

Life Sciences (7-12)

Teacher Licensure Requirements — Effective for Class of 2007

Program Requirements

- Gen Ed:** Satisfactory completion of all general education requirements (generally 55 sem hrs).
- Major:** Satisfactory completion of a major in Biology (42 sem hrs for B.A. degree as described below) plus coursework in related sciences (29 sem hrs) for a total of 71 sem hrs in the sciences. For students seeking a B.S. degree, see the current academic catalog for courses required beyond what is listed below.
- Education:** Satisfactory completion of a minor in education (34 sem hrs. beginning with the class of 2006) as described below.

Note: Beginning with the class of 2010, all courses in the teaching field must be passed with grades of C- or higher. See the Academic Catalog for additional requirements for admission and continuance in the program. Courses may not be offered every year. Be sure to check with the department for schedule of course offerings.

Required in Biology (42 sem hrs)

AREA I: Concepts in Biology

- ___ Bio 170/171 Biological Information,
Reproduction & Evolution (5)
___ Bio 180/181 Biological Energy & Resour (5)
(Note: Courses can be taken in either order)

AREA II: A minimum of 5 hours each from Groups 1, 2 & 3, and 9 hours from Group 4.

Group 1: Molecules, Organelles, Cells

- ___ Bio 214 Developmental Biology (5)
___ Bio 215 Genetics (5)
___ Bio 310 Molecular Biology (5)
___ Bio 312 The Cell (5)
___ Bio 316 Molecular Genetics (5)

Group 2: Tissues, Organs, Systems

- ___ Bio 325 Human Anatomy and Physiology
I (5)

Group 3: Organisms

- ___ Bio 231 Vertebrate Zoology (5)
___ Bio 232 Mammalian Ecology (5)
___ Bio 233 Ornithology (5)
___ Bio 234 Morphology of Nonvasc Plants (5)
___ Bio 235 Morphology & Taxonomy of
Vascular Plants (5)
___ Bio 236 Local Flora (5)
___ Bio 237 Microbiology (5)
___ Bio 238 Entomology (5)
___ Bio 239 Marine Invertebrates (5)

Group 4: Populations, Communities, Ecosystems

- ___ Bio 347 Evolution (4)

Plus one from the following courses:

- ___ Bio 247 Marine Ecology (5)
___ Bio 248 Compar Comm: Bahamas (5)
___ Bio 249 Compar Comm: N. Forests (5)
___ Bio 341 Limnology (5)
___ Bio 342 Stream Ecology (5)
___ Bio 346 Ecology (5)

AREA III: Four additional credits in Biology

- ___ Bio xxx _____ (4)

AREA IV: Senior Capstone

- ___ Bio 406 Senior Capstone Seminar (4)

Required in Related Sciences (29 sem hrs)

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

AREA V: Required in Chemistry

- ___ Chem 121 Models of Chem. Systems (5)
___ Chem 162 Chem Struc. & Analysis (5)
___ Chem 201 Organic Chemistry (5)

AREA VI: Supporting Science

From Geology, 5 sem hrs from the following

- ___ Geol 150 Physical Geology (5)
___ Geol 160 Environmental Geology (5)

From Physics, 9 sem hrs

- ___ Phys 107 Astronomy (4)
___ Phys 200 Mechanics and Waves (5)

Required in Education (34 sem hours)

Note: All education courses must be passed with grades of C- or higher. See Academic Catalog for additional requirements for admission to and continuance in the program.

Entry-Level Courses

- ___ Educ 103 S Sociological Perspectives in Education (4)
- or, Educ 104 R Philosophical Perspectives in Education (4)
- ___ Educ 112 Human Development & Learning Theory: Middle Childhood through Young Adult (2)
- ___ Educ 120 Introduction to Students with Special Needs (2)
(Educ 112 and 120 are to be taken concurrently)

Advanced Courses

Admission to the Teacher Education Program is required. Apply no later than midterm prior to enrollment in the first course.

- ___ Educ 307 Curriculum and Instruction for the Middle Grades (4)
- ___ Educ 308 Curriculum and Instruction for High School (4)
- ___ Educ 312 Reading and Writing in Content Areas (4)

Student Teaching

Application for permission to student teach must be submitted early spring term of the junior year. Educ 342, 348 and 495 are to be taken concurrently. Educ 342 & 348 are scheduled the first five weeks of the term. Ten to twelve weeks of full-time student teaching is scheduled for the remainder of the term. Other coursework, if taken, must be scheduled for late afternoon or evenings during the term.

- ___ Educ 342 Including Students with Special Needs in Middle & Secondary Classes (2)
- ___ Educ 348 Teaching Science in Secondary Schools (2)
- ___ Educ 495 Student Teaching (10)

Additional Education Requirements:

- ___ Successful completion of State Board of Education Examinations (Praxis)
(Complete during the senior year)

Note: Changes in this program of study must be approved by the Chairperson of the major department and the Director of Teacher Licensure, Wittenberg University.