Nebraska Wesleyan University

Biology (B.S.)

Catalog

2025-2026

Program Description

The B.S. and the B.A. in biology provide students with the experience and knowledge necessary to have a successful career. A B.S. in biology requires 28 approved hours from Math, Physics, and Chemistry department courses . Competency in a modern language other than English is strongly encouraged. The B.S. tends to be the preferred option for most students as it also most closely matches the expectations and requirements of many professional and graduate schools.

Departments

1. Biology

Biology Major (B.S., 35 hours plus a supporting program)

Biology Core	12 hours
BIO 1400FYW Introduction to Biological Inquiry	4 hours
BIO 2200 Genetics and Cell Biology	4 hours
BIO 2300 Ecology and Evolution	4 hours

Biology Electives	20 hours
Must have three lab courses, with at least one from Areas A, B and C.	
Area A. Cellular, Developmental and Molecular Biology • BIO 3160 Medical Botany and BIO 3170 Medical Botany Lab (lab course) • BIO 3690 Microbiology (lab course) • BIO 3800 Molecular Genetics • BIO 4190 Histology (lab course) • BIO 4750 Immunology	**4 hours**
Area B. Population and Ecological Biology • BIO 3180 Plant Taxonomy (lab course) • BIO 3220 Parasitology (lab course) • BIO 3500 Conservation Biology (lab course) • BIO 3530 Principles of Marine Biology and Oceanography • BIO 3640 Animal Behavior and BIO 3650 Laboratory in Animal Behavior (lab course) • BIO 4210 Ecology (lab course) • BIO 4480 Vertebrate Zoology (lab course) • BIO 4610 Evolution	**4 hours**

Biology Electives	20 hours
Area C. Applied Biology • BIO 2940 Biology Assistantship • BIO 2970 Internship • BIO 2980 Practicum • BIO 3000 An Introduction to Biomedical Ethics • BIO 3200 Advanced Human Anatomy and Physiology I and BIO 3200L Advanced Human Anatomy and Physiology I Lab (lab course) • BIO 3210 Advanced Human Anatomy and Physiology II and BIO 3210L Advanced Human Anatomy and Physiology II Lab (lab course) • BIO 3300 Cadaver Dissection • BIO 3950/BIO 4950 Independent Study • BIO 3970 Internship • BIO 3980 Practicum • BIO 4700 Pathophysiology	**4 hours**
Additional Biology Electives	**8 hours**
Capstone	**3 hours**
BIO 4990 Senior Capstone	3 hours
Required Supporting Program	**23-25 hours**
CHEM 1110 Chemical Principles I and CHEM 1110L Chemical Principles I Laboratory	4 hours
CHEM 1120 Chemical Principles II and CHEM 1120L Chemical Principles II Laboratory	4 hours
CHEM 2100 Organic Chemistry I and CHEM 2100L Organic Chemistry I Laboratory	4 hours
CHEM 2110 Organic Chemistry II: Synthesis and Mechanisms and CHEM 2110L Organic Chemistry II Laboratory	4 hours
Take 2 courses from the following: • PHYS 1600 Principles of Physics I • PHYS 2000 General Physics I • PHYS 1700 Principles of Physics II • PHYS 2100 General Physics II	4 hours
Take 3 credits from the following: • MATH 1300 Statistics • MATH 1600 Calculus I • MATH 1610 Calculus II • MATH 2600 Calculus III	3-5 hours

NOTE: BIO 1080 Microbiology, BIO 1090 Introduction to Human Anatomy and Physiology I, and BIO 1100 Introduction to Human Anatomy and Physiology II may not fulfill biology major requirements.