Must be taken in sequence, before PHYS 3742.

Prereq.: MATH 3705 and either PHYS 2611 or ECEN 2633.

PHYS 3742 Electromagnetic Field Theory 2 3 s.h.

Intermediate theory of electric and magnetic fields. Topics include electric field, scalar potential, techniques for calculating scalar potential (method of images, Laplace's and Poisson's equations, multipole expansion, Green's Function approach), dielectrics and polarization, Maxwell's equations and their application to the propagation of electromagnetic waves including reflection, refraction, transmission, and absorption; guided waves, retarded potentials, radiating systems, special relativity.

Prereq.: PHYS 3741.

PHYS 3750 Mathematical Physics 3 s.h.

The mathematics techniques required in the study of classical, statistical, and quantum mechanics, and field theory.

Prereq.: MATH 3705 and either PHYS 2611 or ECEN 2633.

PHYS 4805 Undergraduate Physics Research 3 s.h.

Research conducted under the direction of a faculty member. The grading is Traditional/PR.

Prereq.: PHYS 3703 and PHYS 3704.

Gen Ed: Capstone.

PHYS 5810 Quantum Mechanics and Quantum Statistical Mechanics 1 3 s.h.

The postulates of wave mechanics, Matrix mechanics, angular momentum coupling, scattering, perturbation theory, intrinsic spin, emission and absorption of radiation. Fermi-Dirac and Bose-Einstein statistics with applications in quantum theory. Must be taken in sequence before PHYS 5811.

Prereq.: PHYS 3703 and PHYS 3704 and MATH 3705.

PHYS 5811 Quantum Mechanics and Quantum Statistical Mechanics 2 3 s.h.

The postulates of wave mechanics, Matrix mechanics, angular momentum coupling, scattering, perturbation theory, intrinsic spin, emission and absorption of radiation. Fermi-Dirac and Bose-Einstein statistics with applications in quantum theory. Must be taken in sequence.

Prereq.: PHYS 5810.

PHYS 5830 Condensed Matter Physics 3 s.h.

Selected topics in condensed matter physics: mechanical, thermal, electrical, and magnetic properties of amorphous and crystalline materials; crystal structures.

Prereq.: PHYS 3704.

PHYS 5835 Spectroscopy 3 s.h.

Treatment of atomic, molecular, and nuclear structure based on the analysis of electromagnetic and other spectra.

Prereq.: PHYS 3704.

PHYS 5835L Spectroscopy Laboratory 1 s.h.

Experimental work designed to supplement PHYS 5835. Three hours per week.

Prereq. or Coreq.: PHYS 5835.

PHYS 5849 Computational Methods for problems in the Physical Sciences 3 s.h.

PHYS 5849: Computational Methods for the Physical Sciences 3 s.h. Provides application of the techniques discussed in the class to real world situations. Cross-Listed: CSCI 5849 and MATH 5849. 3.0 s.h.

PHYS 5850 Special Topics in Physics 2-4 s.h.

The study of a standard topic at greater depth, of the development of a correlated background for areas of physical knowledge, or the physical and educational experimentation necessary to develop new physics courses. May be repeated twice.

Prereq.: Senior standing in Physics, Electrical Engineering, or Education.

PHYS 5890 Physics and Astronomy for Educators 1-4 s.h.

Intensive study of selected topics of current interest in Physics education. Not applicable to the major in Physics or the combined Astronomy and Physics major. May be repeated for different topics.

Prereq.: Admission to upper-division status in the College of Education or to the Graduate School.

Astronomy

ASTR 1504 Descriptive Astronomy 3 s.h.

Scientific method, introduction to modern understanding of the universe, astronomy and society, humanity's place in the universe. Astronomical observing methods, the solar system, stars and star systems, galaxies, cosmology. Recent astronomical discoveries.

Gen Ed: Natural Science.

ASTR 1504L Astronomy Laboratory 1 s.h.

Telescope and Planetarium laboratory work designed to supplement ASTR 1504. Measurement techniques and deductive methods to determine distance and size of astronomical objects. Three hours per week.

Prereq. or Coreq.: ASTR 1504.

ASTR 2609 Moon and Planets 3 s.h.

A detailed discussion of the moon and planets, with particular emphasis on the geology of the moon.

Prereq.: ASTR 1504 or GEOL 1505.

ASTR 3711 Astrophysics 1 3 s.h.

The application of physical principles to the study of stars and stellar structure; stellar distances and dimensions; stellar spectra and chemical composition; nuclear reactions and the evolution of stars; star formation and the end states of stars.

Prereq.: PHYS 2611 and MATH 2673.

ASTR 3712 Astrophysics 2 3 s.h.

The application of physical principles to the study of the Milky Way and other galaxies; including stellar populations; galactic structure; galaxy interactions; galactic distances and large scale structure of the universe; introduction to cosmology.

Prereq.: ASTR 3711.

ASTR 4811 Observational Astronomy 1 3 s.h.

Photoelectric photometry, photographic and CCD imaging techniques, spectroscopy, methods of data reduction. Some night observatory work included.

Prereq.: PHYS 2611 and MATH 2673.

ASTR 4812 Observational Astronomy 2 3 s.h.

Photoelectric photometry, photographic and CCD imaging techniques, spectroscopy, methods of data reduction. Some night observatory work included.

Prereq.: PHYS 2611 and MATH 2673.

ASTR 4815 Undergraduate Astronomy Research 3 s.h.

Research conducted under the direction of a faculty member. The grading is Traditional/PR.

Prereq.: PHYS 3703 and PHYS 3704.

Gen Ed: Capstone.

Learning Outcomes

The Department of Physics and Astronomy helps students in the departmental programs develop skills to acquire and demonstrate knowledge in classical mechanics, modern physics, electricity and magnetism, thermodynamics, quantum mechanics, and astrophysics. The learning outcomes for the BA Program in Physics are:

- Students will learn to model physical systems and interpret experimental and theoretical results.
- Students will learn how to measure the physical properties of systems using a variety of test equipment and defend the results of their measurements using the associated accuracy and precision of these measurements.
- Students will learn to apply the concepts of classical physics, modern physics, thermodynamics, and electrostatics to solve problems and predict numerical results.

In addition to the learning outcomes for the BA program in physics, students of the BS program in physics will further learn to apply the concepts of electrodynamics and quantum mechanics to solve problems and predict numerical results.

In addition to the learning outcomes for the BA program in physics, students of the BS program in physics and astronomy will learn to apply the concepts of astrophysics to solve problems and predict numeric results.

Bachelor of Arts in Physics

Minimum requirements for the B.A. degree in Physics with a minor in mathematics

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	

General Education Requirements

ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics requirement (met with MATH in major)		
Arts and Humanities (6 s.h.)		6
Natural Sciences (2 courses, 1 with lab) (6-7 s.h. met with courses in the major)		
Social Science (6 s.h.)		6
Gen Ed Electives for 6 s.h. satisfied by the NS courses in the major		
CMST 1545	Communication Foundations	3

Major Requirements

Physics Courses:		
PHYS 2610 & 2610L	General Physics 1 and General Physics Laboratory 1	5
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2	5
PHYS 3703	Classical Mechanics and Dynamics	4
PHYS 3704 & 3704L	Modern Physics and Modern Physics Laboratory	5
PHYS 3705 & 3705L	Thermodynamics and Classical Statistical Dynamics and Thermodynamics and Classical Statistical Mechanics Laboratory	4
PHYS 3741	Electromagnetic Field Theory 1	3
PHYS 4805	Undergraduate Physics Research	3
Physics upper division Elective		3
Mathematics Courses:		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
MATH 3705	Differential Equations	3
Minor Course:		
One additional 3 s.h. upper division elective in mathematics is required for the mathematics minor if desired.		3
Other courses:		
FNLG 1550	Elementary Foreign Language	4
FNLG 2600	Intermediate Foreign Language	4
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory	4
Electives:		
21 additional hours of upper division electives and 11 hours of electives at any level are required		32
Total Semester Hours		120-122

Year 1

Fall		S.H.
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2
PHYS 2610 & 2610L	General Physics 1 and General Physics Laboratory 1 (P, NS)	5
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory (NS)	4

MATH 1571	Calculus 1 (P)	4
Semester Hours		17-19

Spring

PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2 (P, NS)	5
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory (P, NS)	4
MATH 1572	Calculus 2 (P)	4
CMST 1545	Communication Foundations	3
Semester Hours		16

Year 2

Fall

PHYS 3704 & 3704L	Modern Physics and Modern Physics Laboratory (P)	5
MATH 2673	Calculus 3 (P)	4
FNLG 1550	Elementary Foreign Language	4
ENGL 1551	Writing 2	3
Semester Hours		16

Spring

PHYS 3705 & 3705L	Thermodynamics and Classical Statistical Dynamics and Thermodynamics and Classical Statistical Mechanics Laboratory (P)	4
MATH 3705	Differential Equations (P)	3
FNLG 2600	Intermediate Foreign Language	4
Arts & Humanities GER Domain		3
Semester Hours		14

Year 3

Fall

PHYS 3703	Classical Mechanics and Dynamics (P)	4
PHYS 3741	Electromagnetic Field Theory 1 (P)	3
Social Sciences GER Domain		3
Upper Division Math (P)		3
Semester Hours		13

Spring

Arts & Humanities GER Domain		3
Electives (any)		6
Physics upper division Elective		3
Social Sciences GER Domain		3
Semester Hours		15

Year 4

Fall

PHYS 4805	Undergraduate Physics Research (Capstone, P)	3
Electives (any)		3
Electives (Upper Division)		8
Semester Hours		14

Spring

Electives (any)		3
Electives (Upper Division)		12
Semester Hours		15

Total Semester Hours

120-122

Bachelor of Science in Physics

Minimum requirements for the B.S. in Physics

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics Requirement (met with MATH requirements in the major)		6
Arts and Humanities (6 s.h. Select two courses)		
Natural Sciences (2 courses, 1 with lab) (6-7 s.h. met with courses in the major)		6
Social Science (6 s.h. Select two courses)		
Gen Ed Electives 9 s.h. (Met with NS courses in the major)		
CMST 1545	Communication Foundations	
Major Requirements		
PHYS 2610	General Physics 1	4
PHYS 2610L	General Physics Laboratory 1	1
PHYS 2611	General Physics 2	4
PHYS 2611L	General Physics laboratory 2	1
PHYS 3703	Classical Mechanics and Dynamics	4
PHYS 3704	Modern Physics	4
PHYS 3704L	Modern Physics Laboratory	1
PHYS 3705	Thermodynamics and Classical Statistical Dynamics	3
PHYS 3705L	Thermodynamics and Classical Statistical Mechanics Laboratory	1
PHYS 3741	Electromagnetic Field Theory 1	3
PHYS 3742	Electromagnetic Field Theory 2	3
PHYS 3750	Mathematical Physics	3
PHYS 4805	Undergraduate Physics Research	3
PHYS 5810	Quantum Mechanics and Quantum Statistical Mechanics 1	3
PHYS 5811	Quantum Mechanics and Quantum Statistical Mechanics 2	3
Mathematics Courses:		
MATH 1571	Calculus 1	4
MATH 1572	Calculus 2	4
MATH 2673	Calculus 3	4
MATH 3705	Differential Equations	3
One additional 3 s.h. upper division elective in mathematics is required for the mathematics minor if desired.		3
Other Courses:		
CHEM 1515	General Chemistry 1	3
CHEM 1515L	General Chemistry 1 Laboratory	1
CHEM 1516	General Chemistry 2	3
CHEM 1516L	General Chemistry 2 Laboratory	1
CSIS 2610	Programming and Problem-Solving	3
CSIS 2610L	Programming and Problem-Solving Lab	1
Electives: Strongly suggested to take STEM 4890 through an internship or REU Program and additional hours to get to 120 total.		30
Total Semester Hours		120-122

Year 1		S.H.
Fall		
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2
PHYS 2610 & 2610L	General Physics 1 and General Physics Laboratory 1 (P, NS)	5
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory (NS)	4
MATH 1571	Calculus 1	4
Semester Hours		17-19
Spring		
PHYS 2611 & 2611L	General Physics 2 and General Physics laboratory 2 (P, NS)	5
CHEM 1516 & 1516L	General Chemistry 2 and General Chemistry 2 Laboratory (P, NS)	4
MATH 1572	Calculus 2 (P)	4
Semester Hours		13
Year 2		
Fall		
PHYS 3704 & 3704L	Modern Physics and Modern Physics Laboratory (P)	5
MATH 2673	Calculus 3 (P)	4
CSIS 2610	Programming and Problem-Solving	3
CSIS 2610L	Programming and Problem-Solving Lab	1
ENGL 1551	Writing 2	3
Semester Hours		16
Spring		
PHYS 3705 & 3705L	Thermodynamics and Classical Statistical Dynamics and Thermodynamics and Classical Statistical Mechanics Laboratory (P)	4
MATH 3705	Differential Equations (P)	3
Elective		3
Arts & Humanities GER Domain		3
CMST 1545	Communication Foundations	3
Semester Hours		16
Year 3		
Fall		
PHYS 3703	Classical Mechanics and Dynamics (P)	4
PHYS 3741	Electromagnetic Field Theory 1 (P)	3
PHYS 3750	Mathematical Physics	3
Social Sciences GER Domain		3
Arts & Humanities GER		3
Semester Hours		16
Spring		
PHYS 3742	Electromagnetic Field Theory 2 (P)	3
Math Elective (Upper Division)		3
Social Sciences GER Domain		3
Elective (any)		4
Semester Hours		13
Year 4		
Fall		
PHYS 5810	Quantum Mechanics and Quantum Statistical Mechanics 1 (P)	3

Electives	12
Semester Hours	15
Spring	
PHYS 5811 Quantum Mechanics and Quantum Statistical Mechanics 2 (P)	3
PHYS 4805 Undergraduate Physics Research	3
Elective (any)	8
Semester Hours	14
Total Semester Hours	120-122

Bachelor of Science with a Combined Major in Physics and Astronomy and a Minor in Mathematics

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500 Success Seminar		1-2
or YSU 1500S Youngstown State University Success Seminar		
or HONR 1500 Intro to Honors		
General Education Requirements		
ENGL 1550 Writing 1		3-4
or ENGL 1549 Writing 1 with Support		
ENGL 1551 Writing 2		3
Mathematics Requirement (met through MATH in major)		
Arts and Humanities (6 s.h.)		6
Natural Sciences (2 courses, 1 with lab) (6-7 s.h. met with courses in the major)		
Social Science (6 s.h.)		6
Gen Ed Electives 6s.h. met with NS courses in the major		
CMST 1545 Communication Foundations		3
Major Requirements		
Physics Courses:		
PHYS 2610 General Physics 1		4
PHYS 2610L General Physics Laboratory 1		1
PHYS 2611 General Physics 2		4
PHYS 2611L General Physics laboratory 2		1
PHYS 3703 Classical Mechanics and Dynamics		4
PHYS 3704 Modern Physics		4
PHYS 3704L Modern Physics Laboratory		1
PHYS 3705 Thermodynamics and Classical Statistical Dynamics		3
PHYS 3705L Thermodynamics and Classical Statistical Mechanics Laboratory		1
PHYS 3741 Electromagnetic Field Theory 1		3
Select 6 s.h. of upper division physics courses.		6
Astronomy Courses:		
ASTR 1504 Descriptive Astronomy		3
ASTR 2609 Moon and Planets		3
ASTR 3711 Astrophysics 1		3
ASTR 3712 Astrophysics 2		3
ASTR 4811 Observational Astronomy 1		3
ASTR 4812 Observational Astronomy 2		3
Mathematics Courses:		
MATH 1571 Calculus 1		4
MATH 1572 Calculus 2		4
MATH 2673 Calculus 3		4

MATH 3705 Differential Equations	3
Minor Course:	
One additional 3 s.h. upper division elective in mathematics is required for the mathematics minor if desired.	
Other Courses	
CHEM 1515 General Chemistry 1	3
CHEM 1515L General Chemistry 1 Laboratory	1
CHEM 1516 General Chemistry 2	3
CHEM 1516L General Chemistry 2 Laboratory	1
CSIS 2610 Programming and Problem-Solving	3
CSIS 2610L Programming and Problem-Solving Lab	1
Elective courses needed: at least 8 hours of upper division electives required. STEM 4890 as an internship or REU Program is strongly recommended.	21
Total Semester Hours	120-125

Year 1

Fall	S.H.
YSU 1500 Success Seminar	1-2
or YSU 1500S or Youngstown State University Success Seminar	
or HONR 1500 Intro to Honors	
PHYS 2610 & 2610L General Physics 1 and General Physics Laboratory 1 (P, NS)	5
ASTR 1504 Descriptive Astronomy (NS)	3
MATH 1571 Calculus 1 (P)	4
ENGL 1550 Writing 1	3-4
or ENGL 1549 or Writing 1 with Support	
Students should see an advisor to check the availability of courses before consulting this four-year plan.	
Semester Hours	16-18

Spring

ASTR 2609 Moon and Planets	3
PHYS 2611 General Physics 2	5
& 2611L and General Physics laboratory 2 (P)	
MATH 1572 Calculus 2 (P)	4
Elective	3
Semester Hours	15

Year 2

Fall	S.H.
PHYS 3704 & 3704L Modern Physics and Modern Physics Laboratory (P)	5
CHEM 1515 & 1515L General Chemistry 1 and General Chemistry 1 Laboratory (NS)	4
MATH 2673 Calculus 3 (P)	4
ENGL 1551 Writing 2	3
Semester Hours	16

Spring

CHEM 1516 & 1516L General Chemistry 2 and General Chemistry 2 Laboratory (P, NS)	4
MATH 3705 Differential Equations (P)	3
CMST 1545 Communication Foundations	3
CSIS 2610 Programming and Problem-Solving	3
CSIS 2610L Programming and Problem-Solving Lab	1
Semester Hours	14

Year 3

Fall	S.H.
PHYS 3703 Classical Mechanics and Dynamics (P)	4
PHYS 3741 Electromagnetic Field Theory 1 (P)	3

ASTR 3711	Astrophysics 1 (P)	3
Physics Elective (Upper Division)		3
Social Sciences GER Domain		3
Semester Hours		16

Spring

PHYS 3705 & 3705L	Thermodynamics and Classical Statistical Dynamics and Thermodynamics and Classical Statistical Mechanics Laboratory (P)	4
Physics Elective (Upper Division)		3
ASTR 3712	Astrophysics 2 (P)	3
Arts & Humanities GER Domain		3
Elective (any)		3
Semester Hours		16

Year 4**Fall**

ASTR 4811	Observational Astronomy 1	3
Upper Division elective		3
Arts & Humanities Elective GER Domain		3
Social Sciences Elective GER Domain		3
Semester Hours		12

Spring

ASTR 4812	Observational Astronomy 2 (P)	3
Math Elective (Upper Division)		3
Electives (Upper Division)		4
Electives (any)		5

Semester Hours		15
Total Semester Hours		120-122

Minor in Astronomy

COURSE	TITLE	S.H.
ASTR 2609	Moon and Planets	3
Students must complete ASTR 1504 or GEOL 1505 as prerequisite for ASTR 2609		
The following four courses require PHYS 2611 and MATH 2673 as prerequisites:		
ASTR 3711	Astrophysics 1	3
ASTR 3712	Astrophysics 2	3
ASTR 4811	Observational Astronomy 1	3
ASTR 4812	Observational Astronomy 2	3
Prerequisites courses PHYS 3703 and PHYS 3704 are required for ASTR 4815		
ASTR 4815	Undergraduate Astronomy Research	3
Total Semester Hours		18

Minor in Physics

COURSE	TITLE	S.H.
PHYS 2610 & 2610L	General Physics 1 and General Physics Laboratory 1 ¹	5
PHYS 2611 & 2611L	General Physics 2 and General Physics Laboratory 2 ¹	5
Select 8 s.h. of upper division physics electives.		8
Total Semester Hours		18

¹ Upper division elective hours may be substituted for PHYS 2610L General Physics Laboratory 1 and/or PHYS 2611L General Physics laboratory 2 for students majoring in engineering or a natural science.

The Warren P. Williamson, Jr. College of Business Administration

Betty Jo Licata, *Interim Dean*

(330) 941-3065

Dean's Welcome

In the Williamson College of Business Administration, your success is our priority. Relevant coursework, engagement with the business community, and professional development opportunities will enable you to develop the knowledge, skills, and experiences that will support your success during college and in your career. Whether you are interested in working in business, government, or nonprofit organizations, you will have many opportunities to discover your passions.

Our business programs are accredited by AACSB International (<https://www.aacsb.edu/educators/accreditation/>). This accreditation recognizes the excellence of our students, faculty, staff, and programs. Only 6% of the business programs in the world have earned AACSB accreditation so you can be assured of the high-quality education you will receive at YSU.

We look forward to supporting you in your journey to success.

Betty Jo Licata, PhD

Interim Dean, Williamson College of Business Administration

WCBA BSBA Competency Goals

Williamson College of Business Administration BSBA graduates will be:

Knowledgeable Business Professionals

1.1 Students will demonstrate a multidisciplinary understanding of business concepts.

Adept Business Problem Solvers

2.1 Students will be able to utilize appropriate techniques to identify a business problem.

2.2 Students will be able to conduct analysis using evidence-based methods.

2.3 Students will be able to make a supported recommendation intended to solve a business problem.

Professional Communicators

3.1 Students will be able to deliver professional business presentations.

3.2 Students will be able to write professional business documents.

Model Business Professionals

4.1 Students will exhibit professional conduct in a workplace environment.

4.2 Students will exhibit behaviors associated with being an effective team member.

4.3 Students will exhibit ownership of their career and professional development.

Departments and Programs

Lariccia School of Accounting and Finance

**DR. JEREMY SCHWARTZ, CHAIR,
(330) 941-3076**

UNDERGRADUATE MAJORS

- Accounting (BSBA)
- Finance: Certified Financial Planner Track (BSBA)
- Finance: Financial Management Track (BSBA)
- Business Analytics and Economics (BSBA)

MINORS

- Accounting
- Economics
- Economics with Statistics
- Finance

The Department of Management and Marketing

**DR. BRUCE KEILLOR, CHAIR, (330)
941-1894**

UNDERGRADUATE MAJORS

- Business Administration (BSBA)
- Human Resource Management (BSBA)
- Management (BSBA)
- Management: Supply Chain Track (BSBA)
- Marketing (BSBA)
- Marketing: Professional Selling Track (BSBA)
- International Business (ICP) (BSBA)

MINORS

- Business (non-business majors)
- Entrepreneurship
- Management Information Systems
- Marketing

- Nonprofit Leadership
- Professional Selling

CERTIFICATES

- Business Analytics
- Digital Marketing Strategy
- Enterprise Resource Planning (ERP)
- Leadership
- Nonprofit Leadership

The Department of Communication

**DR. MARY BETH EARNHEARDT,
CHAIR, (330) 941-3638**

UNDERGRADUATE MAJORS

- Communication, Community Engagement and Organization Track (BA)
- Communication, Strategic Organizational Communication Track (BA)
- Communication, Social Media Track (BA)
- Journalism (BA)
- Journalism: Sports Information Track (BA)
- Multimedia Communication (BA)
- Multimedia Communication: Sports Broadcasting Track (BA)

MINORS

- Communicating in Diverse Organizations
- Communication Studies
- Interpersonal Communication
- Journalism
- Multimedia Communication
- Social Media Campaigns
- Sports Information

CERTIFICATES

- Advocacy and Influence
- Content Creation
- Interpersonal Networking
- Media Relations
- Professional Communication
- Social Media Strategy
- Sports Communication

ASSOCIATE DEGREES

- Associate of Arts in Business Administration (AABA)
- Associate of Applied Business in Accounting (AAB)
- Associate of Applied Business in Business Management (AAB)

Facilities - Williamson Hall

One of the newest buildings on campus, the Williamson College of Business Administration's 110,000 square-foot, \$34.3 million space is a LEED-certified, contemporary facility that serves as the southern gateway to the YSU campus. The WCBA provides state-of-the-art classrooms and learning spaces for students, and a variety of places for students to study and meet with team members, friends, and the business community. The building includes:

- WCBA Student Services Center (<https://ysu.edu/academics/williamson-college-business-administration/advisement/>) (Academic Advisement, WCBA Scholarships, Prospective Student Visits)

- WCBA Center for Career Management (<https://ysu.edu/academics/williamson-college-business-administration/internships/>)(Professional Development, Employer Network, Internships)
- Faculty Offices
- Financial Services Lab
- Jocelyne Kollay Linsalata Gallery of Industry, Business and Entrepreneurship
- Weir Atrium
- 15 Technology-Enhanced Classrooms
- 8 Study Lounge/Team Rooms
- Conference Center and Executive Board Room
- 200-seat Auditorium
- Ohio Small Business Development Center, SBDC Export Assistance Network, Ohio Apex Accelerator, Center for Excellence in International Business, Center for Nonprofit Leadership, and Center for Entrepreneurship

Designed to link the campus with the downtown community, the building is a valuable resource for WCBA students and the regional community.

Facilities - The Department of Communication

Bliss Hall is the home of our Communication, Journalism, and Multimedia Communication Majors. In addition to classrooms and faculty offices, Bliss Hall includes:

- Full Television Studio
- Podcast Studios
- Student group workspaces

The first floor of Meshel Hall houses our high-tech classrooms and a student computer lab.

The Payiavlas Classroom in the Don Constantini Multimedia Center, which opened in 2019, is located at YSU's Stambaugh Stadium. The facility serves as a production hub for ESPN+ broadcasts of YSU sports and a classroom space for the Multimedia Communication and Sports Broadcasting programs.

Students have the opportunity to participate in a number of media opportunities through the Office of Student Experience sponsored activities, including the Jambar, Jambar TV, and Rookery Radio. The Jambar student newspaper's offices are located in Kilcawley Center. Rookery Radio, a student-run internet radio station, streams from Kilcawley Center.

For more information, visit **The Warren P. Williamson, Jr. College of Business Administration** (<https://ysu.edu/williamson-college-business-administration/>).

Bachelor's Degree Program-BSBA

ADMISSION REQUIREMENTS

Bachelor of Science in Business Administration

Incoming first-year business students will be admitted directly into the business major of their choice (Accounting, Business Administration, Business Analytics and Economics, Finance, Human Resource Management, International Business (ICP), Management, Marketing). Transfer students (YSU change of major or from another college/university) must have a GPA of 2.00 and be in "good academic standing" to declare a major.

Bachelor of Arts in Communication, Multimedia Communication, or Journalism

Incoming freshmen interested in communication, multimedia communication, or journalism will be directly admitted into their desired major. Transfer students (YSU change of major or from another college/university) must have a GPA of 2.00 and be in "good academic standing" to declare a major. Students are expected to meet with their academic advisor at least once a semester to discuss course options, their academic plan, and degree progress.

GRADUATION REQUIREMENTS

Bachelor of Science in Business Administration

The student has the responsibility of making sure that all graduation requirements for the degree are satisfied. For the Bachelor of Science in Business Administration, the requirements include:

- A minimum of 120 semester hours
- Completion of all General Education and BSBA requirements
- The grade of a C or higher in ENGL 1551, MATH 2623 (or MATH 2623C, MATH 1510, MATH 1510C, MATH 1552, or MATH 1571), Business Tool courses, Business Core Courses, and Major Courses. These courses cannot be taken credit/no credit.
- Minimum cumulative GPA of 2.5
- Course-level requirements (completion of sixty (60) semester hours of courses must be completed at the 2000 level or higher, of which thirty-nine (39) semester hours must be at the 3000 level or higher.
- Residency requirement (<http://catalog.ysu.edu/undergraduate/general-information/academic-policies-procedures/graduation-requirements/>)
- Application for graduation (<https://ysu.edu/penguin-service-center/apply-for-graduation/>)

A graduation evaluation request must be submitted no later than two semesters prior to a student's intended graduation. It is a student's responsibility to request the evaluation through the student portal system.

The Request for Graduation Evaluation can be submitted via the Penguin Portal by clicking on "Access My Student Information" then "Graduation Evaluation Request".

Bachelor of Arts in Communication, Multimedia Communication, or Journalism

The student has the responsibility of making sure that all graduation requirements for the degree are satisfied. For the Bachelor of Arts, the requirements include:

- A minimum of 120 semester hours
- Completion of all General Education and Degree requirements including Foreign Languages, an official YSU minor, and major courses
- The grade of a C or higher in ENGL 1551 and courses required for the major and minor; these courses cannot be taken credit/no credit.
- Minimum cumulative GPA of 2.0
- Course-level requirements (completion of sixty (60) semester hours of courses must be completed at the 2000 level or higher, of which thirty-nine (39) semester hours must be at the 3000 level or higher.
- Residency requirement
- Application for graduation

A graduation evaluation request must be submitted no later than two semesters prior to a student's intended graduation. It is a student's responsibility to request the evaluation through the student portal system.

The Request for Graduation Evaluation can be submitted via the Penguin Portal by clicking on "Access My Student Information" then "Graduation Evaluation Request"

Lariccia School of Accounting and Finance

OVERVIEW

Welcome to the Lariccia School of Accounting & Finance! Students interested in the quantitative aspects of business and commerce will find both our curricular and extracurricular offerings desirable for their education and career pursuits. Please explore the resources here to learn more about the breadth of offerings now housed within our School.

Jeremy Schwartz, Director
(330) 941-3076
jtschwartz@ysu.edu

DISCIPLINES

Accounting majors are taught how to gather, analyze, record, prepare, and examine a variety of financial information with this information being of central importance to CEOs, business owners, and policy makers. Accounting graduates pursue careers in general accounting, tax, audit, consulting, government accounting, or nonprofit accounting. Professional accounting certifications include Certified Public Accounting (CPA), Certified Management Accounting (CMA), Certified Fraud Examiner (CFE), and Certified Internal Auditor (CIA).

Finance majors use financial information to analyze a company's future prospects and manage a company's working capital, to analyze markets and make investment decisions, to assist individuals in planning their financial future, or to analyze the benefits and risks of company decisions. Graduates with a major in finance pursue careers in areas such as financial analysis, treasury, financial services including banking and insurance, risk management, or financial planning. Professional certifications include Certified Financial Planner (CFP), Chartered Financial Analyst (CFA), and Certified Valuation Analyst (CVA).

Students majoring in Business Analytics and Economics will learn how to analyze data and apply descriptive, diagnostic, predictive and prescriptive models to business, organizational, and societal problems. The program emphasizes the ability to formulate insightful questions using data, provide actionable solutions to business and economic problems, and to interpret analytical models to improve business and economic decision making. Graduates of this program will be data experts that have technical, quantitative, and business skills for today's increasingly data-driven professions.

EXTRACURRICULAR ACTIVITIES

- Student-Practitioner Days
- Volunteer Income Tax Assistance Program (VITA)
- Student Investment Fund
- Institute of Management Accountants
- Economics Club

HONORARY FRATERNITIES

- Beta Alpha Psi (Accounting, Finance, Information Systems)
- Omicron Delta Epsilon (Economics)
- Beta Gamma Sigma (BSBA majors)

Director

Jeremy Schwartz, Ph.D., Director

Professor

Huaiyu (Peter) Chen, Ph.D., Associate Professor

David B. Law, Ph.D., Professor

Tomi P. Ovaska, Ph.D., Professor

Joseph Palardy, Ph.D., Professor

Karin A. Petruska, Ph.D., Professor

Albert J. Sumell, Ph.D., Professor

Yogesh Uppal, Ph.D., Professor

Yaqin Wang, Ph.D., Professor

Peter Woodlock, Ph.D., Professor

Jessie Wright, Ph.D., Assistant Professor

Xiaolou Yang, Ph.D., Professor

Yiyang Zhang, Ph.D., Associate Professor

Rongyao (Gloria) Zhang, Ph.D., Assistant Professor

Lecturer

M. Constance Augustine, M.B.A., Lecturer

Kerri Henderson, M.B.A., Senior Lecturer

Sarah E. Jenyk, M.A., Senior Lecturer

Michael Villano, Ph.D., Senior Lecturer

MAJORS (BSBA DEGREE-AACSB ACCREDITED)

- Accounting (p. 518)
- Finance: Financial Management Track (p. 521)
- Finance: Certified Financial Planner Track (p. 519)
- Business Analytics and Economics (p. 523)

MINORS

- Accounting Minor (p. 524)
- Economics (p. 525)
- Economics with Statistics (p. 525)
- Finance Minor (p. 524)

Accounting

ACCT 1503 Essentials of Accounting 3 s.h.

Terminology, concepts and principles of basic financial and managerial accounting from a user perspective. Internal controls, cash controls, and payroll accounting are covered. Does not fulfill WCBA requirements and cannot substitute for ACCT 2602.

ACCT 2602 Financial Accounting 3 s.h.

Study of the accounting cycle and generally accepted accounting principles including preparation of financial statements.

Prereq.: MATH 1510 or MATH 1510C or MATH 2623 or MATH 2623C or MATH 1552 or MATH 1570 or MATH 1571.

ACCT 2602H Honors Financial Accounting 3 s.h.

Study of the accounting cycle and generally accepted accounting principles including preparation of financial statements.

Prereq.: MATH 1510 OR MATH 1510C OR MATH 2623 OR MATH 2623C OR MATH 1552 OR MATH 1570 OR MATH 1571.

ACCT 2603 Managerial Accounting 3 s.h.

Study of the accounting informational needs of management. Emphasis on techniques of planning and control.

Prereq.: "C" or better in ACCT 2602 OR ACCT 2602H.

ACCT 3701 Intermediate Accounting 1 3 s.h.

In depth study of the accounting cycle, the preparation of financial statements including the cash flow statement, and current assets. Emphasis on relating practice to the FASB conceptual framework.

Prereq.: "C" or better in ACCT 2602 or ACCT 2602H and 2.5 overall GPA.

ACCT 3702 Intermediate Accounting 2 3 s.h.

This course involves the disclosure of financial information with an emphasis on asset acquisition and valuation, accounting changes and estimates, and related expenses. Additional topics include stockholders' equity, leases, EPS, post-retirement benefits, revenue recognition, cash flows and other current accounting topics.

Prereq.: ACCT 3701 (C or better) AND 2.5 GPA.

ACCT 3709 Accounting Information Systems 3 s.h.

Study of systems analysis, design, and implementation within the context of an accounting information system. Topics include a treatment of the business computing environment, security and control of information, the accounting information system as a component of the management information system, and decision support and expert systems.

Prereq.: "C" or better in ACCT 2602 or ACCT 2602H and 2.5 overall GPA.

ACCT 3710 Analysis and Design of Accounting Databases 3 s.h.

An introduction to the analysis of accounting databases. Specific emphasis is placed on the structure and use of accounting databases, particularly XBRL.

Prereq.: ACCT 3709 (C or better), 2.5 GPA.

ACCT 3711 Cost Accounting 3 s.h.

Study of cost accumulation for products manufactured under job order or continuous manufacturing processes; cost behavior and profit-volume relationships; cost structures for control and motivation; relevant costs for non-routine decision making.

Prereq.: ACCT 2603 (C or better), 2.5 GPA.

ACCT 3712 Advanced Cost 3 s.h.

In-depth study of standard and differential costing. Compilation and preparation of budget data for managerial and administrative purpose. 2.5 overall GPA.

Prereq.: "C" or better in ACCT 3711.

ACCT 3721 State and Local Taxes 3 s.h.

Theory applicable to state and local taxation. Primary emphasis on taxation principles in current use by state and local government units located throughout the United States. Case law is studied, some representative tax returns prepared.

Prereq.: ACCT 2603 (C or better), 2.5 GPA.

ACCT 3750 Forensic Accounting and Fraud Examination 3 s.h.

This course involves the study of forensic accounting with an emphasis on fraud prevention, deterrence and detection techniques. Topics include identifying occupational fraud, abuse, and the misappropriation of assets and revenue. Also introduced is the role of the COSO internal control framework, risk assessments, corporate governance and the internal audit profession.

Prereq.: ACCT 2602 (C or better) or ACCT 2602H (C or better); 2.5 GPA.

Cross-Listed: ACCT 6950.

ACCT 4801 Advanced Accounting 3 s.h.

Financial accounting and reporting related to complex and highly sophisticated business transactions. Topics include the equity method, business combinations, variable interest entities, segment and interim reporting, worldwide diversity of accounting standards, foreign currency transactions and translation, SEC reporting, legal reorganizations and liquidations, partnership accounting, and estates and trusts.

Prereq.: ACCT 3702 (C or better), FIN 3720 (C or better), 2.5 GPA.

ACCT 4808 Auditing 3 s.h.

A study of the theory and practice of auditing. Topics include auditor responsibilities, internal control over financial reporting, professional standards, and the audit opinion formulation process. Students analyze actual business fraud cases.

Prereq.: ACCT 3709 (C or better), 2.5 GPA.

ACCT 4809 Security and Privacy in Electronic Commerce 3 s.h.

This course focuses on the technology and communication infrastructure supporting electronic commerce and its impact on auditing. Encryption, public key infrastructure, digital signatures, payment schemes, and web commerce are discussed.

Prereq.: ACCT 4808 (C or better), 2.5 GPA.

ACCT 4813 Federal Taxation 1 3 s.h.

This course teaches students fundamental and current tax law associated with personal, investment, property and sole-proprietorship transactions with particular emphasis on individual tax return preparation and planning. Concepts are supported through the preparation of actual tax returns and discussion of how transactions can be restructured to minimize current or future tax liability.

Prereq.: ACCT 2603 (C or better) AND 2.5 GPA.

ACCT 4815 Estate Planning 3 s.h.

A study of estate and gift tax law including tax return preparation. Emphasis on the importance of estate planning and the devices available for use in such planning, and effective uses of lifetime gifts, trusts, life insurance, pension plans, profit sharing, and other fringe benefit plans. The effects of state inheritance tax and property laws upon estate planning will be included.

Prereq.: ACCT 4813 (C or better), 2.5 GPA.

ACCT 4817 Income Tax Preparation 1 3 s.h.

Preparation of actual federal, state and local income tax returns of people from the community. Completion of an IRS training program in federal income taxation of individuals, including international students and scholars and military personnel. Training using professional income tax preparation software is also provided.

Prereq.: 2.5 GPA and special approval.

ACCT 4818 Income Tax Preparation 2 3 s.h.

A continuation of ACCT 4817 with updated training in federal tax law and tax preparation software. Because of previous experience in ACCT 4817, students prepare more-complex tax returns (including small business and rental returns), provide guidance and leadership to first-year students, and assist with summary and e-filing of tax returns. A more in-depth summary/reflection paper is required. May be repeated once.

Prereq.: ACCT 4817 (B or better), 2.5 GPA.

ACCT 4835 Research in Accounting and Taxation 3 s.h.

This course provides useful guidance and information in conducting practical professional tax and accounting research. A broad range of case analyses allows the instructor to focus on appropriate current topics in the accounting profession. Three hours lecture and hands-on research per week. 2.5 overall GPA.

Prereq.: "C" or better in ACCT 3702 and ACCT 4813.

ACCT 4840 Accounting Internship 3 s.h.

The student is given the opportunity to relate theory to practice in a career related on-site field experience with a participating organization.

Prereq.: junior standing, 2.5 overall GPA, and special approval or special approval.

ACCT 4841 Accounting Internship 2 3 s.h.

Students have the opportunity to relate theory to practice in a career related on-site field experience with a participating organization. Accounting Internship 2 may be done at a different or the same organization as ACCT 4840; if the same organization, higher levels of duties and performance are expected.

Prereq.: ACCT 4840 (B or better), 2.5 GPA AND special approval required, OR special approval required.

ACCT 4851 Professional Practice in Accounting 1 s.h.

Provides students with cooperative education experiences in accounting. Students may be assigned to public, corporate, or government entities on a semester to semester basis. May be repeated.

Prereq.: Accounting major, Junior standing, AND 2.5 GPA.

ACCT 4855 Careers and Professionalism in Acct 1 s.h.

Professionals from public, private, nonprofit and governmental accounting areas are invited to speak during class. The focus is how to plan for, and what to expect when starting an accounting career, and how to conduct oneself as a professional. Ethical considerations are emphasized. The class offers a unique opportunity to interact and network with accounting professionals.

Prereq.: Junior standing or permission of instructor, and 2.5 overall GPA.

ACCT 4860 Special Topics in Accounting 1-4 s.h.

Subject matter, credit hours, and prerequisites will be announced in advance of each topic. 2.5 overall GPA.

Prereq.: Permission of department chairperson.

ACCT 4870 CPA Review Financial Accounting and Reporting 2 s.h.

A CPA review course focused on preparing students to take the financial accounting and regulation sections of the CPA exam. Only ONE 2 semester hour CPA Review course may be used as an Upper Division Business elective towards the BSBA degree; cannot be used as an Accounting elective.

Prereq.: "C" or better in ACCT 4801 and 2.5 overall GPA.

ACCT 4871 CPA Review Regulation 2 s.h.

A CPA review course focused on preparing students to take the regulation section of the CPA exam, including familiarizing students with the computer based questions and simulations found on the exam. Only ONE 2 semester hour CPA Review course may be used as an Upper Division Business elective toward the BSBA degree; cannot be used as an Accounting elective.

Prereq.: "C" or better in ACCT 4813, 2.5 overall GPA.

ACCT 4872 CPA Review AUDIT 2 s.h.

A CPA review course focused on preparing students to take the Auditing and Attestation section of the CPA exam. Only ONE 2 semester hour CPA Review course may be used as an Upper Division Business elective towards the BSBA degree; cannot be used as an Accounting elective.

Prereq.: "C" or better in ACCT 4808, 2.5 overall GPA.

ACCT 5814 Federal Taxation 2 3 s.h.

This course studies the fundamental tax laws as they apply to corporations, partnerships and limited liability companies. Federal payroll taxes, tax research techniques and the calculation of tax provisions for corporations is included. Concepts are supported through various projects and preparation of actual tax returns.

Prereq.: ACCT 4813 (C or better), 2.5 GPA.

ACCT 5820 Government and Funds Accounting 3 s.h.

Generally accepted accounting principles for not-for-profit and governmental organizations as established by the appropriately recognized, standard-setting bodies. Includes state and local governments, school districts, colleges and universities, hospitals, voluntary health and welfare organizations, and others.

Prereq.: "C" or better in ACCT 3701 and 2.5 overall GPA.

ACCT 6915 Estate Planning 3 s.h.

A study of estate and gift tax law including tax return preparation. Emphasis on the importance of estate planning and the devices available for use in such planning, and effective uses of lifetime gifts, trusts, life insurance, pension plans, profit sharing, and other fringe benefit plans. The effects of state inheritance tax and property laws upon estate planning will be included.

Prereq.: "C" or better in ACCT 4813 or equivalent.

ACCT 6917 MAcc Income Tax Preparation 3 s.h.

Students prepare basic and complex tax returns (including small business and rental returns) for taxpayers from the university and community, provide guidance to undergraduate students, and assist in training and administration of the VITA (Volunteer Income Tax Preparation) program, including efilng returns.

Prereq.: graduate standing.

ACCT 6922 Cost Based Decision Making 3 s.h.

Insights into a company's product costs (including those considered direct and indirect), its fixed and variable costs (and ways to identify these) and an understanding of its controllable and non-controllable costs all are necessary to effectively manage an organization. This course focuses on these concepts and how they can be used when making business decisions.

ACCT 6940 Data Analytics for Accounting 3 s.h.

Course emphasis is on knowledge and skills required by accountants and managers to collect, manage, query, analyze extremely large volumes of data in various formats from numerous sources. Focus will be given to results that management of data brings to an organization. It will cover a broad spectrum of topics chosen from the following: database management, descriptive statistics, predictive analytics, through data discovery, data merging & cleaning, data visualization, ethics data quality, and advanced data modeling. It will include hands-on use of available software found in industry practices such as SAS and Tableau, with an emphasis on spreadsheets and coding skills.

Prereq.: Graduate standing.

ACCT 6950 Forensic Accounting and Fraud Examination 3 s.h.

This course involves the study of forensic accounting with an emphasis on fraud prevention, deterrence and detection techniques. Topics include identifying occupational fraud, abuse, and the misappropriation of assets and revenue. Also introduced is the role of the COSO internal control framework, risk assessments, corporate governance and the internal audit profession.

Prereq.: Graduate standing.

Cross-Listed: ACCT 3750.

ACCT 6996 Research Problems 1-4 s.h.

Special research project under the supervision of a graduate faculty member. Credit will be determined in each case in light of the nature and extent of the project.

Prereq.: Fifteen hours of level II MBA coursework or permission of MBA director.

Finance

FIN 3715 Planning Your Financial Future 3 s.h.

An introductory course to personal finance planning. Emphasis on establishing financial goals and monitoring progress toward reaching those goals to improve the individual's quality of life. Topics include financial planning process, budgeting, credit, financing strategies, education planning, tax planning, etc.. Open to business and non-business majors.

FIN 3720 Business Finance 3 s.h.

This course focuses on the financial problems associated with the life cycle of a business. Topics include business organizations, financial statement analysis, the time value of money, asset valuation, risk and returns, the cost of capital, capital budgeting, project analysis, dividend policies and investment decisions. The purpose of this course is to provide the basic financial knowledge necessary to enable students to become valuable employees in corporate, governmental, entrepreneurial or non-profit settings.

Prereq.: ACCT 2603 (C or better), MATH 1552 (C or better) OR MATH 1570 (C or better) OR MATH 1571 (C or better) OR MATH 2623 (C or better), 2.5 GPA.

FIN 3725 Real Estate Investment 3 s.h.

Topics include real property ownership, real estate markets, valuation methods, financing methods and management of real estate investments.

Prereq.: "C" or better in FIN 3720 and 2.5 overall GPA.

FIN 3726 Insurance Planning 3 s.h.

Risk Management. Introduces students to risk management and insurance decisions in personal and business financial planning. Topics include insurance for life, health, disability, property and liability risks as well as annuities, group insurance, long-term care insurance and social security.

Prereq.: "C" or better in FIN 3720 and 2.5 overall GPA.

FIN 3730 Investment Planning 3 s.h.

Introduces topics of investment planning, vehicles, analysis and strategies required in the financial planning process. Discussions are within the context of risk and return, asset valuation, various financial instruments, financial mathematics, asset pricing models and portfolio management. The aim of the course is for students to gain the knowledge to evaluate alternative investment choices in the context of client's financial planning needs.

Prereq.: "C" or better in FIN 3720 and 2.5 overall GPA.

FIN 4833 Retirement Plans & Employee Benefits 3 s.h.

Retirement Plans Emp Benefits. Provides students with retirement and employee benefits topics required for a financial planning career discussed within the context of time value of money, inflation, and taxation. Specifically, insurance (life, disability and medical) issues, ESOPs and deferred compensation plans, private and public retirement plans and distribution rules are reviewed in-depth.

Prereq.: "C" or better in FIN 3720 and 2.5 overall GPA.

FIN 4835 Advanced Business Finance 3 s.h.

This course explores a solid foundational knowledge, tools and strategies used in modern corporate financial management. In today's competitive business environment, companies must find innovative ways to achieve rapid and sustainable growth. Through the use of real-world examples, this course will equip students with critical knowledge and skills in areas of corporate investment and financing decisions, funds allocation, capital structure and corporate strategies to make smart business decisions and formulate strategies to maximize company value.

Prereq.: FIN 3720 (C or better), 2.5 GPA.

FIN 4836 Financial Markets 3 s.h.

An examination of global financial markets, institutions, and instruments with emphasis on factors influencing how firms and individuals make financing and investing decisions. Advanced coverage of fixed-income instruments.

Prereq.: FIN 3720 (C or better), 2.5 GPA.

FIN 4838 Financial Plan Development 4 s.h.

Prepares students with financial planning knowledge, skills and ability to integrate, apply and communicate to their clients. Planning recommendations are demonstrated through real-life case studies. The focus of this capstone course is on the fundamental planning practices, professional skills and integration of concepts and knowledge.

Prereq.: "C" or better in FIN 3726, FIN 4833, and ACCT 4815; 2.5 overall GPA.

FIN 4839 International Accounting and Finance 3 s.h.

Cross-functional introduction to multinational enterprises and multinational financial management with emphasis on foreign currency risk management; measuring and managing accounting and economic exposure; foreign trade and investment analysis; various topics in international accounting and finance.

Prereq.: "C" or better in FIN 3720 and 2.5 overall GPA.

FIN 4841 Seminar in Investments and Security Markets 3 s.h.

An examination of the literature on efficient capital markets with implications for security selection and portfolio management.

Prereq.: "C" or better in FIN 3720 and 2.5 overall GPA.

FIN 4845 Business Valuation 3 s.h.

Study of business valuation techniques currently used in valuing publicly traded and private equity to include: cash flows, forecasting, estimating cost of capital for public and private companies, valuation of stand-alone companies and business units from perspective of acquirer and seller.

Prereq.: "C" or better in FIN 3720 and 2.5 overall GPA.

FIN 4850 Finance Internship 3 s.h.

The student is given the opportunity to relate theory to practice in a career related on-site field experience with a participating organization.

Prereq.: junior standing, 2.5 overall GPA, and Special Approval of Director or Special Approval of Director.

FIN 4851 Finance Internship 2 3 s.h.

Students have the opportunity to relate theory to practice in a career related on-site field experience with a participating organization. Finance Internship 2 may be done at a different or the same organization as FIN 4850; if the same organization, higher levels of duties and performance are expected.

Prereq.: FIN 4850 (B or better), 2.5 overall GPA, and special approval.

FIN 4853 Financial Analysis 3 s.h.

This course is designed to address the increasing demand for students to think about financial statement analysis from a practical and global financial perspective. Topics include financial reporting standards and quality, interpretation and analysis of financial statements and information, various financial analysis techniques and practical applications.

Prereq.: "C" or better in FIN 3720 and 2.5 overall GPA.

FIN 4860 Special Topics in Finance 1-4 s.h.

Subject matter, credit hours, and prerequisites will be announced in advance of each topic. 2.5 overall GPA.

Prereq.: Permission of director.

FIN 6923 Corporate Financial Management 3 s.h.

Participants will gain an understanding of financial analysis techniques that are used when evaluating businesses, projects, budgets and other related decisions. Participants will develop a set of analytical tools for conducting historical analysis (analysis of the income statement, cash flow statement, balance sheet, interpretation of various financial ratios) as well tools associated with capital budgeting, capital structure and cost of acquiring capital.

Prereq.: Graduate Standing.

FIN 6924 Securities Analysis 3 s.h.

The major emphasis will be an in-depth, fundamental analysis of the investment merits of the common stock of a firm. This study will be accomplished by applying the appropriate analytical principles and valuation techniques to the firm's financial statements. A research paper will be required.

Prereq.: FIN 6923.

FIN 6939 Multinational Accounting and Finance 3 s.h.

A cross-functional examination of selected topics in international accounting and finance with emphasis on developing research and problem-solving skills. Cases will be presented that teach the strategy and tactics of multinational corporate reporting and financial management.

Prereq.: FIN 6923.

FIN 6945 Business Valuation 3 s.h.

A study of business valuation techniques currently used in valuing publicly traded and private equity.

Prereq.: "C" or better in FIN 3720 or FIN 6900.

FIN 6953 Advanced Financial Analysis 3 s.h.

Applications of financial analysis to business consulting. Includes case studies and practical implementation strategies.

Prereq.: FIN 6923.

FIN 6968 Special Topics in Finance 1-3 s.h.

Topics may vary from semester to semester and will be announced with prerequisites and hours. May be repeated.

FIN 6996 Research Problems 1-4 s.h.

Special research project under the supervision of a graduate faculty member. Credit will be determined in each case in light of the nature and extent of the project.

Prereq.: Fifteen hours of level II MBA coursework or permission of MBA director.

Economics

ECON 1501 Economics in Action 3 s.h.

An introduction to the United States' economic system and institutions through the examination of current economic problems. Not applicable for a major or minor in economics. Credit will not be given for 1501 if a student has already received credit for ECON 2610 or its equivalent.

Gen Ed: Social Science.

ECON 1503 Rich and Poor: Diversity and Disparity in the United States Workplace 3 s.h.

Examines how labor markets determine the distribution of income and the dramatic changes in the composition of the American labor force. Explores such issues as the widening gap between low and upper income groups, the characteristics of the poor, affirmative action, the glass ceiling, the mommy track, and family-friendly working environments. Not applicable towards a major or minor in economics.

Gen Ed: Domestic Diversity, Social Science, Social and Personal Awareness.

ECON 1503C CE Rich and Poor 3 s.h.

Examines how labor markets determine the distribution of income and the dramatic changes in the composition of the American labor force. Explores such issues as the widening gap between low and upper income groups, the characteristics of the poor, affirmative action, the glass ceiling, the mommy track, and family-friendly working environments. Not applicable towards a major or minor in economics.

Gen Ed: Domestic Diversity, Social Science, Social and Personal Awareness.

ECON 1503H Honors Rich and Poor: Diversity and Disparity in the U.S. Workplace 3 s.h.

S. Workplace. Examines how labor markets determine the distribution of income and the dramatic changes in the composition of the American labor force. Explores such issues as the widening gap between low and upper income groups, the characteristics of the poor, affirmative action, the glass ceiling, the mommy track, and family-friendly working environments. Not applicable towards a major or minor in economics.

Gen Ed: Domestic Diversity, Social Science, Social and Personal Awareness.

ECON 1505 Personal Financial Literacy 3 s.h.

An introduction to personal financial planning. Topics covered include budgeting, the use of credit, taxes, savings accounts, investment strategies, insurance, buying a home, career planning, and retirement planning. Students will gain the knowledge and resources to be better prepared for their financial future.

Gen Ed: Social Science, Social and Personal Awareness.

ECON 2610 Principles 1: Microeconomics 3 s.h.

Introduction to the theory of markets, including the behavior of consumers and the conduct of private and public business enterprise. Effects of monopoly and competition on private and social welfare. The role of government in promoting the economic welfare of consumers, workers, and minorities.

Gen Ed: Social Science.

ECON 2610H Honors Principles 1: Microeconomics 3 s.h.

Introduction to the theory of markets, including the behavior of consumers and the conduct of private and public business enterprise. Effects of monopoly and competition on private and social welfare. The role of government in promoting the economic welfare of consumers, workers, and minorities.

Gen Ed: Social Science.

ECON 2630 Principles 2: Macroeconomics 3 s.h.

Studies of growth, inflation, and unemployment at the national level and the performance of the U.S. economy in the global setting. The impacts of national economic policies on individual and social welfare. An extensive discussion and evaluation of the U.S. banking system and its effects on individuals and businesses.

Prereq.: ECON 2610.

Gen Ed: Social Science.

ECON 2630H Honors Principles 2: Macroeconomics 3 s.h.

Studies of growth, inflation, and unemployment at the national level and the performance of the U.S. economy in the global setting. The impacts of national economic policies on individual and social welfare. An extensive discussion and evaluation of the U.S. banking system and its effects on individuals and businesses.

Prereq.: ECON 2610 or ECON 2610H.

Gen Ed: Social Science.

ECON 2631 Introductory Macroeconomics for Education Majors 3 s.h.

Measurement of the national economy's performance (growth, inflation, and unemployment), the banking system, the impact of government on macroeconomic performance, and international macroeconomics. Principles of personal finance, including budgeting, the use of credit, and financial planning are also discussed. Open only to education majors. Credit will not be given for both ECON 2630 and ECON 2631.

Prereq.: ECON 2610.

ECON 3701 Money and Banking 3 s.h.

Organization and operation of commercial banking in the United States; central banking under the Federal Reserve System; basic theory. Monetary policy as a determinant of national income.

Prereq.: ECON 2630.

ECON 3702 Public Finance & Political Economy 3 s.h.

This course in public finance and political economy offers an overview of how governments allocate and manage resources to promote economic growth and social welfare. Students will learn about the various tools used by governments to raise revenue and allocate resources, such as taxes, subsidies, public spending, and debt financing. The course also explores the various market failures that can arise due to externalities, information asymmetries, and public goods, and how governments can intervene to correct them. Additionally, the course delves into the political economy of public finance, analyzing the trade-offs between political and economic objectives, such as efficiency, equity, and political stability.

Prereq.: ECON 2610.

ECON 3703 Behavioral Economics 3 s.h.

Uses insights from economics and psychology to explain why normally rational people make poor choices in their lives, be it in terms of money, health, education or long-term happiness. This introductory course explores the sources of poor economic choices and examines ways to improve them.

Prereq.: None.

ECON 3705 Climate Change and Environmental Economics 3 s.h.

Application of economic theory to environmental problems, analysis of policy alternatives for pollution abatement, and the conservation of exhaustible resources, with an emphasis on the economic consequences of and potential policies used to address climate change. Determination of efficient management of local and national pollution levels, including air, water, and toxic substances.

Prereq.: ECON 1501 or ECON 2610.

ECON 3710 Intermediate Microeconomic Theory 3 s.h.

This course provides comprehensive coverage of microeconomic issues by analyzing applications of the theory. The primary objectives are to think analytically about the forces at work in the choices of individuals and firms and to study the allocation of our limited resources in the economy to determine whether it is optimal for society.

Prereq.: ECON 2610.

ECON 3712 Intermediate Macroeconomic Theory 3 s.h.

The construction of national income and production accounts and the basic determinant of income, output, and employment. Determination of the level of employment, interest, and money through the classical versus Keynesian aggregate economics.

Prereq.: ECON 2630 (C or better).

ECON 3720 Capitalism versus Socialism 3 s.h.

An examination of the recent world-wide trend toward free market economy, giving particular attention to basic processes such as resource allocation and product distribution. Frequent references are made to the failure of Socialism in the USSR and the new approach in Russia, Eastern Europe and China toward market economies.

Prereq.: None.

ECON 3730 Advanced Excel and Business Analytics Tools 3 s.h.

This course introduces students to essential tools and techniques used in business analytics. It covers advanced spreadsheet functionalities, data workflow design, Microsoft Power Query, and foundational concepts in databases, tailored for a general audience. Cross-Listed: BUS 3730. 5 GPA.

ECON 3735 Artificial Intelligence in Business 3 s.h.

In this course students will embark on an immersive, project-based exploration of the transformative impact of generative AI across various business sectors and the economy. From automating customer service to innovating marketing strategies, simulating design processes, and analyzing case studies, students will work hands-on with cutting-edge AI tools to solve real-world challenges. Through a series of tailored projects, the course aims to equip students with the foundational AI skills and ethical considerations essential for leveraging artificial intelligence as a strategic asset in today's fast-paced digital economy. Cross-Listed: BUS 3735. 5 GPA.

ECON 3740 Sports Economics 3 s.h.

Economic analysis of individual, team, and league sports. This course focuses not only on the market structure and industrial organization of sports leagues, but also addresses the public finance issues of municipal stadium construction and the labor issues involved with free agency and salary caps.

Prereq.: ECON 2610.

ECON 3788 Advanced Business Analytics 3 s.h.

This course explores advanced concepts in business analytics with a focus on business application of machine learning techniques. Students will learn to develop and apply predictive models for real-world business and economic challenges, leveraging data analytics tools and machine learning algorithms.

Prereq.: BUS 3700.

ECON 3789 Statistics for Business and Economics 2 3 s.h.

This course builds on concepts introduced in ECON 3788. Specific topics include hypothesis testing, regression analysis, ANOVA and time series analysis. Practical application of statistical procedures is incorporated into regularly scheduled computer workshops. Credit will not be given for ECON 3789 if a student has already received credit for ECON 3790 or its equivalent. 3 s.h.

Prereq.: ECON 3788.

ECON 4810 Managerial Economics 3 s.h.

An application of economic analysis to business problems. Emphasis upon executive decisions for the allocation of resources.

Prereq.: ECON 2610.

ECON 4855 Health Economics 3 s.h.

Application of basic principles to the study of the health care industry. Topics include the supply and demand of medical care, the effects of private and public insurance on the health care industry, trends in health care costs, public policies to equalize access to medical care and the dilemma caused by the improvement in life-sustaining technology.

Prereq.: ECON 2610.

ECON 4860 Selected Topics in Economics 3 s.h.

Advanced study of selected topics in economic analysis and issues in economic policy. May be repeated once with different topic.

Prereq.: ECON 2610 and ECON 2630.

ECON 4870 Economics Internship 3 s.h.

The practical application of economic knowledge and statistical skills in the workplace. Students assist professionals in various kinds of industrial, financial, and public service organizations.

Prereq.: Junior standing, 2.5 overall GPA, AND Special Approval of Director OR Special Approval of Director.

ECON 4871 Economics Internship 2 3 s.h.

The practical application of economic knowledge and statistical skills in the workplace. Students assist professionals in various kinds of industrial, financial, and public service organizations.

Prereq.: ECON 4870 (B or better), Junior standing, 2.5 GPA, AND Special Approval of Director OR Special Approval of Director.

ECON 4880 Business Analytics of Economic Issues 3 s.h.

This capstone course offers students a comprehensive project in economics and business analytics. It integrates the application of data techniques, visualization, predictive analytics with an emphasis on model interpretability, and prescriptive analytics to address real-world economic or business issues.

Prereq.: ECON 3710, ECON 3712, ECON 3788 and BUS 3700.

Gen Ed: Capstone.

ECON 4898 Graduate Study in Selected Economic Topics 3 s.h.

For undergraduates taking courses in the MA in Economics program for credit towards an undergraduate degree. Credit earned cannot be later applied to a graduate degree. The student must meet the criteria for undergraduate students taking graduate coursework listed in the Graduate Bulletin. May be repeated with different graduate courses.

Prereq.: A minimum of 20 hours of coursework in economics at the 2600 level and above, permission of the chair, junior standing.

ECON 4899 Individual Study in Economics 1-4 s.h.

Individual study of a topic, area, or problem requiring in-depth reading, and a written project.

Prereq.: Junior or senior standing AND Special Approval.

ECON 5801 Economics of Industrial Organization 3 s.h.

A systematic analysis of the structure, conduct, and performance of American industry. A quantitative analysis plus a comprehensive review of theoretical models of the market, firm behavior, and performance.

Prereq.: ECON 2610.

ECON 5806 History of Economic Thought 3 s.h.

Designed to provide students with an understanding of the development of economic ideas to include: Mercantilism, Physiocrats, the English Classical School, Utilitarianism, early Social Thought, Karl Marx, the German Historical School, Institutionalists and the Keynesian School.

Prereq.: ECON 2630.

ECON 5811 International Trade 3 s.h.

Theories of international trade and specialization; free trade vs. protectionism; tariff and non-tariff barriers to international trade; international balance of payments and its components; the role of multinational enterprises in contemporary trade pattern; regional economic integrations and world trade; U.S. commercial policies.

Prereq.: ECON 2610.

ECON 5812 International Finance 3 s.h.

Theories of foreign exchange and capital movements, international payments, analysis of spot and forward foreign exchange markets, foreign exchange market arbitrage, speculation, and risk hedging. The Bretton Woods agreement and the contemporary international monetary system. The rise of international organizations and multinational enterprises in the international economy.

Prereq.: ECON 2630.

ECON 5822 Crime and Urban Economics 3 s.h.

This course will draw upon economic models and theories and use the tools of economics to analyze problems of urban areas with an emphasis on the economics of crime, drugs, and incarceration. Topics include the causes of the growth or decline in cities, the theory of location, agglomeration, housing, segregation, suburbanization, and auto congestion.

Prereq.: ECON 2610.

ECON 5824 Applied Time Series Analysis of Economic and Business Data 3 s.h.

An in-depth analysis of time series models and their applications to problems in economics and business. Emphasis on forecasting. Extensive use of standard computer programs.

Prereq.: ECON 2610 and STAT 4817 or ECON 3790 or (ECON 3788 and ECON 3789) or (ECON 3788 and BUS 3700).

ECON 5850 Introduction to Game Theory 3 s.h.

Topics include (not limited to) Nash equilibrium, pure/mixed strategy, static/dynamic games, repeated games and coordination, perfect/incomplete information, etc.

Prereq.: ECON 2610.

ECON 5861 SAS Programming for Data Analysis 3 s.h.

An introduction to SAS programming for data analytics. Topics include using SAS for data processing, manipulation, visualization, reporting, and statistical analysis. The objective is for students to develop statistical computing skills for problem solving and decision making.

Prereq.: STAT 2601 or STAT 3717 or STAT 3743 or ECON 3790, or ECON 3788 and ECON 3789, or ECON 3788 and BUS 3700.

Cross-Listed: STAT 5811.

ECON 6912 Microeconomic Theory 3 s.h.

This course provides comprehensive coverage of microeconomic issues by analyzing applications of the theory. This includes study of demand and supply, theory of behavior of consumers and firms, choice under uncertainty, partial equilibrium analysis of various market structures, and Pareto efficiency. The course will focus on applications of the theory through current applied economic research peer reviewed articles.

ECON 6915 Health Care Analytics 3 s.h.

In this course we will learn skills necessary to analyze and interpret healthcare data to improve evidence-based decision-making, patient outcomes, and overall healthcare system performance. Topics include data management, exploratory data analysis (EDA), predictive modelling and model evaluation as it relates to various health care data. We also learn about the main issues that plague the healthcare markets in the US.

ECON 6921 Economic Analysis of Markets and Industries 3 s.h.

Participants will learn to analyze and understand the impact economic factors (e.g., information, consumer behavior, supply and demand) have on shaping markets and industries. Using this knowledge, participants will be capable of assessing the different types of economic strategies (e.g., product differentiation, pricing, advertising and signaling) an organization can employ to gain market power to realize economic profits.

Prereq.: Graduate standing.

ECON 6922 Macroeconomic Theory 3 s.h.

Examines models used to determine the value of various aggregate economic variables, such as the price level, national income, employment, interest rates, and wage rates.

ECON 6939 The Economics of Financial Markets and Institutions 3 s.h.

Study of the institutions, instruments, and markets that facilitate the distribution of financial resources throughout the economy. The course discusses the money, capital, and commodity markets. Also, the topics of accessing default risk and hedging against market risk are discussed.

ECON 6940 Financial Economics 3 s.h.

Study of various topics, including risk and the selection of the optimal monetary control tool, politics and monetary control, the financial firm as an optimizing institution, and portfolio theory.

Prereq.: ECON 6939 or permission of the instructor.

ECON 6945 Public Finance 3 s.h.

Study of the role of the government in the economy. The topics covered will include expenditure analysis, theories of taxation, provision of public goods, fiscal federalism, and public choice theory.

Prereq.: ECON 6912.

ECON 6952 Transfer Programs and Poverty 3 s.h.

A study of poverty and the effectiveness of antipoverty programs. Topics include defining and measuring poverty, trends in the rate of poverty and the distribution of income, causes of poverty, models of discrimination, effectiveness of government training programs, transfer programs and their effect on labor supply, and the financial stability of the Social Security retirement program.

Prereq.: admission into the MA in Economics or MA in Financial Economics programs or permission of instructor.

ECON 6970 Economics Internship 3 s.h.

The practical application of economic knowledge and statistical skills in the workplace. Students assist participating professionals in various kinds of industrial, financial, and public service organizations.

Prereq.: ECON 6912 and ECON 6922, Special Approval of Director.

ECON 6976 Econometrics 3 s.h.

Study of the fundamentals of econometric techniques that are useful for estimating causal economic relationships. The objectives include (1) analysis of the effects of exogenous factors on the variable whose behavior we seek to explain, (2) testing of hypotheses about new and existing economic theories, and (3) forecasting estimated economic relationships beyond the sample period for the purpose of planning and control. The course will focus on the practice of econometrics with extensive applications to a variety of real-world problems in many areas of economics.

ECON 6980 Applied Time Series Analysis and Forecasting 3 s.h.

Covers essential tools for time series analysis and forecasting with emphasis on how to apply those tools to analyze and forecast economic and business data. Topics include ARMA models, Time Series Decomposition, Exponential Smoothing, GARCH, VAR models, and Cointegration.

Prereq.: ECON 2610 and ECON 3789 or ECON 3790 or ECON 6976 or STAT 5817.

ECON 6988 Modeling in Financial Economics 3 s.h.

A study of modeling and evaluation of derivatives and bonds and risk management using derivatives. Topics cover various models in asset evaluation, such as bond price models, the Black-Scholes model, diffusion processes, and risk management. Also listed as STAT 6988.

Prereq.: STAT 4843 or STAT 6943 or ECON 6976.

ECON 6990 Special Topics in Economics 1-3 s.h.

Special interest topics selected by the staff in the following areas: economic education, economic theory, and applied economics analysis. May be repeated for a maximum of six hours toward a graduate degree.

ECON 6992 Data Analytics - Advanced SAS Programming 3 s.h.

This course is designed to provide students training of advanced SAS programming for data analysis. Main topics include SQL, Macro language, Econometrics-related procedures, working with large data set, etc.

Prereq.: ECON 6976 or equivalent and either ECON 5861 or STAT 5811.

Cross-Listed: STAT 6912.

ECON 6998 Research Seminar 3 s.h.

Applied quantitative research techniques will be discussed. Students are required to undertake an original quantitative research project in a field of economics and write a paper summarizing their results. Course may be taken concurrently with ECON 6976. Prereq.: ECON 6912 and ECON 6922.

ECON 6999 Master's Thesis 3 s.h.

A research project under the supervision of a member of the department on the graduate faculty. The project typically extends the student's research in ECON 6998.

Prereq.: a grade of "A" or "B" in ECON 6998 and a thesis proposal accepted by departmental committee.

Bachelor of Science in Business Administration in Accounting

CAREER OPPORTUNITIES

The demand for accounting graduates continues to grow as financial transactions become more sophisticated, as tax laws change, and as new government regulations are introduced.

All types of organizations—public and private—require accounting personnel. Those working in private accounting can specialize in financial accounting/reporting, cost accounting, accounting information systems, managerial accounting, internal auditing, tax accounting, budgeting, and financial analysis. Those working in public accounting can specialize in external auditing, management advisory services, tax accounting, and valuation services.

Employers of accountants include: public accounting firms, banks, retail and wholesale businesses, manufacturers, pension funds, foundations, hospitals, universities, churches, nonprofit organizations, government agencies, and consulting companies. Self-employed accountants may set up their own offices and work for private clients.

STUDENT EXPERIENCES

Accounting students at Youngstown State University have the opportunity to build their technical and leadership skills through various WCBA student organizations. Specific organizations related to accounting include the Institute of Management Accountants and Beta Alpha Psi, the professional business organization for accounting, finance and information system majors. Students can also become student members of the American Institute of CPA's, the Ohio Society of CPA's and the Institute of Management Accountants.

All business majors are strongly encouraged to complete internships. Internships are career-related work experiences that enable students to apply their knowledge and skills in an organizational setting. In the WCBA, internships that are approved for academic credit must be paid. Completing a career-related internship markedly improves a student's job prospects upon graduation.

REQUIREMENTS TO SIT FOR THE CERTIFIED PUBLIC ACCOUNTANTS (CPA) EXAM

Ohio residents wishing to sit for the Certified Public Accountant (CPA) exam are currently required to have completed 150 semester hours of education— It should be noted however that proposed legislation would reduce the education requirement to sit for the exam to 120 semester hours of study. For those interested in meeting the current 150 semester hour requirement the WCBA offers the Master of Accountancy (MAcc) Program. This program is a 30 semester hour graduate program. With proper planning and coordination, a student can complete both a BSBA and MAcc in five years. For more information on sitting for the CPA exam, please contact the Accountancy Board of Ohio (<http://www.acc.ohio.gov/>).

For more information, visit the **Lariccia School of Accounting and Finance** (<http://www.ysu.edu/academics/williamson-college-business-administration/>).

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT-STUDENT SUCCESS SEMINAR		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
GENERAL EDUCATION REQUIREMENTS		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
MATH *Grade of a "C" or higher required		
MATH 2623	Quantitative Reasoning	3-6
or MATH 2623C	Quantitative Reasoning with Co-Requisite Support	
or MATH 1510	College Algebra	
or MATH 1510C	College Algebra with Co-requisite Support	
or MATH 1552	Applied Business Calculus	
or MATH 1571	Calculus 1	
ARTS & HUMANITIES (6 SH)		6
NATURAL SCIENCES (7 SH) <small>One science course must include a lab</small>		7
SOCIAL SCIENCES (6 SH)		
ECON 2610	Principles 1: Microeconomics <small>*Grade of a "C" or higher required</small>	3
ECON 2630	Principles 2: Macroeconomics <small>*Grade of a "C" or higher required</small>	3
GENERAL EDUCATION ELECTIVES (9 s.h.)		
ECON 1505	Personal Financial Literacy <small>Recommended</small>	3
MGT 2604	Legal and Social Responsibilities of Business	3
General Education Elective		3
BUSINESS TOOL COURSES		
Business Tool courses must be completed with a grade of a "C" or higher and CAN NOT be taken CR/NC		
ACCT 2602	Financial Accounting	3
ACCT 2603	Managerial Accounting	3
BUS 1500	Foundations of Business	3
BUS 2610	Collaborating, Writing, & Presenting in Business	3
BUS 2600	Business Applications of Microsoft Excel	3
BUSINESS CORE REQUIREMENTS		
Upper-Level Business Courses must be completed with the grade of a "C" or higher and CAN NOT be taken CR/NC		
BUS 3700	Business Analytics	3
BUS 3710	Data Visualization with Tableau	3
BUS 3715	Principles of International Business	3
FIN 3720	Business Finance	3
MGT 3725	Fundamentals of Management	3
MGT 3789	Operations Management	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3
Senior Capstone		
MGT 4850	Strategic Management	3
ACCOUNTING MAJOR REQUIREMENTS		
ACCT 3701	Intermediate Accounting 1	3
ACCT 3702	Intermediate Accounting 2	3
ACCT 3709	Accounting Information Systems	3
ACCT 3711	Cost Accounting	3
ACCT 4801	Advanced Accounting	3

ACCT 4808	Auditing	3
ACCT 4813	Federal Taxation 1	3
MGT 3714	Legal Environment of Business	3
ACCOUNTING UPPER LEVEL COURSES (6 SH)		6
Select two (6 SH) ACCT 3000-5000 level courses. *students should consider at least one internship for credit.		
BUSINESS UPPER-LEVEL COURSES (12 SH)		12
Select four (12 SH) 3000-5000 level business course (ACCT, ADV, BUS, ECON, ENT, FIN, MGT, MKTG)		
Total Semester Hours		120-125
Year 1		
Spring		S.H.
ENGL 1551	Writing 2	3
BUS 2600	Business Applications of Microsoft Excel	3
ACCT 2602	Financial Accounting	3
ECON 1505	Personal Financial Literacy ^{GE Elective} (Recommended)	3
GE: Lab Science		4
Semester Hours		16
Fall		
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
BUS 1500	Foundations of Business	3
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
MATH 2623	Quantitative Reasoning	3-6
or MATH 2623C	or Quantitative Reasoning with Co-Requisite Support	
or MATH 1510	or College Algebra	
or MATH 1510C	or College Algebra with Co-requisite Support	
or MATH 1552	or Applied Business Calculus	
or MATH 1571	or Calculus 1	
GE: Arts & Humanities		3
Semester Hours		13-18
Year 2		
Spring		
MKTG 3702	Business Professionalism	1
ACCT 3701	Intermediate Accounting 1	3
ACCT 3711	Cost Accounting	3
ECON 2630	Principles 2: Macroeconomics	3
GE: Elective		3
Semester Hours		13
Fall		
ACCT 2603	Managerial Accounting	3
BUS 2610	Collaborating, Writing, & Presenting in Business	3
ECON 2610	Principles 1: Microeconomics	3
MGT 2604	Legal and Social Responsibilities of Business	3
GE: Arts and Humanities		3
Semester Hours		15
Year 3		
Spring		
BUS 3710	Data Visualization with Tableau	3
MKTG 3703	Marketing Concepts and Practice	3
Upper-Level ACCT Course ^{Internship Recommended}		3

GE: Natural Science		3
ACCT 4813	Federal Taxation 1	3
Semester Hours		15
Fall		
ACCT 3702	Intermediate Accounting 2	3
ACCT 3709	Accounting Information Systems	3
FIN 3720	Business Finance	3
MGT 3725	Fundamentals of Management	3
BUS 3700	Business Analytics	3
Semester Hours		15
Year 4		
Spring		
ACCT 4808	Auditing	3
MGT 4850	Strategic Management	3
MGT 3789	Operations Management	3
Upper-Level ACCT Course		3
Upper-Level Business Course		6
Semester Hours		18
Fall		
ACCT 4801	Advanced Accounting	3
MGT 3714	Legal Environment of Business	3
BUS 3715	Principles of International Business	3
Upper-Level Business Courses		6
Semester Hours		15
Total Semester Hours		120-125

The pre-requisite for all upper level Business classes includes a minimum 2.5 overall GPA

Learning Outcomes

The student learning outcomes for majors within the Lariccia School of Accounting and Finance are as follows:

- Students will be able to identify, formulate, and solve discipline-specific problems within the context of business, ethical, and societal constraints;
- Students will learn to function and communicate (in writing and orally) both individually and within multidisciplinary teams;
- Students will develop enhanced technology skills by being exposed to assignments requiring advanced computer/spreadsheet knowledge, expanded presentation activity (e.g. PowerPoint in the oral-intensive courses), and required analysis of financial statements;
- Students will be given opportunities to work with and be exposed to the business community and professionals through internship opportunities, student organizations, and social functions;
- Students will obtain an understanding of professional and ethical responsibilities and a recognition of and an appreciation for the need to engage in life-long learning.

Bachelor of Science in Business Administration in Finance, Certified Financial Planner Track

The Certified Financial Planner (CFP) track focuses on working directly with individuals, helping them to plan for and meet their short- and long-term financial goals. Students must learn to fully understand the client's financial situation as well as financial laws and legal documents. Investment types commonly dealt with include investments and security planning, estate planning, tax planning, employee benefits planning, and insurance planning.

CAREER OPPORTUNITIES

The demand for qualified personal financial planners is growing rapidly. This demand is due in part to the many Americans who are reaching retirement age in need of personal financial planning expertise. A good financial planner understands investments, taxes, estate planning issues, and how to talk and listen to people. They work in financial services, banks, wealth management companies and independently as entrepreneurs in the field. YSU students who have successfully completed all requirements of BS in Finance CFP Track satisfy the education coursework requirement of the CFP Board and are eligible to sit for The CFP® Certification Examination.

All business majors are strongly encouraged to complete internships. Internships are career-related work experiences that enable students to apply their knowledge and skills in an organizational setting. In the WCBA, internships that are approved for academic credit must be paid. Completing a career-related internship increases a student's job opportunities upon graduation.

STUDENT EXPERIENCES

Finance students at Youngstown State University have the opportunity to build their knowledge and leadership skills through a variety of WCBA student organizations (<http://www.ysu.edu/academics/williamson-college-business-administration/student-organizations-and-experiences/>), including the Student Investment Fund.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT-STUDENT SUCCESS SEMINAR		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
GENERAL EDUCATION REQUIREMENTS		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
MATH *Grade of a "C" or higher required		
MATH 2623	Quantitative Reasoning	3-6
or MATH 2623C	Quantitative Reasoning with Co-Requisite Support	
or MATH 1510	College Algebra	
or MATH 1510C	College Algebra with Co-requisite Support	
or MATH 1552	Applied Business Calculus	
or MATH 1571	Calculus 1	
ARTS AND HUMANITIES (6 SH)		6
NATURAL SCIENCES (7 SH)		7
SOCIAL SCIENCE (6 SH)		
ECON 2610	Principles 1: Microeconomics *Grade of a "C" or higher required	3
ECON 2630	Principles 2: Macroeconomics *Grade of a "C" or higher required	3
GENERAL EDUCATION ELECTIVES (9 s.h.)		
ECON 1505	Personal Financial Literacy ^{Recommended}	3
MGT 2604	Legal and Social Responsibilities of Business ^{Recommended}	3
General Education Elective		3
BUSINESS TOOL COURSES		
Business Tool courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		
ACCT 2602	Financial Accounting	3
ACCT 2603	Managerial Accounting	3
BUS 1500	Foundations of Business	3
BUS 2600	Business Applications of Microsoft Excel	3
BUS 2610	Collaborating, Writing, & Presenting in Business	3

BUSINESS CORE COURSES

Upper-level business courses must be completed with the grade of a "C" or higher and CANNOT be taken credit/no credit.

BUS 3700	Business Analytics	3
BUS 3710	Data Visualization with Tableau	3
BUS 3715	Principles of International Business	3
FIN 3720	Business Finance	3
MGT 3725	Fundamentals of Management	3
MGT 3761	Management Information Systems	3
MGT 3789	Operations Management	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3

Senior Capstone

MGT 4850	Strategic Management	3
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CERTIFIED FINANCIAL PLANNING REQUIRED COURSES

ACCT 4813	Federal Taxation 1	3
ACCT 4815	Estate Planning	3
FIN 3715	Planning Your Financial Future	3
FIN 3726	Insurance Planning	3
FIN 3730	Investment Planning	3
FIN 4833	Retirement Plans & Employee Benefits	3
FIN 4838	Financial Plan Development	4

FINANCE UPPER LEVEL COURSE (6 SH)

Select two (6 SH) FIN 3000-5000 level courses not included in major requirements. Students should consider at least one internship.

BUSINESS UPPER LEVEL COURSES (9 SH)

Select three (9 SH) 3000-5000 level course from the following areas ACCT, ADV, BUS, ECON, ENT, FIN, MGT, MKTG		
FREE elective		2

Total Semester Hours **120-125**

Year 1

Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
BUS 1500	Foundations of Business	3
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
MATH 2623	Quantitative Reasoning	3-6
or MATH 2623C	or Quantitative Reasoning with Co-Requisite Support	
or MATH 1510C	or College Algebra with Co-requisite Support	
or MATH 1510	or College Algebra	
or MATH 1552	or Applied Business Calculus	
or MATH 1571	or Calculus 1	
GE: Arts and Humanities		3

Semester Hours

13-18

Spring

ENGL 1551	Writing 2	3
BUS 2610	Collaborating, Writing, & Presenting in Business	3
ECON 1505	Personal Financial Literacy ^{GE Elective (Recommended)}	3
GE: Elective		3
GE: Lab Science		4

Semester Hours

16

Year 2**Fall**

ACCT 2602	Financial Accounting	3
BUS 2600	Business Applications of Microsoft Excel	3
ECON 2610	Principles 1: Microeconomics	3
MGT 2604	Legal and Social Responsibilities of Business GE Elective (Recommended)	3
GE: Arts and Humanities		3
Semester Hours		15

Spring

ACCT 2603	Managerial Accounting	3
BUS 3715	Principles of International Business	3
ECON 2630	Principles 2: Macroeconomics	3
FIN 3715	Planning Your Financial Future	3
MKTG 3702	Business Professionalism	1
GE: Natural Science		3
Semester Hours		16

Year 3**Fall**

ACCT 4813	Federal Taxation 1	3
BUS 3700	Business Analytics	3
FIN 3720	Business Finance	3
MGT 3725	Fundamentals of Management	3
FREE elective		2
Semester Hours		14

Spring

FIN 3726	Insurance Planning (spring term only)	3
FIN 3730	Investment Planning	3
MGT 3761	Management Information Systems	3
BUS 3710	Data Visualization with Tableau	3
Upper-level BUS elective		3
Semester Hours		15

Year 4**Fall**

ACCT 4815	Estate Planning (fall term only)	3
FIN 4833	Retirement Plans & Employee Benefits (fall term only)	3
MKTG 3703	Marketing Concepts and Practice	3
MGT 3789	Operations Management	3
Upper-Level FIN Course		3
Semester Hours		15

Spring

FIN 4838	Financial Plan Development (spring term only)	4
MGT 4850	Strategic Management	3
Upper-Level FIN Course		3
Upper-Level Business Courses		6
Semester Hours		16
Total Semester Hours		120-125

The pre-requisite for all upper level business courses includes a minimum 2.5 overall GPA.

Learning Outcomes

- Students will develop a basic understanding of individual finance.
- Students will understand the foundations of financial risk and portfolio management and apply them across dynamic settings.

- Students will understand valuation of investment choices and apply them with financial modeling.
- Students will develop a comprehensive financial plan.

Bachelor of Science in Business Administration in Finance, Financial Management Track

The Financial Management track of the Finance major focuses on managing the finances of an organization as opposed to individuals. Examples of duties include analyzing financial information and competitor data, making recommendations based on the financial information, and monitoring outcomes. Employers hiring Financial Management track students include banks, investment companies, insurance companies, financial institutions, and publicly traded and privately held companies.

CAREER OPPORTUNITIES

Financial Managers can be found in nearly all firms, government agencies, and organizations spending a great deal of time developing strategies to help the organization realize its long-term goals. Financial Managers supervise the preparation of financial reports, guide investment activities, and execute cash-management strategies.

All business majors are strongly encouraged to complete internships. Internships are career-related work experiences that enable students to apply their knowledge and skills in an organizational setting. In the WCBA, internships that are approved for academic credit must be paid. Completing a career-related internship increases a student's job opportunities upon graduation.

STUDENT EXPERIENCES

Finance students at Youngstown State University have the opportunity to build their leadership skills through various WCBA student organizations (<https://ysu.edu/academics/williamson-college-business-administration/student-organizations/>). Housed in the Lariccia School of Accounting and Finance are the Student Investment Fund, the Institute of Management Accountants, and Beta Alpha Psi, the professional business organization for accounting, finance and information system majors.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT-STUDENT SUCCESS SEMINAR		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
GENERAL EDUCATION REQUIREMENTS		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
MATH *Grade of a "C" or higher required		
MATH 2623	Quantitative Reasoning	3-6
or MATH 2623C	Quantitative Reasoning with Co-Requisite Support	
or MATH 1510	College Algebra	
or MATH 1510C	College Algebra with Co-requisite Support	
or MATH 1552	Applied Business Calculus	
or MATH 1571	Calculus 1	
ARTS & HUMANITIES (6 s.h.)		6
NATURAL SCIENCE (Select 2 Courses 7 s.h.) * ¹ course must include a lab		7
SOCIAL SCIENCE (6 s.h.)		
ECON 2610	Principles 1: Microeconomics required	3
*Grade of a "C" or higher		

ECON 2630	Principles 2: Macroeconomics	*Grade of a "C" or higher required	3
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GENERAL EDUCATION ELECTIVES (9 s.h.)

ECON 1505	Personal Financial Literacy	Recommended	3
MGT 2604	Legal and Social Responsibilities of Business	Recommended	3

General Education Elective			3
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BUSINESS TOOL COURSES

Business Tool courses must be completed with the grade of a "C" or better and CANNOT be taken Credit/No Credit.

ACCT 2602	Financial Accounting		3
ACCT 2603	Managerial Accounting		3
BUS 1500	Foundations of Business		3
BUS 2600	Business Applications of Microsoft Excel		3
BUS 2610	Collaborating, Writing, & Presenting in Business		3

BUSINESS CORE REQUIREMENTS

Upper level business courses must be completed with the grade of a "C" or higher and CANNOT be taken credit/no credit.

BUS 3700	Business Analytics		3
BUS 3710	Data Visualization with Tableau		3
BUS 3715	Principles of International Business		3
FIN 3720	Business Finance		3
MGT 3725	Fundamentals of Management		3
MGT 3761	Management Information Systems		3
MGT 3789	Operations Management		3
MKTG 3702	Business Professionalism		1
MKTG 3703	Marketing Concepts and Practice		3

Senior Capstone

MGT 4850	Strategic Management		3
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FINANCIAL MANAGEMENT REQUIRED COURSES

ACCT 3701	Intermediate Accounting 1		3
FIN 3715	Planning Your Financial Future		3
FIN 3730	Investment Planning		3
FIN 4835	Advanced Business Finance		3
FIN 4853	Financial Analysis		3
FIN 4836	Financial Markets		3

FINANCE UPPER-LEVEL COURSES (6 SH) 6

Select 2 classes (6 SH) of 3000-5000 level FIN courses. Students should consider at least one internship.

BUSINESS UPPER LEVEL COURSES (9 SH) 9

Select 3 class (9 SH) of 3000-5000-level courses from ACCT, ADV, BUS, ECON, ENT, FIN, MGT, or MKTG

FREE ELECTIVES *Hours will vary based upon what is needed for 120 SH 6

Total Semester Hours 120-125

Year 1**Fall** S.H.

YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	

BUS 1500	Foundations of Business	3
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ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	

MATH 2623	Quantitative Reasoning	3-6
or MATH 2623C	or Quantitative Reasoning with Co-Requisite Support	
or MATH 1510C	or College Algebra with Co-requisite Support	

GE: Arts & Humanities		3
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Semester Hours 13-18

Spring

ECON 1505	Personal Financial Literacy	GE Elective (Recommended)	3
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ENGL 1551	Writing 2		3
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BUS 2610	Collaborating, Writing, & Presenting in Business		3
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GE: Lab Science			4
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GE: Elective			3
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Semester Hours 16

Year 2**Fall**

ACCT 2602	Financial Accounting		3
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BUS 2600	Business Applications of Microsoft Excel		3
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ECON 2610	Principles 1: Microeconomics		3
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MGT 2604	Legal and Social Responsibilities of Business	GE Elective (Recommended)	3
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GE: Arts & Humanities			3
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Semester Hours 15

Spring

ACCT 2603	Managerial Accounting		3
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ECON 2630	Principles 2: Macroeconomics		3
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FIN 3715	Planning Your Financial Future		3
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MKTG 3702	Business Professionalism		1
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GE: Natural Science			3
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3

Semester Hours 16

Year 3**Fall**

ACCT 3701	Intermediate Accounting 1		3
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BUS 3700	Business Analytics		3
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FIN 3720	Business Finance		3
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MGT 3725	Fundamentals of Management		3
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GE: Elective			3
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Semester Hours 15

Spring

BUS 3715	Principles of International Business		3
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FIN 3730	Investment Planning		3
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FIN 4835	Advanced Business Finance		3
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MGT 3761	Management Information Systems		3
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BUS 3710	Data Visualization with Tableau		3
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Semester Hours 15

Year 4**Fall**

FIN 4836	Financial Markets		3
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MGT 3789	Operations Management		3
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MKTG 3703	Marketing Concepts and Practice		3
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Upper-Level Business Course			6
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Semester Hours 15

Spring

FIN 4853	Financial Analysis		3
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MGT 4850	Strategic Management		3
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FREE elective			3
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Upper-Level Finance Course			3
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Upper-Level Business Course	3
Semester Hours	15
Total Semester Hours	120-125

*The prerequisite for all upper-level Business Courses includes a minimum 2.5 overall GPA

Learning Outcomes

1. Students will develop a basic understanding of individual finance.
2. Students will understand the foundations of financial risk and portfolio management and apply them across dynamic settings.
3. Students will understand valuation of investment choices and apply them with financial modeling.
4. Students will develop a comprehensive financial statement analysis.

Bachelor of Science in Business Administration in Business Analytics and Economics

The BSBA in Business Analytics and Economics provides students the managerial and technical skills for data-driven decision making in an organization. Students will learn how to analyze data and apply descriptive, diagnostic, predictive and prescriptive models to business, organizational, and societal problems. The program emphasizes the ability to formulate insightful questions using data, provide actionable solutions to business and economic problems, and to interpret analytical models to improve business and economic decision making.

Career Opportunities

Graduates of this program will be data experts that have technical, quantitative, and business skills for today's increasingly data-driven professions. A non-exhaustive list of roles include data analyst, business intelligence analyst, and economic consultant in various sectors such as finance, technology, and government.

Skills

A successful student in this program will gain the following skills:

1. Analytical Skills: Strong ability to analyze and derive insights from complex data.
2. Quantitative Aptitude: Proficiency in mathematics and statistics for data-driven decision-making.
3. Effective Communication: Clear communication of complex findings to diverse audiences.
4. Programming and Technical Skills: Competence in programming fundamentals and data visualization tools.
5. Critical Thinking: The ability to think critically and approach problems strategically.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT-STUDENT SUCCESS SEMINAR		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
GENERAL EDUCATION		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3

MATH *Grade of a "C" or higher required		
MATH 2623	Quantitative Reasoning	3-6
or MATH 2623C	Quantitative Reasoning with Co-Requisite Support	
or MATH 1510	College Algebra	
or MATH 1510C	College Algebra with Co-requisite Support	
or MATH 1552	Applied Business Calculus	
or MATH 1571	Calculus 1	
GE: ARTS AND HUMANITIES (6 SH)		6
GE: NATURAL SCIENCES (7 SH) *One science course must include a lab		7
GE: SOCIAL SCIENCE (6 SH)		
ECON 2610	Principles 1: Microeconomics Required for major, grade of a "C" must be earned	3
ECON 2630	Principles 2: Macroeconomics *Required for major, grade of a "C" or higher must be earned	3
GENERAL EDUCATION ELECTIVE (9 SH)		
ECON 1505	Personal Financial Literacy Recommended	3
MGT 2604	Legal and Social Responsibilities of Business Recommended	3
GE Elective		3
BUSINESS TOOL COURSES (15 SH)		
Business Tool courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		
ACCT 2602	Financial Accounting	3
ACCT 2603	Managerial Accounting	3
BUS 1500	Foundations of Business	3
BUS 2600	Business Applications of Microsoft Excel	3
BUS 2610	Collaborating, Writing, & Presenting in Business	3
BUSINESS CORE COURSES (25 SH)		
Upper level business courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		
BUS 3700	Business Analytics	3
BUS 3710	Data Visualization with Tableau	3
BUS 3715	Principles of International Business	3
FIN 3720	Business Finance	3
MGT 3725	Fundamentals of Management	3
MGT 3761	Management Information Systems	3
MGT 3789	Operations Management	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3
Senior Capstone (3 SH)		
MGT 4850	Strategic Management	3
BUSINESS ANALYTICS AND ECONOMICS MAJOR REQUIREMENTS (21 SH)		
ECON 3701	Money and Banking	3
ECON 3710	Intermediate Microeconomic Theory ^{spring term only}	3
ECON 3712	Intermediate Macroeconomic Theory ^{fall term only}	3
ECON 3730	Advanced Excel and Business Analytics Tools	3
ECON 3735	Artificial Intelligence in Business	3
ECON 3788	Advanced Business Analytics	3
ECON 4880	Business Analytics of Economic Issues	3
BUSINESS UPPER LEVEL COURSES (9 SH)		9
Select 3 classes (9 SH) of 3000-5000 level courses from ACCT, ADV, BUS, ECON, ENT, FIN, MGT, MKTG		
FREE ELECTIVES *Hours will vary based upon what is needed for 120 SH		9
Total Semester Hours		120-125

Year 1**Fall**

YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2
BUS 1500	Foundations of Business	3
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
MATH 2623 or MATH 2623C or MATH 1510 or MATH 1510C or MATH 1552 or MATH 1571	Quantitative Reasoning or Quantitative Reasoning with Co- Requisite Support or College Algebra or College Algebra with Co-requisite Support or Applied Business Calculus or Calculus 1	3-6
GE: Elective		3

Semester Hours 13-18

Spring

BUS 2610	Collaborating, Writing, & Presenting in Business	3
ENGL 1551	Writing 2	3
ECON 2610	Principles 1: Microeconomics	3
GE Elective Course	*ECON 1505 Recommended	3
GE: Arts and Humanities		3

Semester Hours 15

Year 2**Fall**

ACCT 2602	Financial Accounting	3
BUS 2600	Business Applications of Microsoft Excel	3
ECON 2630	Principles 2: Macroeconomics	3
GE: Arts & Humanities		3
GE Elective Course	*MGT 2604 Recommended	3

Semester Hours 15

Spring

ACCT 2603	Managerial Accounting	3
BUS 3700	Business Analytics	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3
GE: Natural Science		3
Free Elective		3

Semester Hours 16

Year 3**Fall**

BUS 3710	Data Visualization with Tableau	3
ECON 3712	Intermediate Macroeconomic Theory	3
ECON 3730	Advanced Excel and Business Analytics Tools	3
MGT 3725	Fundamentals of Management	3
GE: Lab Science		4

Semester Hours 16

Spring

BUS 3715	Principles of International Business	3
ECON 3701	Money and Banking	3
ECON 3710	Intermediate Microeconomic Theory	3
FIN 3720	Business Finance	3
Upper-Level Business Course		3

Semester Hours 15

Year 4**Fall**

ECON 3735	Artificial Intelligence in Business	3
ECON 3788	Advanced Business Analytics	3
MGT 3761	Management Information Systems	3
MGT 3789	Operations Management	3
Free Elective		3

Semester Hours 15

Spring

ECON 4880	Business Analytics of Economic Issues	3
MGT 4850	Strategic Management	3
Upper-Level Business Course		3
Upper-Level Business Course		3
Free Elective		3

Semester Hours 15

Total Semester Hours 120-125

The prerequisite for all upper-level business courses includes a minimum overall 2.5 GPA

Minor in Accounting

COURSE	TITLE	S.H.
Required Courses		
ACCT 2602	Financial Accounting	3
ACCT 2603	Managerial Accounting	3
ACCT 3701	Intermediate Accounting 1	3
ACCT 3702	Intermediate Accounting 2	3
ACCT 3711	Cost Accounting	3
Total Semester Hours		15

Students interested in declaring a minor in Accounting need to complete an *Intra University Transfer Request* form with their academic advisor. Students pursuing a WCBA minor must meet all course prerequisites to enroll WCBA courses, including a minimum 2.5 overall GPA for upper level business courses. WCBA minor courses must be completed with the grade "C" or higher and cannot be taken credit/no credit.

Minor in Finance

COURSE	TITLE	S.H.
Required Courses		
ACCT 2602	Financial Accounting	3
ACCT 2603	Managerial Accounting	3
FIN 3720	Business Finance	3
Select Two of the Following:		6
FIN 3726	Insurance Planning	
FIN 3730	Investment Planning	
FIN 4835	Advanced Business Finance	
FIN 4836	Financial Markets	
FIN 4853	Financial Analysis	
Total Semester Hours		15

Students interested in declaring a minor in Finance need to complete an *Intra University Transfer Request* form with their academic advisor. Students must meet course prerequisites, including a minimum 2.5 overall GPA to enroll in upper level business courses. WCBA courses must be completed with the grade of a "C" or higher and cannot be taken Credit/No Credit.

Minor in Economics

Economics Track

COURSE	TITLE	S.H.
ECON 2610	Principles 1: Microeconomics	3
ECON 2630	Principles 2: Macroeconomics	3
12 semester hours of upper-division economics courses other than ECON 3788		12
Total Semester Hours		18

Students interested in declaring a minor in Economics need to complete an *Intra University Transfer Request* form with their academic advisor. Students must meet course prerequisites, including a minimum 2.5 overall GPA to enroll in upper level business courses. WCBA courses must be completed with the grade of a "C" or higher and cannot be taken Credit/No Credit.

Minor in Economics with Statistics

Economics with Statistics

COURSE	TITLE	S.H.
ECON 2610	Principles 1: Microeconomics	3
ECON 2630	Principles 2: Macroeconomics	3
ECON 3788	Statistics for Business and Economics 1	3
BUS 3700	Business Analytics	3
6 semester hours of electives in economics at the 3700-level or higher		6
Total Semester Hours		18

*Note per the YSU minor policy established fall 2021, this minor is not available to business and economics majors due to the number of common courses required for both major and minor.

Students interested in declaring a minor in Economics with Statistics need to complete an *Intra University Transfer Request* form with their academic advisor. Students pursuing this minor must meet all course prerequisites. All minor courses must be completed with the grade "C" or higher and cannot be taken credit/no credit.

Certificate in Accounting and Bookkeeping

Program Structure

Designed to be a standalone certificate, the program consists of a series of courses that cover essential concepts, tools, and techniques relevant to the certificate's focus area. The curriculum focuses on developing knowledge that is both relevant and applicable to various professional settings. Students must complete all required coursework to earn the certificate.

Eligibility Requirements

Enrollment in this certificate program is exclusively for students who are not in any degree program. Eligibility is contingent upon maintaining good academic standing within their primary program and a GPA that meets or exceeds the department's requirements.

COURSE	TITLE	S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	

ACCT 2602	Financial Accounting	3
ACCT 2603	Managerial Accounting	3
ACCT 4813	Federal Taxation 1	3
ACCT 4860K	Spec Tpcs Comp Acct Quickbooks	3
ACCT 4860V	Special Topics in Accounting Payroll Accounting	3
ACCT or FIN 3000-5000 level course		3
BUS 2600	Business Applications of Microsoft Excel	3
BUS 2610	Collaborating, Writing, & Presenting in Business	3
BUS 3700	Business Analytics	3
or ECON 3788	Advanced Business Analytics	
or STAT 2601	Introductory Statistics	
Total Semester Hours		31-33

Department of Management and Marketing

Welcome from the Chair

Greetings from the Department of Management and Marketing. Our goal is to provide our students with an applied education that will prepare them for success upon graduation. We do this through real-world class projects, professional skills, and certifications such as Adobe Suite, Google Analytics, Excel, active student organizations, and paid, for-credit internships. Our faculty members have extensive experience in the business world that enables them to provide our students with knowledge and skills that go beyond the traditional classroom.

Whether you're interested in marketing, sales, human resource management, supply chain management, entrepreneurship, nonprofit leadership, or business administration, we have the program to fit your needs.

Students in the Department of Management and Marketing have a wide-range of professional student organizations to choose from including: The Society for Human Resource Management (SHRM), Pi Sigma Epsilon (professional sales organization), Students in Information and Supply Chain Association, ENACTUS (national entrepreneurship organization), American Marketing Association (AMA), Student Nonprofit Leadership Organization (SNLO) and International Business Organization (IBO). Students who excel academically are invited to join Beta Gamma Sigma, the international honor society for business students.

The department is also home to the Center for Entrepreneurship and the Center for Non-Profit Leadership.

If you have any questions or would like to visit the Williamson College of Business Administration, please contact me any time.

Dr. Bruce Keillor, Chair

Department of Management and Marketing

bdkeillor@ysu.edu

(330) 941-3080

Marketing

Chair

Bruce Keillor, Ph.D., Professor, Chair

Professor

Miri Chung, Ph.D., Assistant Professor

Kendra Fowler, Ph.D., Professor

Omer Genc, Ph.D., Associate Professor

Peter A. Reday, Ph.D., Associate Professor

Christina Saenger, Ph.D., Associate Professor

Doori Song, Ph.D., Associate Professor

Ying Wang, Ph.D., Professor

Lecturer

Laura J. Dewberry, M.B.A., Senior Lecturer

Sarah Gary, M.S., Lecturer

John Rossi, M.B.A., Senior Lecturer

Donna Walsh, M.B.A., Senior Lecturer

Management

Professor

Patrick J. Bateman, Ph.D., Professor

Jeong Hoon Choi, Ph.D., Associate Professor

Ramesh Dangol, Ph.D., Professor

Rangamohan V. Eunni, D.B.A., Professor

Guohong (Helen) Han-Haas, Ph.D., Professor

Jessi Hinz, Ph.D., Assistant Professor

Alina Marculetiu, D.B.A., Assistant Professor

Lecturer

Joanna Forbes, M.S., Lecturer

Michelle L. Green, M.B.A., Lecturer

Kimberly Pleva, M.B.A., Senior Lecturer

MAJORS

- Business Administration (p. 530)
- Human Resource Management (p. 532)
- Management (p. 533)
- Management: Supply Chain Track (p. 535)
- Marketing (p. 537)
- Marketing: Professional Selling Track (p. 538)

MINORS

- Business*
- Entrepreneurship
- Marketing (p. 542)
- Management Information Systems (p. 542)*
- Nonprofit Leadership
- Professional Selling (p. 542)

(p. 542)*not available to business majors

CERTIFICATES

- Business Analytics (p. 540)
- Digital Marketing Strategy (p. 540)
- Enterprise Resource Planning (ERP) (p. 541)
- Leadership (p. 541)
- Nonprofit Leadership (p. 541)

Advertising

ADV 3710 Basic Public Relations 3 s.h.

Study of the management function which investigates and evaluates public attitudes, policies, means, and techniques used in the field to earn public understanding and acceptance.

Prereq.: sophomore standing, 2.5 GPA.

ADV 3711 Marketing Communications 3 s.h.

Examines the integration of promotional activities within a marketing context. Presents the marketing communication role of the four elements in the promotional mix then takes a holistic perspective that focuses on the interrelationships among advertising, public relations, sales promotion, and personal selling.

Prereq.: sophomore standing, 2.5 GPA.

ADV 3711H Honors Marketing Communications 3 s.h.

Examines the integration of promotional activities within a marketing context. Presents the marketing communication role of the four elements in the promotional mix then takes a holistic perspective that focuses on the interrelationships among advertising, public relations, sales promotion, and personal selling.

Prereq.: Junior standing; 2.5 GPA.

ADV 3712 Creative Strategies in IMC 3 s.h.

The creative process is related to the different message and graphic needs required in advertising, public relations, and sales promotion. Examines the synergistic possibilities of the separate efforts focused on the same creative strategy within an integrated marketing communications (IMC) campaign.

Prereq.: junior standing, 2.5 GPA.

ADV 3717 Media Planning and Buying 3 s.h.

Planning, executing, and controlling of media buys. Techniques of allocation of budget among print and electronic media explored on national, regional, and local levels familiarizing the student with syndicated media resources.

Prereq.: ADV 3711, 2.5 GPA.

ADV 3720 Introduction to Adobe Creative Cloud 3 s.h.

The Adobe Creative Cloud is a suite of programs to aid in the development and execution of graphical assets used for marketing, advertising, and branding. This course will introduce the student to the inner working of Adobe Creative Cloud programs and how they relate to one another as well as the proper usage of the programs. Through practical exercises, students will become fluent in industry standard software for line art, logos, vector graphics, and page layout for both print and web as well as tricks and time efficient techniques to keep work clean and professional.

Prereq.: sophomore standing, 2.5 GPA.

ADV 4855 IMC Campaigns 3 s.h.

Capstone course in the integrated marketing communications curriculum. By employing the fundamental theories and practices garnered from previous integrated marketing communications courses for a specific IMC problem, the focus is the development of an integrated marketing communications campaign.

Prereq.: ADV 3711, ADV 3712, ADV 3717, 2.5 GPA .

ADV 4899 Independent Study 3 s.h.

This course will allow students to develop a special topic of interest under the direct supervision of a marketing faculty member. The objective of this course is to provide the student with a strong understanding of a specific area of advertising.

Prereq.: 2.5 GPA AND special approval required.

Entrepreneurship

ENT 3700 Entrepreneurship New Venture Creation 3 s.h.

An examination of the entrepreneurial process from opportunity recognition and assessment through the launch of the new firm. Emphasis placed on exploring creativity and innovation. Students will develop a feasible business idea, present the idea as an elevator pitch, and write a business proposal.

Prereq.: BUS 1500, sophomore standing, 2.5 GPA.

ENT 3750 Entrepreneurship-Small Business Financial Management 3 s.h.

Practical application of accounting and finance concepts in small/new businesses. Emphasis on raising capital, understanding financial statements, implementing small business accounting software, and forecasting revenue, expenses, and cash flow.

Prereq.: BUS 1500 (C or better), sophomore standing, 2.5 GPA.

ENT 4800 Entrepreneurship-Business Plan Development 3 s.h.

An in-depth study of the aspects of a successful business plan. An individual business plan will be developed by students based on the analysis of a viable business concept.

Prereq.: ENT 3700, 2.5 GPA.

ENT 4850 Entrepreneurship Internship 3 s.h.

The student is given the opportunity to relate theory to practice in an on-site field experience in a new venture or local small business. Student works 12-15 hours per week under direct supervision of company management and direct guidance of faculty advisor. A weekly journal and final report are required.

Prereq.: junior standing, 2.5 GPA and special approval required, OR special approval required.

ENT 4851 Field Studies in Entrepreneurship 3 s.h.

Students work with actual problems and opportunities faced by small businesses under faculty supervision. Problems/opportunities are defined, analyzed and researched. Recommendations are developed and presented to business owners for evaluation.

Prereq.: 2.5 GPA, special approval required.

Management

MGT 2604 Legal and Social Responsibilities of Business 3 s.h.

Students will engage in an examination of the legal environment and corporate social responsibility expectations that decision makers must consider in today's business environment. Students will develop an understanding of how these factors can create complex challenges that must be navigated to ensure that organizations act in legally, ethically, and socially responsible ways.

Gen Ed: Social Science.

MGT 2605 Collective Bargaining 3 s.h.

This course examines the legal framework of collective bargaining; the economic, technological and public policy environment influencing collective bargaining; preparation for bargaining; the dynamics of the collective bargaining process; costing wages and benefits; reaching a settlement and avoiding impasse; strikes, lockouts, and pressure tactics; and alternative dispute resolution strategies.

MGT 2606 Contract Administration 3 s.h.

This course examines the elements of effective contract administration, including the rights and h.

MGT 3705 Fundamentals of Occupational Safety 3 s.h.

Overview of the broad concepts of occupational safety and health that provide a proper foundation for understanding the basic principles of workplace safety and health programs. Analysis of the regulatory environment including OSHA and Workers' Compensation; the development of safety management programs; the evaluation of workplace hazards; and discussion of the economic, political, and societal implications involving workplace safety and health.

Prereq.: junior standing, 2.5 GPA.

MGT 3714 Legal Environment of Business 3 s.h.

In-depth analysis of commercial law areas covered on the CPA exam, with emphasis on sales, secured transactions, real and personal property, insurance, bankruptcy, and commercial paper.

Prereq.: MGT 2604, junior standing, 2.5 GPA.

MGT 3715 Employee Relations 3 s.h.

Examines the current legal and social issues that affect employee relations. This course explores ways to effectively manage the workforce, while practicing ethically responsible behaviors. A survey of laws and regulations that affect the workplace and business negotiations are examined.

Prereq.: 2.5 GPA.

Prereq. or Coreq.: MGT 3725.

MGT 3725 Fundamentals of Management 3 s.h.

Emphasizes the basic principles of management rather than those involved in business organization. The nature of managerial action within an organization, formal and informal structure, process of making decisions, and interrelated activities in management.

Prereq.: BUS 1500 (C) or BUS 1500H (C), Junior standing, 2.5 GPA.

MGT 3735 Communications for Management and Business 3 s.h.

Analyzes communication and information processes as means for coordinating and controlling organizational activities. Analytical writing activities required including a long, formal report.

Prereq.: ENGL 1551, MGT 3725, permission of instructor.

MGT 3750 Managing Individuals in Organizations 3 s.h.

Study of the contributions of the fields of organizational behavior and human resources as they apply to organizational functionality. Topics include individual and group decision-making, motivation, perceptions, and attitudes as they impact human resource processes, including job design, selection, organizational development, total rewards, employee relations, and workplace health, safety, and security.

Prereq.: 2.5 GPA.

Prereq. or Coreq.: MGT 3725 (may be taken concurrently).

MGT 3755 Managing Workplace Diversity 3 s.h.

Current topics in diversity: national and international demographics of the changing face of the work force; processes that create diversity including the organization of work; managing differences in work settings; management responses to diversity; and connections to larger institutional dynamics.

Prereq.: 2.5 GPA.

Prereq. or Coreq.: MGT 3725.

MGT 3761 Management Information Systems 3 s.h.

Study of information systems and their interaction with individuals and organizations, providing a basic understanding of hardware, software, and computer technology used in information systems.

Prereq.: 2.5 GPA and junior standing.

MGT 3771 Social Media and E-Commerce 3 s.h.

Technologies available to organizations to reach customers, sell products, and create business values that continue to change and emerge. The course provides students with an understanding of social media and e-commerce technologies from a business/managerial perspective. Underlying issues surrounding the technologies, their development, and utilization of web-based initiatives are studied.

Prereq.: MGT 3725 OR MKTG 3703, 2.5 GPA.

MGT 3775 Database Management Systems 3 s.h.

Design and management of organizational data resources. Database issues include design, definition, creation, documentation update, maintenance, revision, selection, acquisition, and use. The implementation of the hierarchical, network, and relational models with emphasis on business applications.

Prereq.: MGT 3761 (C or better), 2.5 GPA.

MGT 3789 Operations Management 3 s.h.

Study of current operations management theories and practices with emphasis on direction, planning, and control of production systems. Includes detailed analysis in such areas as materials management, work measurement, quality control, scheduling, maintenance, and forecasting.

Prereq.: BUS 2600, 2.5 GPA.

MGT 4801 Leadership in Business and Society 3 s.h.

Leadership accounts for a significant part of the performance in business, non-profit organizations and government agencies. This course provides a broad understanding of leadership as phenomenon and its impact on the behavior of individuals in organizations and firm performance.

Prereq.: MGT 3725, 2.5 GPA.

MGT 4810 Compensation and Performance Appraisal 3 s.h.

Design and administration of compensation systems. Topics: pay equity, job evaluation, wage and salary structure, merit and incentive programs, benefits packages and compensation legislation. Emphasis on the role of performance appraisal in administration decision making.

Prereq.: MGT 3725, 2.5 GPA.

MGT 4818 Training and Development 3 s.h.

This course will examine the role and processes of employee development in order to maintain a productive workforce and stay competitive in today's environment. It will cover adult learning theories and principles of training and development. It will follow the training and development process from the needs assessment to the training evaluation. The course will also examine the training and development concerns such as maintaining a learning culture, ethical considerations, and future trends.

Prereq.: MGT 3725 (C or better), 2.5 GPA.

MGT 4819 Talent Selection & Acquisition 3 s.h.

The global, competitive business environment of today requires companies to look for every way possible to increase business performance. A key way to do this is by improving employee performance to gain competitive advantage. Having the right employees, in the right jobs, at the right time, will prove to increase business success. Therefore, careful selection of employees for positions becomes key for managers to succeed to at in order to exceed business goals. Employees, who have the talent to do their jobs, have been shown to perform at higher levels. This course includes an intensive analysis of programs used in talent acquisition. It will also include an overview of the human resources planning process, and how this process integrates with overall business planning & success.

Prereq.: MGT 3725 (C or better), 2.5 GPA.

MGT 4820 Supply Chain Management 3 s.h.

A comprehensive description of supply chain management practices and principles to achieve a competitive advantage in a global society and integrating these principles as a core competency in enterprise strategy. Topics include logistics, technology (information networks, ERP, SAP, operations (inventory management, transportation, warehousing, and material handling) and network designs.

Prereq.: 2.5 GPA.

Prereq. or Coreq.: MGT 3789.

MGT 4821 Business Process Integration 3 s.h.

This course examines the forces driving enterprise integration as well as the management decisions associated with the design and implementation of enterprise systems. Students successfully completing this course will have thorough understanding of enterprise integration as well as practical experience of configuring and using SAP.

Prereq.: 2.5 GPA.

Prereq. or Coreq.: MGT 3789.

MGT 4822 Scheduling and Inventory Management 3 s.h.

In this course, fundamental concepts of scheduling and inventory control such as loading, sequencing, service scheduling, economic order quantity, supply chain management, etc. will be introduced. Advanced topics e.g., efficient scheduling, delivery systems, contract management, etc. will be explored.

Prereq.: 2.5 GPA and MGT 3725.

MGT 4844 Strategic Human Resource Management 3 s.h.

Capstone course of the human resource (HR) major and should be taken in students' last semester. Purpose is to integrate knowledge within HR and across disciplines in developing and implementing HR strategy. Special focus will be given to developing the proficiencies necessary to serve as an HR consultant, especially in quantifying the impact of HR practices.

Prereq.: 2.5 GPA, OR special approval.

Prereq. or Coreq.: MGT 4810.

MGT 4844C CE Strategic Human Resource Management 3 s.h.

Capstone course of the human resource (HR) major and should be taken in students' last semester. Purpose is to integrate knowledge within HR and across disciplines in developing and implementing HR strategy. Special focus will be given to developing the proficiencies necessary to serve as an HR consultant, especially in quantifying the impact of HR practices.

Prereq.: 2.5 GPA, OR special approval.

Prereq. or Coreq.: MGT 4810.

MGT 4850 Strategic Management 3 s.h.

Analysis of problems and issues faced by organizations operating in today's dynamic environment interspersed with multiple stakeholders. Students integrate concepts and techniques learned from a range of disciplines and apply them to all levels of firms functioning in a wide variety of industries.

Prereq.: MKTG 3703, MGT 3725, FIN 3720, senior standing, 2.5 GPA, and graduation evaluation.

Gen Ed: Capstone.

MGT 4880 Special Topics in Management 1-4 s.h.

Subject matter, credit hours, and specific prerequisites to be announced in advance of each offering.

Prereq.: 2.5 GPA, special approval required.

MGT 4881 Project Management 3 s.h.

Study of project management topics regarding project planning, work breakdown structure, scheduling, PERT/CPM, controlling and managing the costs, resource allocation, project control, and project termination. Includes the environment in which project managers work and its organizational structures: functional, project, and matrix organizations. Computer-based project management software is also introduced.

Prereq.: MGT 3725, 2.5 GPA.

MGT 4882 Seminar in Logistics 3 s.h.

In-depth study of selected topic(s) in logistics. Application to practical logistics problems culminating in a written report and an oral presentation. Intended for students in the logistics minor.

Prereq.: Senior status and completion of 9 s.h. in the minor.

MGT 4883 Project Scheduling and Controlling 3 s.h.

This course will help prepare a student to manage, coordinate, and supervise the planning and scheduling process from concept development through project completion on timely and economic bases. This instruction will help facilities management, project planning; budgeting and cost control; logistics and materials management; personnel management, processes, and techniques; organization and scheduling.

Prereq.: MGT 3725; 2.5 GPA.

MGT 4895 Management Internship 3 s.h.

Offers the student the opportunity to relate theory to practice through on-the-job work experience with participating organization. Mandatory bi-weekly meetings with faculty advisor to insure maximum learning from the experience. Offered all three semesters each year based on the availability of internships. A written evaluation of the job experience is required.

Prereq.: junior standing, 2.5 GPA and special approval required, OR special approval required.

MGT 4897 Management Internship 2 3 s.h.

Offers the student the opportunity to relate theory to practice through on-the-job work experience with participating organization. Mandatory bi-weekly meetings with faculty advisor to insure maximum learning from the experience. Offered all three semesters each year based on the availability of internships. A written evaluation of the job experience is required.

Prereq.: 4895 (B or better), junior standing, 2.5 GPA AND special approval required, OR special approval required.

MGT 4899 Independent Study 1-3 s.h.

Development of a special topic of interest to the student under the direct supervision of a management faculty member. Credit hours vary according to the nature of the project.

Prereq.: 2.5 GPA, special approval required.

Marketing

MKTG 1520 Selected Marketing Topics 1-3 s.h.

Topics vary each semester. Subject matter and number of credit hours announced in advance of each offering. May be taken twice with change of topic.

Prereq.: special approval required.

MKTG 3702 Business Professionalism 1 s.h.

This course is intended to help students prepare for and accomplish a successful transition from college to a professional career. Students will be challenged to understand the various elements of business professionalism including etiquette, communications, image, conflict resolution, career exploration and job search.

Prereq.: sophomore standing, 2.5 GPA.

MKTG 3702H Honors Business Professionalism 1 s.h.

This course is intended to help students prepare for and accomplish a successful transition from college to a professional career. Students will be challenged to understand the various elements of business professionalism including etiquette, communications, image, conflict resolution, career exploration and job search.

Prereq.: BUS 1500; ACCT 2602; GPA of 2.5.

MKTG 3703 Marketing Concepts and Practice 3 s.h.

The activities involved in marketing products, services, and ideas examined within a framework of customer management. Topics include global marketing environment, market analysis and segmentation, consumer behavior, product development and management, pricing, promotion, and distribution. Marketing is examined from its role as a central function of business and non-profit organizations, and from its dominant role in a market economy.

Prereq.: sophomore standing, 2.5 GPA.

MKTG 3703H Honors Marketing Concepts Practice 3 s.h.

The activities involved in marketing products, services, and ideas examined within a framework of customer management. Topics include global marketing environment, market analysis and segmentation, consumer behavior, product development and management, pricing, promotion, and distribution. Marketing is examined from its role as a central function of business and non-profit organizations, and from its dominant role in a market economy.

Prereq.: BUS 1500 and junior standing.

MKTG 3709 Retail Marketing 3 s.h.

Retailing is the largest industry and the dominant employer in the U.S. economy. The industry is explored, with particular emphasis on understanding the activities of retailers, both large and small. Topics include shopper behavior, store location, store layout, product presentation, and customer service. The criteria for success in retailing, the impact of technology on retailing, and the retail process examined within the larger domain of marketing. Beneficial to all marketing and business majors, as well as others engaged in shopping activities.

Prereq.: MKTG 3703, 2.5 GPA.

MKTG 3720 Business to Business Marketing 3 s.h.

Characteristics of Manufacturers' goods, channels of distribution, functions of intermediaries, distribution costs, marketing research, government control, and legal limitations. Product policies, service policies, packaging policies, price policies. Industrial advertising organization, planning and budgeting, uses of advertising agencies and national advertising media, sales manuals, dealer helps.

Prereq.: MKTG 3703, 2.5 GPA.

MKTG 3726 Consumer Behavior 3 s.h.

Individual and group behavior as related to marketing consumer behavior, considered from both the standpoint of the marketing manager and from that of the individual as a consumer. The behavioral sciences serve as a background to provide standards for the social and human evaluation of current marketing activities. Topics include the buyer as problem solver, buying decision processes and models, measurement of promotional effectiveness, and life style analysis.

Prereq.: 2.5 GPA.

Prereq. or Coreq.: MKTG 3703.

MKTG 3740 Professional Selling 3 s.h.

Personal selling and sales management examined within the marketing environment. Emphasis on marketing relationships, buyer motivation and behavior, selling strategy and sales management techniques.

Prereq.: sophomore standing, 2.5 GPA.

MKTG 3742 Organizational Purchasing 3 s.h.

Examination of procurement and purchasing activities within the organization with a concentration on the multiple levels of supplier and customer relationships. Topics include current trends in procurement and sourcing, purchasing policy and procedures, supplier evaluation and selection, sourcing processes, and contract management.

Prereq.: MKTG 3703, 2.5 GPA.

MKTG 3745 Sales and Account Management 3 s.h.

The course provides an overview of sales and account management. Concepts covered include strategic planning, sales leadership, analyzing customer-client-buyer markets, and designing and developing a sales force.

Prereq.: 2.5 GPA.

Prereq. or Coreq.: MKTG 3740.

MKTG 3747 Negotiations Concepts and Strategies 3 s.h.

The purpose of this course is to understand the theory and processes of negotiation so that the student can successfully negotiate in a variety of professional settings.

Prereq.: junior standing, 2.5 GPA.

MKTG 3749 Sports Marketing 3 s.h.

The field of Sports Marketing has emerged as a notable sector in commerce over the past three decades. This course will explore strategies for marketing through sports which include conventional marketing approaches as well as innovative sponsorship strategies. The course will also examine the more specialized aspects of sports marketing which involve active measures that are designed to influence consumer preferences for a variety of sports products and service - the marketing of sports.

MKTG 3750 Product and Brand Management 3 s.h.

New product development and brand creation process from idea generation to launch; diffusion of innovation and sales forecast of new product, market entry strategy, branding of new product, business plan for new product.

Prereq.: MKTG 3703, 2.5 GPA.

MKTG 4811 Digital Marketing 3 s.h.

In-depth investigation of interactive marketing including direct response marketing and other technology-based forms of business-customer interaction including measuring the effectiveness and the integration of interactive marketing activities into the overall marketing strategy.

Prereq.: MKTG 3703, 2.5 GPA.

MKTG 4815 Marketing Research and Analytics 3 s.h.

Introduction to the major areas of marketing research. Problem definition, research design, gathering information and analysis to assist marketing management with the decision making process. Emphasis will be placed on using data and information in an applied context.

Prereq.: MKTG 3703, 2.5 GPA.

MKTG 4825 Marketing Management 3 s.h.

Comprehensive study of the management functions in marketing including organization, planning, research, merchandising, sales, advertising and promotion, marketing channels, and control related to corporate policies and objectives. Management practices covering recruiting, selection, training, equipping, compensating, and supervising.

Prereq.: MKTG 3703, MKTG 3726, 2.5 GPA.

Prereq. or Coreq.: MKTG 4815.

MKTG 4842 Special Topics in Marketing 1-3 s.h.

Topics vary each semester. Subject matter, number of credits, and prerequisites announced in advance of each topic. No more than one Special Topic per semester is permitted. May be taken twice with change of topic.

Prereq.: 2.5 GPA, special approval required.

MKTG 4845 International Marketing 3 s.h.

Development of United States trade, foreign trade promotion, organization, export and import procedures and practices. Presented from the viewpoint of the international marketing manager who must recognize differences between markets in various countries as influenced by their particular cultural and economic environments.

Prereq.: MKTG 3703, 2.5 GPA.

MKTG 4846 Marketing Channels and Logistics 3 s.h.

Consideration of the problems likely to arise in the planning for and movement of goods through channels of distribution from producer to end-user. Elements of the logistical system, including transportation modes, plant and warehouse location, and inventory size determinations. Behavioral and functional relationships with and between channel members in a supply chain.

Prereq.: MKTG 3703 and GPA of 2.5.

MKTG 4850 Marketing Internship 3 s.h.

Through employment with participating business organizations the student receives professional marketing experience. Candidates work for the entire semester at a local business organization under the direct guidance of a faculty advisor. Required paper at the end of the course on the relationship of marketing theory and practice.

Prereq.: junior standing, 2.5 GPA and special approval required, OR special approval required.

MKTG 4851 Services Marketing 3 s.h.

Cross-functional approach to the marketing of customer services in profit and non-profit organizations, including domestic and international opportunity analysis, customer analysis, financial analysis, strategy formulation, process and systems management, and quality improvement.

Prereq.: MKTG 3703, 2.5 GPA.

MKTG 4852 Marketing Internship 2 3 s.h.

This course is an extension of MKTG 4850 Marketing Internship. It is designed to allow students to continue a current internship at a more advanced level or to engage in additional internship experience.

Prereq.: MKTG 4850 (B or better), junior standing, 2.5 GPA and special approval required, OR special approval required.

MKTG 4870 Small Business/Entrepreneurship 3 s.h.

Study of the small business environment and the problems in starting a business. How small businesses apply the managerial functions in using their resources.

Prereq.: MKTG 3703.

Cross-Listed: MGT 4870.

MKTG 4871 Small Business Enterprise 3 s.h.

Students work with actual problems faced by small businesses under faculty supervision. Problems are defined, analyzed, researched. Recommendations are developed and presented to clients for evaluation.

Prereq.: MKTG 3703.

Cross-Listed: MGT 4871.

MKTG 4899 Marketing Independent Study 1-3 s.h.

This course will allow students to develop a topic of interest under the direct supervision of a marketing faculty member.

Prereq.: 2.5 GPA, special approval required.

Bachelor of Science in Business Administration in Business Administration

OVERVIEW

The Business Administration major includes all areas of business and provides students with broad exposure to accounting, finance, management, and marketing. All successful businesspeople must have an understanding of organizations and possess strong skills in the areas of communication, leadership, teamwork, communication, and critical thinking.

Business Administration majors at Youngstown State University don't specialize in one specific area of business but rather take a broad range of courses in management, accounting, finance, and marketing.

CAREER OUTLOOK

Business Administration positions are projected to grow up to 14% by 2026, depending on the industry. Demand for the services of Business Administration graduates will be based on the need for organizations to improve efficiencies and control costs.

STUDENT EXPERIENCES

Business Administration majors at Youngstown State University have the opportunity to build their leadership skills through various WCBA student organizations. Specific organizations related to Business Administration include ENACTUS, Student Nonprofit Leadership Organization, Students in Information and Supply Chain Management, and the Society for Human Resource Management.

All business majors are strongly encouraged to complete at least one internship. Internships are career-related work experiences that enable students to apply their knowledge and skills in an organizational setting. In the WCBA, internships that are approved for academic credit must be paid. Completing a career-related internship markedly improves a student's job prospects upon graduation.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT - STUDENT SUCCESS SEMINAR		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
GENERAL EDUCATION		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
MATH *Grade of a "C" or higher required		
MATH 2623	Quantitative Reasoning	3-6
or MATH 2623C	Quantitative Reasoning with Co-Requisite Support	
or MATH 1510	College Algebra	
or MATH 1510C	College Algebra with Co-requisite Support	
or MATH 1552	Applied Business Calculus	

or MATH 1571	Calculus 1	
Arts and Humanities (6 s.h.)		6
Natural Sciences (2 courses, 1 with lab) (7 s.h.)		7
Social Science		
ECON 2610	Principles 1: Microeconomics *Grade of a "C" or higher required	3
ECON 2630	Principles 2: Macroeconomics *Grade of a "C" or higher required	3
General Education Electives (9 s.h.)		
ECON 1505	Personal Financial Literacy Recommended	3
MGT 2604	Legal and Social Responsibilities of Business Recommended	3
General Education Elective		3
BUSINESS TOOL COURSES		
Business Tool courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		
ACCT 2602	Financial Accounting	3
ACCT 2603	Managerial Accounting	3
BUS 1500	Foundations of Business	3
BUS 2600	Business Applications of Microsoft Excel	3
BUS 2610	Collaborating, Writing, & Presenting in Business	3
BUSINESS CORE REQUIREMENTS		
Upper Level Business courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		
BUS 3700	Business Analytics	3
BUS 3710	Data Visualization with Tableau	3
BUS 3715	Principles of International Business	3
FIN 3720	Business Finance	3
MGT 3725	Fundamentals of Management	3
MGT 3761	Management Information Systems	3
MGT 3789	Operations Management	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3
SENIOR CAPSTONE		
MGT 4850	Strategic Management	3
BUSINESS ADMINISTRATION MAJOR REQUIREMENTS		
MGT 3750	Managing Individuals in Organizations	3
MGT 4801	Leadership in Business and Society	3
ACCT or FIN 3000-5000 Level Course		3
MGT 3000-5000 Level Course		3
MKTG or ADV 3000-5000 Level Course		3
UPPER-LEVEL BUSINESS COURSES		15
Select 15 SH of ACCT, ADV, BUS, ECON, ENT, FIN, MGT, MKTG 3000-5000 level courses		
Free Electives *hours will vary based upon what is needed for 120 SH		9
Total Semester Hours		120-125
Year 1		
Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
BUS 1500	Foundations of Business	3
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	

MATH 2623	Quantitative Reasoning	3-6
or MATH 2623C	or Quantitative Reasoning with Co-Requisite Support	
or MATH 1510	or College Algebra	
or MATH 1510C	or College Algebra with Co-requisite Support	
or MATH 1552	or Applied Business Calculus	
or MATH 1571	or Calculus 1	
GE: Elective		3
Semester Hours		13-18
Spring		
ENGL 1551	Writing 2	3
BUS 2610	Collaborating, Writing, & Presenting in Business	3
ECON 1505	Personal Financial Literacy (Recommended) ^{GE Elective}	3
ECON 2610	Principles 1: Microeconomics	3
GE: Arts & Humanities		3
Semester Hours		15
Year 2		
Fall		
ACCT 2602	Financial Accounting	3
ECON 2630	Principles 2: Macroeconomics	3
BUS 2600	Business Applications of Microsoft Excel	3
MGT 2604	Legal and Social Responsibilities of Business GE Elective (Recommended)	3
GE: Arts & Humanities		3
Semester Hours		15
Spring		
ACCT 2603	Managerial Accounting	3
BUS 3700	Business Analytics	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3
GE: Natural Science		3
Free Elective		3
Semester Hours		16
Year 3		
Fall		
BUS 3710	Data Visualization with Tableau	3
MGT 3725	Fundamentals of Management	3
MGT 3750	Managing Individuals in Organizations	3
GE: Lab Science		4
FREE ELECTIVE		3
Semester Hours		16
Spring		
BUS 3715	Principles of International Business	3
FIN 3720	Business Finance	3
Upper-Level ADV/MKTG Course		3
Upper-Level Business Course ^{Internship Recommended}		3
Upper-Level Business Course		3
Semester Hours		15
Year 4		
Fall		
MGT 3761	Management Information Systems	3
MGT 3789	Operations Management	3
Upper-Level FIN/ACCT Course		3
Upper-Level MGT Course		3

Free Elective	3
Semester Hours	15
Spring	
MGT 4801 Leadership in Business and Society	3
MGT 4850 Strategic Management	3
Upper-Level Business Course	3
Upper Level Business Course	3
Upper-Level Business Course	3
Semester Hours	15
Total Semester Hours	120-125

Learning Outcomes

The student learning outcomes are as follows:

- Students will demonstrate knowledge and understanding of general management principles.
- Students will be able to effectively communicate management concepts.

Bachelor of Science in Business Administration in Human Resource Management

Human Resource Management (HRM) professionals provide leadership for ensuring that organizations recruit, retain and develop the best employees. People are an organization's most valuable asset and HR professionals play a key role ensuring organizations have the best people. HRM will be especially attractive to those students who like working with a broad range of people and have excellent communication and negotiating skills. HR professionals can be specialists who work in one area of HR or generalists who work in multiple areas. Key HR areas include recruitment and selection, training and development, compensation and benefits, and employee relations.

The Society for Human Resource Management (SHRM) is the world's largest membership organization for HR professionals. The HR curriculum at YSU has been reviewed by SHRM and has been approved as aligned with SHRM's HR Curriculum Guidelines.

CAREER OPPORTUNITIES

Human Resource managers are employed in every industry. The field of Human Resources offers an array of potential career options including recruiters, placement managers, trainers, compensation analysts, compensation and benefits managers, employee relations managers, and safety coordinators. Executive-level positions include Vice President of HR, Chief HR Officer, and Executive Vice President.

STUDENT EXPERIENCES

Human Resource Management majors at Youngstown State University have the opportunity to build their leadership skills through various WCBA student organizations (<http://www.ysu.edu/academics/williamson-college-business-administration/student-organizations-and-experiences/>). HR majors should plan to join the student chapter of the Society for Human Resource Management. Since the HR curriculum has been approved by SHRM, HR majors who are in their senior year and who meet the eligibility requirements may apply to take the SHRM Certified Professional (SHRM-CP) exam.

All business majors are strongly encouraged to complete internships. Internships are career-related work experiences that enable students to apply their knowledge and skills in an organizational setting. In the WCBA, internships that are approved for academic credit must be paid. Completing a career-related internship increases a student's job opportunities upon graduation.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT - STUDENT SUCCESS SEMINAR		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
GENERAL EDUCATION		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
MATH *Grade of a "C" or higher required		
MATH 2623	Quantitative Reasoning	3-6
or MATH 2623C	Quantitative Reasoning with Co-Requisite Support	
or MATH 1510	College Algebra	
or MATH 1510C	College Algebra with Co-requisite Support	
or MATH 1552	Applied Business Calculus	
or MATH 1571	Calculus 1	
ARTS & HUMANITIES (Select 2 Courses 6 s.h.)		6
NATURAL SCIENCES (Select 2 Courses 7 SH) * ¹ Science course MUST include a lab		7
SOCIAL SCIENCES (6 s.h.)		
ECON 2610	Principles 1: Microeconomics *Grade of a "C" or higher required	3
ECON 2630	Principles 2: Macroeconomics *Grade of a "C" or higher required	3
GENERAL EDUCATION ELECTIVES (9 s.h.)		
ECON 1505	Personal Financial Literacy ^{Recommended}	3
MGT 2604	Legal and Social Responsibilities of Business ^{Recommended}	3
General Education Elective		3
BUSINESS TOOL COURSES		
Business tool courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		
ACCT 2602	Financial Accounting	3
ACCT 2603	Managerial Accounting	3
BUS 1500	Foundations of Business	3
BUS 2600	Business Applications of Microsoft Excel	3
BUS 2610	Collaborating, Writing, & Presenting in Business	3
BUSINESS CORE COURSES		
Upper level business courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		
BUS 3700	Business Analytics	3
BUS 3710	Data Visualization with Tableau	3
BUS 3715	Principles of International Business	3
FIN 3720	Business Finance	3
MGT 3725	Fundamentals of Management	3
MGT 3761	Management Information Systems	3
MGT 3789	Operations Management	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3
SENIOR CAPSTONE		
MGT 4850	Strategic Management	3
HUMAN RESOURCE MANAGEMENT REQUIRED COURSES		
MGT 3715	Employee Relations	3
MGT 3750	Managing Individuals in Organizations	3
MGT 4810	Compensation and Performance Appraisal ^{spring term only}	3
MGT 4818	Training and Development	3
or MGT 4819	Talent Selection & Acquisition	

MGT 4844	Strategic Human Resource Management ^{spring term only}	3
HUMAN RESOURCE UPPER-LEVEL COURSE		3
Select one of the following: MGT 3705, MGT 3755, MGT 4801, MGT 4895 or MGT 4899 ^{Internship Recommended}		
BUSINESS UPPER-LEVEL COURSES		12
Select 12 SH of ACCT, ADV, BUS, ECON, ENT, FIN, MGT, MKTG 3000-5000 level courses		
FREE ELECTIVES ^{*hours will varied based on what is needed to reach 120 SH}		9
Total Semester Hours		120-125

The prerequisite for all upper level business courses includes a minimum overall 2.5 GPA

BSBA in Human Resource Management Suggested Four-Year Plan

Year 1

Fall

YSU 1500	Success Seminar	S.H. 1-2	
or YSU 1500S	or Youngstown State University Success Seminar		
or HONR 1500	or Intro to Honors		
BUS 1500	Foundations of Business		3
ENGL 1550	Writing 1	3-4	
or ENGL 1549	or Writing 1 with Support		
MATH 2623	Quantitative Reasoning	3-6	
or MATH 2623C	or Quantitative Reasoning with Co-Requisite Support		
or MATH 1510	or College Algebra		
or MATH 1510C	or College Algebra with Co-requisite Support		
or MATH 1552	or Applied Business Calculus		
or MATH 1571	or Calculus 1		
GE: Elective			3

Semester Hours **13-18**

Spring

ENGL 1551	Writing 2	3
BUS 2610	Collaborating, Writing, & Presenting in Business	3
ECON 1505	Personal Financial Literacy ^{GE Elective (Recommended)}	3
ECON 2610	Principles 1: Microeconomics	3
GE: Arts & Humanities		3

Semester Hours **15**

Year 2

Fall

ACCT 2602	Financial Accounting	3
BUS 2600	Business Applications of Microsoft Excel	3
MGT 2604	Legal and Social Responsibilities of Business ^{GE Elective (Recommended)}	3
ECON 2630	Principles 2: Macroeconomics	3
GE: Arts & Humanities		3

Semester Hours **15**

Spring

ACCT 2603	Managerial Accounting	3
BUS 3700	Business Analytics	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3
GE: Natural Science		3

Free Elective	3
Semester Hours	16

Year 3

Fall

BUS 3710	Data Visualization with Tableau	3
MGT 3725	Fundamentals of Management	3
MGT 3750	Managing Individuals in Organizations	3
GE: Lab Science		4
Upper-Level Business Course		3

Semester Hours **16**

Spring

FIN 3720	Business Finance	3
MGT 3715	Employee Relations	3
MGT 4810	Compensation and Performance Appraisal	3
Upper-Level HR Course ^{Internship Recommended}		3
Free Elective		3

Semester Hours **15**

Year 4

Fall

BUS 3715	Principles of International Business	3
MGT 3761	Management Information Systems	3
MGT 3789	Operations Management	3
MGT 4818	Training and Development	3
or MGT 4819	or Talent Selection & Acquisition	
Upper-Level Business Course		3

Semester Hours **15**

Spring

MGT 4844	Strategic Human Resource Management (MGT 4844 (spring term only))	3
MGT 4850	Strategic Management	3
Upper-Level Business Course		3
Upper-Level Business Course		3
Free Elective		3

Semester Hours **15**

Total Semester Hours **120-125**

The per-requisite for all upper-level business courses includes a minimum 2.5 overall GPA

Learning Outcomes

Students will be able to:

- Identify and have knowledge of HR functions.
- Understand employment and labor law.
- Create a training plan.
- Identify and critique selection methods.
- Create a job and pay structure within an organization.
- Ensure HR practices are consistent with strategic goals of the organization, department, and other HR functions.

Bachelor of Science in Business Administration in Management

Management is concerned with effective and efficient utilization of resources. The BSBA in Management explores the fundamental concepts of management drawn from behavioral sciences to help students understand the nature of the rapidly changing workplace, the underlying forces contributing to this change, and leverage such understanding to enhance organizational performance.

Students pursuing the BSBA with a major in Management will take required courses that will prepare them for careers in organizational development, operations management, and corporate leadership.

Internships

All business majors are strongly encouraged to complete at least one internship. Internships are career-related work experiences that enable students to apply their knowledge and skills in an organizational setting. In the WCBA, internships that are approved for academic credit must be paid. Completing a career-related internship increases a student's job opportunities upon graduation.

Student Experiences

BSBA in Management majors at Youngstown State University have the opportunity to build their leadership skills through various WCBA student organizations (<https://ysu.edu/academics/williamson-college-business-administration/student-leadership-organizations/>).

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT - STUDENT SUCCESS SEMINAR		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
GENERAL EDUCATION		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
MATH *Grade of a "C" or higher required		
MATH 2623	Quantitative Reasoning	3-6
or MATH 2623C	Quantitative Reasoning with Co-Requisite Support	
or MATH 1510	College Algebra	
or MATH 1510C	College Algebra with Co-requisite Support	
or MATH 1552	Applied Business Calculus	
or MATH 1571	Calculus 1	
Arts and Humanities (6 s.h.)		6
Natural Sciences (7 s.h. *2 different science courses, 1 must include a lab)		7
SOCIAL SCIENCE (6 s.h.)		
ECON 2610	Principles 1: Microeconomics	*Grade of a "C" or higher required 3
ECON 2630	Principles 2: Macroeconomics	*Grade of a "C" or higher required 3
GENERAL EDUCATION ELECTIVES (9 s.h.)		
ECON 1505	Personal Financial Literacy	Recommended 3
MGT 2604	Legal and Social Responsibilities of Business	Recommended 3
General Education Elective		3
BUSINESS TOOL COURSES		
Business Tool courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		
ACCT 2602	Financial Accounting	3
ACCT 2603	Managerial Accounting	3
BUS 1500	Foundations of Business	3
BUS 2600	Business Applications of Microsoft Excel	3
BUS 2610	Collaborating, Writing, & Presenting in Business	3
BUSINESS CORE REQUIREMENTS		
Upper Level Business courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		
BUS 3700	Business Analytics	3
BUS 3710	Data Visualization with Tableau	3

BUS 3715	Principles of International Business	3
FIN 3720	Business Finance	3
MGT 3725	Fundamentals of Management	3
MGT 3761	Management Information Systems	3
MGT 3789	Operations Management	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3
SENIOR CAPSTONE		
MGT 4850	Strategic Management	3
MANAGEMENT MAJOR REQUIREMENTS		
MGT 3750	Managing Individuals in Organizations	3
MGT 4801	Leadership in Business and Society	3
MGT 4881	Project Management	3
CAREER & PROFESSIONAL DEVELOPMENT (3 SH)		
MGT 4895	Management Internship	3
or BUS 4815	Career Planning & Management	
UPPER-LEVEL MANAGEMENT COURSES (9 SH)		9
Select 3 (9 SH) MGT 3000-5000 level courses		
UPPER-LEVEL BUSINESS COURSES (9 SH)		9
Select 3 (9 SH) of ACCT, ADV, BUS, ECON, ENT, MGT, MKTG 3000-5000 level courses		
Free Electives *hours will vary based upon what is needed for 120 SH		9
Total Semester Hours		120-125
Year 1		
Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
BUS 1500	Foundations of Business	3
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
MATH 2623	Quantitative Reasoning	3-6
or MATH 2623C	or Quantitative Reasoning with Co-Requisite Support	
or MATH 1510	or College Algebra	
or MATH 1510C	or College Algebra with Co-requisite Support	
or MATH 1552	or Applied Business Calculus	
or MATH 1571	or Calculus 1	
GE: Elective		3
Semester Hours		13-18
Spring		
BUS 2610	Collaborating, Writing, & Presenting in Business	3
ENGL 1551	Writing 2	3
ECON 1505	Personal Financial Literacy ^{GE Elective (Recommended)}	3
ECON 2610	Principles 1: Microeconomics	3
GE: Arts & Humanities		3
Semester Hours		15
Year 2		
Fall		
ACCT 2602	Financial Accounting	3
BUS 2600	Business Applications of Microsoft Excel	3
MGT 2604	Legal and Social Responsibilities of Business ^{GE Elective (Recommended)}	3
ECON 2630	Principles 2: Macroeconomics	3

GE: Art & Humanities	3
Semester Hours	15
Spring	
ACCT 2603 Managerial Accounting	3
BUS 3700 Business Analytics	3
MKTG 3702 Business Professionalism	1
MKTG 3703 Marketing Concepts and Practice	3
GE: Natural Science	3
Free Elective	3
Semester Hours	16
Year 3	
Fall	
BUS 3710 Data Visualization with Tableau	3
MGT 3725 Fundamentals of Management	3
MGT 3750 Managing Individuals in Organizations	3
Upper-Level Business Course	3
GE: Lab Science	4
Semester Hours	16
Spring	
BUS 3715 Principles of International Business	3
FIN 3720 Business Finance	3
MGT 3761 Management Information Systems	3
MGT 4801 Leadership in Business and Society	3
Free Elective	3
Semester Hours	15
Year 4	
Fall	
MGT 3789 Operations Management	3
MGT 4881 Project Management	3
Upper-Level Business Course	3
Upper-Level Management Course	3
Upper-Level Management Course	3
Semester Hours	15
Spring	
MGT 4850 Strategic Management	3
MGT 4895 Management Internship	3
or BUS 4815 or Career Planning & Management	
Upper-Level Management Course	3
Upper Level Business Course	3
Free Electives	3
Semester Hours	15
Total Semester Hours	120-125

fundamental concepts of management drawn from behavioral sciences to help students understand the nature of the rapidly changing workplace, the underlying forces contributing to this change, and leverage such understanding to enhance organizational performance.

Students pursuing the Management Supply Chain Management track will take courses that will prepare them for careers in logistics, supply chain, and procurement.

All business majors are strongly encouraged to complete at least one internship. Internships are career-related work experiences that enable students to apply their knowledge and skills in an organizational setting. In the WCBA, internships that are approved for academic credit must be paid. Completing a career-related internship increases a student's job opportunities upon graduation.

Management Supply Chain Management Track majors at Youngstown State University have the opportunity to build their leadership skills through various WCBA student leadership organizations (<https://ysu.edu/academics/williamson-college-business-administration/student-organizations/>).

COURSE	TITLE	S.H.
UNIVERSITY REQUIREMENT - STUDENT SUCCESS SEMINAR		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
GENERAL EDUCATION		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
MATH *Grade of a "C" or higher required		
MATH 2623	Quantitative Reasoning	3-6
or MATH 2623C	Quantitative Reasoning with Co-Requisite Support	
or MATH 1510	College Algebra	
or MATH 1510C	College Algebra with Co-requisite Support	
or MATH 1552	Applied Business Calculus	
or MATH 1571	Calculus 1	
ARTS & HUMANITIES (6 s.h.)		6
NATURAL SCIENCE (7 s.h.)		7
Two classes, one science class must include a lab		
SOCIAL SCIENCE		
ECON 2610	Principles 1: Microeconomics	3
	*Grade of a "C" or higher required	
ECON 2630	Principles 2: Macroeconomics	3
	*Grade of a "C" or higher is required	
GENERAL EDUCATION ELECTIVES (9 s.h.)		
ECON 1505	Personal Financial Literacy	3
	Recommended	
MGT 2604	Legal and Social Responsibilities of Business	3
	Recommended	
General Education Elective		3
BUSINESS TOOL COURSE REQUIREMENTS (15 sh)		
Business Tool Course Must be completed with the grade of a "C" or higher and CANNOT be taken CR/NC		
ACCT 2602	Financial Accounting	3
ACCT 2603	Managerial Accounting	3
BUS 1500	Foundations of Business	3
BUS 2600	Business Applications of Microsoft Excel	3
BUS 2610	Collaborating, Writing, & Presenting in Business	3
BUSINESS CORE REQUIREMENTS (25 s.h.)		
All Upper-Level Business Courses must be completed with a grade of a "C" or higher and CAN NOT be taken CR/NC		
BUS 3700	Business Analytics	3
BUS 3710	Data Visualization with Tableau	3

Learning Outcomes

The student learning outcomes are as follows:

- Students will demonstrate knowledge and understanding of general management principles.
- Students will be able to effectively communicate management concepts.

Bachelor of Science in Business Administration in Management - Supply Chain Management Track

Management is concerned with the effective and efficient utilization of resources to achieve organizational goals. If resources were unlimited, there would be no need to manage them. The Management program explores the

BUS 3715	Principles of International Business	3
FIN 3720	Business Finance	3
MGT 3725	Fundamentals of Management	3
MGT 3761	Management Information Systems	3
MGT 3789	Operations Management	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3
SENIOR CAPSTONE		
MGT 4850	Strategic Management	3
MANAGEMENT REQUIRED COURSES		
MGT 3750	Managing Individuals in Organizations	3
MGT 4801	Leadership in Business and Society	3
SUPPLY CHAIN TRACK REQUIRED COURSES		
MGT 4820	Supply Chain Management	3
MGT 4821	Business Process Integration	3
Select two of the following classes.		6
MKTG 3742	Organizational Purchasing	
MKTG 3747	Negotiations Concepts and Strategies	
BUS 4849	Export Strategy	
UPPER-LEVEL BUSINESS COURSES		12
Select 12 SH of ACCT, ADV, BUS, ECON, ENT, FIN, MGT, MKTG 3000-5000 level courses		
FREE ELECTIVES * hours will vary based on what is needed for 120 SH		9
Total Semester Hours		120-125
Year 1		
Fall		
YSU 1500	Success Seminar	S.H. 1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
BUS 1500	Foundations of Business	3
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
MATH 2623	Quantitative Reasoning	3-6
or MATH 2623C	or Quantitative Reasoning with Co-Requisite Support	
or MATH 1510	or College Algebra	
or MATH 1510C	or College Algebra with Co-requisite Support	
or MATH 1552	or Applied Business Calculus	
or MATH 1571	or Calculus 1	
GE: Elective		3
Semester Hours		13-18
Spring		
BUS 2610	Collaborating, Writing, & Presenting in Business	3
ENGL 1551	Writing 2	3
ECON 1505	Personal Financial Literacy ^{GE Elective (Recommended)}	3
ECON 2610	Principles 1: Microeconomics	3
GE: Arts & Humanities		3
Semester Hours		15
Year 2		
Fall		
ACCT 2602	Financial Accounting	3
BUS 2600	Business Applications of Microsoft Excel	3
MGT 2604	Legal and Social Responsibilities of Business ^{GE Elective (Recommended)}	3

ECON 2630	Principles 2: Macroeconomics	3
GE: Arts & Humanities		3
Semester Hours		15
Spring		
ACCT 2603	Managerial Accounting	3
BUS 3700	Business Analytics	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3
GE: Natural Science		3
Free Elective		3
Semester Hours		16
Year 3		
Fall		
BUS 3710	Data Visualization with Tableau	3
MGT 3725	Fundamentals of Management	3
MGT 3750	Managing Individuals in Organizations	3
MGT 3761	Management Information Systems	3
GE: Lab Science		4
Semester Hours		16
Spring		
BUS 3715	Principles of International Business	3
FIN 3720	Business Finance	3
MGT 3789	Operations Management	3
MGT 4801	Leadership in Business and Society	3
MGT 4821	Business Process Integration	3
Semester Hours		15
Year 4		
Fall		
MGT 4820	Supply Chain Management (Upper-Level MGT Course)	3
MKTG 3742	Organizational Purchasing	3
or MKTG 3747	or Negotiations Concepts and Strategies	
or BUS 4849	or Export Strategy	
Upper Level Business Course		3
Upper Level Business Course		3
Free elective		3
Semester Hours		15
Spring		
MGT 4850	Strategic Management	3
MKTG 3747	Negotiations Concepts and Strategies	3
or BUS 4849	or Export Strategy	
or MKTG 3742	or Organizational Purchasing	
Upper- Level Business Course		3
Upper-Level Business Course		3
Free Elective		3
Semester Hours		15
Total Semester Hours		120-125

The prerequisite for all upper-level business classes includes a minimum overall 2.5 GPA

Learning Outcomes

The student learning outcomes are as follows:

- Students will demonstrate knowledge and understanding of general management principles.
- Students will be able to effectively communicate management concepts.
- Students will demonstrate data-driven decision-making ability.

Bachelor of Science in Business Administration in Marketing

The Marketing major focuses on the strategic planning and assessment of marketing as well as management of marketing, sales, advertising, and public relations personnel in a business or other organization.

Marketing revolves around the product or service of the business, promotion of the product, price at which it is sold, and how it is distributed to the customer. Professionals in marketing create and communicate marketing strategies, develop marketing campaigns, and work with sales teams to sell products.

CAREER OPPORTUNITIES

Marketing can be defined as being the intermediary function between product development and sales. There are many avenues in the field of marketing including advertising, public relations, media planning, sales strategy and more. Marketing professionals create, manage and enhance good, services and brands. The Marketing major at YSU prepares students for leadership positions in the field.

All business majors are strongly encouraged to complete at least one internship. Internships are career-related work experiences that enable students to apply their knowledge and skills in an organizational setting. In the WCBA, internships approved for academic credit must be paid. Completing a career-related internship increases a student's job opportunities upon graduation.

STUDENT EXPERIENCES

Marketing majors at Youngstown State University have the opportunity to build their leadership skills through various WCBA student organizations (<https://ysu.edu/academics/williamson-college-business-administration/student-organizations/>).

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT - STUDENT SUCCESS SEMINAR		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
GENERAL EDUCATION		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
MATH *Grade of a "C" or higher required		
MATH 2623	Quantitative Reasoning	3-6
or MATH 2623C	Quantitative Reasoning with Co-Requisite Support	
or MATH 1510	College Algebra	
or MATH 1510C	College Algebra with Co-requisite Support	
or MATH 1552	Applied Business Calculus	
or MATH 1571	Calculus 1	
ARTS & HUMANITIES (6 s.h.)		6
SOCIAL SCIENCE (6 s.h.)		
ECON 2610	Principles 1: Microeconomics *Grade of a "C" or higher required	3
ECON 2630	Principles 2: Macroeconomics *Grade of a "C" or higher required	3
NATURAL SCIENCE (Select 2 Courses 7 s.h.) One science course must include a lab		7
GENERAL EDUCATION ELECTIVES (9 s.h.)		
ECON 1505	Personal Financial Literacy Recommended	3
MGT 2604	Legal and Social Responsibilities of Business Recommended	3
General Education Elective		3

BUSINESS TOOL COURSES

Business Tool courses MUST be completed with a grade of a "C" or higher and CANNOT be taken Credit/No Credit.

ACCT 2602	Financial Accounting	3
ACCT 2603	Managerial Accounting	3
BUS 1500	Foundations of Business	3
BUS 2600	Business Applications of Microsoft Excel	3
BUS 2610	Collaborating, Writing, & Presenting in Business	3

BUSINESS CORE COURSES

Upper level business courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

BUS 3700	Business Analytics	3
BUS 3710	Data Visualization with Tableau	3
BUS 3715	Principles of International Business	3
FIN 3720	Business Finance	3
MGT 3725	Fundamentals of Management	3
MGT 3761	Management Information Systems	3
MGT 3789	Operations Management	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3

SENIOR CAPSTONE

MGT 4850	Strategic Management	3
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MARKETING MAJOR REQUIREMENTS

MKTG 3720	Business to Business Marketing	3
or MKTG 3750	Product and Brand Management	
MKTG 3726	Consumer Behavior	3
MKTG 4811	Digital Marketing	3
MKTG 4815	Marketing Research and Analytics	3
MKTG 4825	Marketing Management	3

UPPER-LEVEL MARKETING/ADVERTISING COURSES (6 SH)

Select 6 SH MKTG or ADV 3000-4000 level courses

UPPER-LEVEL BUSINESS COURSES

Select 12 SH of ADV, ACCT, ADV, BUS, ECON, ENT, MGT, MKTG 3000-5000 level courses

FREE ELECTIVES *Hours will vary based upon what is needed to reach 120 SH **6**

Total Semester Hours **120-125**

The prerequisite for all upper-level business courses includes a minimum 2.5 overall GPA.

Year 1

Fall		S.H.
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	
BUS 1500	Foundations of Business	3
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
MATH 2623	Quantitative Reasoning	3-6
or MATH 2623C	or Quantitative Reasoning with Co-Requisite Support	
or MATH 1510	or College Algebra	
or MATH 1510C	or College Algebra with Co-requisite Support	
or MATH 1552	or Applied Business Calculus	
or MATH 1571	or Calculus 1	
GE: Elective		3
Semester Hours		13-18

Spring		
ENGL 1551	Writing 2	3
BUS 2610	Collaborating, Writing, & Presenting in Business	3
ECON 1505	Personal Financial Literacy ^{GE Elective (Recommended)}	3
ECON 2610	Principles 1: Microeconomics	3
GE: Arts & Humanities		3
Semester Hours		15
Year 2		
Fall		
ACCT 2602	Financial Accounting	3
BUS 2600	Business Applications of Microsoft Excel	3
MGT 2604	Legal and Social Responsibilities of Business ^{GE Elective (Recommended)}	3
ECON 2630	Principles 2: Macroeconomics	3
GE: Arts & Humanities		3
Semester Hours		15
Spring		
ACCT 2603	Managerial Accounting	3
BUS 3700	Business Analytics	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3
GE: Natural Science		3
Free Elective		3
Semester Hours		16
Year 3		
Fall		
BUS 3710	Data Visualization with Tableau	3
BUS 3715	Principles of International Business	3
MGT 3725	Fundamentals of Management	3
MKTG 3726	Consumer Behavior	3
GE: NS with Lab		4
Semester Hours		16
Spring		
FIN 3720	Business Finance	3
MGT 3761	Management Information Systems	3
MKTG 3750 or MKTG 3720	Product and Brand Management or Business to Business Marketing	3
MKTG 4811	Digital Marketing	3
Upper-Level Business Course		3
Semester Hours		15
Year 4		
Fall		
MGT 3789	Operations Management	3
MKTG 4815	Marketing Research and Analytics	3
Upper-Level Business Course		3
Upper-Level Marketing/Advertising Course		3
Free Elective		3
Semester Hours		15
Spring		
MGT 4850	Strategic Management	3
MKTG 4825	Marketing Management	3
Upper-Level Marketing/Advertising Course		3
Upper-Level Business Course		3

Upper-Level Business Course	3
Semester Hours	15
Total Semester Hours	120-125

The prerequisite for all upper-level business classes includes a minimum 2.5 overall GPA

Learning Outcomes

1. Students will demonstrate knowledge and understanding of the marketing mix.
2. Students will demonstrate effective business communication skills.
3. Students will be able to recognize, analyze, and solve marketing problems.

Bachelor of Science in Business Administration in Marketing Professional Selling Track

Marketing revolves around the product or service of the business, promotion of the product, price at which it is sold, and how it is distributed to the customer. Professionals in marketing create and communicate marketing strategies, develop marketing campaigns, and work with sales teams to sell products. The Marketing major offers two tracks for students to specialize in based upon their career goals.

The Professional Selling Track in Marketing prepares students for careers in professional, business-to-business selling. Careers in sales are some of the highest paid and most rewarding for new business graduates.

CAREER OPPORTUNITIES

Professional selling directs the sales of goods, products, and/or services for a company or organization. Sales jobs can be found in virtually every industry including wholesale and retail trade, manufacturing, and services industries. Employment of Sales Managers is expected to grow significantly within the next 10 years as new organizations develop and existing organizations expand.

All business majors are strongly encouraged to complete at least one internship. Internships are career-related work experiences that enable students to apply their knowledge and skills in an organizational setting. In the WCBA, internships that are approved for academic credit must be paid. Completing a career-related internship increases a student's job opportunities upon graduation.

STUDENT EXPERIENCES

Marketing majors at Youngstown State University have the opportunity to build their leadership skills through various student organizations (<http://www.ysu.edu/academics/williamson-college-business-administration/student-organizations-and-experiences/>).

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT - STUDENT SUCCESS SEMINAR		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
GENERAL EDUCATION		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Math *Grade of a "C" or higher required		
MATH 2623	Quantitative Reasoning	3-6
or MATH 2623C	Quantitative Reasoning with Co-Requisite Support	
or MATH 1510	College Algebra	

or MATH 1510C College Algebra with Co-requisite Support	
or MATH 1552 Applied Business Calculus	
or MATH 1571 Calculus 1	
Arts and Humanities (6 s.h.)	6
Natural Sciences (2 courses, 1 with lab) (7 s.h.)	7
Social Science (Select 2 courses 6 s.h.)	
ECON 2610 Principles 1: Microeconomics	*Grade of a "C" or higher required 3
ECON 2630 Principles 2: Macroeconomics	*Grade of a "C" or higher required 3
General Education Electives (9 s.h.)	
ECON 1505 Personal Financial Literacy	Recommended 3
MGT 2604 Legal and Social Responsibilities of Business	recommended 3
General Education Elective	3
BUSINESS TOOL COURSES	
Business Tool courses must be completed with the grade of a "C" or higher and cannot be taken Credit/no Credit.	
ACCT 2602 Financial Accounting	3
ACCT 2603 Managerial Accounting	3
BUS 1500 Foundations of Business	3
BUS 2600 Business Applications of Microsoft Excel	3
BUS 2610 Collaborating, Writing, & Presenting in Business	3
BUSINESS CORE COURSES	
Upper level business courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.	
BUS 3700 Business Analytics	3
BUS 3710 Data Visualization with Tableau	3
BUS 3715 Principles of International Business	3
FIN 3720 Business Finance	3
MGT 3725 Fundamentals of Management	3
MGT 3761 Management Information Systems	3
MGT 3789 Operations Management	3
MKTG 3702 Business Professionalism	1
MKTG 3703 Marketing Concepts and Practice	3
SENIOR CAPSTONE	
MGT 4850 Strategic Management	3
MARKETING PROFESSIONAL SELLING TRACK REQUIRED COURSES	
MKTG 3726 Consumer Behavior	3
MKTG 3740 Professional Selling	3
MKTG 3742 Organizational Purchasing	*Fall only class 3
MKTG 3745 Sales and Account Management	3
MKTG 3747 Negotiations Concepts and Strategies	*spring only 3
MKTG 4815 Marketing Research and Analytics	3
MKTG 4825 Marketing Management	3
UPPER-LEVEL BUSINESS COURSES	12
Select 12 SH ACCT, ADV, BUS, ECON, ENT, FIN, MKTG, MGT 3000-5000 level courses.	
FREE ELECTIVES	*hours will vary based upon what is needed to reach 120 SH 6
Total Semester Hours	120-125
Year 1	
Fall	
YSU 1500 Success Seminar	S.H. 1-2
or YSU 1500S or Youngstown State University Success Seminar	
or HONR 1500 or Intro to Honors	
BUS 1500 Foundations of Business	

ENGL 1550 Writing 1	3-4
or ENGL 1549 or Writing 1 with Support	
MATH 2623 Quantitative Reasoning	3-6
or MATH 2623C or Quantitative Reasoning with Co-Requisite Support	
or MATH 1510 or College Algebra with Co-requisite Support	
MATH 1510C or Applied Business Calculus	
or MATH 1552 or Calculus 1	
GE: Elective	3
Semester Hours	
13-18	
Spring	
ENGL 1551 Writing 2	3
BUS 2610 Collaborating, Writing, & Presenting in Business	3
ECON 1505 Personal Financial Literacy	GE Elective (Recommended) 3
ECON 2610 Principles 1: Microeconomics	3
GE: Arts & Humanities	3
Semester Hours	
15	
Year 2	
Fall	
ACCT 2602 Financial Accounting	3
BUS 2600 Business Applications of Microsoft Excel	3
MGT 2604 Legal and Social Responsibilities of Business	3
	GE Elective (Recommended)
ECON 2630 Principles 2: Macroeconomics	3
GE: Arts & Humanities	3
Semester Hours	
15	
Spring	
ACCT 2603 Managerial Accounting	3
BUS 3700 Business Analytics	3
MKTG 3702 Business Professionalism	1
MKTG 3703 Marketing Concepts and Practice	3
GE: Natural Science	3
Free Elective	3
Semester Hours	
16	
Year 3	
Fall	
BUS 3710 Data Visualization with Tableau	3
BUS 3715 Principles of International Business	3
MGT 3725 Fundamentals of Management	3
MKTG 3740 Professional Selling	3
GE: Lab Science	4
Semester Hours	
16	
Spring	
FIN 3720 Business Finance	3
MGT 3761 Management Information Systems	3
MKTG 3726 Consumer Behavior	3
MKTG 3745 Sales and Account Management	3
Upper-Level Business Course	Internship Recommended 3
Semester Hours	
15	
Year 4	
Fall	
MGT 3789 Operations Management	3
MKTG 4825 Marketing Management	3
MKTG 3742 Organizational Purchasing	3

MKTG 4815	Marketing Research and Analytics	3
Upper-Level Business Course		3
Semester Hours		15
Spring		
MKTG 3747	Negotiations Concepts and Strategies	3
MGT 4850	Strategic Management	3
Upper-Level Business Course		3
Upper-Level Business Course		3
Free Elective		3
Semester Hours		15
Total Semester Hours		120-125

The prerequisite for all upper-level business courses includes a minimum 2.5 overall GPA.

Learning Outcomes

- 1. Students will demonstrate knowledge and understanding of the marketing mix.
- 2. Students will demonstrate effective business communication skills.
- 3. Students will be able to recognize, analyze, and solve marketing problems.

Certificate in Business Analytics Overview

This Business Analytics certificate program is ideal for individuals looking to enhance their analytical skills, understand business trends, and make data-driven decisions. Upon completion, you will be well-equipped to harness the power of data in any business setting. Designed for aspiring professionals, this program equips you with the essential tools and skills to analyze, interpret, and leverage data in various business contexts.

Business Applications of Microsoft Excel: This course provides a foundation in Microsoft Excel, focusing on its powerful applications in business. From basic operations to advanced functions, learn how to manage, analyze, and visualize data effectively using Excel.

Business Analytics: Explore the core concepts of business analytics, including methodologies and practices for data analysis in a business environment. This course emphasizes practical skills in analyzing data, understanding trends, and making data-driven decisions.

Data Visualization with Tableau: Learn the art and science of data visualization using Tableau. This course teaches you how to create compelling and informative visual representations of data, a crucial skill for communicating insights to stakeholders.

Advanced Excel and Business Analytics Tools: Building upon basic Excel skills, this course delves into advanced techniques and explores additional analytics tools. Gain proficiency in sophisticated data analysis methods and tools that are widely used in the industry.

Artificial Intelligence in Business: This forward-looking course covers the fundamentals of artificial intelligence (AI) in the business context. Understand how AI technologies are transforming business operations, decision-making processes, and customer interactions.

Career Opportunities

A Certificate in Business Analytics equips individuals with versatile skills that open doors to a variety of career paths. Key opportunities include roles like Business Analyst, where one interprets data to improve business decisions, Data Analyst, focusing on transforming data into actionable insights, and Market Research Analyst, who assesses market trends for product viability. These roles are widely sought in industries ranging from finance and marketing

to healthcare and technology, making business analytics a valuable asset in the modern professional landscape.

COURSE	TITLE	S.H.
BUS 2600	Business Applications of Microsoft Excel	3
BUS 3700	Business Analytics	3
BUS 3710	Data Visualization with Tableau	3
BUS 3730	Advanced Excel and Business Analytics Tools	3
BUS 3735	Artificial Intelligence in Business	3
Total Semester Hours		15

Students interested in declaring this certificate need to complete an *Intra University Transfer Request* form with their academic advisor. Students must meet course prerequisites, including a minimum 2.5 overall GPA to enroll in upper-level business courses. WCBA courses must be completed with the grade of a "C" or higher and cannot be taken Credit/No Credit.

Certificate in Digital Marketing Strategy Overview

Businesses of all sizes, and selling every type of product, rely on digital marketing to reach and strengthen relationships with customers. Companies are now spending record budgets on advertising on the Internet, mobile, and social media platforms. For this reason, there is a growing need for highly trained professionals who understand both technology and marketing to develop strategies to take full advantage of digital media to accomplish company goals.

Digital Marketing is the promotion of products or brands using multiple channels, technologies, and electronic media (e.g., email, websites, social media, text messaging, instant messaging, video, apps, and podcasts) that allow an organization to analyze campaigns, content, and strategy. A certificate in digital marketing strategy integrates digital technology and marketing to prepare students for new and emerging jobs related to analytics, search engine optimization, e-detailing, site design, Internet research, digital demographics, personalization, customer relationship management, information architecture, social media, e-commerce, and media design.

Career Opportunities

If you're interested in launching a career in marketing, advertising, or content creation, this certificate could be the advantage you need. Students completing the certificate will earn industry recognized certifications in digital marketing. These career enhancing tools and skills are assets students can include on resumes and speak to on interviews, which will help them stand-out in a highly competitive market when looking for top internships and jobs.

Students interested in learning more about digital marketing through a certificate would need to complete the following requirements:

COURSE	TITLE	S.H.
MKTG 3703	Marketing Concepts and Practice	3
ADV 3711	Marketing Communications	3
MGT 3771	Social Media and E-Commerce	3
MKTG 4811	Digital Marketing	3
Total Semester Hours		12

Students interested in declaring this certificate need to complete an *Intra University Transfer Request* form with their academic advisor. Students must meet course prerequisites, including a minimum 2.5 overall GPA to enroll in upper-level business courses. WCBA courses must be completed with the grade of a "C" or higher and cannot be taken Credit/No Credit.

Students completing the certificate will earn industry recognized certifications in digital marketing.

Certificate in Enterprise Resource Planning (ERP)

Contact: Dr. Bruce Keillor, Chair, Department of Management and Marketing, 330.941.3080

bckeillor@ysu.edu

Enterprise Integration involves the integration of software, hardware, and networking technology at both the intra-organizational and inter-organizational levels. To be successful, management must implement a business process view of the organization. The ERP Certificate enables students to be effective users of integrated ERP software and effective participants in managing the evaluation, installation, and use of ERP software.

COURSE	TITLE	S.H.
MGT 3761	Management Information Systems	3
or ACCT 3709	Accounting Information Systems	
MGT 3789	Operations Management	3
MGT 4821	Business Process Integration	3
MGT 4820	Supply Chain Management	3
Total Semester Hours		12

Students interested in declaring an ERP certificate need to complete an *Intra University Transfer Request* form with their academic advisor. Students must meet course prerequisites to be eligible to enroll in WCBA courses, including a minimum 2.5 overall GPA for upper level business courses. WCBA courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

Learning Outcomes

- Would acquire the knowledge and skills needed for careers in organizations that employ ERP systems to support key business processes.
- Would receive an applied enterprise systems educational experience and hands-on practice in SAP.
- Would be able to configure an ERP system and apply it to support integrated business processes.
- Would successfully integrate logistics, operations and procurement management.

Certificate in Leadership

The Certificate in Leadership provides YSU students with a broad understanding of leadership as a phenomenon and its impact on the organizational behavior of individuals and firm performance.

COURSE	TITLE	S.H.
BUS 1500	Foundations of Business	3
or BUS 1500H	Honors Foundations of Business	
MGT 3715	Employee Relations	3
MGT 3725	Fundamentals of Management	3
MGT 3755	Managing Workplace Diversity	3
MGT 4801	Leadership in Business and Society	3

Students interested in declaring this certificate need to complete an *Intra University Transfer Request* form with their academic advisor. Students must meet course prerequisites, including a minimum 2.5 overall GPA to enroll in upper level business courses. WCBA courses must be completed with the grade of a "C" or higher and cannot be taken Credit/No Credit.

Learning Outcomes

- Identification and knowledge of leadership and management (how they are similar and different, and importance of both)
- Understand the impact of leadership styles on organizational performance
- Understand how leadership and diversity influence organizational effectiveness
- Understand and apply social influence principles

Certificate in Nonprofit Leadership

Learning Outcomes

- Evaluate the management of regional nonprofit organizations through the use of case studies.
- Analyze the use of financial information in the management of a nonprofit organization.
- Apply the important role fundraising plays in a nonprofit organization and the various revenue sources sought by nonprofit organizations.
- Understanding of societal needs and how a nonprofit organization meets those needs on a local, national, and/or global level.
- Understanding of basic nonprofit management principles including strategic planning, human resource planning, risk management, and the role of marketing/communications.
- Explore paid and volunteer positions available in the nonprofit sector.
- Create a professional network of nonprofit professionals regionally and beyond.

The following courses are required for the Certificate in Nonprofit Leadership:

COURSE	TITLE	S.H.
BUS 1500	Foundations of Business	3
or BUS 1500H	Honors Foundations of Business	
BUS 3720	Nonprofit Leadership	3
BUS 3740	Nonprofit Community Service 1	1
BUS 3780	Financial Management and Fundraising for Nonprofit Organizations	3
MKTG 3702	Business Professionalism	1
Total Semester Hours		11

Students interested in declaring a certificate in Nonprofit Leadership need to complete an *Intra University Transfer Request* form with their academic advisor. Students must meet all course prerequisites to enroll in WCBA courses, including a minimum 2.5 overall GPA for upper-level business courses. WCBA courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

Minor in Entrepreneurship

COURSE	TITLE	S.H.
BUS 1500	Foundations of Business	3
ENT 3700	Entrepreneurship New Venture Creation	3
ENT 3750	Entrepreneurship-Small Business Financial Management	3
MGT 3725	Fundamentals of Management	3
MKTG 3740	Professional Selling	3
Total Semester Hours		15

Students interested in declaring a minor in Entrepreneurship need to complete and *Intra University Transfer Request* form with their academic advisor. Student must meet course prerequisites to enroll in WCBA courses, including a minimum 2.5 overall GPA for upper level business courses. WCBA courses

must be completed with the grade of "C" or higher and cannot be taken credit/no credit.

Minor in Management Information Systems

Youngstown State University students are invited to enhance their educational experience with a minor in Management Information Systems. Management information Systems (MIS) provides information that organizations require to manage themselves efficiently and effectively; typically, computer systems are used for managing organizations. Students interested in learning more about the field of Management Information Systems through a minor would need to complete the following requirements:

COURSE	TITLE	S.H.
Required Courses		
BUS 1500	Foundations of Business	3
MGT 3725	Fundamentals of Management	3
MGT 3761	Management Information Systems	3
MGT 3771	Social Media and E-Commerce	3
BUS 4813	Design Thinking	3
Total Semester Hours		15

If any of the above courses are part of the student's major, an alternate course needs to be substituted. Students interested in declaring a minor in Management Information Systems need to complete an *Intra University Transfer Request* form with their academic advisor. Students must meet all course prerequisites to enroll in WCBA courses, including a minimum 2.5 overall GPA for upper level business courses. WCBA courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

Minor in Marketing

Youngstown State University students are invited to enhance their educational experience with a minor in Marketing. Marketing deals with processes that provide products and services to buyers with the goal of satisfying their needs and wants. Students interested in learning more about the field of marketing through a minor would need to complete the following requirements:

COURSE	TITLE	S.H.
Required Courses		
MKTG 3703	Marketing Concepts and Practice	3
MKTG 3740	Professional Selling	3
MARKETING COURSES		6
Select 6 SH of upper level MKTG and/or ADV courses		
Total Semester Hours		12

Students interested in declaring a minor in Marketing need to complete an *Intra University Transfer Request* form with their academic advisor. Students must meet course prerequisites to enroll in WCBA courses, including a minimum 2.5 overall GPA for upper level business courses. WCBA courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.

Minor in Nonprofit Leadership

COURSE	TITLE	S.H.
BUS 1500	Foundations of Business	3
BUS 3720	Nonprofit Leadership	3

BUS 3780	Financial Management and Fundraising for Nonprofit Organizations	3
MKTG 3702	Business Professionalism	1
BUS 3740	Nonprofit Community Service 1	1
Select One of the Following Options		3-4
BUS 4840	Nonprofit Leadership Internship (AND BUS 4841 Nonprofit Leadership Seminar) *4 SH combined	
BUS 4813	Design Thinking *3 SH	
Total Semester Hours		14-15

Students interested in declaring this minor need to complete an *Intra University Transfer Request* form with their academic advisor. Students must meet course prerequisites, including a minimum 2.5 overall GPA to enroll in upper level business courses. WCBA courses must be completed with the grade of a "C" or higher and cannot be taken Credit/No Credit.

Minor in Professional Selling

Most professional business careers require strong sales skills—whether you're selling products and services to customers or ideas and expertise to clients. In many organizations the performance of the sales force is often the most critical to the overall success of the firm. The Professional Selling minor in the Williamson College of Business Administration enables students to develop knowledge and skills in sales and sales management that will be useful and complement their major. The Professional Selling minor can be met through successful completion of the following requirements:

COURSE	TITLE	S.H.
MKTG 3703	Marketing Concepts and Practice	3
MKTG 3740	Professional Selling	3
MKTG 3745	Sales and Account Management	3
MKTG 3742	Organizational Purchasing	3
or MKTG 3747	Negotiations Concepts and Strategies	
Total Semester Hours		12

Students interested in declaring a minor in Sales need to complete an *Intra University Transfer Request* form with their academic advisor. Students must meet course prerequisites, including a minimum 2.5 overall GPA to enroll in upper level business courses. WCBA courses must be completed with the grade of a "C" or higher and cannot be taken Credit/No Credit.

Department of Communication

OVERVIEW

In the Department of Communication we believe in shaping not just graduates, but better humans. Our mission is to equip students with the essential skills needed to thrive in today's dynamic world.

Students in our programs can expect to develop:

Highly Sought-After Skills: Communication consistently ranks as a top skill sought by employers, according to reputable sources such as NACE, Monster, Forbes, and other major publications. Whether it's presentational speaking, writing, or digital communication, our students are well-prepared for the ever-changing workforce.

Universal Relevance: Communication transcends boundaries and impacts every discipline, industry and culture. Communication skills can be applied in business, technology, politics or the arts. No matter where you go, effective communication is your key to success.

Professional Flexibility: Our programs are designed to prepare students for the real world. From interpersonal skills to cutting edge technology, we provide a comprehensive toolkit that is applicable in every industry.

CAREER OPPORTUNITIES

Communication is all about learning how to communicate information effectively. Strong communication skills are essential in all industries and are invaluable in helping organizations succeed. The Department of Communication prepares students for careers in broadcasting, social media, public relations, journalism, video production and content creation.

STUDENT EXPERIENCES

There are many experiences available to our students. For example, Lambda Pi Eta, a communication honorary society, recognizes our outstanding students and provides opportunities for greater involvement and leadership within the field of communication. Opportunities for active involvement in content creation and production are available with YSU Athletics (<http://www.ysusports.com>) (NCAA D1 sports productions), *The Jambar* (YSU's student newspaper), Rookery Radio (<http://www.rookeryradio.com>), and several student produced shows.

Dr. Mary Beth Earnhardt, Chair

The Department of Communication

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Chair

Mary Beth Earnhardt, Ph.D., Professor, Chair

Professor

Rebecca M. L. Curnalia, Ph.D., Professor

Adam C. Earnhardt, Ph.D., Professor

Jeffrey L. Tyus, Ph.D., Professor

Cary Wecht, Ph.D., Professor

Lecturer

Paul Ditchey, M.Ed., Senior Lecturer

Jaietta Jackson, M.A., Senior Lecturer

Dorian Mermer, M.A., Senior Lecturer

Majors

Bachelor of Arts in Communication

- Community Engagement and Organization Track (p. 548)
- Strategic Organizational Communication Track (p. 550)
- Social Media Track (p. 551)

Bachelor of Arts in Journalism

- Journalism (p. 553)
- Journalism Sports Information (p. 556)

Bachelor of Arts in Multimedia Communication

- Multimedia Communication (p. 557)
- Sports Broadcasting Track (p. 560)

Minors

- Minor in Communicating in Diverse Organizations (p. 562)
- Minor in Communication Studies (p. 562)
- Minor in Interpersonal Communication (p. 562)
- Minor in Journalism (p. 562)
- Minor in Multimedia Communication (p. 562)
- Minor in Social Media Campaigns (p. 562)
- Minor in Sports Information (p. 563)

CMST 1500 Exploring Communication 3 s.h.

Introduction to the world of media, journalism and communication with a focus on various functional areas and career opportunities. Development of the requirements of the communication professional including teamwork, information gathering and communication skills.

CMST 1545 Communication Foundations 3 s.h.

Theories, strategies, and skills for competent participation in interpersonal, group, and public communication situations. Application exercises in interpersonal, group, and public communication.

Prereq.: Qualified to take ENGL 1549 or ENGL 1550.

Gen Ed: Oral Composition.

CMST 1545H Honors Communication Foundations 3 s.h.

Theories, strategies, and skills for competent participation in interpersonal, group, and public communication situations. Application exercises in interpersonal, group, and public communication.

Prereq.: Qualified to take ENGL 1550.

Gen Ed: Oral Composition.

CMST 2600 Communication Theory 3 s.h.

The study of significant theories of communication that reflect the diversity of communication studies and address different communication contexts: interpersonal, group, public, organizational, and mass.

Gen Ed: Social Science.

CMST 2610 Intercultural Communication 3 s.h.

The study of key historical and contemporary theories that affect communication across cultural boundaries. Exercises for improving communication skills in intercultural communication situations are included.

Gen Ed: Social Science, Social and Personal Awareness.

CMST 2620 Science Communication 3 s.h.

Project-based course in planning and disseminating public messages that explain and use science ethically and effectively to inform and influence people.

Gen Ed: Oral Composition.

CMST 2630 Social Media Literacy 3 s.h.

Analyze and evaluate social media communication in its variety of forms. Includes message evaluation, digital media curating, ethics and privacy.

CMST 2650 Rhetoric of Film 3 s.h.

Conceptual examination and critical analyses of film including mythic, feminism, Marxist, auteur, genre, and rhetorical perspectives.

Prereq.: ENGL 1551.

CMST 2654 Community Engagement & Relations 3 s.h.

Examination of various socio-cultural, leadership, and organizational theories relative to community engagement and relations. Exploration of the reciprocal relationship between organizations and community including mission and goal statements, programming, community feedback, internal and external communication and social movements.

CMST 2655 Communication in Groups 3 s.h.

An introduction to theories and concepts relating to group communication effectiveness with practical career applications.

CMST 2656 Interpersonal Communication 3 s.h.

An examination of the skills necessary to develop, maintain, and evaluate one-to-one relationships. Through practical experiences from everyday life, the class examines what occurs when one person communicates with another.

CMST 3700 Designing Communication Research 3 s.h.

A study of the processes involved in designing both qualitative and quantitative communication research projects. Communication research design and implementation.

Prereq.: 15 s.h. of Communication Studies including CMST 2600, and ENGL 1551.

CMST 3717 Intro to Media Relations Campaigns 3 s.h.

An experiential, service-learning course in designing and implementing Media Relations campaigns.

Prereq.: CMST 1545.

CMST 3740 Social Media Communication 3 s.h.

Examination of applications and strategies for communicating through social media, including managing personal and professional social media messages, social media content development, and dissemination.

Prereq.: CMST 2630.

CMST 3745 Individual Studies 1-3 s.h.

Student selects a special problem or issue in communication to research in detail under the direction of a faculty member, pending department committee approval. Repeatable to 6 hours.

Prereq.: Permission of instructor.

CMST 3746 Presentational Speaking 3 s.h.

In depth examination of the theory and practice of preparing and delivering presentations in today's work environment with emphasis of the impact of internet technology on the forms of oral communication presentations.

Prereq.: CMST 1545 or equivalent.

CMST 3747 Film Analysis: A Rhetorical Perspective 3 s.h.

Audience and critical rhetorical analysis of films. Approaches include Mythic, Genre, Auteur, Feminist, and Marxist with a focus on the rhetorical dimensions of the various perspectives.

CMST 3750 Gender Communication 3 s.h.

Principal concepts and issues of gender and communication as they apply to identity, and communication within and between the genders in a variety of contexts.

CMST 3754 Argumentation and Advocacy 3 s.h.

Developing critical thinking through systematic evaluation of critical thinking theories, principles, and practices of argumentation. This course will discuss critical thinking occurring in reading, writing, listening, and spoken discourse.

Prereq.: CMST 1545.

CMST 3754C CE Argumentation and Advocacy 3 s.h.

Developing critical thinking through systematic evaluation of critical thinking theories, principles, and practices of argumentation. This course will discuss critical thinking occurring in reading, writing, listening, and spoken discourse.

Prereq.: CMST 1545.

CMST 3756 Interviewing 3 s.h.

Theories of communication applied to interview situations with a special concern for developing student understanding of and skills needed to participate in one-to-one and panel interviews.

Prereq.: CMST 1545.

CMST 3757 Media Relations Writing 3 s.h.

A lecture-lab course in writing pamphlets, advertisements, newsletters, and websites for media relations campaigns.

Prereq.: ENGL 1551.

CMST 3790 Personal Brand Communication 3 s.h.

Introduction to the concepts personal brand communication, media image management, personal image repair, review of name-image-likeness (NIL) principles and practices.

CMST 4850 Social Media Campaigns 3 s.h.

Integrated media campaign development using social media applications; theory and practice of social media campaign lifecycles including inception, implementation, and evaluation of client-based projects.

Prereq.: CMST 1545.

CMST 4851 New Communication Media 3 s.h.

New media histories, technologies, and cultures. Considers promising future forms, and includes issues of authorship, community, identity, interactivity, visuality, the nature and power of technology, intelligent systems, and artificial life.

Prereq.: CMST 2600.

CMST 4855 Interpersonal Communication Relationships 3 s.h.

Theories of relationship development, maintenance and termination. The impact of face-to-face and mediated communication on interpersonal relationships.

Prereq.: CMST 2600 and CMST 2656.

CMST 4859 Organizational Cultures 3 s.h.

Analysis of organizational cultures. Relationships between organizational culture and communication in modern organizations.

CMST 4879 Sports Communication Message Design 3 s.h.

Integrated media campaign development using theory and practice of communication. Students will explore lifecycles of sports information campaigns including inception, implementation, and evaluation of projects.

Prereq.: CMST 2600.

CMST 4896 Communication Internship 3 s.h.

Application of communication skills through supervised work experience. Students complete a minimum of 180 work hours. Internship placement is selective. May require travel.

Prereq.: Junior standing, 2.0 GPA, AND special approval required, OR special approval required.

CMST 4897 Communication Internship 2 3 s.h.

Application of communication skills through supervised work experience. Students complete a minimum of 180 work hours. Internship placement is selective. May require travel.

Prereq.: CMST 4896, Junior standing, 2.0 GPA, AND special approval required, OR special approval required.

CMST 4898 Media Analysis 3 s.h.

Application of methods of analysis to describe and critique the content of various types of media, including new media, news media, and entertainment media. Emphasis on the relationship between media content, uses, and effects.

Prereq.: CMST 3700.

CMST 4899 Senior Project 3 s.h.

Synthesis of research, writing, and presentation skills through the completion of a communication research project and professional development activity. Repeatable to a maximum of 6 s.h. Grading is Traditional/PR.

Prereq.: Senior standing, major in Communication Studies, 24 s.h. of communication studies major complete, including CMST 3700 or CMST 3799.

Gen Ed: Capstone.

CMST 5852 Conflict Management and Negotiation 3 s.h.

An in-depth analysis of the theories and variables influencing conflict management, resolution, and negotiation. Includes strategies and skills for meditation and arbitration.

Prereq.: Junior Standing.

CMST 5860 Persuasion and New Media 3 s.h.

Introduction to persuasion theory and application of theory to new communication media.

Prereq.: Junior standing.

CMST 5889 Theory of Sports and Communication 3 s.h.

CMST 5889. An overview of sports and communication, their symbiotic relationship and the social, cultural, and political impact of that relationship.

Prereq.: Junior Standing.

CMST 5898 Seminar 3 s.h.

A cooperative exploration of topics in communication studies. May be repeated up to 6 semester hours.

Prereq.: Junior standing.

CMST 6900 Survey of Communication Graduate Studies 3 s.h.

Orientation to teaching, learning, and research in the communication discipline for new graduate students.

CMST 6945 Communication for the Classroom Teacher 3 s.h.

The study of communication theory and practice appropriate for the prospective classroom teacher. Theories and application exercises focus on interpersonal communication, group communication, and classroom speaking.

CMST 6950 Computer Mediated Communication Research 3 s.h.

Theory, research, and application of CMC including examination of computer communication theories and relevant research methodologies, web design theory and critiques, blogging, podcasting, e-mailing, social media, multimedia storytelling. Design, implementation, and evaluation of CMC.

CMST 6953 Group Dynamics: Theory and Research 3 s.h.

Theory and research of group processes, critical thinking and creativity strategies, theory of group leadership and teamwork, conflict management and mediation, advanced group decision-making and problem solving, motivational strategies.

CMST 6957 American Corporate Culture 3 s.h.

Includes instruction in the types of cultures in American organizations, assessments of culture and climate, and best practices for shaping culture and improving climate to promote creativity, productivity, and employee satisfaction.

CMST 6970 Internship 3 s.h.

Communication-related work in a professional setting.

Prereq.: Special approval required.

CMST 6980 Qualitative Research Methods 3 s.h.

Introduction to and application of qualitative research methods relevant to business communication settings.

CMST 6990 Quantitative Research Methods 3 s.h.

Project-based course covering quantitative research methods, including surveys, experiments, and online analytics. Projects include data collection, analysis, and reporting using industry-standard software and platforms.

CMST 6991 Communication Problems: Independent Study 3 s.h.

Individual study and practical application of communication research principles to various organizational, group and mediated communication problems.

CMST 6994 Capstone 3 s.h.

Applied research paper on a communication topic. Oral presentation required. For non-thesis option students only. Thesis option students should take CMST 6995: Thesis.

Prereq.: Completion of the MA core courses.

CMST 6995 Thesis 3 s.h.

Research study on an applied communication topic. Oral presentation required. Total of 6 s.h. required for the MA thesis option. For thesis option students only. Non-thesis option students should take CMST 6994: Capstone.

Prereq.: Completion of the MA core courses.

CMST 6996 Thesis 2 3 s.h.

Research study on an applied communication topic. Oral presentation required. Total of 6 s.h. required for the MA thesis option. For thesis option students only. Non-thesis option students should take CMST 6994: Capstone.

Prereq.: Completion of the MA core courses AND CMST 6995.

CMST 6997 Thesis 3 1-3 s.h.

Research study on an applied communication topic. Oral presentation required. Total of 6 s.h. required for the MA thesis option. For thesis option students only. Non-thesis option students should take CMST 6994: Capstone.

Prereq.: Completion of the MA core courses AND CMST 6995 and CMST 6996.

JOUR 2600 Investigative Reporting Workshop 1-3 s.h.

Students become part of a team of reporters. The program will identify one reporting project that will be the focus of this laboratory. Students are expected to participate in gathering and analyzing information and in the writing and/or production of stories.

JOUR 2602 Media Writing 3 s.h.

Introduction to writing for the mass media. Development of writing techniques and examination of styles and approaches used in writing for various mass audiences. Includes news stories, press releases, broadcast scripts and writing for online environments.

JOUR 2603 Media Ethics and Social Responsibilities 3 s.h.

Examination of ethical standards and moral theories and their practical application in professional mass communication through case studies. Students will learn to become active critics of media professionals.

Gen Ed: Arts and Humanities.

JOUR 2605 Journalism as Literature 3 s.h.

Examination of literary works by journalists. Study of journalism techniques transferred to literary storytelling.

Gen Ed: Arts and Humanities.

JOUR 2632 Introduction to Photojournalism 3 s.h.

The basics of photojournalism, including composition, lighting, editing, news judgment, and ethics.

JOUR 3716 Feature Writing 3 s.h.

Focus on writing stories that use facts, detail, structure and style to tell compelling non-fiction narratives. Students will pitch, report and write content including personality profiles, human interest stories and interviews.

Prereq.: ENGL 1551 or ENGL 1551H.

JOUR 3717 Editorial and Opinion Writing 3 s.h.

Techniques, approaches and practice in writing reviews, editorials, and opinion columns. Exercises in criticisms of the arts, editorial research, and editorial style.

Prereq.: ENGL 1550.

JOUR 3721L News Content Creation 1 3 s.h.

Application of the principles of news reporting skills in student media. Emphasis on basic reporting skills, media tools and content creation for print and television.

Prereq.: JOUR 2602.

JOUR 3723 Advanced Journalism Editing and Design 3 s.h.

Application of visual literacy and editing skills. Emphasis on editorial decision making, journalistic style editing, quantitative reasoning, fact-checking, and practice of traditional and multimedia design techniques.

Prereq.: JOUR 2622 or JOUR 3725 and JOUR 2624.

JOUR 3725 News Reporting 3 s.h.

Study of news reporting and writing, with emphasis on journalistic and AP style, development of news judgment, interviewing, and storytelling through traditional and new media. Coursework may require travel for reporting projects.

Prereq.: completion of ENGL 1551.

JOUR 3726 American Media: History, Principles and Practices 3 s.h.

The development of American mass media, the role of media and its effects on American society. A survey course designed to familiarize students with the principles and practices involved in the industries associated with mass media.

Cross-Listed: MCOM 3726.

JOUR 3731L News Content Creation 2 3 s.h.

Application of the principles of news reporting skills in student media. Emphasis on beat reporting, advanced information gathering techniques and content creation for television, web and print. Pre-req: JOUR 3721L.

Prereq.: JOUR 3721L.

JOUR 3759 Sports Journalism 3 s.h.

Techniques of sports reporting with emphasis on game reporting, sports features, columns, photography and new media storytelling.

Prereq.: JOUR 2602.

JOUR 3761 New Media Journalism 3 s.h.

Focus on new trends and techniques of electronic news organizations. Emphasis on storytelling using multimedia and non-linear methods of delivery. Coursework may require travel for reporting projects.

Prereq.: JOUR 2622 or JOUR 3725 and JOUR 2624.

JOUR 3768 Journalism Individual Studies 1-3 s.h.

Student selects a package of stories to research, report and produce under the direction of a faculty member, pending approval by the faculty member. Multimedia storytelling is encouraged.

Prereq.: Junior standing or permission of instructor.

JOUR 3769 Principles and Practices of Sports Information 3 s.h.

This course explores the history, development, trends and responsibilities involved in creating and disseminating messages related to sports teams and players, special emphasis on the relationship between journalism and sports information distribution. This course will examine the fundamental components of sports information and storytelling and discuss ethics in relation to sports messaging, player identity and audience relationships.

Prereq.: Junior Standing.

JOUR 3790 Documentary Storytelling 3 s.h.

Students will use journalism and production skills to create an in-depth visual report using documentary style. Students will be introduced to the practical considerations of making a documentary film, exposed to the various documentary styles and subject matter. Junior standing or permission of instructor.

Prereq.: Junior standing.

JOUR 4821 Advising Student Media 3 s.h.

Study of the role and responsibilities of the media advisor in high school and college. Topics include the unique legal and ethical concerns of student media, the training of student staff, the relationship of the student press to the academic administration, and publication-management concerns. Listed also as ENGL 4821.

Prereq.: JOUR 2622 or JOUR 3725 or ENGL 3741.

JOUR 4822 Magazine Writing and Reporting 3 s.h.

In-depth study of writing and reporting techniques for magazine journalists. Emphasis on learning freelance skills, getting work published, and marketing yourself as a magazine writer. Coursework may require travel for reporting projects.

Prereq.: JOUR 3725 or JOUR 2622, and JOUR 2624.

JOUR 4823 Advanced News Content Creation 3 s.h.

Emphasis on extended research, extensive interviewing and investigative reporting techniques. Coursework may require travel for reporting projects.

Prereq.: JOUR 3721L and JOUR 3731L.

JOUR 4824 Communication Law 3 s.h.

Study of First Amendment rights of the press and speech; examination of laws concerning libel, privacy, copyright, obscenity, censorship, open meetings and open records, broadcast regulation and commercial speech.

Prereq.: junior standing.

JOUR 4825 Selected Topics in Journalism 3 s.h.

Study of approaches to and special aspects of journalism not covered in depth in other journalism courses. May be repeated once with change of topic.

Prereq.: Junior Standing or permission of instructor.

JOUR 4890 Writing and Producing Television News 3 s.h.

Organization, preparation, and presentation of television news programs. Includes study of journalistic requirements of broadcast media and broadcast newsroom operation and writing style. Students will engage in story development, shooting/editing, script management, and on-camera performance.

Prereq.: Sophomore Standing.

Cross-Listed: TCOM 4890 and MCOM 4890.

JOUR 4893 Journalism Senior Project 3 s.h.

Capstone experience for journalism major. Individualized reporting projects with demonstration of advanced newsgathering and storytelling techniques.

Prereq.: JOUR 3731L AND senior standing.

Gen Ed: Capstone.

JOUR 4894 Journalism Internship 3 s.h.

Application of journalism skills through supervised work experience. Students complete a minimum of 180 work hours. Internship placement is selective. May require travel.

Prereq.: junior standing, 2.0 GPA, and special approval required, OR special approval required.

JOUR 4895 Journalism Internship 2 3 s.h.

Application of journalism skills through supervised work experience. Students complete a minimum of 180 work hours. Internship placement is selective. May require travel.

Prereq.: JOUR 4894, junior standing, 2.0 GPA, and special approval required, OR special approval required.

MCOM 1570 Sports Field Production 1 3 s.h.

A study of the electronic sports media as business and social forces; attention given to how media and sport industries grew as consorts into the Sports Media complex, basic legal and ethical considerations for sports media practitioners; the various platforms through which sports media content is offered; electronic sports media roles and careers; and the social implications of the electronic sports media.

MCOM 1570L Sports Broadcasting Lab 1 3 s.h.

Assignment to one or more production crews in conjunction with YSU Athletics and Horizon League Sports. Student responsibilities will be determined in light of skills and interests, as well as the production need.

MCOM 1595 Media Literacy and Culture 3 s.h.

This course offers a critical survey of the role played by mass communication in shaping culture. Individual media institutions are examined in terms of the information they distribute, the entertainment they provide, and the influence they exercise. Special attention is paid to the audience-medium relationship and the concept of media literacy.

Gen Ed: Social Science.

MCOM 2624 Communication Technology - Photo and Video 3 s.h.

Focus on the use of photographs and video to convey messages. Includes study of visual literacy, principles of image composition, use of still and video cameras, use of editing software.

Cross-Listed: JOUR 2624.

MCOM 2625 Communication Technologies: Aesthetics and Design 3 s.h.

Focus on the way visual and design elements are used to conceive, produce, and critique mediated messages. Includes the study of design principles using light, color, space, sound, motion, and mise-en-scene for print, video, and film messages.

MCOM 2683 Foundations of Multicamera Production 1 s.h.

An introduction to practices and procedures used in media production facilities.

Coreq.: MCOM 2683L.

MCOM 2683L Multicamera Lab 1 2 s.h.

A laboratory experience that introduces students to the practices and procedures basic to media production facilities.

Coreq.: MCOM 2683.

MCOM 2685 Producing 3 s.h.

Producing, writing, editing and using electronic equipment to assemble video content; emphasis on performing the various tasks involved in interview preparation, location scouting, managing talent and sources, and communicating the management of content organizationally, and analyzing and communicating to diverse audiences.

Prereq.: JOUR 2602.

MCOM 3726 American Media: History, Principles and Practices 3 s.h.

The development of American mass media, the role of media and its effects on American society. A survey course designed to familiarize students with the principles and practices involved in the industries associated with mass media.

Cross-Listed: JOUR 3726.

MCOM 3780 Presentational Literacy 3 s.h.

Examination of the theory and practice of preparing and delivering presentations in today's work and media environments. Examination of theories, techniques and major styles of delivery including use of advanced visual aids, voice control and delivering scripted and extemporaneous statements, stories and speeches.

Prereq.: CMST 1545.

Cross-Listed: TCOM 3780.

MCOM 3781L Audio Production 3 s.h.

Study of the concepts of audio production, including student production of various types of programs.

Prereq.: MCOM 2683 or TCOM 2683.

Cross-Listed: TCOM 3781.

MCOM 3782 Advanced Multicamera Production 1 s.h.

Study of studio production elements such as equipment, lighting, scene design, graphics, and special effects.

Prereq.: TCOM 2683 or MCOM 2683.

Coreq.: MCOM 3782L.

MCOM 3782L Multicamera Lab 2 2 s.h.

Application of studio production elements such as equipment, lighting, scene design, graphics, and special effects.

Prereq.: TCOM 2683 or MCOM 2683.

Coreq.: MCOM 3782.

MCOM 3784 Electronic Media Content Strategies 3 s.h.

A study of contemporary electronic media strategies involving the legacy broadcast media, traditional cable/satellite systems, and the evolving streaming media environment. Students will explore audience strategies, content development and competitive stratagems. 3 s.h.

Cross-Listed: TCOM 3784.

MCOM 3787 Individual Studies 1-3 s.h.

Individual study and practical application of communication principles to various telecommunication problems.

Prereq.: Sophomore Standing.

MCOM 3791 Electronic Media Promotion and Sales 3 s.h.

An examination of the principles and practices of promotional and sales strategies used by electronic media. Analysis of rating-based systems used to determine strategies, as well as, relations with agencies and station representatives.

Prereq.: Sophomore Standing.

Cross-Listed: TCOM 3791.

MCOM 3793L Broadcast Sports Performance 2 s.h.

Students receive instruction on play-by-play announcing and on the preparation and extemporaneous discussion of player and team statistics, as well as, other appropriate sports-related information. Skills for conducting media interviews.

Prereq.: TCOM 3780 or MCOM 3780.

Cross-Listed: TCOM 3793.

MCOM 3794 Cross-platform Sports Broadcasting 3 s.h.

Examination of and instruction in new media technologies to deliver sports media content. Emphasis on how the interactive nature of online content changes traditional notions of presentation and distribution.

Prereq.: MCOM 1570 OR TCOM 1570, JOUR 2602.

Cross-Listed: TCOM 3794.

MCOM 3795L Sports Broadcasting Lab 2 3 s.h.

Assignment to one or more production crews in conjunction with YSU Athletics and Horizon League Sports. Student responsibilities will be determined in light of skills and interests, as well as the production need.

Prereq.: MCOM 1570L.

MCOM 4850L Applied Production 3 s.h.

Study of advanced techniques and procedures in media production through individual and group student-directed projects. Students will plan and manage a multi-faceted semester-long project from inception to execution.

Prereq.: MCOM 2624, MCOM 2625, MCOM 2685.

Cross-Listed: TCOM 4850.

MCOM 4882 Remote Media Production 3 s.h.

A project-based study of practices and procedures basic to remote media production facilities. Students will explore audience strategies, content development and competitive stratagems as well as detailed study of various remote TV production crew positions.

Prereq.: TCOM 3795 or MCOM 3795.

Cross-Listed: TCOM 4882.

MCOM 4884L Video Production Direction 2 s.h.

Study and application of the communication roles and skills associated with video directing.

Prereq.: TCOM 3782 or MCOM 3782.

Cross-Listed: TCOM 4884.

MCOM 4888 Multimedia Communication Internship 3 s.h.

Application of media communication skills through supervised work experience. Students complete a minimum of 180 work hours. Internship placement is selective. May require travel.

Prereq.: Junior standing, 2.0 GPA, and special approval required, OR special approval required.

MCOM 4889 Multimedia Communication Internship 2 3 s.h.

Application of multimedia communication skills through supervised work experience. Students complete a minimum of 180 work hours. Internship placement is selective. May require travel.

Prereq.: MCOM 4888, Junior standing, 2.0 GPA, and special approval required, OR special approval required.

MCOM 4890 Writing and Producing Television News 3 s.h.

Organization, preparation, and presentation of television news programs. Includes study of journalistic requirements of broadcast media and broadcast newsroom operation and writing style. Students will engage in story development, shooting/editing, script management, and on-camera performance.

Prereq.: sophomore standing.

Cross-Listed: TCOM 4890, JOUR 4890.

MCOM 4897 Seminar 3 s.h.

Designed to investigate contemporary aspects of mass communications. May be repeated for credit if topic is different. Cross-Listed: TCOM 4897.

MCOM 4899 Senior Project 3 s.h.

Students demonstrate mastery knowledge in a variety of degree assessment areas. Synthesis of research, writing, and presentation skills through completion of portfolio and professional development project.

Prereq.: MCOM 2624, MCOM 2625, MCOM 2683, senior standing.

Gen Ed: Capstone.

TCOM 1500 Orientation to Telecommunication Studies 1 s.h.

Survey of University and Department programs, policies, practices and facilities with particular emphasis on needs of telecommunication studies majors. Creation of telecommunication studies portfolio materials and other aspects of the Telecommunication Studies program. To be taken prior to TCOM 2682 and TCOM 2683.

TCOM 1510 Sports Field Production 1 1 s.h.

Assignment to one or more production crews in conjunction with YSU Athletics and Horizon League Sports. Student responsibilities will be determined in light of skills and interests, as well as the production need. May be repeated.

TCOM 1555L Radio Workshop 3 s.h.

Application of the principles of radio production and broadcasting skills in student media.

TCOM 1570 Introduction to Electronic Sports Media 3 s.h.

A study of the electronic sports media as business and social forces; attention given to how media and sport industries grew as consorts into the Sports Media complex, basic legal and ethical considerations for sports media practitioners; the various platforms through which sports media content is offered; electronic sports media roles and careers; and the social implications of the electronic sports media.

TCOM 1580 Introduction to Telecommunication Studies 3 s.h.

A survey course designed to familiarize students with the principles and practices involved in radio and television broadcasting, cable, and other electronic communication systems.

TCOM 1581 Telecommunication Technologies 2 s.h.

Operational principles of audio, data, and video telecommunication technologies.

TCOM 2610 Sports Field Production 2 1 s.h.

Assignment to one or more production crews in conjunction with YSU Athletics and Horizon League Sports. Student responsibilities will be determined in light of skills and interests, as well as the production need. May be repeated.

Prereq.: TCOM 1510.

TCOM 2682 Scriptwriting for Electronic Media 3 s.h.

Fundamentals of telecommunication media writing with emphasis on the theory analysis and practices in the preparation of continuity, news, and documentaries.

Prereq.: TCOM 1570 or TCOM 1580; TCOM 1581; and ENGL 1550 with a grade of "C" or better in all.

TCOM 2684 Broadcast News Practices 3 s.h.

Organization, preparation, and presentation of radio and television news programs. Includes study of journalistic requirements of broadcast media and broadcast newsroom operation.

Prereq.: TCOM 2682 and TCOM 2683 with a grade of "C" or better in both.

TCOM 3710 Sports Field Production 3 1 s.h.

Assignment to one or more production crews in conjunction with YSU Athletics and Horizon League Sports. Student responsibilities will be determined in light of skills and interests, as well as the production need. May be repeated.

Prereq.: TCOM 2610.

TCOM 3783 Telecommunications Regulation 3 s.h.

Responsibilities of electronic media communicators as prescribed by law and administrative agency policies, and court decisions. Analysis of the regulatory environment of broadcasters, common carriers, and cable.

Prereq.: TCOM 2682 and TCOM 2683 with a grade of "C" or better in both; major or minor in Telecommunication Studies.

TCOM 3786 Video Production 2 3 s.h.

Study and application of television production elements and editing. Production values of composition, transition, and sequence explored from a communication perspective. Students produce field-based productions.

Prereq.: TCOM 3782.

TCOM 3789 Electronic Media Interviewing 3 s.h.

A study and application of interviewing and reporting techniques, emphasizing the local news interview and public affairs reporting.

Prereq.: TCOM 2682 and TCOM 2683 with a grade of "C" or better in both.

TCOM 3790 Broadcast News Lab 3 s.h.

Study and lab in news programs for TV, radio and web. Requirements of broadcast media and newsroom operation. Students create the weekly webcast, Light the Wick, or similar content.

Prereq.: JOUR 2622 or TCOM 2682 or TCOM 2683.

TCOM 3792 Broadcast Sports Producing and Writing 3 s.h.

A study of the fundamentals of producing broadcast sports media content, including script development and line producing.

Prereq.: TCOM 1570, TCOM 2682, TCOM 2683 with a grade of "C" or better.

TCOM 4881 Telecommunication Management 3 s.h.

A study of the relationships of communication management with government, networks, ownership and other groups. Organization and procedures of typical units; common planning models.

Prereq.: TCOM 2682 and TCOM 2683 with a grade of "C" or better in both; major or minor in Telecommunication Studies.

TCOM 4885 Developments in Telecommunication Media 3 s.h.

Study and application of uses of telecommunication media apart from commercial broadcasting. Study of new technologies and their potential.

Prereq.: TCOM 2682 and TCOM 2683 with a grade of "C" or better in both.

TCOM 4886 Audience and Market Measure 3 s.h.

Methods of collecting, analyzing, and using information about media markets. Includes quantitative and non-quantitative techniques.

Prereq.: TCOM 2682 and TCOM 2683 with a grade of "C" or better in both.

TCOM 4887 Theories and Criticisms of Telecommunication 3 s.h.

Study of contemporary theories and research in telecommunication.

Prereq.: TCOM 2682 and TCOM 2683 with a grade of "C" or better in both; major or minor in Telecommunication Studies.

TCOM 4899 Capstone 2 s.h.

Students demonstrate mastery of knowledge in a variety of degree assessment areas. Students prepare and present a portfolio of their work. The course assists students in assembling and presenting the portfolio to department faculty and other interested parties. To be taken after achieving senior status as a Telecommunications Studies major.

Prereq.: senior status in Telecommunication Studies.

Gen Ed: Capstone.

Bachelor of Arts in Communication, Community Engagement and Organization

Overview

Do you have a fascination with developing content and utilizing various social media platforms to their fullest? If so, then the Social Media Track will help you attain your future career goals. The Social Media Track consists of two certificates: one in content creation and the other in social media management.

In the content creation certificate, you'll learn how to construct websites; explore the principles of media image management and repair; and learn how to use photographs and video to convey messages.

For the social media management certificate, you'll learn how to manage personal and professional social media messages; how to evaluate client-based projects; and delve into future social media forms, and their issues of authorship, community, identity, interactivity, and visibility.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
GE: Mathematics Course	*Any approved GE: Math, MATH 2623/2623C recommended	3

Arts and Humanities (6 s.h.) **6****Natural Sciences (7 s.h.)** **7** ^{*two different science courses, one MUST include a lab}**Social Science (6 s.h.)**CMST 2600 Communication Theory ^{required for major} 3

GE: Social Science Course 3

General Education Elective (9 s.h.)CMST 1545 Communication Foundations ^{required for major} 3CMST 2610 Intercultural Communication ^{required for major} 3

GE Elective Course 3

Major Requirements

CMST 1500 Exploring Communication 3

CMST 2630 Social Media Literacy 3

CMST 2654 Community Engagement & Relations 3

CMST 2655 Communication in Groups 3

CMST 2656 Interpersonal Communication 3

CMST 3700 Designing Communication Research 3

CMST 3756 Interviewing 3

CMST 4896 Communication Internship 3

or CMST 4859 Organizational Cultures

Required Support Courses

JOUR 2602 Media Writing 3

MCOM 2624 Communication Technology - Photo and Video 3

MCOM 3780 Presentational Literacy 3

ENGL 3743 Introduction to Public, Professional and Technical Writing 3

Social Media Track

Upon completion of these requirements students will earn certificates in Content Creation and Social Media Strategy.

CMST 3740 Social Media Communication 3

CMST 3757 Media Relations Writing 3

CMST 3790 Personal Brand Communication 3

CMST 4850 Social Media Campaigns 3

CMST 4851 New Communication Media 3

COMMUNICATION ELECTIVE (6 s.h.) *Select 2 upper-level CMST courses (3700-5800) 6

Senior Capstone

CMST 4899 Senior Project 3

Free Electives ^{*Hours will vary based on what is needed for 120 SH} **22**

Student must complete a minimum of 39 SH of Upper-Level Courses (3700-5800)

Total Semester Hours **120-122****Year 1****Fall****S.H.**ENGL 1550 Writing 1 3-4
or ENGL 1549 or Writing 1 with Support

CMST 1500 Exploring Communication 3

CMST 1545 Communication Foundations 3

YSU 1500 Success Seminar 1-2
or YSU 1500S or Youngstown State University Success
or HONR 1500 Seminar

or Intro to Honors

GE: Math Course ^{*Any approve GE: Math, MATH 2623/2623C recommended} 3**Semester Hours****13-15****Spring**

CMST 2600 Communication Theory 3

or CMST 2630 or Social Media Literacy

CMST 2656 Interpersonal Communication 3

or CMST 2655 or Communication in Groups

ENGL 1551 Writing 2 3

GE: Arts and Humanities 3

Free Elective 3

Semester Hours**15****Year 2****Fall**CMST 2630 Social Media Literacy 3
or CMST 2600 or Communication TheoryCMST 2655 Communication in Groups 3
or CMST 2656 or Interpersonal CommunicationCMST 2654 Community Engagement & Relations 3
or MCOM 2624 or Communication Technology - Photo and
Video

GE: Natural Science 3

Free Elective 3

Semester Hours**15****Spring**MCOM 2624 Communication Technology - Photo and Video 3
or CMST 2654

or Community Engagement & Relations

JOUR 2602 Media Writing 3

CMST 2610 Intercultural Communication 3

GE: Lab Science 4

Free Elective 3

Semester Hours**16****Year 3****Fall**

CMST 3790 Personal Brand Communication 3

MCOM 3780 Presentational Literacy 3

CMST 3740 Social Media Communication 3

GE: Social Sciences 3

Free Elective 3

Semester Hours**15****Spring**CMST 3700 Designing Communication Research 3
or CMST 3756 or InterviewingENGL 3743 Introduction to Public, Professional and
Technical Writing 3

CMST 3757 Media Relations Writing 3

CMST 4896 Communication Internship 3
or CMST 4859 or Organizational Cultures

GE Elective 3

Semester Hours**15****Year 4****Fall**CMST 3756 Interviewing 3
or CMST 3700 or Designing Communication Research

CMST 4850 Social Media Campaigns 3

CMST 4851 New Communication Media 3

Communication Elective 3

Free Elective 3

Semester Hours**15****Spring**

CMST 4899 Senior Project 3

Communication Elective 3

GE Arts and Humanities 3

Free Elective	3
Free Elective	4
Semester Hours	16
Total Semester Hours	120-122

LEARNING OUTCOMES

Regardless of track, students graduating with a B.A. degree in communication studies will:

1. Collect, analyze, and report qualitative and quantitative data, demonstrating information literacy, critical thinking, and problem solving.
2. Effectively employ mediated communication technologies, including their features, functions, and applications, to competently communicate across different mediums.
3. Create professional, coherent, organized, and persuasive oral and written messages, which adapt to various purposes, audiences, and platforms.
4. Embrace individual and cultural differences, respect diverse perspectives, and create messages that accommodate differences to be prepared for multicultural workplaces.
5. Develop skills in leadership, professionalism, conflict management, and teamwork in preparation for career readiness.
6. Apply communication theory and concepts to personal and professional contexts, including intrapersonal, interpersonal, team, organizational, and mediated.

Bachelor of Arts in Communication Strategic Organizational Communication

Overview

Do you want to master your one-on-one communication with others and apply that valuable skill to an organizational setting? If you do, then the Strategic Organizational Communication Track is the right choice for your communication and career needs. In this track students choose two of three certificates in professional communication, interpersonal networking and sports communication.

With the professional communication certificate, you'll learn presentational speaking skills while utilizing various technologies; gain experience engaging in employee, performance, and persuasive interviews; and learn the strategies and skills necessary for organizational mediation and arbitration.

With the interpersonal networking certificate, you'll enhance your face-to-face and mediated communication skills in various relationships; explore the issues of gender and communication in a variety of contexts; and learn how to manage your image or personal brand.

With the sports communication certificate, you'll evaluate sports information campaigns; learn the relationship between sports and communication; and you may either learn the legal and ethical considerations for sports media practitioners, the techniques of sports reporting, or the ethical components of journalism and sports information distribution.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		

ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations ^{required for major}	3
GE: Math Course	^{*any approved GE Math course, MATH 2623/2623C recommended}	3
Arts and Humanities (6 s.h.)		6
Natural Sciences (7 s.h.) ^{*Two different science courses, one must include a lab}		7
Social Science (6 s.h.)		
CMST 2600	Communication Theory ^{Required for Major}	3
GE Social Science Course		3
General Education Electives (6 s.h.)		
CMST 2610	Intercultural Communication ^{required for major}	3
GE Elective Course		3
Major Requirements		
CMST 1500	Exploring Communication	3
CMST 2630	Social Media Literacy	3
CMST 2654	Community Engagement & Relations	3
CMST 2655	Communication in Groups	3
CMST 2656	Interpersonal Communication	3
CMST 3700	Designing Communication Research	3
CMST 3756	Interviewing	3
CMST 4896	Communication Internship	3
or CMST 4859	Organizational Cultures	
Required Support Courses		
JOUR 2602	Media Writing	3
MCOM 2624	Communication Technology - Photo and Video	3
MCOM 3780	Presentational Literacy	3
ENGL 3743	Introduction to Public, Professional and Technical Writing	3

Strategic Organizational Communication Track Requirements 15-18

Students select two certificates from the three listed below.

Certificate in Professional Communication^{*CMST 1545 and CMST 3756 are required in the Core}

CMST 3746	Presentational Speaking
CMST 5852	Conflict Management and Negotiation

Certificate in Sports Communication^{*CMST 2600 is required in the Core}

CMST 4879	Sports Communication Message Design
CMST 5889	Theory of Sports and Communication
MCOM 1570	Sports Field Production 1

Certificate in Interpersonal Networking^{*CMST 2600 and CMST 2656 are required in the Core}

CMST 3750	Gender Communication
CMST 3790	Personal Brand Communication
CMST 4855	Interpersonal Communication Relationships

Pick 2 additional CMST electives 3700 level or higher 6

Capstone (3 s.h.)

CMST 4899	Senior Project	3
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Free Electives^{*Hours will vary based on what is needed for 120 SH} **22**

Student must complete a minimum of 39 SH of Upper-Level Courses (3700-5800)

Total Semester Hours 120-125

Year 1

Fall		S.H.
CMST 1500	Exploring Communication	3
CMST 1545	Communication Foundations	3
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	

YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2
GE MATH requirement		3-5
Semester Hours		13-17

Spring

CMST 2600	Communication Theory	3
CMST 2656	Interpersonal Communication	3
ENGL 1551	Writing 2	3
GE: Arts and Humanities		3
GE Elective Course		3
Free Elective		1
Semester Hours		16

Year 2

Fall

CMST 2630	Social Media Literacy	3
CMST 2654	Community Engagement & Relations	3
CMST 2655	Communication in Groups	3
GE: Arts and Humanities		3
Free Elective		3-1
Semester Hours		15-13

Spring

MCOM 2624	Communication Technology - Photo and Video	3
JOUR 2602	Media Writing	3
GE Lab Science		4
Communication Studies Elective		3-5
Free Elective		3
Semester Hours		16-18

Year 3

Fall

CMST 3700	Designing Communication Research	3
MCOM 3780	Presentational Literacy	3
Certificate Course		3
Free Elective		3
GE: Social Science		3
Semester Hours		15

Spring

CMST 2610	Intercultural Communication	3
CMST 3756	Interviewing	3
Certificate Course		3
Certificate Course		3
Free Elective		3
Semester Hours		15

Year 4

Fall

CMST 4859 or CMST 4896	Organizational Cultures or Communication Internship	3
ENGL 3743	Introduction to Public, Professional and Technical Writing	3
Certificate Course		3
Certificate Course		3
Communication Elective		3-4
Semester Hours		15-16

Spring

CMST 4899	Senior Project	3
GE: Natural Science		3

Certificate Course or Free Elective	3
Free Elective	3
Free Elective	3
Semester Hours	15
Total Semester Hours	120-125

LEARNING OUTCOMES

Regardless of track, students graduating with a B.A. degree in communication studies will:

1. Collect, analyze, and report qualitative and quantitative data, demonstrating information literacy, critical thinking, and problem solving.
2. Effectively employ mediated communication technologies, including their features, functions, and applications, to competently communicate across different mediums.
3. Create professional, coherent, organized, and persuasive oral and written messages, which adapt to various purposes, audiences, and platforms.
4. Embrace individual and cultural differences, respect diverse perspectives, and create messages that accommodate differences to be prepared for multicultural workplaces.
5. Develop skills in leadership, professionalism, conflict management, and teamwork in preparation for career readiness.
6. Apply communication theory and concepts to personal and professional contexts, including intrapersonal, interpersonal, team, organizational, and mediated.

Bachelor of Arts in Communication, Social Media Track

Overview

Do you have a fascination with developing content and utilizing various social media platforms to their fullest? If so, then the Social Media Track will help you attain your future career goals. The Social Media Track consists of two certificates: one in content creation and the other in social media management.

In the content creation certificate, you'll learn how to construct websites; explore the principles of media image management and repair; and learn how to use photographs and video to convey messages.

For the social media management certificate, you'll learn how to manage personal and professional social media messages; how to evaluate client-based projects; and delve into future social media forms, and their issues of authorship, community, identity, interactivity, and visuality.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar Youngstown State University Success Seminar Intro to Honors	1-2
General Education Requirements		
ENGL 1550 or ENGL 1549	Writing 1 Writing 1 with Support	3-4
ENGL 1551	Writing 2	3
GE: Mathematics Course	*Any approved GE: Math, MATH 2623/2623C recommended	3
Arts and Humanities (6 s.h.)		6
Natural Sciences (7 s.h.)		7
Social Science (6 s.h.)		6

CMST 2600	Communication Theory ^{required for major}	3
GE: Social Science Course		3
General Education Elective (9 s.h.)		
CMST 1545	Communication Foundations ^{required for major}	3
CMST 2610	Intercultural Communication ^{required for major}	3
GE Elective Course		3
Major Requirements		
CMST 1500	Exploring Communication	3
CMST 2630	Social Media Literacy	3
CMST 2654	Community Engagement & Relations	3
CMST 2655	Communication in Groups	3
CMST 2656	Interpersonal Communication	3
CMST 3700	Designing Communication Research	3
CMST 3756	Interviewing	3
CMST 4896	Communication Internship	3
or CMST 4859	Organizational Cultures	
Required Support Courses		
JOUR 2602	Media Writing	3
MCOM 2624	Communication Technology - Photo and Video	3
MCOM 3780	Presentational Literacy	3
ENGL 3743	Introduction to Public, Professional and Technical Writing	3
Social Media Track		
Upon completion of these requirements students will earn certificates in Content Creation and Social Media Strategy.		
CMST 3740	Social Media Communication	3
CMST 3757	Media Relations Writing	3
CMST 3790	Personal Brand Communication	3
CMST 4850	Social Media Campaigns	3
CMST 4851	New Communication Media	3
COMMUNICATION ELECTIVE (6 s.h.)	*Select 2 upper-level CMST courses (3700-5800)	6
Senior Capstone		
CMST 4899	Senior Project	3
Free Electives	*Hours will vary based on what is needed for 120 SH	22
Student must complete a minimum of 39 SH of Upper-Level Courses (3700-5800)		
Total Semester Hours		120-122
Year 1		
Fall		
ENGL 1550	Writing 1	S.H. 3-4
or ENGL 1549	or Writing 1 with Support	
CMST 1500	Exploring Communication	3
CMST 1545	Communication Foundations	3
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success	
or HONR 1500	Seminar	
	or Intro to Honors	
GE: Math Course	*Any approve GE: Math, MATH 2623/2623C recommended	3
Semester Hours		13-15
Spring		
CMST 2600	Communication Theory	3
or CMST 2630	or Social Media Literacy	
CMST 2656	Interpersonal Communication	3
or CMST 2655	or Communication in Groups	
ENGL 1551	Writing 2	3
GE: Arts and Humanities		3

Free Elective		3
Semester Hours		15
Year 2		
Fall		
CMST 2630	Social Media Literacy	3
or CMST 2600	or Communication Theory	
CMST 2655	Communication in Groups	3
or CMST 2656	or Interpersonal Communication	
CMST 2654	Community Engagement & Relations	3
or MCOM 2624	or Communication Technology - Photo and Video	
GE: Natural Science		3
Free Elective		3
Semester Hours		15
Spring		
MCOM 2624	Communication Technology - Photo and Video	3
or CMST 2654	or Community Engagement & Relations	
JOUR 2602	Media Writing	3
CMST 2610	Intercultural Communication	3
GE: Lab Science		4
Free Elective		3
Semester Hours		16
Year 3		
Fall		
CMST 3790	Personal Brand Communication	3
MCOM 3780	Presentational Literacy	3
CMST 3740	Social Media Communication	3
GE: Social Sciences		3
Free Elective		3
Semester Hours		15
Spring		
CMST 3700	Designing Communication Research	3
or CMST 3756	or Interviewing	
ENGL 3743	Introduction to Public, Professional and Technical Writing	3
CMST 3757	Media Relations Writing	3
CMST 4896	Communication Internship	3
or CMST 4859	or Organizational Cultures	
GE Elective		3
Semester Hours		15
Year 4		
Fall		
CMST 3756	Interviewing	3
or CMST 3700	or Designing Communication Research	
CMST 4850	Social Media Campaigns	3
CMST 4851	New Communication Media	3
Communication Elective		3
Free Elective		3
Semester Hours		15
Spring		
CMST 4899	Senior Project	3
Communication Elective		3
GE Arts and Humanities		3
Free Elective		3

Free Elective	4
Semester Hours	16
Total Semester Hours	120-122

LEARNING OUTCOMES

Regardless of track, students graduating with a B.A. degree in communication studies will:

1. Collect, analyze, and report qualitative and quantitative data, demonstrating information literacy, critical thinking, and problem solving.
2. Effectively employ mediated communication technologies, including their features, functions, and applications, to competently communicate across different mediums.
3. Create professional, coherent, organized, and persuasive oral and written messages, which adapt to various purposes, audiences, and platforms.
4. Embrace individual and cultural differences, respect diverse perspectives, and create messages that accommodate differences to be prepared for multicultural workplaces.
5. Develop skills in leadership, professionalism, conflict management, and teamwork in preparation for career readiness.
6. Apply communication theory and concepts to personal and professional contexts, including intrapersonal, interpersonal, team, organizational, and mediated.

Bachelor of Arts in Journalism

The B.A. in Journalism prepares students for positions in media production, reporting, editing and content creation. Students pursuing this degree can focus either on writing and editing (Editorial Option) or broadcast journalism (Broadcast Journalism Option). The curriculum offers a blend of courses to support this goal. The coursework begins with basic photo, video, writing, reporting and visual literacy skills. These are then followed by courses that focus on hands-on reporting and content creation. Students will take a series of electives and interdisciplinary courses to build skills in interviewing, writing, social media and specialized journalism.

Our award-winning, on-campus outlets for student writing and productions include The Jambar, JambarTV, Rookery Radio and Penguin Rundown. Internships and other writing opportunities are available at local media outlets including local TV, and newspapers, such as WFMJ, WKBN, The Business Journal, The Vindicator, and the Tribune Chronicle.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT-STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
GENERAL EDUCATION		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics Course recommended	*Any GE Approved Math course, MATH 2623/2623C	3
Arts and Humanities (6 SH)		
JOUR 2603	Media Ethics and Social Responsibilities major	3
GE: Arts & Humanities Course		3
Natural Sciences (7 SH) *two different science courses, one MUST include a lab)		7
Social Science (6 SH)		
MCOM 1595	Media Literacy & Culture required for major	3

GE: Social Science Course	3
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General Education Electives (9 s.h.)		
CMST 1545	Communication Foundations ^{required in major}	3
CMST 2610	Intercultural Communication ^{required for major}	3
GE: General Education Elective		3

Required Support Courses (18 SH)		
CMST 1500	Exploring Communication	3
CMST 3790	Personal Brand Communication	3
MCOM 2624	Communication Technology - Photo and Video	3
MCOM 2625	Communication Technologies: Aesthetics and Design	3
MCOM 3726	American Media: History, Principles and Practices	3
MCOM 3780	Presentational Literacy	3

Journalism Major Requirements		
JOUR 2602	Media Writing	3
JOUR 3725	News Reporting	3
JOUR 3721L	News Content Creation 1	3
JOUR 3731L	News Content Creation 2	3
JOUR 4824	Communication Law	3

Students will select from Option A: Broadcast or Option B: Editorial **24**

Option A: BROADCAST		
JOUR 3790	Documentary Storytelling	
JOUR 4890	Writing and Producing Television News	
MCOM 2683	Foundations of Multicamera Production	
MCOM 2683L	Multicamera Lab 1	
MCOM 2685	Producing	

JOURNALISM ELECTIVES (12 SH) Take 4 additional JOUR courses, 3 (9 SH) must be upper-level (3700-5800)

Option B: EDITORIAL		
JOUR 3716	Feature Writing	
or JOUR 3717	Editorial and Opinion Writing	
or JOUR 3759	Sports Journalism	
JOUR 4823	Advanced News Content Creation	
ENGL 3743	Introduction to Public, Professional and Technical Writing	
ENGL 4849	Copyediting	

Take 4 JOUR elective courses for a total of 12 SH, 9 hours of which must be 3700-5800 level. Available electives are JOUR 2605, JOUR 2632, JOUR 3716, JOUR 3717, JOUR 3759, JOUR 3769, JOUR 3790, JOUR 4890, JOUR 4894

SEMINAR REQUIREMENT Choose one:		
JOUR 4825	Selected Topics in Journalism	3
or MCOM 4897	Seminar	

SENIOR CAPSTONE		
JOUR 4893	Journalism Senior Project	3

FREE ELECTIVES ^{*hours will vary based upon what is needed to reach 120} **19-21**

Students must complete a minimum 39 SH of upper-level (3000-5000) or above.

Total Semester Hours	120-124
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Year 1		
Fall		
CMST 1500	Exploring Communication	3
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
JOUR 2602	Media Writing	3
MCOM 2624	Communication Technology - Photo and Video	3
or MCOM 2625	or Communication Technologies: Aesthetics and Design	

YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2
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Semester Hours	13-15
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Spring

ENGL 1551	Writing 2	3
JOUR 3725	News Reporting	3
MATH 2623	Quantitative Reasoning	3
MCOM 1595	Media Literacy and Culture	3
MCOM 2625 or MCOM 2624	Communication Technologies: Aesthetics and Design or Communication Technology - Photo and Video	3

Semester Hours	15
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Year 2**Fall**

JOUR 3721L	News Content Creation 1	3
MCOM 3726	American Media: History, Principles and Practices	3
CMST 1545	Communication Foundations	3
JOUR 2603	Media Ethics and Social Responsibilities	3
Journalism Option Course		3

Semester Hours	15
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Spring

JOUR 3731L	News Content Creation 2	3
CMST 3790	Personal Brand Communication	3
CMST 2610	Intercultural Communication	3
Journalism Option Course		3
General Education Elective		3

Semester Hours	15
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Year 3**Fall**

JOUR 4825 or MCOM 4897	Selected Topics in Journalism or Seminar	3
Journalism Option Course		3
GE: Social Science		3
GE: Natural Science with Lab		4
Free Elective		3

Semester Hours	16
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Spring

JOUR 4824	Communication Law	3
MCOM 3780	Presentational Literacy	3
Journalism Option Course		3
Journalism Option Course ^C		3
Free Elective		3

Semester Hours	15
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Year 4**Fall**

Journalism Option Course ^J		3
Journalism Option Course		3
Natural Science		3
Free Elective		3
Free Elective		3-7

Semester Hours	15-19
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Spring

JOUR 4893	Journalism Senior Project	3
Journalism Option Course		3

Journalism Option Course	3
GE: Arts & Humanities	3
Free Elective	4-2

Semester Hours	16-14
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Total Semester Hours	120-124
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SL01: Students will create news copy for multiple media platforms that is accurate, well-sourced and adheres to professional standards.

SL02: Students will produce content for organizations that is consumed by audiences.

SL03: Students will apply ethical and legal techniques in the creation and distribution of information.

SL04: Students will use industry standard technology to create visual and interactive components that tell stories.

Bachelor of Arts in Journalism, Bachelor's to Master's Track

Overview

This is a Bachelor's to Master's Track degree program for students in all areas of the B.A. Journalism program.

High performing upperclassmen (those with an overall GPA of 3.25 or higher and a minimum of 78 completed credit hours) may select the graduate track to earn credit towards a Master's Degree in Professional Communication. Enrollment in this track allows students to simultaneously earn credit towards their undergraduate degree and graduate degree. In order to be part of this program students must contact the Communication Department Chair and meet the following criteria. (1) Provide a current resume outlining academic and professional experience and (2) provide a letter of interest explaining how the candidate's academic and/or professional experience and goals align with the MA program. Upon graduation with the undergraduate degree, students must be accepted to the Graduate College and meet all admissions requirements. Once accepted, student transcripts will reflect the dual-enrolled courses.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT-STUDENT SUCCESS		
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar Youngstown State University Success Seminar Intro to Honors	1-2
GENERAL EDUCATION		
ENGL 1550 or ENGL 1549	Writing 1 Writing 1 with Support	3-4
ENGL 1551	Writing 2	3
Mathematics	*Any GE Approved Math course, MATH 2623/2623C recommended	3
Arts and Humanities (6 SH)		
JOUR 2603	Media Ethics and Social Responsibilities ^{required for major}	3
GE: Arts & Humanities Course		
Natural Sciences (7 SH two courses are required, one science course must include a lab)		
Social Science (6 SH)		
MCOM 1595	Media Literacy & Culture ^{required for major}	3
GE: Social Science Course		
General Education Electives (9 s.h.)		
CMST 1545	Communication Foundations ^{Gen Ed Elective required in major}	3
CMST 2610	Intercultural Communication ^{required for major}	3

GE: General Education Elective 3

Required Major Courses

JOUR 2602	Media Writing	3
JOUR 3725	News Reporting	3
JOUR 3721L	News Content Creation 1	3
JOUR 3731L	News Content Creation 2	3
JOUR 4824	Communication Law	3

OPTIONS SELECT OPTION A: Broadcast or OPTION B: Editorial or Option C: Sports Information 33

OPTION A: BROADCAST

STUDENTS MUST COMPLETE: JOUR 3790; JOUR 4890; MCOM 2683; MCOM 2683L; MCOM 2685

CHOOSE 4 (12 SH, 9 hours of which must be 3700-5800 level): JOUR 2605; JOUR 2632; JOUR 3716; JOUR 3717; JOUR 3759; JOUR 3769; JOUR 4823; JOUR 4894

Students must take an additional 9 hours in free electives.

OPTION B: EDITORIAL

STUDENTS MUST COMPLETE: JOUR 3716 OR JOUR 3717 OR JOUR 3759; JOUR 4823; ENGL 3743; ENGL 4849

CHOOSE 4 FORM(12 SH, 9 hours of which must be 3700-5800 level): JOUR 2605; JOUR 2632; JOUR 3716, JOUR 3717, JOUR 3759, JOUR 3769k JOUR 3790; JOUR 4890; JOUR 4894 *Elective choices must differ from option requirements.

Students must take an additional 9 hours in free electives.

Option C: Sports Information

STUDENTS MUST COMPLETE: JOUR 3716 OR JOUR 3717; JOUR 3759; JOUR 3769; JOUR 3790; JOUR 4894; CMST 2630; CMST 4879 OR CMST 5889; MCOM 1570; MKTG 3703; MKTG 3749

CHOOSE ONE (3 s.h.) - JOUR 2605; JOUR 2632; JOUR 4890; JOUR 3716 OR JOUR 3717

SEMINAR REQUIREMENT Choose one:

JOUR 4825	Selected Topics in Journalism	3
	or MCOM 4897 Seminar	

SENIOR CAPSTONE

JOUR 4893	Journalism Senior Project	3
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REQUIRED SUPPORT COURSES

CMST 1500	Exploring Communication	3
CMST 3790	Personal Brand Communication	3
MCOM 2624	Communication Technology - Photo and Video	3
MCOM 2625	Communication Technologies: Aesthetics and Design	3
MCOM 3726	American Media: History, Principles and Practices	3
MCOM 3780	Presentational Literacy	3

Graduate Swing Classes These courses will only count for graduate credit if you have completed the form indicating you are taking it as the grad level. The form must be completed before the course begins.

CMST 6900	Survey of Communication Graduate Studies	3
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Pick Two 6

CMST 5852	Conflict Management and Negotiation	
CMST 5860	Persuasion and New Media	
CMST 5889	Theory of Sports and Communication	
CMST 5898	Seminar	

FREE ELECTIVES (1 SH) *hours will vary based upon what is needed to reach 120 1

Total Semester Hours 120-122

Year 1

Fall		S.H.
JOUR 2602	Media Writing	3
JOUR 2603	Media Ethics and Social Responsibilities *GE: Arts & Humanities	3

CMST 1500	Exploring Communication	3
MCOM 2624 or MCOM 2625	Communication Technology - Photo and Video or Communication Technologies: Aesthetics and Design	3
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4

Semester Hours 16-18

Spring

JOUR 3725	News Reporting	3
MCOM 1595	Media Literacy and Culture *GE: Social Science	3
MCOM 2625 or MCOM 2624	Communication Technologies: Aesthetics and Design or Communication Technology - Photo and Video	3
ENGL 1551	Writing 2	3
General Education Elective		3

Semester Hours 15

Year 2

Fall

JOUR 3721L	News Content Creation 1	3
MCOM 3726	American Media: History, Principles and Practices	3
CMST 1545	Communication Foundations	3
Journalism Option Course 1	Editorial Option ENGL 3743 or Elective; Broadcast Option MCOM 2683 and MCOM 2683L	3
GE: Arts & Humanities		3

Semester Hours 15

Spring

JOUR 3731L	News Content Creation 2	3
CMST 3790	Personal Brand Communication	3
Journalism Option Course 2	Editorial Option choose JOUR 3717, JOUR 3716 or JOUR 3759; Broadcast Option Choose MCOM 2685	3
CMST 2610	Intercultural Communication	3
Free Elective		3

Semester Hours 15

Year 3

Fall

JOUR 4825 or MCOM 4897	Selected Topics in Journalism or Seminar	3
Journalism Option Course 3	Editorial Option Choose JOUR 4823; Broadcast Option Choose JOUR 4890	3
GE: Social Science		3
GE: Natural Science with Lab		4
Free Elective		3

Semester Hours 16

Spring

JOUR 4824	Communication Law	3
MCOM 3780	Presentational Literacy	3
Journalism Option Course 4	Editorial Option Choose ENGL 4849 or Elective; Broadcast Option Choose JOUR elective	3
Journalism Option Course 5	Choose JOUR elective; Internship recommended	3
Free Elective		3

Semester Hours 15

Year 4**Fall**

JOUR 4893	Journalism Senior Project	3
Journalism Option Course 6	JOUR Elective	3
Natural Science		3
Free Elective		3
Free Elective		3

Semester Hours 15

Spring

Journalism Option Course 7	JOUR Elective	3
Journalism Option Course 8		3
Free Elective		3
Free Elective		4

Semester Hours 13

Total Semester Hours 120-122

SL01: Students will create news copy for multiple media platforms that is accurate, well-sourced and adheres to professional standards.

SL02: Students will produce content for organizations that is consumed by audiences.

SL03: Students will apply ethical and legal techniques in the creation and distribution of information.

SL04: Students will use industry standard technology to create visual and interactive components that tell stories.

Bachelor of Arts in Journalism, Sports Information Track

The B.A. in Journalism prepares students for positions in media production, reporting, editing and design. The curriculum offers a blend of courses to support this goal with an emphasis on work in the sports industry. The coursework begins with basic photo, video, writing, reporting and visual literacy skills. These are then followed by courses that focus on production, management and advanced writing projects. Students in Sports Information will take courses in sports journalism, sports marketing, sports production and communication.

On-campus outlets for student writing and productions include Penguin Rundown, Rookery Radio, JambarTV, and thejambar.com. Internships and other writing opportunities are available at local media outlets including local TV, radio and newspapers, such as *The Business Journal*, *The Vindicator*, and the *Tribune Chronicle*. We also place students in YSU athletics and with local minor league sports teams.

COURSE	TITLE	S.H.
First Year Student Requirement		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
General Education		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics Requirement	Any GE Approved Math (MATH 2623 recommended)	3
GE: Arts and Humanities (6 SH)		
JOUR 2603	Media Ethics and Social Responsibilities ^{required for major}	3
GE: Arts & Humanities Course		3
Natural Sciences (7 SH)	^{2 different GE approved science courses, 1 must include a lab}	7

Social Science (6 SH)

CMST 2600	Communication Theory ^{required for major}	3
MCOM 1595	Media Literacy and Culture ^{required for major}	3

General Education Electives (9 SH)

CMST 1545	Communication Foundations ^{required for major}	3
CMST 2610	Intercultural Communication ^{required for major}	3
GE: General Education Elective		3

Required Support Courses (18 SH)

CMST 1500	Exploring Communication	3
CMST 3790	Personal Brand Communication	3
MCOM 2624	Communication Technology - Photo and Video	3
MCOM 2625	Communication Technologies: Aesthetics and Design	3
MCOM 3726	American Media: History, Principles and Practices	3
MCOM 3780	Presentational Literacy	3

JOURNALISM MAJOR REQUIREMENTS (15 SH)

JOUR 2602	Media Writing	3
JOUR 3721L	News Content Creation 1	3
JOUR 3725	News Reporting	3
JOUR 3731L	News Content Creation 2	3
JOUR 4824	Communication Law	3

Sports Journalism Required Courses (18 SH)

JOUR 3716	Feature Writing	3
or JOUR 3717	Editorial and Opinion Writing	
JOUR 3759	Sports Journalism	3
JOUR 3769	Principles and Practices of Sports Information	3
JOUR 3790	Documentary Storytelling	3
JOUR 4894	Journalism Internship	3
JOUR Elective Course	Choose from JOUR 2605, JOUR 2632, JOUR 4890, JOUR 3717	3

Sports Information Support Courses (15 SH)

CMST 2630	Social Media Literacy	3
CMST 4879	Sports Communication Message Design	3
or CMST 5889	Theory of Sports and Communication	
MCOM 1570	Sports Field Production 1	3
MKTG 3703	Marketing Concepts and Practice	3
MKTG 3749	Sports Marketing	3

Seminar Requirement (3 SH)

JOUR 4825	Selected Topics in Journalism	3
or MCOM 4897	Seminar	

Capstone (3 SH)

JOUR 4893	Journalism Senior Project	3
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Free Electives (10 SH) ^{*Hours will vary based on what is needed for 120 SH} 10

Student must complete a minimum of 39 SH of Upper-Level Courses (3700-5800)

Total Semester Hours 120-122

Year 1

Fall		S.H.
CMST 1500	Exploring Communication	3
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
JOUR 2602	Media Writing	3
MCOM 2624	Communication Technology - Photo and Video	3
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar or Youngstown State University Success Seminar or Intro to Honors	1-2

Semester Hours 13-15

Spring

JOUR 3725	News Reporting	3
CMST 1545	Communication Foundations	3
MCOM 1595	Media Literacy and Culture	3
MCOM 2625	Communication Technologies: Aesthetics and Design	3
ENGL 1551	Writing 2	3

Semester Hours 15

Year 2**Fall**

JOUR 3721L	News Content Creation 1	3
MCOM 1570	Sports Field Production 1	3
MCOM 3726	American Media: History, Principles and Practices	3
JOUR 2603	Media Ethics and Social Responsibilities	3
GE: Math Course	*Any GE approved Math, MATH 2623/2623C recommended	3

Semester Hours 15

Spring

JOUR 3731L	News Content Creation 2	3
JOUR 3759	Sports Journalism	3
CMST 2600	Communication Theory	3
CMST 2610	Intercultural Communication	3
MCOM 3780	Presentational Literacy	3

Semester Hours 15

Year 3**Fall**

JOUR 3716 or JOUR 3717	Feature Writing or Editorial and Opinion Writing	3
JOUR 4825 or MCOM 4897	Selected Topics in Journalism or Seminar	3
CMST 3790	Personal Brand Communication	3
MKTG 3703	Marketing Concepts and Practice	3
GE:Lab Science		4

Semester Hours 16

Spring

JOUR 3769	Principles and Practices of Sports Information	3
JOUR 4824	Communication Law	3
JOUR 4894	Journalism Internship	3
CMST 2630	Social Media Literacy	3
Journalism Elective	*Select 1 JOUR 2605, JOUR 2632, JOUR 3717, JOUR 4890	3

Semester Hours 15

Year 4**Fall**

CMST 4879 or CMST 5889	Sports Communication Message Design or Theory of Sports and Communication	3
General Education Elective		3
GE: Arts & Humanities Course		3
Free Elective		3
Free Elective		3

Semester Hours 15

Spring

JOUR 3790	Documentary Storytelling	3
MKTG 3749	Sports Marketing	3
JOUR 4893	Journalism Senior Project	3
GE: Natural Science		3

Free Elective 4

Semester Hours 16

Total Semester Hours 120-122

SLO1: Students will create news copy for multiple media platforms that is accurate, well-sourced and adheres to professional standards.

SLO2: Students will produce content for organizations that is consumed by audiences.

SLO3: Students will apply ethical and legal techniques in the creation and distribution of information.

SLO4: Students will use industry standard technology to create visual and interactive components that tell stories.

Bachelor of Arts in Multimedia Communication

Overview

The multimedia communication program prepares students for careers in the mass communication fields. Our students graduate with an in-depth knowledge of the intellectual challenges found in media industries and a complete tool kit of skills and techniques necessary for content creation, audience analysis and production management.

The multimedia communication curriculum is designed to aid students in the pursuit of careers in all fields of mass communication including broadcasting, public relations and social media content creation.

COURSE	TITLE	S.H.
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FIRST YEAR STUDENT REQUIREMENT-SUCCESS SEMINAR

YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	

GENERAL EDUCATION

ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
GE: Mathematics Course	*Any approved GE: MATH Course, MATH 2623 recommended	3

Arts & Humanities (6 sh)

JOUR 2603	Media Ethics and Social Responsibilities	3
	major required for	
GE: Arts and Humanities		3

Natural Sciences (7 sh)

GE: Natural Science Course		3
GE: Natural Science Course with Lab		4

Social Sciences (6 sh)

MCOM 1595	Media Literacy and Culture	3
	required for major	
GE: Social Sciences		3

General Education Electives (9 sh)

CMST 1545	Communication Foundations	3
	required for major	
CMST 2610	Intercultural Communication	3
	required for major	
GE Elective Course		3

Required Support Courses

CMST 1500	Exploring Communication	3
CMST 3790	Personal Brand Communication	3
JOUR 2602	Media Writing	3
JOUR 4824	Communication Law	3

Major Requirements

MCOM 2624	Communication Technology - Photo and Video	3
MCOM 2625	Communication Technologies: Aesthetics and Design	3
MCOM 2683	Foundations of Multicamera Production	1
MCOM 2683L	Multicamera Lab 1	2
MCOM 2685	Producing	3
MCOM 3726	American Media: History, Principles and Practices	3
MCOM 3780	Presentational Literacy	3
MCOM 4850L	Applied Production	3
Option (Students must select either Option A or Option B)		20-21
Option A: Production		
JOUR 4890	Writing and Producing Television News	
MCOM 3782	Advanced Multicamera Production	
MCOM 3782L	Multicamera Lab 2	
MCOM 3781L	Audio Production	
MCOM 4884L	Video Production Direction	
Select 3 (9 SH) of the following: MCOM 1570, MCOM 3784, MCOM 3791, MCOM 3793L, MCOM 3795, MCOM 4888, JOUR 3721L, JOUR 3790		
Option B: Media Management		
MCOM 3784	Electronic Media Content Strategies	
MCOM 3791	Electronic Media Promotion and Sales	
Select 5 (15 SH) of the following: MCOM 1570, MCOM 3781, MCOM 3782 (with MCOM 3782L), MCOM 3793, MCOM 3794, MCOM 3795, MCOM 4882, MCOM 4884, MCOM 4888, JOUR 3721L, JOUR 3790		
Seminar Requirement		
MCOM 4897	Seminar	3
or JOUR 4825 Selected Topics in Journalism		
Senior Capstone		
MCOM 4899	Senior Project	3
FREE ELECTIVES *Hours will vary based upon what is needed for 120 SH		23
Total Semester Hours		120-123
Year 1		
Fall		
ENGL 1550	Writing 1	3-4
or ENGL 1549 or Writing 1 with Support		
CMST 1500	Exploring Communication	3
MCOM 2624	Communication Technology - Photo and Video	3
or MCOM 2625 or Communication Technologies: Aesthetics and Design		
MCOM 2683	Foundations of Multicamera Production	1
MCOM 2683L	Multicamera Lab 1	2
YSU 1500	Success Seminar	1-2
or YSU 1500S or Youngstown State University Success Seminar or Intro to Honors		
Semester Hours		13-15
Spring		
ENGL 1551	Writing 2	3
JOUR 2602	Media Writing	3
MCOM 2625	Communication Technologies: Aesthetics and Design	3
or MCOM 2624 or Communication Technology - Photo and Video		
MCOM 2685	Producing	3
Option Course		3
Semester Hours		15

Year 2**Fall**

CMST 1545	Communication Foundations	3
JOUR 2603	Media Ethics and Social Responsibilities	3
MCOM 3726	American Media: History, Principles and Practices	3
Math Requirement		3
Option Course		3
Semester Hours		15

Spring

MCOM 1595	Media Literacy and Culture	3
Option Course		3
GE: Lab Science		4
GE: Social Science		3
Free Elective		3
Semester Hours		16

Year 3**Fall**

CMST 2610	Intercultural Communication	3
CMST 3790	Personal Brand Communication	3
MCOM 3780	Presentational Literacy	3
MCOM 4850L	Applied Production	3
Option Course		3
Semester Hours		15

Spring

JOUR 4824	Communication Law	3
Option Course		3
Option Course		3
GE: Arts and Humanities		3
Free Elective		3
Semester Hours		15

Year 4**Fall**

MCOM 4897	Seminar	3
or JOUR 4825 or Selected Topics in Journalism		
Option Course		3
GE: Natural Science		3
Free Elective		3-4
Free Elective		3
Semester Hours		15-16

Spring

MCOM 4899	Senior Project	3
Option Course		3
GE: Elective Course		3
Free Elective		3
Free Elective		4
Semester Hours		16
Total Semester Hours		120-123

LEARNING OUTCOMES

The student learning outcomes for the B.A. degree program in multimedia communication are as follows:

SL01: Students will compose messages using multi-media technology.

SL02: Students will use the production process to construct written, oral and visual messages for a specific audience.

SLO3: Students will examine and apply legal and ethical concepts associated with careers in mass media.

SLO4: Students will describe the prevailing theories and professional structures of electronic media both in the U.S. and globally.

Bachelor of Arts in Multimedia Communication Bachelor's to Master's Track

Overview

This is a Bachelor's to Master's Track degree program for students in all areas of the B.A. Multimedia Communication program.

High performing upperclassmen (those with an overall GPA of 3.25 or higher and a minimum of 78 completed credit hours) may select the Bachelor's to Master's Track to earn credit towards a Master's Degree in Professional Communication. Enrollment in this track allows students to simultaneously earn credit towards their undergraduate degree and graduate degree. In order to be part of this program students must contact the Communication Department Chair and meet the following criteria. (1) Provide a current resume outlining academic and professional experience and (2) provide a letter of interest explaining how the candidate's academic and/or professional experience and goals align with the MA program. Upon graduation with the undergraduate degree, students must be accepted to the Graduate College and meet all admissions requirements. Once accepted, student transcripts will reflect the dual-enrolled courses.

COURSE	TITLE	S.H.
FIRST YEAR STUDENT REQUIREMENT-SUCCESS SEMINAR		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
GENERAL EDUCATION		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
GE: Mathematics Course		3
Arts and Humanities (6 s.h.)		
JOUR 2603	Media Ethics and Social Responsibilities	3
GE: Arts and Humanities		3
Social Science (6 s.h.)		
MCOM 1595	Media Literacy and Culture	3
GE: Social Sciences		3
Natural Science (6-7 s.h.)		
GE:Natural Sciences		3
GE: Natural Sciences with Lab		4
General Education Electives (9 s.h.)		
CMST 1545	Communication Foundations	3
CMST 2610	Intercultural Communication	3
General Education Elective		3
Major Requirements		
MCOM 2624	Communication Technology - Photo and Video	3
MCOM 2625	Communication Technologies: Aesthetics and Design	3
MCOM 2683	Foundations of Multicamera Production	1
MCOM 2683L	Multicamera Lab 1	2
MCOM 2685	Producing	3
MCOM 3726	American Media: History, Principles and Practices	3

MCOM 3780	Presentation Literacy	3
MCOM 4850L	Applied Production	3
Senior Capstone		
MCOM 4899	Senior Project	3
Seminar Requirement		
MCOM 4897	Seminar	3
or JOUR 4825	Selected Topics in Journalism	
Option (Students must select either Option A or Option B or Option C)		34
These options correspond to the B.A. MCOM programs.		

Option A: Production (32-34)

Students must take MCOM 3781L, MCOM 3782, MCOM 3782L, MCOM 4884L and JOUR 4890

Select 3 (9 SH) of the following: MCOM 1570, MCOM 3784, MCOM 3791, MCOM 3793L, MCOM 3795, MCOM 4888, JOUR 3721L, JOUR 3790

Students must take an additional 12-14 hours in free electives.

Option B: Media Management (32-34 s.h.)

Students must take MCOM 3784 and MCOM 3791.

Select 5 (15 SH) of the following: MCOM 1570, MCOM 3781, MCOM 3782 (with MCOM 3782L), MCOM 3793, MCOM 3794, MCOM 3795, MCOM 4882, MCOM 4884, MCOM 4888, JOUR 3721L, JOUR 3790

Students must take an additional 11-13 hours in free electives.

Option C: Sports Broadcasting (32-34 s.h.)

Students must take MCOM 1570, MCOM 1570L, MCOM 3782, MCOM 3782L, MCOM 3793L, MCOM 3795, MCOM 3795L, JOUR 3759, JOUR 3769, CMST 5889

Complete 5-6 s.h. in MCOM 3784, MCOM 3791, MCOM 4884L, MCOM 3781L, MCOM 4888, MCOM 4890

Students may need to take an additional 1-3 hours of free electives.

Required Support Courses

CMST 1500	Exploring Communication	3
JOUR 2602	Media Writing	3
CMST 3790	Personal Brand Communication	3
JOUR 4824	Communication Law	3

Graduate Swing Classes These courses will only count for graduate credit if you have completed the form indicating you are taking it as the grad level. The form must be completed before the course begins.

CMST 6900	Survey of Communication Graduate Studies	3
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Pick Two 6

CMST 5852	Conflict Management and Negotiation	
CMST 5860	Persuasion and New Media	
CMST 5889	Theory of Sports and Communication ^{*Students in Option C may not choose this course.}	
CMST 5898	Seminar	

Total Semester Hours 120-122

Year 1

Fall		S.H.
MCOM 2624	Communication Technology - Photo and Video	3
or MCOM 2625	or Communication Technologies: Aesthetics and Design	
MCOM 2683	Foundations of Multicamera Production	1
MCOM 2683L	Multicamera Lab 1	2
CMST 1500	Exploring Communication	3
JOUR 2603	Media Ethics and Social Responsibilities	3
YSU 1500	Success Seminar	1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	

ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4	CMST 5852 or CMST 5860 or CMST 5889 or CMST 5898	Conflict Management and Negotiation 5889 may be taken as part of the Sports Broadcasting track requirements and the graduate track requirements. or Persuasion and New Media or Theory of Sports and Communication or Seminar	3
Semester Hours		16-18	CMST 5898 or CMST 5852 or CMST 5860 or CMST 5889	Seminar or Conflict Management and Negotiation or Persuasion and New Media or Theory of Sports and Communication	3
Spring					
MCOM 2625 or MCOM 2624	Communication Technologies: Aesthetics and Design or Communication Technology - Photo and Video	3			
MCOM 2685	Producing	3			
JOUR 2602	Media Writing	3			
ENGL 1551	Writing 2	3			
Option Course		3			
Semester Hours		15			
Year 2					
Fall					
MCOM 1595	Media Literacy and Culture	3			
MCOM 3726	American Media: History, Principles and Practices	3			
CMST 1545	Communication Foundations	3			
Math Requirement		3			
Option Course		3			
Semester Hours		15			
Spring					
CMST 3790	Personal Brand Communication	3			
Option Course		3			
Option Course		3			
GE: Natural Science and Natural Science Lab		4			
GE: Social Science		3			
Semester Hours		16			
Year 3					
Fall					
MCOM 3780	Presentational Literacy	3			
MCOM 4850L	Applied Production	3			
CMST 2610	Intercultural Communication	3			
Option Course		3			
General Education Elective		3			
Semester Hours		15			
Spring					
JOUR 4824	Communication Law	3			
Option Course		3			
Option Course		3			
Option Course		3			
GE: Arts and Humanities		3			
Semester Hours		15			
Year 4					
Fall					
MCOM 4897 or JOUR 4825	Seminar or Selected Topics in Journalism	3			
CMST 6900	Survey of Communication Graduate Studies	3			
Option Course		3			
GE: Natural Science		3			
Free Elective		1			
Semester Hours		13			
Spring					
MCOM 4899	Senior Project	3			

CMST 5852 or CMST 5860 or CMST 5889 or CMST 5898	Conflict Management and Negotiation 5889 may be taken as part of the Sports Broadcasting track requirements and the graduate track requirements. or Persuasion and New Media or Theory of Sports and Communication or Seminar	3
CMST 5898 or CMST 5852 or CMST 5860 or CMST 5889	Seminar or Conflict Management and Negotiation or Persuasion and New Media or Theory of Sports and Communication	3
Option Course		3
Option Course		3
Semester Hours		15
Total Semester Hours		120-122

LEARNING OUTCOMES

The student learning outcomes for the B.A. degree program in multimedia communication are as follows:

SLO1: Students will compose messages using multi-media technology.

SLO2: Students will use the production process to construct written, oral and visual messages for a specific audience.

SLO3: Students will examine and apply legal and ethical concepts associated with careers in mass media.

SLO4: Students will describe the prevailing theories and professional structures of electronic media both in the U.S. and globally.

Bachelor of Arts in Multimedia Communication, Sports Broadcasting Track Overview

The sports broadcasting track was designed to prepare students for the ever-expanding field of sports media. Students on this track have direct access to sports broadcasting opportunities through Youngstown State University Athletics, including NCAA Division I sports, via Horizon League and Missouri Valley Conference (i.e., Penguin football, basketball, soccer) streams and broadcasts. Students learn the process of preparing content through the pre- and post-production phases as well as evaluation of the content.

This curriculum is designed to prepare students in pursuit of careers not only in sports broadcasting but also in expanding avenues of communication such as media sales and advertising, storytelling and content creation, writing and editing, and independent production. Sports media internships are available at regionally based, national and international media organizations such as ESPN and Fox Sports affiliates and flagship locations.

COURSE	TITLE	S.H.
FIRST YEAR STUDENT REQUIREMENT-SUCCESS SEMINAR		
YSU 1500 or YSU 1500S or HONR 1500	Success Seminar Youngstown State University Success Seminar Intro to Honors	1-2
GENERAL EDUCATION		
ENGL 1550 or ENGL 1549	Writing 1 Writing 1 with Support	3-4
ENGL 1551	Writing 2	3
GE Mathematics Course	*Any approved GE math course, MATH 2623 or 2623C recommended	4

Arts and Humanities (6 s.h.)

JOUR 2603	Media Ethics and Social Responsibilities ^{required for major}	3
GE: Arts & Humanities Course		3
GE: Natural Sciences (7 s.h.) ^{2 different science courses, 1 MUST include a lab}		
GE: Natural Science Course		3
GE: Natural Science Course with a Lab		4
GE: Social Sciences (6 SH)		
MCOM 1595	Media Literacy and Culture ^{required for major}	3
GE: Social Science Course		3
General Education Elective (9 s.h.)		
CMST 1545	Communication Foundations ^{required for major}	3
CMST 2610	Intercultural Communication	3
GE Elective Course		3
Required Support Courses		
CMST 1500	Exploring Communication	3
CMST 3790	Personal Brand Communication	3
JOUR 2602	Media Writing	3
JOUR 4824	Communication Law	3
Multimedia Communication Core Requirements		
MCOM 2624	Communication Technology - Photo and Video	3
MCOM 2625	Communication Technologies: Aesthetics and Design	3
MCOM 2683	Foundations of Multicamera Production	1
MCOM 2683L	Multicamera Lab 1	2
MCOM 2685	Producing	3
MCOM 3726	American Media: History, Principles and Practices	3
MCOM 3780	Presentational Literacy	3
MCOM 4850L	Applied Production	3
Sports Broadcasting Requirements		
MCOM 1570	Sports Field Production 1	3
MCOM 1570L	Sports Broadcasting Lab 1	3
MCOM 3782	Advanced Multicamera Production	1
MCOM 3782L	Multicamera Lab 2	2
MCOM 3793L	Broadcast Sports Performance	2
MCOM 3795L	Sports Broadcasting Lab 2	3
JOUR 3759	Sports Journalism	3
JOUR 3769	Principles and Practices of Sports Information	3
CMST 5889	Theory of Sports and Communication	3
or HIST 3723	History of American Sports	
Seminar Requirement		
MCOM 4897	Seminar	3
or JOUR 4825	Selected Topics in Journalism	
Senior Capstone		
MCOM 4899	Senior Project	3
MCOM Elective (6 SH) ^{Select}		
Select 2 of the following courses: MCOM 3781L, MCOM 3784, MCOM 3791, MCOM 4884L, MCOM 4890, MCOM 4888		
Free Electives ^{*Hours will vary based on what is needed for 120 SH}		
Total Semester Hours		120-122

*Student must complete a minimum 39 SH of upper-level courses, 37XX and above.

Year 1

Fall		
YSU 1500	Success Seminar	S.H. 1-2
or YSU 1500S	or Youngstown State University Success Seminar	
or HONR 1500	or Intro to Honors	

ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
CMST 1500	Exploring Communication	3
MCOM 1570	Sports Field Production 1	3
MCOM 1570L	Sports Broadcasting Lab 1	3
MCOM 2683	Foundations of Multicamera Production	1
MCOM 2683L	Multicamera Lab 1	2
Semester Hours		16-18
Spring		
MCOM 1595	Media Literacy and Culture	3
MCOM 2624	Communication Technology - Photo and Video	3
or JOUR 2602	or Media Writing	
MCOM 2625	Communication Technologies: Aesthetics and Design	3
or CMST 2610	or Intercultural Communication	
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Semester Hours		15
Year 2		
Fall		
MCOM 3726	American Media: History, Principles and Practices	3
JOUR 2602	Media Writing	3
or MCOM 2624	or Communication Technology - Photo and Video	
JOUR 2603	Media Ethics and Social Responsibilities	3
CMST 2610	Intercultural Communication	3
or MCOM 2625	or Communication Technologies: Aesthetics and Design	
Math Requirement		4
Semester Hours		16
Spring		
MCOM 3782	Advanced Multicamera Production	1
MCOM 3782L	Multicamera Lab 2	2
MCOM 3795L	Sports Broadcasting Lab 2	3
MCOM 2685	Producing	3
Elective		3
GE: Lab Science		4
Semester Hours		16
Year 3		
Fall		
MCOM 3780	Presentational Literacy	3
JOUR 3759	Sports Journalism	3
CMST 3790	Personal Brand Communication	3
GE: Social Science		3
MCOM Elective		3
Semester Hours		15
Spring		
JOUR 3769	Principles and Practices of Sports Information	3
CMST 5889	Theory of Sports and Communication ^{spring odd}	3
or HIST 3723	or History of American Sports	
GE: Arts & Humanities		3
MCOM Elective		3
Free Elective		3
Semester Hours		15

Year 4**Fall**

MCOM 3793L	Broadcast Sports Performance	2
MCOM 4850L	Applied Production	3
MCOM 4897	Seminar	3
or JOUR 4825	or Selected Topics in Journalism	
General Education Elective		3
Free Elective		2
Semester Hours		13

Spring

MCOM 4899	Senior Project	3
JOUR 4824	Communication Law	3
Free Elective		3
Free Elective		2-0
GE: Natural Science		3
Semester Hours		14-12
Total Semester Hours		120

LEARNING OUTCOMES

The student learning outcomes for the B.A. degree program are as follows:

SLO1: Students will compose messages using multi-media technology.

SLO2: Students will use the production process to construct written, oral and visual messages for a specific audience.

SLO3: Students will examine and apply legal and ethical concepts associated with careers in mass media.

SLO4: Students will describe the prevailing theories and professional structures of electronic media both in the U.S. and globally.

Minor in Communicating in Diverse Organizations

COURSE	TITLE	S.H.
CMST 2600	Communication Theory	3
CMST 2655	Communication in Groups and Organizations	3
CMST 2610	Intercultural Communication	3
or CMST 2656	Interpersonal Communication	
CMST 4859	Organizational Cultures	3
CMST 5852	Conflict Management and Negotiation	3
Select one of the following:		3
CMST 3750	Gender Communication	
CMST 3756	Interviewing	
CMST 4855	Interpersonal Communication Relationships	
Total Semester Hours		18

Minor in Communication Studies

Students interested in improving their communication skills should consider one of four minors in communication studies. The minors focus on different areas of communication and each one will help you develop a different skills set. These skills are in high demand by employers and recruiters and include interpersonal communication, intercultural communication, social media communication and campaigns, and conflict management and negotiation.

MINOR IN COMMUNICATION STUDIES

COURSE	TITLE	S.H.
CMST 2600	Communication Theory	3
Select one of the following:		3
CMST 2630	Social Media Literacy	
CMST 2655	Communication in Groups and Organizations	
CMST 2656	Interpersonal Communication	
Select four CMST upper-division courses (3700 and above)		12
Total Semester Hours		18

Minor in Interpersonal Communication

COURSE	TITLE	S.H.
CMST 2600	Communication Theory	3
CMST 2630	Social Media Literacy	3
CMST 2656	Interpersonal Communication	3
CMST 3750	Gender Communication	3
CMST 4855	Interpersonal Communication Relationships	3
CMST 5852	Conflict Management and Negotiation	3
Total Semester Hours		18

Minor in Journalism

COURSE	TITLE	S.H.
Required Courses (18 SH)		
JOUR 2602	Media Writing	3
JOUR 2603	Journalism Ethics and Social Responsibilities	3
JOUR 3721L	News Content Creation 1	3
JOUR 3725	News Reporting	3
JOUR 4824	Communication Law	3
JOUR 3000-5000 Level Course		3
Total Semester Hours		18

Minor in Multimedia Communication

COURSE	TITLE	S.H.
JOUR 2602	Media Writing	3
MCOM 2624	Communication Technology - Photo and Video	3
MCOM 2625	Communication Technologies: Aesthetics and Design	3
MCOM 2685	Producing	3
MCOM 3784	Electronic Media Content Strategies	3
or MCOM 3791	Electronic Media Promotion and Sales	
MCOM 3781L	Audio Production	3
Total Semester Hours		18

Students interested in declaring this minor need to complete an *Intra University Transfer Request* form with their academic advisor.

Minor in Social Media Campaigns

COURSE	TITLE	S.H.
CMST 2600	Communication Theory	3
JOUR 2624	Communication Technology - Photo and Video	3
CMST 2630	Social Media Literacy	3
Select three of the following:		9
CMST 3717	Intro to Media Relations Campaigns	

CMST 3740	Social Media Communication
CMST 3757	Media Relations Writing
CMST 4850	Social Media Campaigns
CMST 4851	New Communication Media

Total Semester Hours 18

Minor in Sports Information

COURSE	TITLE	S.H.
JOUR 2602	Media Writing	3
JOUR 3721L	News Content Creation 1	3
JOUR 3769	Principles and Practices of Sports Information	3
JOUR 4824	Communication Law	3
MCOM 1570	Sports Field Production 1	3
MCOM 3794	Cross-platform Sports Broadcasting	3

Total Semester Hours 18

Certificate in Advocacy and Influence

In this program students will develop strategies to enable them to mobilize communities around shared issues, advocate for change and effectively engage with stakeholders.

COURSE	TITLE	S.H.
CMST 1545	Communication Foundations	3
CMST 2654	Community Engagement & Relations	3
CMST 3754	Argumentation and Advocacy	3
or CMST 3754C	CE Argumentation and Advocacy	
CMST 5860	Persuasion and New Media	3

Total Semester Hours 12

Certificate in Content Creation

Students in this program use a variety of multimedia tools and platforms to develop engaging and visually appealing content for communication purposes. They will acquire skills to create tailored messages for specific audiences.

COURSE	TITLE	S.H.
ENGL 1551	Writing 2	3
MCOM 2624	Communication Technology - Photo and Video	3
CMST 3757	Media Relations Writing	3
CMST 3790	Personal Brand Communication	3

Total Semester Hours 12

Certificate in Interpersonal Networking

For this certificate, students will learn about interpersonal skills such as non-verbal communication and conflict resolution and the role these play in professional success. Students will develop strategies to establish and nurture professional relationship.

COURSE	TITLE	S.H.
CMST 2600	Communication Theory	3
CMST 2656	Interpersonal Communication	3
CMST 3750	Gender Communication	3
CMST 3790	Personal Brand Communication	3
CMST 4855	Interpersonal Communication Relationships	3

Total Semester Hours 15

Certificate in Media Relations

In this program students will use strategies to build and maintain relationships with media outlets. There's an additional focus on developing the skills to effectively manage crisis communication, navigate interviews and strategically leverage media coverage to enhance an organization's reputation and objectives.

COURSE	TITLE	S.H.
CMST 1545	Communication Foundations	3
CMST 3717	Intro to Media Relations Campaigns	3
CMST 3756	Interviewing	3
CMST 3757	Media Relations Writing	3
ENGL 1551	Writing 2	3

Total Semester Hours 15

Certificate in Professional Communication

This program helps students convey complex ideas clearly and persuasively in various professional contexts. They will develop a deep understanding of interpersonal, group and organizational communication, active listening and conflict resolution techniques.

COURSE	TITLE	S.H.
CMST 1545	Communication Foundations	3
CMST 3746	Presentational Speaking	3
CMST 3756	Interviewing	3
CMST 5852	Conflict Management and Negotiation	3

Total Semester Hours 12

Certificate in Social Media Strategy

The Certificate in Social Media Strategy is for students who want to manage social media platforms. The courses focus on the strategies and analytical tools necessary to build, execute and evaluate media campaigns for diverse brands and organizations. Students will take courses that prepare them to respond strategically to crisis situations, manage brand reputations and engage with communities.

COURSE	TITLE	S.H.
CMST 1545	Communication Foundations	3
CMST 2600	Communication Theory	3
CMST 2630	Social Media Literacy	3
CMST 3740	Social Media Communication	3
CMST 4850	Social Media Campaigns	3
CMST 4851	New Communication Media	3

Total Semester Hours 18

Certificate in Sports Communication

In this program students will engage with diverse audiences in the sports industry, including fans, athletes sponsors and media outlets. The coursework will lead them to become proficient in crafting sports-related content, utilizing various media platforms, keeping in mind the unique challenges of sports communication.

COURSE	TITLE	S.H.
CMST 2600	Communication Theory	3
CMST 4879	Sports Communication Message Design	3
CMST 5889	Theory of Sports and Communication	3

MCOM 1570	Sports Field Production 1	3
Total Semester Hours		12

WCBA Associate Degrees

Majors

- Associate of Arts in Business Administration (p. 564)
- Associate of Applied Business in Accounting (p. 565)
- Associate of Applied Business in Business Management (p. 565)

Associate of Arts in Business Administration

The Williamson College of Business Administration offers an Associate of Arts in Business Administration that incorporates some general education courses, the business tool courses, and some upper-level business courses. This degree is often pursued by individuals already in the workforce wanting to enhance their knowledge and skills in the field of business, often leading to promotion and/or salary increase. The courses taken in the Associate of Arts in Business Administration can all be applied to the Bachelor of Science in Business Administration.

CAREER OPPORTUNITIES

An Associate degree in business can prepare students for some entry-level jobs in retail, office administration, bookkeeping, and trade work. The most common careers for individuals earning an AABA degree is in the area of office administration and support. Office administration assistants can be found in a wide array of organizations including corporations, small business centers, government agencies, and nonprofit organizations.

STUDENT EXPERIENCES

Students enrolled in the Associate of Arts in Business Administration have the opportunity to build their knowledge and leadership skills in their field through various student leadership organizations including the American Marketing Association, Advertising Club, Pi Sigma Epsilon, Society for Human Resource Management (SHRM), Enactus, and the Student Nonprofit Leadership Organization.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
GENERAL EDUCATION COURSES		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
Mathematics	Grade of a "C" or higher	
MATH 2623	Quantitative Reasoning	3-6
or MATH 2623C	Quantitative Reasoning with Co-Requisite Support	
or MATH 1510	College Algebra	
or MATH 1510C	College Algebra with Co-requisite Support	
or MATH 1552	Applied Business Calculus	
or MATH 1571	Calculus 1	
ARTS & HUMANITIES (6 SH)		6
GE: NATURAL SCIENCES (7 SH) Two courses required, one Science must include a lab		7
GE: SOCIAL SCIENCES (6 SH)		
ECON 2610	Principles 1: Microeconomics ^{required for major}	3
ECON 2630	Principles 2: Macroeconomics ^{required for major}	3

GENERAL EDUCATION ELECTIVE		
ECON 1505	Personal Financial Literacy ^{Recommended}	3
MGT 2604	Legal and Social Responsibilities of Business ^{Recommended}	3

BUSINESS TOOL COURSES		
Business Tool courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		
ACCT 2602	Financial Accounting	3
ACCT 2603	Managerial Accounting	3
BUS 1500	Foundations of Business	3
BUS 2600	Business Applications of Microsoft Excel	3
BUS 2610	Collaborating, Writing, & Presenting in Business	3
BUSINESS CORE COURSES		
Upper level business courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		
BUS 3700	Business Analytics	3
MGT 3725	Fundamentals of Management	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3
Total Semester Hours		60-65

Year 1		
Fall		
YSU 1500	Success Seminar	S.H.
or YSU 1500S	or Youngstown State University Success Seminar	1-2
or HONR 1500	or Intro to Honors	
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
BUS 1500	Foundations of Business	3
ECON 1505	Personal Financial Literacy ^{GE Elective (Recommended)}	3
MATH 2623	Quantitative Reasoning (GE: Elective)	3-6
or MATH 1510	or College Algebra	
or MATH 1510C	or College Algebra with Co-requisite Support	
or MATH 1552	or Applied Business Calculus	
or MATH 1571	or Calculus 1	
Semester Hours		13-18
Spring		
ENGL 1551	Writing 2	3
ECON 2610	Principles 1: Microeconomics	3
BUS 2610	Collaborating, Writing, & Presenting in Business	3
ACCT 2602	Financial Accounting (GE: Arts & Humanities)	3
GE: Arts & Humanities		3
Semester Hours		15
Year 2		
Fall		
ACCT 2603	Managerial Accounting	3
ECON 2630	Principles 2: Macroeconomics	3
MGT 2604	Legal and Social Responsibilities of Business ^{GE Elective (Recommended)}	3
BUS 2600	Business Applications of Microsoft Excel	3
GE: Lab Science		4
Semester Hours		16
Spring		
MGT 3725	Fundamentals of Management	3
MKTG 3702	Business Professionalism	1

MKTG 3703	Marketing Concepts and Practice	3
BUS 3700	Business Analytics	3
GE: Natural Science		3
GE Arts & Humanities		3
Semester Hours		16
Total Semester Hours		60-65

The prerequisite for all upper-level business courses includes a minimum 2.5 overall GPA.

Associate of Applied Business in Accounting

The Williamson College of Business Administration offers an Associate of Applied Business in Accounting that includes some business tool courses and some upper-level accounting courses. This degree is often pursued by individuals already in the workforce wanting to enhance their knowledge and skills in the field of accounting, often leading to promotion and/or salary increase. The majority of courses taken in the Associate of Applied Business in Accounting can all be applied to the Bachelor of Science in Business Administration in Accounting degree.

CAREER OPPORTUNITIES

An Associate of Applied Business in Accounting equips graduates with a solid foundation in business principles, opening doors to a variety of entry-level career opportunities across multiple industries. Graduates can pursue roles such as bookkeepers, tax preparers, and human resources assistants, where skills in organization, communication, and basic accounting are invaluable. Moreover, this degree can serve as a foundation to pursue a bachelor's degree in business.

STUDENT EXPERIENCES

Students enrolled in the Associate of Applied Business in Accounting have the opportunity to build their knowledge and leadership skills in their field through various student leadership organizations including the Institute of Management Accountants, the Economics Club, and the Student Nonprofit Leadership Organization.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT - STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
GENERAL EDUCATION REQUIREMENTS		
ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
MATHEMATICS <small>Grade of a "C" or higher required</small>		
MATH 2623	Quantitative Reasoning	3-6
or MATH 2623C	Quantitative Reasoning with Co-Requisite Support	
or MATH 1510	College Algebra	
or MATH 1510C	College Algebra with Co-requisite Support	
or MATH 1571	Calculus 1	
ECON 2610	Principles 1: Microeconomics	3
Any Gen Ed AH or NS		3
BUSINESS COURSES		
Business courses must be completed with a grade of a "C" or higher and CAN NOT be taken CR/NC		
ACCT 2602	Financial Accounting <small>Required for students planning to pursue a Bachelor of Science in Business (BSBA) degree.</small>	3
or ACCT 1503	Essentials of Accounting	
ACCT 2603	Managerial Accounting	3

BUS 1500	Foundations of Business	3
BUS 2600	Business Applications of Microsoft Excel	3
BUS 2610	Collaborating, Writing, & Presenting in Business	3
BUS 3700	Business Analytics	3
ECON 1505	Personal Financial Literacy <small>Required for students planning to pursue a Bachelor of Science in Business (BSBA) degree.</small>	3
or POL 1560	American Government	
ECON 2630	Principles 2: Macroeconomics <small>Required for students planning to pursue a Bachelor of Science in Business (BSBA) degree.</small>	3
or PSYC 1560	General Psychology	
MGT 2604	Legal and Social Responsibilities of Business	3
MGT 3725	Fundamentals of Management	3
BUS 4815	Career Planning & Management <small>or ACCT elective</small>	3
ACCOUNTING UPPER-DIVISION		
Accounting courses must be completed with a grade of a "C" or higher and CAN NOT be taken CR/NC		
ACCT 3701	Intermediate Accounting 1	3
ACCT 3702	Intermediate Accounting 2	3
ACCT 4813	Federal Taxation 1	3
ACCT 4860K	Spec Tpcs Comp Acct Quickbooks	3
ACCT 4860V	Special Topics in Accounting Payroll Accounting	3
Total Semester Hours		61-66

Associate of Applied Business in Business Management

The Williamson College of Business Administration offers an Associate of Applied Business in Business Management that includes a certificate option in an area, some business tool courses, and some upper-level business courses. This degree is often pursued by individuals already in the workforce wanting to enhance their knowledge and skills in the field of business, often leading to promotion and/or salary increase. The majority of courses taken in the Associate of Applied Business in Business Management can all be applied to the Bachelor of Science in Business Administration.

CAREER OPPORTUNITIES

An Associate of Applied Business in Business Management equips graduates with a solid foundation in business principles, opening doors to a variety of entry-level career opportunities across multiple industries. Graduates can pursue roles such as administrative assistants, sales representatives, customer service representatives, marketing assistants, and human resources assistants, in which skills in organization, communication, and basic accounting are invaluable. Moreover, this degree can serve as a foundation to pursue a bachelor's degree in business.

STUDENT EXPERIENCES

Students enrolled in the Associate of Science in Business Management have the opportunity to build their knowledge and leadership skills in their field through various student leadership organizations including the American Marketing Association, Advertising Club, Pi Sigma Epsilon, Society for Human Resource Management (SHRM), Enactus, and the Student Nonprofit Leadership Organization.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT - STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	
GENERAL EDUCATION REQUIREMENTS		
ENGL 1550	Writing 1	3-4

or ENGL 1549	Writing 1 with Support	
MATHEMATICS	Grade of a "C" or higher required	
MATH 2623	Quantitative Reasoning	3-6
or MATH 2623C	Quantitative Reasoning with Co-Requisite Support	
or MATH 1510	College Algebra	
or MATH 1510C	College Algebra with Co-requisite Support	
or MATH 1571	Calculus 1	
ECON 2610	Principles 1: Microeconomics	3
Any Gen Ed AH or NS Course		3
BUSINESS COURSES		
Business courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		
ACCT 2602	Financial Accounting	3
	Required for students planning to pursue a Bachelor of Science in Business (BSBA) degree.	
or ACCT 1503	Essentials of Accounting	
BUS 1500	Foundations of Business	3
BUS 2600	Business Applications of Microsoft Excel	3
	Required for students planning to pursue a Bachelor of Science in Business (BSBA) degree.	
or CSIS 1514	Business Computer Systems	
BUS 2610	Collaborating, Writing, & Presenting in Business	3
ECON 1505	Personal Financial Literacy	3
	Required for students planning to pursue a Bachelor of Science in Business (BSBA) degree.	
or POL 1560	American Government	
ECON 2630	Principles 2: Macroeconomics	3
	Required for students planning to pursue a Bachelor of Science in Business (BSBA) degree.	
or PSYC 1560	General Psychology	
MGT 3715	Employee Relations	3
MGT 3725	Fundamentals of Management	3
MGT 3750	Managing Individuals in Organizations	3
	Required for students planning to pursue a Bachelor of Science in Business (BSBA) degree.	
or CMST 2655	Communication in Groups	
MKTG 3703	Marketing Concepts and Practice	3
BUS 4815	Career Planning & Management	3
BUSINESS CERTIFICATE or ELECTIVE COURSES (15 S.H.)		15
Business courses must be completed with the grade of a "C" or higher and cannot be taken credit/no credit.		
Students opting for a certificate must successfully complete five designated courses (15 semester hours) specific to that certificate. On the other hand, students not pursuing a certificate are required to successfully complete five upper-level courses (15 semester hours) selecting from: ACCT, ADV, BUS, ECON, ENT, FIN, MGT, MKTG at the 3000-5000 level.		
Total Semester Hours		61-66

Certificate Options**Certificate in Advertising**

COURSE	TITLE	S.H.
ADV 3711	Marketing Communications	3
ADV 3717	Media Planning and Buying	3
Any ADV or MKTG 3700-5800 level course		3
MKTG 3740	Professional Selling	3
PHIL 2628	Business Ethics	3
Total Semester Hours		15

Certificate in Data Science

COURSE	TITLE	S.H.
BUS 3710	Data Visualization with Tableau	3
BUS 3730	Advanced Excel and Business Analytics Tools	3
or ECON 3730	Advanced Excel and Business Analytics Tools	
CSIS 1595	Fundamentals of Programming and Problem-Solving 1	2
CSIS 1595L	Fundamentals of Programming and Problem-Solving 1 Lab	1
PHIL 2628	Business Ethics	3
STAT 2601	Introductory Statistics	3
Total Semester Hours		15

Certificate in Digital and Social Media Marketing

COURSE	TITLE	S.H.
JOUR 2602	Media Writing	3
MGT 3771	Social Media and E-Commerce	3
MKTG 3726	Consumer Behavior	3
MKTG 4811	Digital Marketing	3
or CMST 2630	Social Media Literacy	
PHIL 2628	Business Ethics	3
Total Semester Hours		15

Certificate in Entrepreneurship

COURSE	TITLE	S.H.
ENT 3700	Entrepreneurship New Venture Creation	3
PHIL 2628	Business Ethics	3
MGT 4801	Leadership in Business and Society	3
MGT 4819	Talent Selection & Acquisition	3
MKTG 3709	Retail Marketing	3
Total Semester Hours		15

Certificate in Finance

COURSE	TITLE	S.H.
ACCT 2603	Managerial Accounting	3
FIN 3720	Business Finance	3
FIN 3730	Investment Planning	3
Any FIN or ACCT 3000-5000 level course		3
MGT 4801	Leadership in Business and Society	3
Total Semester Hours		15

Certificate in General Management

COURSE	TITLE	S.H.
ENT 3700	Entrepreneurship New Venture Creation	3
MGT 2604	Legal and Social Responsibilities of Business	3
MGT 4801	Leadership in Business and Society	3
MKTG 3742	Organizational Purchasing	3
PHIL 2628	Business Ethics	3
Total Semester Hours		15

Certificate in Human Resource Management

COURSE	TITLE	S.H.
MGT 2604	Legal and Social Responsibilities of Business	3
MGT 4801	Leadership in Business and Society	3
MGT 4810	Compensation and Performance Appraisal	3
MGT 4818	Training and Development	3

MGT 4819	Talent Selection & Acquisition	3
Total Semester Hours		15

Certificate in Marketing

COURSE	TITLE	S.H.
ADV 3711	Marketing Communications	3
MGT 4801	Leadership in Business and Society	3
MKTG 3709	Retail Marketing	3
MKTG 3740	Professional Selling	3
MKTG 4811	Digital Marketing	3
or CMST 2630	Social Media Literacy	
Total Semester Hours		15

Certificate in Operations Management

COURSE	TITLE	S.H.
BUS 2600	Business Applications of Microsoft Excel	3
MGT 3789	Operations Management	3
MGT 4801	Leadership in Business and Society	3
MGT 4818	Training and Development	3
MKTG 3742	Organizational Purchasing	3
Total Semester Hours		15

Certificate in Project Management Fundamentals

COURSE	TITLE	S.H.
BUS 2600	Business Applications of Microsoft Excel	3
FIN 3726	Insurance Planning	3
MGT 4801	Leadership in Business and Society	3
MGT 4881	Project Management	3
MGT 4883	Project Scheduling and Controlling	3
Total Semester Hours		15

BSBA International Business (ICP)

WCBA Student Services

(330) 941-2376

INTERNATIONAL BUSINESS (ICP)

The Williamson College of Business Administration offers an Individualized Curriculum Program (ICP) in International Business. This major utilizes the core functional areas (management, marketing, finance, accounting, etc.) of any business or organization to conduct business internationally. Virtually all businesses deal with international suppliers, buyers, or other parties. The International Business major allows students the education and experiences of conducting business with organizations from multiple countries around the globe. This program prepares students to enter a global market and leads to jobs such as import/export agent, translator, foreign currency investment advisor, foreign sales representative, and international management consultant.

Student Leadership Opportunities

Students studying International Business at Youngstown State University have the opportunity to build their knowledge and leadership skills through various student leadership organizations such as the International Business Organization, Beta Gamma Sigma, Enactus, Student Investment Fund, Student Leadership Council, and Student Nonprofit Leadership Organization.

Global Learning Experiences

The Williamson Center for International Business offers short-term study trips lasting approximately 10 days. These are typically offered during class

break periods (winter and spring break). WCBA short-term trips have included destinations such as Italy, Ireland, The Czech Republic and China. Students receive three credit hours of course work that can be applied to their degree requirements.

Youngstown State University's International Studies and Programs offers a wide variety of semester long international study experiences. Study Abroad programs allow a student to live in a foreign country and attend a foreign university. Students are immersed in the culture through the learning experience. WCBA students have studied for a semester at various locations around the world including Italy, Africa, Australia, England, Brazil and Germany.

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT - STUDENT SUCCESS SEMINAR		
YSU 1500	Success Seminar	1-2
or YSU 1500S	Youngstown State University Success Seminar	
or HONR 1500	Intro to Honors	

GENERAL EDUCATION

ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
MATH 2623	Quantitative Reasoning *Grade of a "C" or higher required	3
or MATH 2623C	Quantitative Reasoning with Co-Requisite Support	
or MATH 1510	College Algebra	
or MATH 1510C	College Algebra with Co-requisite Support	
or MATH 1552	Applied Business Calculus	
or MATH 1571	Calculus 1	

Arts & Humanities (6 s.h.)

REL 2601	Introduction to World Religions	3
GE: Arts & Humanities		3

Natural Sciences (2 courses, 1 with lab) (7 s.h.)

Social Science		
ECON 2610	Principles 1: Microeconomics *Grade of a "C" or higher required	3
ECON 2630	Principles 2: Macroeconomics *Grade of a "C" or higher required	3

General Education Electives (9 s.h.)

MGT 2604	Legal and Social Responsibilities of Business	3
General Education Elective		3
General Education Elective		3

BUSINESS TOOL COURSES

ACCT 2602	Financial Accounting	3
ACCT 2603	Managerial Accounting	3
BUS 1500	Foundations of Business	3
BUS 2600	Business Applications of Microsoft Excel	3
BUS 2610	Collaborating, Writing, & Presenting in Business	3

BUSINESS CORE COURSES

BUS 3700	Business Analytics	3
BUS 3710	Data Visualization with Tableau	3
BUS 3715	Principles of International Business	3
FIN 3720	Business Finance	3
MGT 3725	Fundamentals of Management	3
MGT 3761	Management Information Systems	3
MGT 3789	Operations Management	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3

SENIOR CAPSTONE

MGT 4850	Strategic Management	3
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INTERNATIONAL BUSINESS CORE COURSES		12
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Select 12 SH from the following: International Business majors are encouraged to participate in at least ONE Global Learning Experience for credit.

BUS 4849	Export Strategy	
BUS 4875	International Business Field Study Tour	
BUS 4881	Special Topics in Business (BUS 4881B Ohio Export Internship) <small>Through selection process only</small>	
ECON 3720	Capitalism versus Socialism	
ECON 5811	International Trade	
ECON 5812	International Finance	
FIN 4839	International Accounting and Finance	
MGT 3755	Managing Workplace Diversity	
MGT 4820	Supply Chain Management	
MKTG 4842	Special Topics in Marketing (MKTG 4842O Ohio Export Strategies) <small>Through selection process only</small>	
MKTG 4851	Services Marketing	
FUNCTIONAL CORE REQUIREMENTS		12
Select 12 SH of courses at a 3700 level or higher of the following areas: ACCT, BUS, ECON, ENT, FIN, MGT, MKTG)		
UPPER-LEVEL BUSINESS COURSES		6
Select 6 SH of business courses at a 3700 level or above (ACCT, ADV, BUS, ENT, FIN, MGT, MKTG)		
FREE ELECTIVES		9
Total Semester Hours		120-122

Course	Title	S.H.
Year 1		
Fall		
YSU 1500 or SS 1500 or HONR 1500	Success Seminar or or Intro to Honors	1-2
ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
BUS 1500	Foundations of Business	3
MATH 2623 or MATH 2623C or MATH 1510 or MATH 1510C or MATH 1552 or MATH 1571	Quantitative Reasoning or Quantitative Reasoning with Co-Requisite Support or College Algebra or College Algebra with Co-requisite Support or Applied Business Calculus or Calculus 1	3
GE: Elective		3
Semester Hours		13-15
Spring		
ENGL 1551	Writing 2	3
BUS 2600	Business Applications of Microsoft Excel	3
BUS 2610	Collaborating, Writing, & Presenting in Business	3
ECON 2610	Principles 1: Microeconomics	3
GE: Elective		3
Semester Hours		15
Year 2		
Fall		
ACCT 2602	Financial Accounting	3
ECON 2630	Principles 2: Macroeconomics	3
MGT 2604	Legal and Social Responsibilities of Business	3
REL 2601	Introduction to World Religions <small>General Education Course</small>	3

GE: Natural Science		3
Semester Hours		15
Spring		
ACCT 2603	Managerial Accounting	3
MKTG 3702	Business Professionalism	1
MKTG 3703	Marketing Concepts and Practice	3
GE: Lab Science		4
Free Elective Course		3
Free Elective Course		3
Semester Hours		17
Year 3		
Fall		
MGT 3725	Fundamentals of Management	3
BUS 3715	Principles of International Business	3
BUS 3700	Business Analytics	3
Upper-Level Functional Core Course		3
GE: Arts & Humanities		3
Semester Hours		15
Spring		
FIN 3720	Business Finance	3
BUS 3710	Data Visualization with Tableau	3
Upper-Level International Business Course		3
Upper-Level International Business Course		3
Upper-Level Business Course <small>Internship recommended</small>		3
Semester Hours		15
Year 4		
Fall		
MGT 3789	Operations Management	3
MGT 3761	Management Information Systems	3
Upper-Level International Business Course		3
Upper-Level Functional Core Course		3
Upper-Level Business Course		3
Semester Hours		15
Spring		
MGT 4850	Strategic Management	3
Upper-Level International Business Course		3
Upper-Level Functional Core Course		3
Upper-Level Functional Core Course		3
Free Elective		3
Semester Hours		15
Total Semester Hours		120-122

Minor in International Business

Youngstown State University students are invited to enhance their educational experience with a minor in International Business. International Business studies activities involve cross border transactions of goods, services and resources between two or more nations. A minor in International Business can be met through successful completion of the following requirements:

COURSE	TITLE	S.H.
REQUIRED COURSES		
BUS 1500	Foundations of Business	3
BUS 3715	Principles of International Business	3
INTERNATIONAL BUSINESS COURSES		
Select three courses (9 SH) of the following:		9
ECON 3720	Comparative Economic Systems	
BUS 4875	International Business Field Study Tour	

BUS 4849	Export Strategy
ECON 5811	International Trade
ECON 5812	International Finance
FIN 4839	International Accounting and Finance
MKTG 48420 Special Topics Ohio Export Project ^{*requires acceptance into Ohio Export Program}	
BUS 4881B Special Topics Ohio EIP ^{*requires acceptance into Ohio Export Program}	
Total Semester Hours	
15	

NOTE: Students interested in declaring a minor in International Business need to complete an *Intra University Transfer Request* form with their academic advisor. Students pursuing a WCBA minor must meet all course prerequisites to enroll in a WCBA course, including a minimum overall GPA of a 2.5 for upper division business courses. WCBA minor courses must be completed with the grade "C" or higher and cannot be taken credit/no credit.

Minor in Business (for Non-Business Major)

Offering flexibility, the Minor in Business can be pursued either 100% online, 100% traditional on-campus, or a combination.

Designed for non-business majors, the Minor in Business provides students with a solid foundation in fundamental business principles, concepts, and practices. Students in this minor will learn about essential areas of business, including management, marketing, finance, and accounting. Students will be equipped with knowledge essential for navigating, contributing to, and thriving in professional environments.

The minor can be met through successful completion of the following requirements:

COURSE	TITLE	S.H.
ACCT 1503	Essentials of Accounting	3
or ACCT 2602	Financial Accounting	
BUS 1500	Foundations of Business	3
BUS 2600	Business Applications of Microsoft Excel	3
ECON 1505	Personal Financial Literacy	3
MGT 3725	Fundamentals of Management	3
MKTG 3703	Marketing Concepts and Practice	3
Total Semester Hours		18

NOTE: Students interested in declaring a minor in Business need to complete an *Intra University Transfer Request* form with their academic advisor. Students pursuing a WCBA minor must meet all course pre-requisites to enroll in WCBA courses, including a minimum overall GPA of a 2.5 for upper division business courses. WCBA courses must be completed with the grade "C" or higher and cannot be taken credit/no credit.

Sokolov Honors College

SOKOLOV HONORS COLLEGE

Dean Amy L. Cossentino

Mission of the Sokolov Honors College

Inspiring a love of learning through opportunity, community and family.

Outcomes

ENRICHMENT and Differentiation

Students who desire an enriched education take honors courses and participate in experiential learning opportunities. A separate application is required.

HONORS DIPLOMA

Students completing the honors curriculum will receive a special designation on the diploma and final transcript.

Benefits of Joining

- Students enjoy the benefits of early registration each semester they are actively participating.
- Honors students are part of an interdisciplinary community of academically motivated students and a network of engaged alumni.
- Students develop skills through extended learning opportunities beneficial for securing competitive national/international scholarships, job, and graduate/professional school placements.
- Student engagement in the community offers additional experiential learning and leading opportunities.
- Students benefit from various individualized learning experiences that may connect them to faculty research, community-based research with professionals, and job opportunities with alumni. Presentations at local and national conferences are encouraged and supported.
- Course material is covered in greater depth than in a traditional class. Therefore, honors students receive "value-added" educational opportunities.
- Students grow as global citizens through interactions with others from around the world in classes, community engagement projects, and study abroad.
- As reflected by the transcript and diploma, an honors student who shows the desire and ability to go above and beyond what is traditionally required by the University is recognized at graduation with a special honors medallion.
- Honors students are eligible to live in the honors residence hall, Cafaro House, or The Courtyards Apartments - building #2.
- Members may use the facilities in Fok Hall, which includes wireless connectivity, study space, and a student lounge.

Administration of the Sokolov Honors College

The program is operated by the Dean of the Sokolov Honors College who reports to the Provost. The honors curriculum is under the jurisdiction of the Honors Committee of Academic Senate.

Baccalaureate Honors

ENTRANCE REQUIREMENTS

1. Students qualify with a 3.5 overall grade point average and at least a composite ACT score of 26, or combined SAT score of 1240 on the new SAT (or 1760 on the old SAT).
2. Current YSU students must have completed at least 12 semester hours of college-level study (not to include remedial courses) with a cumulative GPA of at least a 3.4.
3. Transfer students must have completed at least 15 semester hours of college-level study accepted for credit at YSU (not to include remedial courses) with a cumulative GPA of at least a 3.4.
4. Students enrolled in or eligible to enter the Honors College and others approved by the instructor and Dean of Honors may take honors courses.

5. To remain in good standing in the Honors College, students must maintain a GPA of at least a 3.0. Students falling below this level for two consecutive semesters will be removed from the program.
6. Students who complete no honors work for two consecutive semesters and has not achieved the requirements for continuation will be suspended from the program. Satisfactory progress must be made in order to fulfill all applicable honors college scholarships.
7. Completing the honors requirements necessitates an average of five to six credit hours of honors work per semester for the first four semesters, unless the student will graduate in less than four years. If graduating in less than four years, the student should work with the Honors College staff to map out a plan for completion. All honors coursework, except for the senior honors thesis or capstone, should be completed before the senior year.

Baccalaureate Honors Curriculum

(for students who enroll beginning Summer semester 2020)

Students who enter the Honors College beginning summer semester 2020 are required to complete at least 24 semester hours of honors work, including a senior thesis or capstone.

Further requirements include the following:

- *Intro to Honors Seminar* – 1 credit (to be taken in the first semester)
- *Campus Community Partnership Seminar* - 1 credit (to be taken after the first semester)
- *General Education Requirements* – 9 credits
- *Other* – 12+ credits (combination of seminars, upper division courses or general education requirements)
- *Senior Honors Capstone*¹ 1-3 credits

¹ During the senior year, a capstone thesis/project in the major department is required. This is generally worth 1-3 semester hours depending upon the department. A faculty advisor, selected by the student and approved by the Director of Honors, will oversee this project. The completed capstone in the form of a thesis should be bound and archived by the Library and stored in the Honors College, Fok Hall. Certain projects other than theses may be presented in poster form or technologically recorded and similarly archived and stored. A public defense is required and may be in the form of an exhibition, recital, formal presentation at a regional/national conference or Quest. Projects completed by individuals, teams, and teams of students working with community officials are all appropriate.

Associate Honors

The pre-college requirements for the Honors Associate track are identical to those of the four-year Honors Program. Students who have not completed the college preparatory subjects are admitted to the Honors Associate Program on the condition that their course of study includes at least one course prescribed for correcting a deficiency each semester until the deficiencies have been erased. Courses taken at the college level and used to make up a deficiency will be applied toward the Honors Associate Program.

The following students qualify, upon application for the Honors Associate track:

- Students with a 3.5 overall grade point average and a Composite ACT score of 26 or a combined SAT of 1260 (new) 1760 (old).
- Current YSU students having completed at least 12 semester hours of college-level study (not to include remedial courses) with a cumulative GPA of at least 3.4.
- Students having completed at least 15 semester hours of college-level study accepted for credit at YSU (not to include remedial courses) with a cumulative GPA of at least a 3.4.

Honors Associate Curriculum

- *First Year Honors Seminar* – 1 credit (To be taken in either the first semester.)
- *Campus Community Partnership Seminar* - 1 credit (to be taken after the first semester)
- *General Education Requirements* – 6 credits
- *Other* – 3+ credits (Combination of seminars, upper division courses or general education requirements.)
- *Honors Capstone* – 1 credit
- A total of 14 credits of honors from a combination of seminars, actual honors courses, contracts, and capstone.

Individualized Honors Curriculum (IHC)

An individualized honors curriculum (IHC) is available for students who wish to alter any of the requirements listed above for either the associate or baccalaureate honors programs. The IHC may be necessary for first-year students entering with more than a year of college credits from College Credit Plus, Advanced Placement and other transfer credits. Students on the IHC plan are required to complete HONR 1500 and HONR 2601P. However, the student should prepare a proposal that includes:

- an individualized meeting with honors staff application for IHC (available by request at honors@ysu.edu)
- reasons for choosing not to follow the prescribed honors program
- goals of the IHC
- exact courses and the course format (i.e. AP honors, honors class, contract honors, independent study, honors capstone, study abroad, etc.) 24 credits at the honors level required
- outcomes of the IHC
- estimated time to completion

YSU-BaccMed Program

The Sokolov Honors College administers the YSU-BaccMed Program, which provides students with an enhanced pre-medical honors curriculum and access to potential early assurance to either Northeast Ohio Medical University (NEOMED) or Lake Erie College of Osteopathic Medicine (LECOM). YSU-BaccMed students are expected to attend cohort meetings, engage in professional development opportunities, and meet regularly with honors faculty/staff involved with administering the program.

For more information: <https://ysu.edu/academics/science-technology-engineering-mathematics/ysu-baccmed> (<https://ysu.edu/academics/science-technology-engineering-mathematics/ysu-baccmed/>)

Course Credit Generation

Honors credit generation includes:

- earned honors credit through advanced placement examination
- special sections of traditional courses
- seminars on special topics
- contract honors as necessary
- advanced course work in areas outside of the major
- a common theme when possible, such as the Math Department Honors Pathway
- a capstone project or thesis in the senior year

Advanced Placement Honors Credit

Another way for students to earn honors credit is through meeting a defined benchmark score on the AP exam for YSU courses that have an associated honors section. Students may utilize up to a maximum of 11 AP honors credits of the required 24 honors credits required to graduate with an honors diploma. A student must complete at least 13 credits of the 24 credit hours of honors

course work directly from YSU, excluding AP, through seminars, contracts, honors courses, and capstone. Students map out a plan for completion in HONR 1500. To review a listing of AP credits approved for honors courses, visit <https://ysu.edu/registrars-office/credit-examination-ap-information/>

Transfer of Honors Credit

- Honors credit from other institutions will be accepted as honors credit and can be used to partially fulfill the requirements for the honors program at Youngstown State University provided that the honors credit was earned in a college-level course with a grade of B or higher.
- Upon application, all students from other honors programs who were in good standing relative to their previous program will be admitted into the YSU Honors College. Honors credit earned at other institutions will be accepted as honors credit and can be used to partially fulfill the requirements for honors at YSU subject to review by the Honors College.
- To graduate with an honors diploma, a student must complete at least 13 of the total 24 semester hours of honors course work from YSU, fulfill the depth and breadth requirements of the honors program, and complete a senior thesis or capstone in the major discipline. For more details, consult with the Honors College.
- Students who transfer into the YSU Honors College have all the rights and privileges granted to its members, e.g., honors housing, priority registration, use of honors facilities, etc.

Courses of Instruction

THE NATURE OF AN HONORS COURSE

When compared to a non-honors course, an honors course should:

- Cover material in greater depth
- Encompass more complex concepts, stressing analysis
- Place greater emphasis on communication skills
- Include discussion of applicable theories in the field
- Require of the students more preparation and class participation, including more ambitious papers or projects, as well as a greater share of responsibility for learning
- Involve more state-of-the-art technology whenever possible and appropriate

HONORS COLLEGE COURSES

HONR 1500 Intro to Honors 1 s.h.

Prepares students for the expectations and requirements of the Honors Program. Students develop skills that aid in their overall academic endeavors and explore topics pertinent to their development within the Honors Program and as citizens of the university, local, national and global communities.

Prereq.: Admission to the University Honors Program or eligibility for admission to the University Honors Program.

HONR 1599 Special Topics 3 s.h.

An introductory-level examination of some topic appropriate for honors study. Typically team-designed. In certain cases, students may arrange to have the course counted toward the major by negotiation with the major department. With approval of the director of Honors, may be repeated for credit with different topics.

Prereq.: Admission to the Honors Program or permission of instructor and director of Honors.

HONR 2601 Honor Seminar 1-2 s.h.

An interdisciplinary seminar series dealing with topics appropriate to students in the Honors Program. The subjects include, but are not limited to, creativity, the organization and function of the university, the total human being, critical thinking, current events, etc.

Prereq.: Eligibility for the Honors Program.

HONR 2601C CE Honors Seminar 1-2 s.h.

An interdisciplinary seminar series dealing with topics appropriate to students in the Honors Program. The subjects include, but are not limited to, creativity, the organization and function of the university, the total human being, critical thinking, current events, etc.

Prereq.: Eligibility for the Honors Program.

HONR 2601P Honor Seminar Campus Community Partnerships 1-2 s.h.

An interdisciplinary seminar series dealing with topics appropriate to students in the Honors Program. The subjects include, but are not limited to, creativity, the organization and function of the university, the total human being, critical thinking, current events, etc.

Prereq.: Eligibility for the Honors Program.

HONR 2602 Honor Seminar 1-2 s.h.

An interdisciplinary seminar series dealing with topics appropriate to students in the Honors Program. The subjects include, but are not limited to, creativity, the organization and function of the university, the total human being, critical thinking, current events, etc.

Prereq.: Eligibility for the Honors Program.

HONR 2602X Honor Seminar Secrets of the Archives 1-2 s.h.

An interdisciplinary seminar series dealing with topics appropriate to students in the Honors Program. The subjects include, but are not limited to, creativity, the organization and function of the university, the total human being, critical thinking, current events, etc.

Prereq.: Eligibility for the Honors Program.

HONR 2602Y Honor Seminar Undergraduate Research 1-2 s.h.

An interdisciplinary seminar series dealing with topics appropriate to students in the Honors Program. The subjects include, but are not limited to, creativity, the organization and function of the university, the total human being, critical thinking, current events, etc.

Prereq.: Eligibility for the Honors Program.

HONR 2602Z Honor Seminar Secrets of the Medical Museum 1-2 s.h.

An interdisciplinary seminar series dealing with topics appropriate to students in the Honors Program. The subjects include, but are not limited to, creativity, the organization and function of the university, the total human being, critical thinking, current events, etc.

Prereq.: Eligibility for the Honors Program.

HONR 2699 Special Topics 3 s.h.

A close examination of some topic appropriate for lower-division honors study. Typically team-designed. In certain cases, students may arrange to have the course counted toward the major by negotiation with the major department. With approval of the director of Honors, may be repeated for credit with different topics.

Prereq.: Admission to the Honors Program or permission of instructor and director of Honors.

HONR 3701 University Honors Seminar 1-2 s.h.

A critical investigation of selected areas underlying civilization, embracing and integrating the particular studies of science, society, and the humanities.

Prereq.: Eligibility for the Honors Program.

HONR 3702 University Honors Seminar 1-2 s.h.

A critical investigation of selected areas underlying civilization, embracing and integrating the particular studies of science, society, and the humanities.

Prereq.: Eligibility for the Honors Program.

HONR 3702T University Honors Seminar MCAT Test Preparation 1-2 s.h.

A critical investigation of selected areas underlying civilization, embracing and integrating the particular studies of science, society, and the humanities.

Prereq.: Eligibility for the Honors Program.

HONR 3799 Special Topics 3 s.h.

A close examination of some topic appropriate for upper-division honors study. Typically team-designed. In certain cases, students may arrange to have the course counted toward the major by negotiation with the major department. With approval of the director of Honors, may be repeated for credit with different topics.

Prereq.: Admission to the Honors Program or permission of instructor and director of Honors.

HONR 4890 Senior Honors Thesis 1-3 s.h.

Directed research for students pursuing senior honors thesis research. May be repeated for up to 3 s.h.

Prereq.: Junior status; completion of 18 s.h. of Honors coursework; submission of an approved Honors thesis proposal; and permission of the honors director.

HONR 4890C Senior Honors Thesis: Capstone 1-3 s.h.

Directed research for students pursuing senior honors thesis research. May be repeated for up to 3 s.h.

Prereq.: Junior status; completion of 18 s.h. of Honors coursework; submission of an approved Honors thesis proposal; and permission of the honors director.

Contract Honors Courses

Any course other than those which are offered as an honors course (ENGL 1550H Honors Writing 1, MATH 1585H Honors Accelerated Calculus 1, etc.) or remedial courses may be taken for honors credit with the concurrence of the faculty teaching the class and the approval of the Honors Dean.

The contract honors option does not involve more credit hours for a course, but rather credit of a different kind. Proposals should involve not simply more work on the part of the student, but rather work in greater depth. Proposals are initiated by the student after consulting with the instructor, then reviewed by the Honors Dean. Contract Honors proposals are generated online through the Honors Student Dashboard with approval of proposals completed electronically. More information and instructions for using the Dashboard can be obtained by contact the Honors College.

Remedial courses are not suitable for contract honors. Contracts are not normally approved when an honors section exists for the same course (e.g. ENGL 1551H Honors Writing 2). Projects in the historiography of any discipline are acceptable. Contract proposals must be submitted by the published due date.

Community-engaged learning - Courses other than those which are offered as a community-engaged learning (NURS 3710C) or remedial courses may be considered for community-engaged learning experiences. The faculty assigned to the course and community partner, who serve as co-educators, work collaboratively to design the additional learning experience that meets the need of the community partner. The honors contract CE option does not involve more credit hours for a course, but rather credit of a different kind. Proposals should include how the student will engage, reflect, reciprocate, and publicly disseminate.

Completion status is reported by faculty to the Honors Dean via the online *Honors Contract Completion Tracking System*. Instructions for accessing the system are sent to faculty via email by the week before finals week.

Sokolov Honors College Requirements & Opportunities

COMMUNITY-ENGAGED LEARNING

Honors students are required to complete 60 hours of volunteerism on an annual basis. The YSU PenguinPulse (<https://ysu.givepulse.com/group/661725-Youngstown-State-University/>) system is used to log the engagement with a brief reflection at the conclusion of each experience.

INVOLVEMENT/LEADERSHIP/CO-CURRICULARS

Students who connect to the university through active participation demonstrate higher satisfaction and retention. Honors students are required to engage in student life and have many options from which to select through Student Activities, as well as multiple organizations available to students in the Sokolov Honors College. Honors Trustees, MALAINA, Women in Honors, Residential Honors Council, and Transcribing Club are some of the honors initiatives.

STUDY ABROAD/GLOBAL CITIZENSHIP

Honors students are encouraged to participate in study abroad experiences. The Sokolov Honors College staff will assist students with letters of recommendation for participation and potential scholarships. Opportunities for developing global citizenship are available for students and may take the form of volunteerism or leadership opportunities when a formal study abroad experience is not possible. Students are encouraged to seek out opportunities from their international peers through gatherings and activities such as: fireside chats, international coffee hours, international cultural events, etc.

LIVING-LEARNING ENVIRONMENTS (OPTIONAL)

Both residential and commuter students can enjoy the community that exists within honors. Two on-campus honors residential learning communities - Cafaro House and Building #2 of the Courtyards are available. Cafaro House is equipped with a computer lab and academic wing. The accommodations are 4-, 8-, and 18-person suites with two students per room. The Courtyards offer either 4-person, 2-person, or single apartments. No matter the apartment type, each student has an individual own bedroom. Available in Fok Hall is a student lounge, conference room, study space, meeting rooms, and administrative offices - all of which provide space for community building and learning. Commuter and residential students enjoy the familial atmosphere within Fok Hall to foster learning and collaboration.

National Fellowships and Scholarships

The Sokolov Honors College leads the National Scholarship Committee composed of faculty and staff from across campus to advertise scholarship opportunities and prepare students for prestigious competitions such as the Truman, Marshall, Goldwater and Rhodes Scholarships. Information and applications for these scholarships are maintained by the Sokolov Honors College.

DOCUMENTATION OF ANNUAL STUDENT LEARNING OUTCOMES AND PROGRAM REQUIREMENT COMPLETION

Honors students are required to complete documentation of all requirements for the annual end of the year review. The review will determine scholarship renewals and progress in the program to meet annual student learning outcomes for the five pillars: Leadership/Involvement, Interdisciplinary Perspectives, Community-Engaged Learning, Research and Scholarship, and Global Citizenship.

Students are required to maintain records and report all community-engaged learning using the YSU PenguinPulse (<https://ysu.givepulse.com/group/661725-Youngstown-State-University/>) system, student work demonstrating mastery of student learning outcomes, and other scholarly and academic work of added value.

DOCUMENTARY RECOGNITION OF SUCCESS IN THE HONORS COLLEGE

GRADE RECORDS

A student's permanent record will be the sole official record of honors courses and seminars, each of which will be designated with an "H" after the catalog number, or in some cases, with a note detailing that honors credit was earned for that particular course.

COMPLETION OF THE Sokolov HONORS COLLEGE REQUIREMENTS

Upon satisfactory completion of all honors requirements, the Honors Dean will initiate having the appropriate distinction entered on the student's record and diploma.

HONR 1500 Intro to Honors 1 s.h.

Prepares students for the expectations and requirements of the Honors Program. Students develop skills that aid in their overall academic endeavors and explore topics pertinent to their development within the Honors Program and as citizens of the university, local, national and global communities.

Prereq.: Admission to the University Honors Program or eligibility for admission to the University Honors Program.

HONR 1599 Special Topics 3 s.h.

An introductory-level examination of some topic appropriate for honors study. Typically team-designed. In certain cases, students may arrange to have the course counted toward the major by negotiation with the major department. With approval of the director of Honors, may be repeated for credit with different topics.

Prereq.: Admission to the Honors Program or permission of instructor and director of Honors.

HONR 2601 Honor Seminar 1-2 s.h.

An interdisciplinary seminar series dealing with topics appropriate to students in the Honors Program. The subjects include, but are not limited to, creativity, the organization and function of the university, the total human being, critical thinking, current events, etc.

Prereq.: Eligibility for the Honors Program.

HONR 2601A Honor Sem Orientation to ASL 1 1-2 s.h.

An interdisciplinary seminar series dealing with topics appropriate to students in the Honors Program. The subjects include, but are not limited to, creativity, the organization and function of the university, the total human being, critical thinking, current events, etc.

Prereq.: Eligibility for the Honors Program.

HONR 2601B Sophomore STEM Honors Sem 1-2 s.h.

An interdisciplinary seminar series dealing with topics appropriate to students in the Honors Program. The subjects include, but are not limited to, creativity, the organization and function of the university, the total human being, critical thinking, current events, etc.

Prereq.: Eligibility for the Honors Program.

HONR 2601C CE Honors Seminar 1-2 s.h.

An interdisciplinary seminar series dealing with topics appropriate to students in the Honors Program. The subjects include, but are not limited to, creativity, the organization and function of the university, the total human being, critical thinking, current events, etc.

Prereq.: Eligibility for the Honors Program.

HONR 2601D Honor Seminar Let's Talk - Communication 1-2 s.h.

An interdisciplinary seminar series dealing with topics appropriate to students in the Honors Program. The subjects include, but are not limited to, creativity, the organization and function of the university, the total human being, critical thinking, current events, etc.

Prereq.: Eligibility for the Honors Program.

HONR 2601E Honor Seminar Magazine Editing and Production 1-2 s.h.

An interdisciplinary seminar series dealing with topics appropriate to students in the Honors Program. The subjects include, but are not limited to, creativity, the organization and function of the university, the total human being, critical thinking, current events, etc.

Prereq.: Eligibility for the Honors Program.

HONR 2601P Honor Seminar Campus Community Partnerships 1-2 s.h.

An interdisciplinary seminar series dealing with topics appropriate to students in the Honors Program. The subjects include, but are not limited to, creativity, the organization and function of the university, the total human being, critical thinking, current events, etc.

Prereq.: Eligibility for the Honors Program.

HONR 2602 Honor Seminar 1-2 s.h.

An interdisciplinary seminar series dealing with topics appropriate to students in the Honors Program. The subjects include, but are not limited to, creativity, the organization and function of the university, the total human being, critical thinking, current events, etc.

Prereq.: Eligibility for the Honors Program.

HONR 2602A Honor Sem Humanities Fine Arts 1-2 s.h.

An interdisciplinary seminar series dealing with topics appropriate to students in the Honors Program. The subjects include, but are not limited to, creativity, the organization and function of the university, the total human being, critical thinking, current events, etc.

Prereq.: Eligibility for the Honors Program.

HONR 2602Z Honor Seminar Secrets of the Medical Museum 1-2 s.h.

An interdisciplinary seminar series dealing with topics appropriate to students in the Honors Program. The subjects include, but are not limited to, creativity, the organization and function of the university, the total human being, critical thinking, current events, etc.

Prereq.: Eligibility for the Honors Program.

HONR 2699 Special Topics 3 s.h.

A close examination of some topic appropriate for lower-division honors study. Typically team-designed. In certain cases, students may arrange to have the course counted toward the major by negotiation with the major department. With approval of the director of Honors, may be repeated for credit with different topics.

Prereq.: Admission to the Honors Program or permission of instructor and director of Honors.

HONR 3701 University Honors Seminar 1-2 s.h.

A critical investigation of selected areas underlying civilization, embracing and integrating the particular studies of science, society, and the humanities.

Prereq.: Eligibility for the Honors Program.

HONR 3702 University Honors Seminar 1-2 s.h.

A critical investigation of selected areas underlying civilization, embracing and integrating the particular studies of science, society, and the humanities.

Prereq.: Eligibility for the Honors Program.

HONR 3799 Special Topics 3 s.h.

A close examination of some topic appropriate for upper-division honors study. Typically team-designed. In certain cases, students may arrange to have the course counted toward the major by negotiation with the major department. With approval of the director of Honors, may be repeated for credit with different topics.

Prereq.: Admission to the Honors Program or permission of instructor and director of Honors.

HONR 4890 Senior Honors Thesis 1-3 s.h.

Directed research for students pursuing senior honors thesis research. May be repeated for up to 3 s.h.

Prereq.: Junior status; completion of 18 s.h. of Honors coursework; submission of an approved Honors thesis proposal; and permission of the honors director.

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