**INTEGRATED SCIENCE (LIFE/BIOLOGY-EARTH) LICENSURE (GRADES 7-12)**
**UNDERGRADUATE DEGREE [530506BA]**

### General Education – 41 hrs. (See Undergraduate Bulletin)

### Professional Education Requirements for Undergraduate Science Students – 41 hrs. with a “C” or better and a 2.5 GPA or better

<table>
<thead>
<tr>
<th>Phase One: Learning about Learners</th>
<th>Credits</th>
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<tbody>
<tr>
<td>5100:200 Intro to Education</td>
<td>3</td>
</tr>
<tr>
<td>5100:220 Educational Psychology</td>
<td>3</td>
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<tr>
<td>5610:225 Introduction to Exceptionalities</td>
<td>3</td>
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<tr>
<td>5500:230 Educational Technology</td>
<td>3</td>
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<tr>
<td>5300:100 Orientation: AYA/P-12/Multi-Age</td>
<td>0</td>
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<tr>
<th>Phase Two: Learning about Teaching</th>
<th>Credits</th>
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<tr>
<td>5100:300 Educational Equity &amp; Excellence</td>
<td>3</td>
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<tr>
<td>5500:360 Educational Planning</td>
<td>3</td>
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<tr>
<th>Phase Three: Learning to Apply the Principles of Teaching</th>
<th>Credits</th>
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<tr>
<td>5500:370 Educational Implementation</td>
<td>3</td>
</tr>
<tr>
<td>5300:420 Inst. Techniques: Science</td>
<td>3</td>
</tr>
<tr>
<td>5300:325 Content Reading in Sec. Schools</td>
<td>3</td>
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<tr>
<td>5500:475 Instructional Tech. Applications</td>
<td>3</td>
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<tr>
<th>Phase Four: Learning to Teach</th>
<th>Credits</th>
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<tbody>
<tr>
<td>5300:495 Student Teaching¹</td>
<td>8</td>
</tr>
<tr>
<td>5300:496 Student Teaching Colloquium</td>
<td>1</td>
</tr>
</tbody>
</table>

### Content Requirements for Life and Earth Science Licensure Students – 79-80 hrs. with a 2.5 GPA or better

#### Science Core

- 3100:111 Principles of Biology I 4
- 3100:112 Principles of Biology II 4
- 3150:151 Principles of Chemistry I 3
- 3150:152 Principles of Chemistry Lab 1
- 3150:153 Principles of Chemistry II 3
- 3370:101 Intro. to Physical Geology 4
- 3370:102 Intro. to Historical Geology 4

Complete one of two physics options:
- 3650:261 Physics Life Science I 4
- 3650:262 Physics Life Science II 4
- OR
- 3650:291 Elem. Class. Physics I 4
- 3650:292 Elem. Class. Physics II 4

#### Biology

- 3100:211 General Genetics 3
- 3100:212 Genetics Laboratory 1
- 3100:217 General Ecology 3
- 3100:265 Intro. to Human Physiology 4
- 3100:316 Evolutionary Biology 3

Complete one of the following two options:
- 3100:130 Principles of Microbiology 3
- 3100:331 Microbiology 4

#### Mathematics

- 3450:149 PreCalculus or eligibility for calculus 4
- 3470:260 Basic Statistics 3

#### Earth Science

- 3370:137 Earth’s Atmosphere 1
- 3370:200 Environmental Geology 3
- 3370:201 Ex. Env. Geology I 1
- 3370:203 Ex. Env. Geology II 1
- 3370:371 Oceanography 4
- 3650:130 Descriptive Astronomy 4
- 3370:455 Field Studies, Geology 3
- OR
- 3370:499 Research Problems 3

#### Chemistry

- 3150:154 Qualitative Analysis 2
- 3150:263 Organic Chemistry I 3
- 3150:265 Organic Chem. Lab I 2

**162-163 credits required for graduation.**

### Additional Requirements to Add Integrated Science Licensure:

- 3650:133 Music, Sound & Physics 4
- OR
- 3650:137 Light 4

**Note:** These 4 hours are not required for life (biology) and earth science licensure.

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**College of Education**

**Pre-Admission Advising Office**

**Central-Hower Community School**

**330-972-7750**

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¹All students must have the approval of the Student Teaching Committee, based upon approved application to student teaching, and passing OAE content test. Planned teaching experience in schools selected and supervised by the Office of Field experiences. Co-requisite 5300:496. To qualify for student teaching, students must have a 2.5 GPA overall, 2.5 in education classes, and 2.5 in the student’s major, in methods courses, core courses, and in their teaching field(s). Satisfactory completion of a minimum of 100 hours of field experience is also required before student teaching.

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**Effective: Spring 2015**

**Final 2-19-15 [PMcC]**
General Education Requirements for Admission to Integrated Science: Life-Earth (AYA 7-12)  
(2.5 GPA in the following courses.)

I. Written and Oral Communication (at least 9 credits)
   3300:111  (3 cr.) English Composition I (with grade of “C” or better)
   3300:112  (3 cr.) English Composition II (with grade of “C” or better)
   7600:105  (3 cr.) Intro to Public Speaking (or 7600:106)

II. Social Science – minimum of 3 credits. [See bulletin.]

III. Mathematics – minimum of 3 credits
   3450:xxx  Coursework offered by the Mathematics Department that meets general education math requirement (3450:100 & 140 do not count)
   3470:xxx  Coursework offered by the Statistics Department that meets general education math requirement.

IV. Natural Science – minimum of 5 credits [See bulletin.]

V. Physical Education/Wellness -- minimum 1 credit. [See bulletin.]

VI. Teaching Field(s) – minimum of 8 credits. [Does not include coursework already used above. A 2.50 GPA in all such coursework is required. This includes credits beyond the minimum of 8.]

College of Education Admission Requirements For Those Persons Seeking State of Ohio Licensure

All students must complete the following requirements for admission:

A. College of Education Application for Admission. Responses to the questions on the application will help College of Education advisors offer the most effective and efficient advisement. It will also help advisors know students as individuals with unique backgrounds and experiences. Applications are available online at: http://www.uakron.edu/education/academic-programs/CIS/how-to-apply.dot.

B. Intercollege Transfer (Undergraduate students only). Those students enrolled in another college wishing to complete degree requirements in the College of Education should see their advisor to initiate an intercollege transfer to the College of Education. Those students may not access College of Education core courses prior to admission. Students planning to complete teacher education as part of their degree requirements in another college need not complete an ICT.

C. Grade Point Average of 3.0 or better overall and 2.5 or better overall in prerequisite credit hours from specific courses identified by College Departments.

D. Evidence of competency in reading comprehension and writing as demonstrated by one of the following:
   1. A composite ACT score of 21 or higher, or
   2. A composite SAT score of 980 (Math and Verbal) or higher, or
   3. A grade of “B” or higher in a course that meets the University's General Education English Composition I requirement.

E. Evidence of competency in mathematics as shown by one of the following:
   1. A composite ACT score of 21 or higher, or
   2. A composite SAT score of 980 (Math and Verbal) or higher, or
   3. A grade of “B” or better in a minimum of 3 credits of mathematics that meets the University's General Education mathematics requirement.

F. Signed Criminal Background Check Acknowledgment Form