

# AYA LIFE/BIOLOGY-CHEMISTRY LICENSURE, BA

## Bachelor of Arts in Education, Adolescent to Young Adult Life/Biology-Chemistry Licensure (Grades 7-12) (530505BA)

More on the Adolescent to Young Adult Life/Biology-Chemistry Licensure major (<https://www.uakron.edu/education/academic-programs/undergraduate-programs.dot>)

This program prepares teachers of grades seven to twelve for licensure in Biology and Chemistry in the State of Ohio.

### School of Education Admission Requirements For Those Persons Seeking State of Ohio Licensure

All students must complete the following requirements for admission:

- School of Education Application for Admission.** Responses to the questions on the application will help School 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/how-to-apply.dot>.
- Intercollege Transfer (Undergraduate students only).** Those students enrolled in another college wishing to complete degree requirements in the School of Education should see their advisor to initiate an intercollege transfer to the School of Education. Those students may not access School 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.
- Grade Point Average of 2.5 or better overall and 2.5 or better overall in prerequisite credit hours from specific courses identified by the School.**
- Evidence of competency in reading comprehension and writing as demonstrated by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of B or higher in a course that meets the University's General Education English Composition I requirement.
- Evidence of competency in mathematics as shown by one of the following:**
  - A composite ACT score of 21 or higher, or
  - A composite SAT-R score of 1060 (Math and Verbal) or higher, or
  - A grade of B or better in a minimum of 3 credits of mathematics that meets the University's General Education mathematics requirement.
- Signed Criminal Background Check Acknowledgment Form**

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The following information has official approval of **The LeBron James Family Foundation School of Education** and **The Buchtel College of Arts &**

**Sciences**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

### Requirements Summary

Code	Title	Hours
General Education Requirements ( <a href="https://bulletin.uakron.edu/undergraduate/general-education/">https://bulletin.uakron.edu/undergraduate/general-education/</a> ) *		26
Professional Education Requirements for Undergraduate Science Students		39
Content Requirements for Life/Biology-Chemistry Licensure Student		64-75
<b>Total Hours</b>		<b>139-140</b>

\* Several courses required for the major also satisfy General Education requirements. The University minimum of 34 credits are required for General Education and credit for these courses will apply to both.

### Recommended General Education Courses

Code	Title	Hours
Students pursuing a bachelor's degree must complete the following General Education coursework. Diversity courses may also fulfill major or Breadth of Knowledge requirements. Integrated and Applied Learning courses may also fulfill requirements in the major.		
Students are not required to enroll in the specific courses listed below. However, to facilitate successful degree completion, the academic department strongly encourages completion of the following recommendations.		
<b>Academic Foundations</b>		<b>12</b>
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
<i>Speaking: 3 credit hours</i>		
COMM:105	Introduction to Public Speaking or COMM:10 Effective Oral Communication	
<i>Writing: 6 credit hours</i>		
ENGL:111	English Composition I	
ENGL:112	English Composition II	
<b>Breadth of Knowledge</b>		<b>22</b>
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
<i>Social Sciences: 6 credit hours</i>		
<b>Diversity</b>		
Domestic Diversity		
Global Diversity		
<b>Integrated and Applied Learning</b>		
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		

Review the General Education Requirements page for detailed course listings.

Total Hours 34

## Professional Education Requirements for Undergraduate Science Students<sup>1</sup>

Code	Title	Hours
EDFN:200	Introduction to Education	3
EDFN:220	Educational Psychology	3
EDSE:100	Orientation to the AYA/P-12 Multi-Age Programs	0
EDSE:320	Introduction to Teaching in the Content Area	3
EDSE:420	Instructional Techniques in Secondary Education	3
EDSE:421	Instructional Techniques in Secondary Education - II	3
EDSE:430	Clinical Teaching I	3
EDSE:431	Clinical Teaching II	3
EDSE:495	Student Teaching: Secondary Education <sup>2</sup>	6-11
EDIS:225	Introduction to Exceptionalities	3
EDCI:308	Instructional Design and Assessment	6
EDCI:440	Literacy in the Content Areas	3
Total Hours		39-44

<sup>1</sup> At least 39 credit hours with a grade of C or better and a GPA of 2.5 or better.

<sup>2</sup> All students must submit an application to student teaching, and pass OAE Content tests. Planned teaching experience in schools selected and supervised by the Office of Teacher Education and Licensure experiences. 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.

## Content Requirements for Life/Biology-Chemistry Licensure Students<sup>1</sup>

Code	Title	Hours
<b>Science Core</b>		
BIOL:111	Principles of Biology I	4
BIOL:112	Principles of Biology II	4
CHEM:151	Principles of Chemistry I	3
CHEM:152	Principles of Chemistry I Laboratory	1
CHEM:153	Principles of Chemistry II	3
CHEM:154	Qualitative Analysis	2
GEOL:101	Introductory Physical Geology	4
<i>Select one of the following:</i> 8		
PHYS:261 & PHYS:262	Physics for Life Sciences I and Physics for Life Sciences II	
PHYS:291 & PHYS:292	Elementary Classical Physics I and Elementary Classical Physics II	
<b>Biology</b>		
BIOL:130 or BIOL:331	Principles of Microbiology or Microbiology	3-4

BIOL:200 & BIOL:201 or BIOL:265	Human Anatomy & Physiology I and Human Anatomy & Physiology Laboratory I or Introductory Human Physiology	4
BIOL:211	General Genetics	3
BIOL:217	General Ecology	3
BIOL:316	Evolutionary Biology	3
<b>Chemistry</b>		
CHEM:263	Organic Chemistry Lecture I	3
CHEM:265	Organic Chemistry Laboratory I	2
CHEM:264	Organic Chemistry Lecture II	3
CHEM:305	Physical Chemistry for the Biological Sciences	4
CHEM:401	Biochemistry Lecture I	3
CHEM:423	Analytical Chemistry I	3
<b>Mathematics</b>		
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
STAT:260	Basic Statistics	3
Total Hours		74-75

<sup>1</sup> 74-75 credit hours with a GPA of 2.5 or better.

## Recommended Sequence

### 1st Year

Fall Semester	Hours
ENGL:111 English Composition I	3
BIOL:111 Principles of Biology I	4
CHEM:151 Principles of Chemistry I	3
CHEM:152 Principles of Chemistry I Laboratory	1
MATH:221 Analytic Geometry-Calculus I	4
Speaking Requirement	3
Hours	18

### Spring Semester

ENGL:112 English Composition II	3
BIOL:112 Principles of Biology II	4
CHEM:153 Principles of Chemistry II	3
CHEM:154 Qualitative Analysis	2
MATH:222 Analytic Geometry-Calculus II	4
Hours	16

### 2nd Year

#### Fall Semester

BIOL:211	General Genetics	3
CHEM:263	Organic Chemistry Lecture I	3
CHEM:265	Organic Chemistry Laboratory I	2
EDFN:200	Introduction to Education	3
EDFN:220	Educational Psychology	3
EDSE:100	Orientation to the AYA/P-12 Multi-Age Programs	0
EDIS:225	Introduction to Exceptionalities	3
Hours		17

#### Spring Semester

CHEM:264	Organic Chemistry Lecture II	3
BIOL:217	General Ecology	3

STAT:260	Basic Statistics	3
EDCI:308	Instructional Design and Assessment	6
	General Education course	3
	Hours	18

**Summer Semester**

	Science Content or Gen Ed Requirements if needed	9
	Hours	9

**3rd Year**
**Fall Semester**

BIOL:130 or BIOL:331	Principles of Microbiology or Microbiology	3-4
PHYS:261	Physics for Life Sciences I	4
CHEM:305	Physical Chemistry for the Biological Sciences	4
EDCI:440	Literacy in the Content Areas	3
	General Education course	3
	Hours	17-18

**Spring Semester**

BIOL:316	Evolutionary Biology	3
PHYS:262	Physics for Life Sciences II	4
EDCI:439	Engineering for Educators	3
EDSE:320	Introduction to Teaching in the Content Area	3
	General Education course	3
	Hours	16

**4th Year**
**Fall Semester**

BIOL:200	Human Anatomy & Physiology I	3
BIOL:201	Human Anatomy & Physiology Laboratory I	1
CHEM:401	Biochemistry Lecture I	3
CHEM:423	Analytical Chemistry I	3
EDSE:420	Instructional Techniques in Secondary Education	3
EDCI:431	Honors Research Project: Secondary Education	1-6
	Hours	14-19

**Spring Semester**

EDSE:421	Instructional Techniques in Secondary Education - II	3
EDSE:495	Student Teaching: Secondary Education	6-11
EDSE:431	Clinical Teaching II	3
	Hours	12-17
	Total Hours	137-148