

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:

- a. **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>.
- b. **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.
- c. **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.**
- d. **Evidence of competency in reading comprehension and writing as demonstrated by one of the following:**
 - i. A composite ACT score of 21 or higher, or
 - ii. A composite SAT-R score of 1060 (Math and Verbal) or higher, or
 - iii. 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:**
 - i. A composite ACT score of 21 or higher, or
 - ii. A composite SAT-R score of 1060 (Math and Verbal) or higher, or
 - iii. 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**

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 Akron, Ohio 44325-4201
 (330) 972-7750

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 (https://bulletin.uakron.edu/undergraduate/general-education/) *		26
Professional Education Requirements for Undergraduate Science Students		39
Content Requirements for Life/Biology-Chemistry Licensure Student		64-75
Total Hours		139-140

* Several courses required for the major also satisfy General Education requirements. The University minimum of 36 credits are required for General Education and credit for these courses will apply to multiple requirements.

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.		
Academic Foundations		12
<i>Mathematics, Statistics and Logic: 3 credit hours</i>		
MATH:221	Analytic Geometry-Calculus I	
MATH:222	Analytic Geometry-Calculus II	
STAT:260	Basic Statistics	
<i>Speaking: 3 credit hours</i>		
<i>Writing: 6 credit hours</i>		
Breadth of Knowledge		22
<i>Arts/Humanities: 9 credit hours</i>		
<i>Natural Sciences: 7 credit hours</i>		
BIOL:111	Principles of Biology I	
BIOL:112	Principles of Biology II	
BIOL:130	Principles of Microbiology	
BIOL:265	Introductory Human Physiology	
CHEM:151	Principles of Chemistry I	
CHEM:152	Principles of Chemistry I Laboratory	
CHEM:153	Principles of Chemistry II	
GEOL:101	Introductory Physical Geology	

PHYS:261	Physics for Life Sciences I	
& PHYS:262	and Physics for Life Sciences II	
PHYS:291	Elementary Classical Physics I	
& PHYS:292	and Elementary Classical Physics II	
<i>Social Sciences: 6 credit hours</i>		
Diversity		
Domestic Diversity		
Global Diversity		
Integrated and Applied Learning		2
<i>Select one class from one of the following subcategories:</i>		
Complex Issues Facing Society		
Capstone		
<i>Review the General Education Requirements page for detailed course listings.</i>		
Total Hours		36

Professional Education Requirements for Undergraduate Science Students ¹

Code	Title	Hours
EDFN:200	Introduction to Education	3
EDFN:220	Educational Psychology	3
EDIS:225	Introduction to Exceptionalities	3
EDSE:100	Orientation to the AYA/P-12 Multi-Age Programs	0
EDCI:308	Instructional Design and Assessment	6
EDSE:315	Introduction to Science Teaching in Secondary Schools	3
EDSE:405	Secondary Science Instructional Techniques	3
EDSE:415	Clinical Teaching I - Secondary Science	3
EDCI:440	Literacy in the Content Areas	3
EDSE:421	Instructional Techniques in Secondary Education - II	3
EDSE:431	Clinical Teaching II	3
EDSE:495	Student Teaching: Secondary Education ²	6
Total Hours		39

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

² 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 ¹

Code	Title	Hours
Science Core		
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

Select one of the following: **8**

PHYS:261	Physics for Life Sciences I	
& PHYS:262	and Physics for Life Sciences II	
PHYS:291	Elementary Classical Physics I	
& PHYS:292	and Elementary Classical Physics II	

Biology		
BIOL:130	Principles of Microbiology	3-4
or BIOL:331	Microbiology	
BIOL:200	Human Anatomy & Physiology I	4
& BIOL:201	and Human Anatomy & Physiology Laboratory I	
or BIOL:265	Introductory Human Physiology	
BIOL:211	General Genetics	3
BIOL:217	General Ecology	3
BIOL:316	Evolutionary Biology	3

Chemistry		
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

Mathematics		
MATH:221	Analytic Geometry-Calculus I	4
MATH:222	Analytic Geometry-Calculus II	4
STAT:260	Basic Statistics	3

Total Hours **74-75**

¹ 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 Arts	3
Hours		18

Summer Semester

	Gen Ed Social Science (DD tag)	3
	Gen Ed Social Science	3
Hours		6

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 (Complex Systems)	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:315	Introduction to Science Teaching in Secondary Schools	3
	Gen Ed Arts or Humanities	3
Hours		16

Summer Semester

	Gen Ed Humanities (GD tag)	3
Hours		3

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:405	Secondary Science Instructional Techniques	3
EDSE:415	Clinical Teaching I - Secondary Science	3
Hours		16

Spring Semester

EDSE:421	Instructional Techniques in Secondary Education - II	3
EDSE:495	Student Teaching: Secondary Education	6
EDSE:431	Clinical Teaching II	3
Hours		12
Total Hours		139-140