

Department of Education

Adolescent Young Adult (7-12): Physical Sciences – Life Science

Program requirements:	
General Education:	Satisfactory completion of all general education requirements.
Major:	Satisfactory completion of a major in Biology (41-43 credits for B.A. degree as described below) plus coursework in related sciences (19-20 credits) for a total of 60-63 credits in the sciences. For students seeking a B.S., see the current academic catalog for courses required beyond what is listed below.
Education:	Satisfactory completion of a minor in education (36 credits) as described below. Prior to being admitted to the Teacher Education Program, the student must meet all of the admission requirements outlined in the Undergraduate Teacher Education Handbook for Licensure, including demonstration of mathematical competency by earning a grade of C- or higher in a 4-credit course that fulfills the LO #4 Connections Curriculum requirement.

Requirements for Adolescent Young Adult Licensure:

- All courses must be passed with a grade of C- or above. See the Academic Catalog for additional requirements for admission and continuation in the program. Courses may not be offered every year. Check the department schedules for course offerings.
- Students are required to complete a capstone assessment, the edTPA, during their Student Teaching Seminar (EDUC-496) and earn a C- or higher in the course.

Required in Education (36 credits)

Entry-Level Courses (Taken prior to application to the Teacher Education Program)

Grade Earned	Course #	Course Name & Credits
_____	EDUC-103	Sociological Perspectives in Education (4)—LO#2 and LO#6
_____	EDUC-104	Philosophical Perspectives in Education (4)—LO#2 and LO#10
_____	EDUC-105	Educational Psychology (2)
_____	EDUC-120	Introduction to Students with Special Needs (2) <i>(Concurrently with EDUC 105)</i>
_____	EDUC-213	Adolescent Development and Education (4)

Advanced Courses (Taken following admission to the Teacher Education Program)

Grade Earned	Course #	Course Name & Credits
_____	EDUC-312	Reading & Writing in the Content Areas (3) <i>(Spring Only)</i>
_____	EDUC-313	Practicum: Literacy (1)
_____	EDUC-332	Assessment and Inclusion (4)
_____	EDUC-348	Teaching Science in Secondary Schools (3) <i>(See Advisor for Scheduling)</i>
_____	EDUC-388	Science Practicum (1) <i>(See Advisor for Scheduling)</i>

Student Teaching Term

Application for permission to student teach must be submitted early spring term of junior year.

Other coursework, if taken, must be scheduled for late afternoon or evenings during the term and is subject to the approval of the Director of Field Placements and Outreach.

Grade Earned	Course #	Course Name & Credits
_____	EDUC-495	Student Teaching (10)—LO#1
_____	EDUC-496	Student Teaching Seminar (2)

Additional Requirement for Adolescent Young Adult Licensure

_____ Successful completion of the state-required licensure examinations.

Area I: Foundational Courses in Biology (14 Credits)

Grade	Course #	Course Name & Credits
_____	BIOL-170/171	Concepts of Biology: Biological Information (5)
_____	BIOL-180/181	Concepts of Biology: Energy & Resources in Biology (5)
_____	BIOL-201	Biological Literacy (2)
_____	BIOL-202	Evolution (2)

Area II: Breadth of the Biological Experience**Group 1: Cellular/Developmental/Molecular Bio (4 credits minimum)**

Grade	Course #	Course Name & Credits	Grade	Course #	Course Name & Credits
_____	BIOL-210	Molecular Neurobiology (5)	_____	BIOL-219	Immunology (4)
_____	BIOL-212	Cell Biology (5)	_____	BIOL-310	Molecular Biology (5)
_____	BIOL-214	Developmental Biology (5)	_____	BIOL-316	Molecular Genetics (5)
_____	BIOL-215	Genetics (5)			

Group 2: Physiology (5 credits)

_____	BIOL-325	Human Anatomy and Physiology I (5)
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Group 3: Ecology/Organismal Biology (4 credits minimum)

_____	BIOL-230	Woody Plants of Ohio (4)	_____	BIOL-241	Freshwater Ecology (5)
_____	BIOL-232	Herpetology (5)	_____	BIOL-242	Behavioral Ecology (5)
_____	BIOL-233	Ornithology (5)	_____	BIOL-244	Conservation Biology (4)
_____	BIOL-235	Morphology & Taxonomy of Vascular Plants (5)	_____	BIOL-245	Wildlife Management (5)
_____	BIOL-238	Entomology (5)	_____	BIOL-247	Marine Ecology (5)
_____	BIOL-239	Marine Invertebrates (5)	_____	BIOL-248	Compar Comm: Bahamas (5)
			_____	BIOL-346	Ecology (5)

Area III: Biological Electives (10 Credits)

This requirement is satisfied by choosing any 10 credits from **Area II** or any other Biology courses.

_____	BIOL- _____	_____
_____	BIOL- _____	_____
_____	BIOL- _____	_____

Area IV: Capstone Experience

_____	BIOL-406	Senior Capstone Seminar (4)
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Required in Related Sciences (19-29 Credits)

The following courses in "related sciences" are required for purposes of teacher licensure.

Area V: Chemical Foundations (10 Credits)

_____	CHEM-121	Models of Chem. Systems (5)
_____	CHEM-162	Chem Struc. & Analysis (5)

Area VI: Supporting Sciences

Required courses depend upon whether student is seeking BA or BS in Biology

Bachelor of Arts Degree Supporting Sciences:

From Environmental Science (5 credits)		From Physics (4 or 5 credits)	
_____	ESCI-101 Intro to Environmental Sci. (5)	_____	PHYS-201 Physics I (5) OR
			PHYS-107 Astronomy (4)

Bachelor of Science Degree Supporting Sciences:

From Environmental Science (5 credits)		From Physics (4 or 5 credits)	
_____	ESCI-101 Intro to Environmental Sci. (5)	_____	PHYS-201 Physics I (5) OR
			PHYS-107 Astronomy (4)

One statistics course (4 credits).

_____	DATA-227	Data Analysis (4)
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_____ A major-level course from the sciences (4 or 5)

Any change(s) in this program of study must be approved by the Chairperson of the major department and the Director of Assessment & Licensure, Wittenberg University.