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
• TERR 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

REQUIRED ASSESSMENTS
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.

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)

<table>
<thead>
<tr>
<th>COURSE</th>
<th>TITLE</th>
<th>S.H.</th>
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<tbody>
<tr>
<td>FIRST YEAR REQUIREMENT - STUDENT SUCCESS</td>
<td></td>
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</tr>
<tr>
<td>YSU 1500</td>
<td>Success Seminar</td>
<td>1-2</td>
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<tr>
<td>or SS 1500</td>
<td>Strong Start Success Seminar</td>
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<tr>
<td>or HONR 1500</td>
<td>Intro to Honors</td>
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<table>
<thead>
<tr>
<th>General Education Requirements</th>
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<tbody>
<tr>
<td>ENGL 1550 Writing 1</td>
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<tr>
<td>or ENGL 1549 Writing 1 with Support</td>
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<tr>
<td>ENGL 1551 Writing 2</td>
</tr>
<tr>
<td>CMST 1545 Communication Foundations</td>
</tr>
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Mathematics requirement

MATH 1571 Calculus 1
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.) |      |
| 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

Chemistry Concentration
All of the following:

<table>
<thead>
<tr>
<th>COURSE</th>
<th>TITLE</th>
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<tbody>
<tr>
<td>CHEM 1515</td>
<td>General Chemistry 1</td>
</tr>
<tr>
<td>&amp; 1515L</td>
<td>and General Chemistry 1 Laboratory</td>
</tr>
<tr>
<td>CHEM 1516</td>
<td>General Chemistry 2</td>
</tr>
<tr>
<td>&amp; 1516L</td>
<td>and General Chemistry 2 Laboratory</td>
</tr>
</tbody>
</table>
### Bachelor of Science in Education in Integrated Sciences (7-12) - Adolescent License, Chemistry Concentration

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>SED 3706</td>
<td>Principles of Teaching Adolescents</td>
<td>3</td>
</tr>
<tr>
<td>EDFN 3708</td>
<td>Education and Society</td>
<td>3</td>
</tr>
<tr>
<td>TERG 3711</td>
<td>Reading Application in Content Areas, Secondary Years</td>
<td>3</td>
</tr>
<tr>
<td>TEMC 3707</td>
<td>Science/Technology/Society</td>
<td>3</td>
</tr>
<tr>
<td>TCED 4800L</td>
<td>Laboratory Experience for Teaching All Learners</td>
<td>0</td>
</tr>
<tr>
<td>SED 4800C</td>
<td>Science Methods for Adolescent and Young Adult Learners</td>
<td>3</td>
</tr>
<tr>
<td>EDFN 3710</td>
<td>Educational Assessment</td>
<td>3</td>
</tr>
<tr>
<td>TCED 5888E</td>
<td>Seminar edTPA Review</td>
<td>1</td>
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</table>

#### Total Semester Hours: 148-151

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### 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.

#### Admission to Preclinical and Evaluation for Graduation

- Prerequisites for preclinical curriculum.
- _____ Minimum 2.75 overall GPA
- _____ “B” average or better (B-B-B, A-B-C) across the following:
  - _____ EDFN 1501
  - _____ CMST 1545
  - _____ SED 4842
  - _____ SED 4842A
  - _____ Minimum 2.75 overall GPA

- _____ “B” average or better (B-B-B, A-B-C) across the following:
  - _____ EDFN 1501
  - _____ CMST 1545
  - _____ SED 4842
  - _____ SED 4842A

- _____ “B” average or better (B-B-B, A-B-C) across the following:
  - _____ EDFN 1501
  - _____ CMST 1545

- Late applications may not be accepted.

- 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

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Bachelor of Science in Education in Integrated Sciences (7-12) - Adolescent License, Chemistry Concentration

• 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 1
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
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

 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 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
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 to provide guidance for teachers as they continually reflect upon and improve their effectiveness as educators throughout all 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.