



Science Education, B.S. *major* Physics Specialty (Teacher Licensure)

A total of 120 semester credits are needed for the **Science Education, Physics specialty (Teacher Licensure) B.S.** degree and include the following:

- Completion of a minimum of 40 upper division credits (level 3000/4000)
- Completion of all required major credits
- Completion of Core Curriculum credits (Minnesota Transfer Curriculum [MnTC] Goal Areas 1-10 with a minimum of 40 credits) required for all baccalaureate degrees
- Completion of BSU Focus and Nisidotaading Course Requirements

Dual Degrees

Students wishing to complete two degrees concurrently, (example: Bachelor of Science and Bachelor of Arts) must complete a minimum of an additional 30 credits above the required 120 credits.

Multiple Credentials

Any additional major, minor or certificate in a degree must have at least 6 credits of course work not used to meet the requirements of another major, minor or certificate in the degree.

Required Credits: 82

Required GPA: 2.50

Core Courses for Science Teaching in Grades 5-8

Complete the following courses:

- BIOL 1400 Cellular Principles (4 credits)
or BIOL 1110 Human Biology (4 credits)
- BIOL 1500 Diversity of Life (4 credits)
or BIOL 1120 General Biology: Evolution And Ecology (3 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)
or CHEM 1111 General Chemistry I (4 credits)
- CHEM 2212 Principles of Chemistry II (4 credits)
or CHEM 1112 General Chemistry II (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- SCI3100
- SCI3450
or ED3410

REQUIRED PROFESSIONAL EDUCATION COURSES

Complete the following courses with a minimum 2.50 GPA:

- ED1100
- ED2110
- ED3140
- ED3350
- ED3780
- ED4737
- ED4778

Complete 12 credits of student teaching:

- ED4830

PHYSICS SPECIALTY

Complete the following courses:

MATH 2471 is recommended (required for PHYS 2101)

- PHYS 2101 University Physics I (4 credits)
or PHYS 1101 General Physics I (4 credits)
- PHYS 2102 University Physics II (4 credits)
or PHYS 1102 General Physics II (4 credits)
- PHYS 3103 University Physics III (4 credits)
- PHYS 3300 Thermal and Statistical Physics (3 credits)
or CHEM 4711 Physical Chemistry I (3 credits)
- PHYS 4300 Optics (4 credits)

Complete the following course:

- PHYS4980