

B.S. in Biological Science

[Overview](#)

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Description

The B.S. in biological science offers in-depth study of biology and other natural sciences while preparing the student for a variety of careers or for graduate work in many fields including medicine, organismal biology, dentistry, pharmacy, veterinary medicine, education, cell or molecular biology, ecology and conservation biology. This is the degree of choice for those aspiring to be professional scientists. Students may choose one optional emphasis in ecology and evolutionary biology; integrative biology; molecular, cellular, and microbiology; organismal biology; pre-health biological sciences.

Minimum Total Credit Hours: 120

General Education Requirements

Math 261 and 262 are required for the B.S. degree.

Course Requirements

A major in biological science for the B.S. degree consists of a minimum of 42 semester hours of biology including 34 at the 300 level or above. This requirement includes introductory courses (Bisc 160, 161, 162, 163 for 8 credit hours); biology core courses for 16 credit hours; biology electives for 18 credit hours minimum; and the major field achievement test (Bisc 498, which must be taken as a senior) (0 hours). After the successful completion of Bisc 160, 161, 162, 163 as initial courses, students may enroll in advanced biology courses that must include one course in each of the four B.S. biology core areas: ecology (Bisc 322), genetics (Bisc 336), physiology (Bisc 330 or Bisc 438 or Bisc 516), and cell and molecular biology (Bisc 440).

Biology majors may choose to specialize by using their biology electives to add one optional emphasis, which requires a minimum of three courses from the approved list for the emphasis. The same course may not satisfy the biology core courses and an emphasis area. Students who complete relevant special topics, travel course, or research course will consult with the department prior to enrollment in the course to determine if it fulfills a course for an emphasis area.

Seminars and nonmajor courses do not satisfy the minimum or 300-level requirements. In addition, two courses in calculus (Math 261 and 262), 8 hours of general chemistry (Chem 105, 106, 115, and 116), and two semesters of organic chemistry (Chem 221, 222, 225, 226) are required. Bisc 336 and Bisc 330 should be taken during the sophomore year, and Bisc 322 and Bisc 440 should be taken during the junior year.

Other Academic Requirements

Students must achieve a grade of C or better in all course work counted for the major in biological science, and every biology course requires a grade of C or better in all prerequisite courses, including those prerequisite courses from other departments. For example, Bisc 160 and 161 must be passed with a grade of C or better before Bisc 162 and 163 may be taken. In addition, Bisc 160, 161, 162, and 163 must be passed with a grade of C or better before any additional biology course at the 300 level or above is attempted.

Bisc 150, 206, 207, 210, 220, and 492 can not be used toward a major in biological sciences.

Specializations

- [Emphasis-Ecology & Evolutionary Biology](#)
- [Emphasis-Integrative Biology](#)
- [Emphasis-Molecular, Cellular, & MicroBio](#)
- [Emphasis-Organismal Biology](#)
- [Emphasis-Pre-Health Biological Sciences](#)

