



Biology

DEGREES OFFERED

Bachelor of Arts in Biological Science
Bachelor of Science in Biological Science
Minor in Biological Science

ABOUT THE MAJOR

Biological science is the study of life at the cellular, molecular, biochemical, microbial, organismal and ecosystem levels. The study of biology is based on an interdisciplinary approach designed to help students become more scientifically literate and expose them to the many ways that biologists pose questions and gather and interpret their data. At HNU, student learning and development is enhanced by small laboratory and field class sizes, close interaction with faculty and independent research projects. This program emphasizes a “hands-on” learning environment that prepares students for professional careers or graduate school.

CAREER OPTIONS

Agronomist	Optometrist
Anesthesiologist	Paramedic
Animal Behaviorist	Parasitologist
Audiologist	Pathologist/Forensics
Chiropractor	Pharmaceutical Sales
Coroner	Pharmacist
Epidemiologist	Physical Therapist
Geneticist	Physician
Medical Research	Podiatrist
Microbiologist/Public Health	Psychobiologist
Mortician	Radiologist
Nursing	Sanitation Engineering
Occupational Therapist	Science Writer
Oceanographer	Teacher
Ophthalmologist	Veterinarian

BACHELOR OF ARTS IN BIOLOGICAL SCIENCE

Preparation for the Major

BIOL 1A & 1B	Principles of Biological Science (4, 4)
CHEM 1A & B	General Chemistry (Inorganic) (5, 5)
CHEM 18 & 18L	Organic Chemistry I with laboratory (4)
CHEM 19 & 19L	Organic Chemistry II with laboratory (4) *B.S. Major
PHYS 8A & 8B	General Physics I & II with laboratory (8)
PSYC 63/SOC 105	Statistical Methods (3)

Highly Recommended

MATH 1	Precalculus
MATH 11, 12	Calculus
CSCI 10C, 10D, 10E	Spreadsheet, Database, Presentation Strategies

Major Requirements (28 units)

BIOL 160	Genetics
BIOL 175L	Molecular & Biochemistry Lab
BIOL 128 & 128L	Evolutionary Ecology

BIOL 115	Human Physiology
BIOL 115L	Exercise Physiology Lab
BIOL 145 & 145L	Microbiology lecture & lab
BIOL 192	Research Methods
BIOL 195W	Senior Seminar

BACHELOR OF SCIENCE IN BIOLOGY

Preparation for the Major

BIOL 1A & 1B	Principles of Biological Science (4, 4)
CHEM 1A & B	General Chemistry (Inorganic) (5, 5)
CHEM 18 & 18L	Organic Chemistry I with laboratory (4)
CHEM 19 & 19L	Organic Chemistry II with laboratory (4) *B.S. Major
PHYS 8A & 8B	General Physics I & II with laboratory (8)
PSYC 63/SOC 105	Statistical Methods (3)

Highly Recommended

MATH 1	Precalculus
MATH 11, 12	Calculus
CSCI 10C, 10D, 10E	Spreadsheet, Database, Presentation Strategies

Major Requirements (37 units)

BIOL 160	Genetics
BIOL 175L	Molecular & Biochemistry Lab
BIOL 128 & 128L	Evolutionary Ecology
BIOL 115	Human Physiology
BIOL 115L	Exercise Physiology Lab
BIOL 145 & 145L	Microbiology lecture & lab
BIOL 192	Research Methods
BIOL 195W	Senior Seminar

Plus One of the Following Concentrations: (9 units)

Cellular/Molecular Biology

BIOL 150	Cell & Developmental Biology
BIOL 140	Immunology
BIOL 130	Biochemistry

Organismal Biology

BIOL 117	Comparative Vertebrate Anatomy
BIOL 117L	Comparative Vertebrate Anatomy Lab
BIOL/PSYC124	Physiological Psychology

Health & Wellness

BIOL 111	Kinesiology & Biomechanics
BIOL/PSYC 124	Physiological Psychology
BIOL 180	Epidemiology
BIOL 185	Metabolism & Nutrition
BIOL 185L	Metabolism & Nutrition Lab

MINOR IN BIOLOGICAL SCIENCE

A minimum of 21 units, including BIOL 1A & 1B (8 lower division units and 2 upper division lecture courses with their corresponding laboratories). Additional upper-division units will be chosen in consultation with the Biological Science advisor to complement each student's academic major, career goals and personal interests.

FACULTY

Duygu Demirlioglu, PhD

University of Istanbul
Associate Professor of Physical Science
510-436-1171, demirlioglu@hnu.edu

Dolores Grunbaum, PhD

City University of New York
Professor of Chemistry
510-436-1413, grunbaum@hnu.edu

Vanessa M. Handley, PhD

University of California, Berkeley
Assistant Professor of Biology
510.436.1471, handley@hnu.edu

Jo Anne Quinlivan, PhD

University of California, Berkeley
Associate Professor of Biology
510.436.1030; quinlivan@hnu.edu

Jennifer Sherwood, PhD

Marquette University
Assistant Professor of Biology
510.436.1556, sherwood@hnu.edu

Julia I. Smith, PhD

University of California, Berkeley
Associate Professor of Biology
510.436.1055; smith@hnu.edu

CONTACT INFORMATION

Holy Names University
Office of Admission
3500 Mountain Boulevard
Oakland, California 94619
800.430.1321
admissions@hnu.edu
www.hnu.edu