

## Secondary Science Education Major

This major encompasses the coursework requirements for Illinois teacher licensure in (5-8) and (9-12) broadfield science. Completing this major will result in a major in Secondary Science Education and a minor in biology, chemistry or physics.

Students must apply and be formally admitted to the Teacher Education Program to enter upper-level coursework. All courses must be completed with a grade of C- (1.7) or higher. Students must maintain major/minor GPAs of 2.50 or higher and cumulative GPAs of 2.750 or higher to remain in the program and fulfill licensure requirements. Students also must pass one of the State mandated content area tests prior to admission to student teaching: Test #203 Middle Grades (5-8) science, OR Test #239 biology, Test #240 chemistry Test #243 physics for (9-12) science. The middle grades science and 9-12 content test are required for licensure.

### Secondary Science Education

At least half of the SSE major courses, excluding SEC 100, 300, 450, and 457, must be completed at Elmhurst University. Students also must complete three full terms at Elmhurst prior to student teaching.

#### The following courses are required:

- EDU 104 Cultural Foundation of Education in the United States
- EDU/SEC 223 Education of PK-12 Learners with Exceptionalities
- EDU/SEC 311 Educational Psychology
- SEC 100 Introductory Seminar to Teaching as a Caring Profession (.25)
- SEC 300 Intermediate Seminar for Teaching in Diverse and Inclusive Schools (.25)
- SEC 310 Methods and Best Practices in Middle and Secondary Education
- TEL 317 Methods and Materials for Teaching English Language Learners (.75)
- SEC 360 The Middle School: History, Philosophy, Organizational Structures and Best Practices
- SEC 421 Theory and Practice for Building Academic Literacies in K-12
- SEC 450 Advanced Seminar in Teacher Collaboration and Professional Practice (.25)
- SEC 440/ 441 The Teaching of Middle School and Secondary School Science
- SEC 455 Student Teaching in Secondary and Middle Schools (3.00); requires formal admission to student teaching

### Broadfield Science Requirements

- BIO 200 General Biology I
- BIO 201 General Biology II
- CHEM 211 Chemical Principles I and CHEM 212 Chemical Principles II
- **OR**
- CHEM 220 Advanced Chemical Principles
- GEO 102 Earth System Science **OR** AST 212 Introduction to Astronomy
- PHYS 121 General Physics I **OR** PHY 122 General Physics II

## Concentration Requirements

Teacher Candidates pursuing the Secondary Science Education major and licensure must complete a minor or major in biology, chemistry, or physics. The concentration must be in biology, chemistry or physics coursework as outlined below. All concentration courses must be completed with grades of C- (1.7) or higher while maintaining a biology, chemistry or physics GPA of 2.50 or higher.

### Biology Concentration for Secondary Science Education

For a minor in biology, at least five courses are required. At least three of the five courses must be taken at Elmhurst College. See Physics biology if completing the major.

BIO 200 General Biology I

BIO 201 General Biology I

Three electives at the 300 or 400 level

### Chemistry Concentration for Secondary Science Education

For a minor in Chemistry, the following courses are required. At least three of the five courses must be completed at Elmhurst College. See Chemistry major if completing the major.

CHM 211, 212 Chemical Principles I and II *or*

CHM 220 Advanced Chemical Principles

CHM 311, 312 Organic Chemistry I and II

Two additional course credits of chemistry electives from the following: (*one must have a lab*)

- CHM 221 Analytical Chemistry
- Any 300/400-level chemistry course

### Physics Concentration for Secondary Science Education

For a minor in physics, at least five courses are required. At least three of the five courses must be completed at Elmhurst College. See Physics major if completing the major.

PHY 121 General Physics I

PHY 122 General Physics II

PHY 304 Intermediate Physics

PHY 305 Modern Physics of Atoms, Nuclei, and Particles and one other upper-level physics course.