



# Science Education, B.S. *major*

## Physics Specialty (Teacher Licensure)

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Required Credits: 90  
Required GPA: 2.50

### CORE COURSES

COMPLETE THE FOLLOWING COURSES:

- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (4 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
- PHYS 2101 Physics I (5 credits)
- SCI 3100 Integrative Science for Teachers (4 credits)
- SCI 3450 Science Methods For Grades 5-8 (4 credits)

SELECT 1 OF THE FOLLOWING COURSES:

- GEOL 1110 Physical Geology (4 credits)
- GEOL 1120 Historical Geology (4 credits)

### REQUIRED PROFESSIONAL EDUCATION COURSES

COMPLETE THE FOLLOWING COURSES:

- ED 3100 Introduction to the Foundations of Public School Education (3 credits)
- ED 3110 Educational Psychology (3 credits)
- ED 3140 Human Relations In Education (3 credits)
- ED 3350 Pedagogy: Planning for Instruction (3 credits)
- ED 3780 Adaptation and Management: Designing the Learning Environment (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4799 The Professional Teacher (1 credit)
- HLTH 3400 Health and Drugs in Society (2 credits)

Complete 12 credits of student teaching:

- ED 4830 Student Teaching - Secondary (1-12 credits)

### PHYSICS SPECIALTY

COMPLETE THE FOLLOWING COURSES:

(Select PHYS 2101 from the core for this specialty)

- MATH 2471 Calculus I (5 credits)
- PHYS 2102 Physics II (5 credits)
- PHYS 2500 Electronics I (4 credits)
- PHYS 3600 Modern Physics (4 credits)
- PHYS 4580 Optics (4 credits)

COMPLETE THE FOLLOWING COURSE:

- PHYS 4980 Research (3 credits)

### SUGGESTED SEMESTER SCHEDULE FOR PHYSICS SPECIALTY, SCIENCE EDUCATION MAJOR, B.S. (TEACHER LICENSURE)

The following suggested schedule includes the courses required in the Science (Physics) Major, B.S., arranged by year. There is some flexibility, but because of the sequential nature of Physics courses, it is very important that Calculus I and

Physics I be taken as early as possible.

Freshman

- MATH 2471 Calculus I (5 credits)
- MATH 2472 Calculus II (5 credits)
- PHYS 2101 Physics I (5 credits)
- PHYS 2102 Physics II (5 credits)
- Liberal Education requirements
- \*Students not scoring sufficiently high on the Mathematics Placement Exam should complete Precalculus (MATH 1470) before taking Calculus I and Physics I. This may delay taking other required Physics courses. Consult your Physics advisor.

Sophomore

- PHYS 2500 Electronics I (4 credits)
- PHYS 3600 Modern Physics (4 credits)
- Required Biology, Chemistry, or Geology core courses
- Liberal Education requirements

Junior

- PHYS 4580 Optics (4 credits)
- PHYS 4980 Research (3 credits)
- Required Biology, Chemistry, or Geology core courses
- Liberal Education requirements

Senior

- Physics courses not completed previously
- SCI 3100 Integrative Science for Teachers (4 credits)
- SCI 3450 Science Methods For Grades 5-8 (4 credits)
- Liberal Education requirements
- Complete Professional Education requirements