BACHELOR OF SCIENCE IN EDUCATION IN INTEGRATED SCIENCES (7-12) - ADOLESCENT LICENSE, PHYSICS CONCENTRATION

Adolescent/Young Adult Education (7-12) Integrated Sciences, Physics Concentration

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 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 also requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

COURSE	TITLE	S.H.
General Education Requirements		
Core Competencies		12
ENGL 1550	Writing 1	
ENGL 1551	Writing 2	
CMST 1545	Communication Foundations	
MATH 1571	Calculus 1	
General Education Knowledge Domains		
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
General Education Elective / First-Year Experience		3
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	
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	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	Advanced Optics and Light	3
PHYS 3722L	Advanced Optics Laboratory	1
PHYS 4805	Undergraduate Physics Research	3
PHYS 2607	Physical Science for Middle and Secondary Education	4
If primary science concentration is Physics, then take the following:		
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
BIOL 2602 & 2602L	General Biology: 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
ASTR 1504	Descriptive Astronomy	3
Select 5 s.h. from the following BIOL electives:		
BIOL 3741	Animal Diversity	4
BIOL 3702	Microbiology	4
BIOL 3721	Genetics	3
BIOL 3762	Field Botany	4
BIOL 3759	Evolution	3
BIOL 4890	Molecular Genetics	3
BIOL 4890L	Molecular Genetics Laboratory	1
BIOL 3730	Human Physiology	4
Select one of the following CHEM electives:		
CHEM 2604	Quantitative Analysis	5
CHEM 3720	Organic Chemistry 2	4
CHEM 3785	Biochemistry 1	3
Select one of the following E/SS electives:		
ENST 2600	Foundations of Environmental Studies	3
GEOL 2615	Geology and the Environment 1	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		
FOUN 1501	Introduction to Education	3
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society [1]	3
SED 3706	Principles of Teaching Adolescents [2]	3
FOUN 3708	Education and Society [1,2]	3
TERG 3711	Reading Application in Content Areas, Secondary Years [2]	3
TEMC 3707	Science/Technology/Society [1,2]	3
Preclinical Curriculum		
FOUN 3710	Educational Assessment [2]	3

SED 4800C	Special Methods: Science [2]	3
Student Teaching Curriculum		
SED 4842	Supervised Student Teaching: High School [2]	10
SED 4842A	Student Teaching Seminar for Secondary Education [2]	2
Total Semester Hours: 144-147 s.h.		

1 Prerequisites for perclinical curriculum.

2 Upper division course.

BCOE Notes:

- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the BCOE's Teacher Education Programs or candidacy for a teaching license. Formal Admission to Teacher Education (Upper-Division) is required before students are allowed to enroll in junior and senior level courses in the college. Undetermined Education students must declare a major before applying for admission to the Teacher Education Program.
- Admission to the Teacher Education Program is obtained upon satisfactory completion of the following requirements:
  - Minimum completion of 50 s.h.
  - Minimum 2.75 overall GPA
- Meet one of the following criteria:
  - Overall GPA 3.4 or better, OR
  - ACT scores of Reading 21, English 18, Mathematics 22, OR
  - SAT scores of Reading 450, Writing 430, Mathematics 520, OR
  - Praxis CORE scores, Reading 156, Writing 162, Mathematics 150
- Grade of "B" or better in:
  - ENGL 1550
  - ENGL 1551
  - If failure to receive a grade of "B" or better in ENGL 1550 and ENGL 1551 - ENGL 2601 grade must be a "B" or better. If you recieve a "C" or below, you will need to retake the course.
- Grade of "B" or better in the following courses. If you do not have a "B" or better, you will need to retake one or more of these courses until the "B" is achieved.
  - FOUN 1501
  - CMST 1545
  - SPED 2630
  - GEOL 1505 or BIOL 2602 or CHEM 1516 or PHYS 2610
- Professional education and preclinical courses may only be repeated one time.
- 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.

Program Notes:

- MATH 1571 is required and will also fulfill Math GER.

Upper Division Notes:

Upper Division Application (The application and forms must be completed and printed from the BCOE website.)

- After candidates have completed a minimum of 50 s.h., they should submit an Upper Division application along with the completion of the Good Moral Character Statement, a copy of BCI and FBI clearances, and Dispositional Assessment to the BCOE Office of Student Services, room 2101, no later than:
  - September 1 - to register for upper division courses for Spring
  - February 1 - to register for upper division courses for summer and fall
- Each completed application must be reviewed and approved by the Upper Division Admission and Retention Committee. If all requirements are met, the student will be allowed to register for upper division courses the following semester. Applications submitted after the deadline will not be processed until the end of the respective semester.

Preclinical Application with Request for Graduation Evaluation

- The application must be completed and printed from the BCOE website.
- Preclinical application with the Graduation Evaluation Request summary is to be submitted one year prior to the intended preclinical semester to the BCOE Office of Student Services no later than
  - September 1 - for Fall preclinical
  - February 1 - for Spring preclinical
- Preclinical candidates are screened for eligibility because specific course and grade point average prerequisites must be met.

Student Teaching Notes:

- Prerequisites: BCOE upper division and senior status, overall 2.75 GPA, minimum of 2.67 GPA in subject area curriculum and professional education courses with no grade less than a "C", and passage of OAE test(s) and ACTFL tests for foreign language.
- Instructions for completing the Student Teaching application and forms are available on BCOE website. The application and forms must be completed and printed from the BCOE website and submitted to the BCOE Office of Student Services no later than:
  - September 1 - to student teach the following spring semester
  - February 1 - to student teach the following fall semester

Graduation Process

- Apply for graduation during the first three weeks of the semester you plan to graduate (you must have a graduation evaluation completed in advance).

Completing a Bachelor of Science in Education without Licensure:

- Students choosing to graduate without licensure must apply for approval to graduate without licensure at the BCOE Office of Student Services, 2101 Beeghly Hall, 330-941-3268.
- Once approved, students must complete all program requirements except for student teaching curriculum. In place of student teaching curriculum, students will take TCED 4830 Undergraduate Capstone Course for Education Majors .

General Education Requirements:

- All students must satisfy General Education requirements; some majors, prescribe specific GE courses.
- Courses taken for the major may be applied toward satisfying General Education requirements but credit hours toward graduation cannot be double counted.
- Approved General Education courses can be found at http://web.ysu.edu/ger.

Advisement:

- Freshmen, athletes,and students on warning and probation are required to meet with an advisor before registration.
- It is recommended that all majors meet with a faculty advisor every semester.

Financial Aid:

- Eligibility to continue receiving federal financial aid is affected by your "satisfactory academic progress." Carefully review details on the Office of Financial Aid and Scholarship website, http://cfweb.cc.ysu.edu/finaid/index.cfm or http://cfweb.cc.ysu.edu/finaid/sec_sap.cfm.

Other:

- Residency rule requires the last 30 semester hours of your degree and at least 16 semester hours in your major and 21 semester hours in upper-division courses to be completed at YSU.

Course	Title	S.H.
Year 1		
Fall		
ENGL 1550	Writing 1	3
MATH 1571	Calculus 1	4
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	3
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
BIOL 2601 & 2601L	General Biology: Molecules and Cells and General Biology: Molecules and Cells Laboratory	4
	Semester Hours	**18**
Spring		
ENGL 1551	Writing 2	3
MATH 1572	Calculus 2	4
FOUN 1501	Introduction to Education	3
BIOL 2602 & 2602L	General Biology: 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
	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
GEOL 2602	Introduction to Oceanography	3
Social and Personal Awareness GER		3
Biology Elective		5
Physics Elective		3-4
	Semester Hours	**21-22**
Spring		
FOUN 3708	Education and Society	3
SED 3706	Principles of Teaching Adolescents	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		
FOUN 3710	Educational Assessment	3
SED 4800C	Special Methods: Science	3
Arts and Humanities GER		3
Chemistry Elective		3-5
Physics Elective		3
	Semester Hours	**15-17**
Spring		
SED 4842	Supervised Student Teaching: High School	10
SED 4842A	Student Teaching Seminar for Secondary Education	2
	Semester Hours	**12**
	Total Semester Hours	**144-147**