# Augustana College

# **Secondary Biology Education**

**Courses required for the first year:** CHEM 131, CHEM 132; PSYC 100; second language requirement

Courses recommended for the first year: POLS 101; courses designated with a PA, PP, PL, or G

BIOL 130 and BIOL 140 are generally taken during the 2<sup>nd</sup> year

#### Contact:

Dr. Mike Schroeder, Education Advisor\* (michaelschroeder@augustana.edu)

\*Students interested in this major are strongly encouraged to contact Dr. Schroeder prior to registration for Spring Semester.

### The Major in Biology Secondary Education

28 credits, including BIOL-130, BIOL-140, BIOL-250, BIOL-310, BIOL-343, One of BIOL-360 or BIOL-362, one of BIOL-386 or BIOL -387; one 4 credit SI experience from biology chosen from BIOL-464, BIOL-465, BIOL-466 or the combination of EDUC-422, EDUC-450 and INTR-EDA90 as part of the Secondary Education program. See the Director of Secondary Education for more details. Required supporting courses (28 credits): CHEM-131, CHEM132, PHYS-151, PHYS-152, ASTR-142, GEOG-105, GEOL-101

Candidates can also earn licensure to teach science in grades 5-8 by completing the major in Middle Grades: Science.

| Course Number                    | Course Name  | Learning<br>Perspective | Prerequisites                               | Credits |
|----------------------------------|--|-------------------------|---|---------|
| BIOL 130                         | Molecules to cells                                 |                         |   | 4       |
| BIOL 140                         | Organisms to<br>Ecosystems                         |                         |   | 4       |
| BIOL 250                         | Genetics   |                         | BIOL 130 and BIOL 140                       | 4       |
| BIOL 310                         | Evolution  |                         | BIOL 250                                    | 4       |
| BIOL 343                         | Microbiology                                       |                         | BIOL 250                                    | 4       |
| BIOL 360 or<br>BIOL 362          | Human physiology<br><b>or</b><br>Comparative       |                         | BIOL 130 <b>or</b><br>BIOL 130 and BIOL 140 | 4       |
| BIOL 386 <b>or</b> BIOL<br>387   | physiology<br>Ecology <b>or</b><br>Aquatic Biology |                         | BIOL 130 and BIOL 140<br>or BIOL 250        | 4       |
| BIOL-464, BIOL-<br>465, BIOL-466 | Biology Senior<br>Inquiry*                         |                         |   | 4       |

#### **Required Courses in Biology**

\* Students may take the combination of EDUC-422, EDUC-450 and INTR-EDA90 as part of the Secondary Education program to complete the Senior Inquiry requirement.

#### **Required Supporting Courses**

| Course<br>Number | Course Name                     | Learning<br>Perspective | Prerequisites | Credits |
|------------------|---------------------------------|-------------------------|---------------|---------|
| CHEM 131         | General Chemistry 1             | PN                      |               | 4       |
| CHEM 132         | General Chemistry 2             | PN                      | CHEM 131      | 4       |
| PHYS 151         | Principles of Physics 1         | PN                      |               | 4       |
| PHYS 152         | Principles of Physics 2         | PN                      | PHYS 151      | 4       |
| ASTR 145         | Stars and Galaxies              | PN                      |               | 4       |
| GEOG 105         | Weather, Climate and<br>Society | PN                      |               | 4       |
| GEOL 101         | Physical Geology                | PN                      |               | 4       |

#### **Education Professional Sequence (Required)**

| Course<br>Number | Course Name             | Learning<br>Perspective | Prerequisites                  | Credits |  |  |  |
|------------------|-------------------------|-------------------------|--------------------------------|---------|--|--|--|
| EDUC 301         | Educational             |                         |                                | 4       |  |  |  |
|                  | Psychology and          |                         |                                |         |  |  |  |
|                  | Assessment              |                         |                                |         |  |  |  |
| EDUC 310         | Computers in            |                         | EDUC 301; Retention in         | 1       |  |  |  |
|                  | Education               |                         | Teacher Education              |         |  |  |  |
| EDUC 340         | Methods of Inclusion    | D                       | EDUC 301; Retention in         | 4       |  |  |  |
|                  |                         |                         | Teacher Education              |         |  |  |  |
| EDUC 370         | General Methods         |                         | EDUC 301; Retention in         | 4       |  |  |  |
|                  |                         |                         | Teacher Education              |         |  |  |  |
| EDUC 386         | Methods 5-8 Science     |                         | EDUC 301; Retention in         | 4       |  |  |  |
|                  |                         |                         | Teacher Education              |         |  |  |  |
| EDUC 396         | Clinical Experience 5-8 |                         | EDUC 301 and EDUC 340;         | 1       |  |  |  |
|                  |                         |                         | Retention in Teacher Education |         |  |  |  |
| EDUC 397         | Clinical Experience 9-  |                         | EDUC 301 and EDUC 340;         | 1       |  |  |  |
|                  | 12                      |                         | Retention in Teacher Education |         |  |  |  |
| EDUC 412         | Methods of Literacy:    |                         | EDUC 301; Retention in         | 4       |  |  |  |
|                  | 5-12                    |                         | Teacher Education              |         |  |  |  |
| INTR-EDA90       | Student Teaching        | PH                      | EDUC 396 and EDUC 397;         | 10      |  |  |  |
|                  |                         |                         | Retention in Teacher Education |         |  |  |  |
| EDUC 422         | Clinical Seminar        | PH                      | Co-requisite: Student Teaching | 1       |  |  |  |
|                  |                         |                         | and EDUC 450                   |         |  |  |  |
| EDUC 450         | School and Society      | PH                      | Co-requisite: Student Teaching | 2       |  |  |  |
|                  |                         |                         | and EDUC 422                   |         |  |  |  |

## **Major Overview**

This major is required for teaching licensure in Illinois in grades 9-12. Students completing this major along with all other licensure requirements are eligible for high school teaching positions in science (Biology, Chemistry, and Physics) in Illinois. Students who complete this major will have met most requirements for licensure to teach science in grades 5-8.

\*Fall, J term, Spring, Summer; see Academic Calendar for specific dates Updated December 2022