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

A total of 120 semester credits are needed for the **Science Education, Life Science speciality (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: 83
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)
- SCI 3100 Integrative Science for Teachers (4 credits)
- SCI 3450 Science Methods For Grades 5-8 (4 credits)
  or ED 3410 Secondary Science Methods (4 credits)

REQUIRED PROFESSIONAL EDUCATION COURSES

Complete the following courses with a minimum 2.50 GPA:

- ED 1100 Education & Society (3 credits)
- ED 2110 Educational Psychology and Learning Theories (3 credits)
- ED 3140 Human Diversity and Educational Equity (3 credits)
- ED 3350 Principles and Strategies of Teaching (3 credits)
- ED 3780 Inclusive Teaching and Classrooms (3 credits)
- ED 4737 Content Area Reading (3 credits)
- ED 4778 Teacher Leadership (3 credits)

Complete 12 credits of student teaching:

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

LIFE SCIENCE SPECIALTY

A. Required Biology Courses
Complete the following courses:

- BIOL 2360 Genetics (4 credits)
- BIOL 2610 General Ecology (3 credits)
- BIOL 3710 Microbiology (4 credits)
- BIOL 4620 Evolution (3 credits)
- BIOL 3720 Plant Form and Function (4 credits)
  or BIOL 3830 Aquatic Plants and Algae (4 credits)
- BIOL 4894 Advanced Research Project I (2 credits)
  or BIOL 4895 Advanced Research Project II (2 credits)

B. Required Biology Elective
Select 1 of the following courses:

- BIOL 3150 Animal Behavior (3 credits)
- BIOL 3310 Entomology (3 credits)
- BIOL 4510 Ornithology (3 credits)
- BIOL 4520 Mammalogy (3 credits)
- BIOL 4534 Ichthyology (4 credits)

Suggested Semester Schedule | Science Education, B.S. Life Science Specialty (Teacher Licensure)

The following is a list of required Science (Life Science) Major, B.S. courses arranged by year. This schedule is intended to assist students in planning their courses. There is some flexibility in this schedule, but graduation within four years will require close adherence to the specified sequence of courses. Always consult your Biology academic advisor as to the proper courses and sequence of courses needed for graduation. It is possible, in some circumstances, that courses in a student's Core Curriculum program may be used in his or her academic major.

Freshman

- BIOL 1400 Cellular Principles (4 credits)
- BIOL 1500 Diversity of Life (4 credits)
- CHEM 2211 Principles of Chemistry I (4 credits)
- Core Curriculum requirements

Sophomore

- BIOL 2360 Genetics (4 credits)
- BIOL 2610 General Ecology (3 credits)
- BIOL 4894 Advanced Research Project I (2 credits) or BIOL 4895
- BIOL 3720 Plant Form and Function (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- PHYS 1101 General Physics I (4 credits)
  or PHYS 2101 University Physics I (4 credits)
- Consider starting Professional Education sequence
- Core Curriculum requirements

Junior

- BIOL 3710 Microbiology (4 credits)
- SCI 3100 Integrative Science for Teachers (4 credits)
- SCI 3450 Science Methods For Grades 5-8 (4 credits)
- Other Professional Education requirements
- Core Curriculum requirements

Senior

- Biology Elective (BIOL 3150, 3310, 3510, 4520, or 4534)
- BIOL 4620 Evolution (3 credits)
- Complete Professional Education requirements, including one semester of student teaching
- Complete Core Curriculum requirements