

BIOLOGY BA/BS

The biology major is designed to provide students with a solid foundation in biology through five core classes covering molecular, cellular, organismal, microbiological, ecological, and evolutionary biology. The flexibility in the program allows students and academic advisers to work together to design a program of study that best suits students' strengths and interests. Upper division electives include courses such as immunology, mammalogy, and animal behavior. Students can opt to participate in undergraduate research projects, serve as teaching assistants, or complete internships. Because of the breadth of course offerings, the Biology Program offers successful preparation for a wide-variety of career paths, including admission to graduate school and numerous health-related professional schools, such as medicine and dentistry. Some graduates are trained to enter the workforce as biologists with organizations such as Idaho Fish and Game, while other students complete courses required for secondary education teaching certification.

The goals of the biology program are to provide students with learning experiences in both the classroom and laboratory so that they can achieve the following:

- Understand cell structure, function, and reproduction;
- Understand the principles of natural selection and evolution;
- Understand organismal form and function;
- Think critically and apply knowledge in novel contexts;
- And, perform basic laboratory procedures in a safe manner.

General Education Requirements

Code	Title	Credits
Written Communication		
Select one of the following:		6.00
ENGL-101 & ENGL-102	WRITING AND RHETORIC I and WRITING AND RHETORIC II	
ENGL-109	COLLEGE WRITING AND RESEARCH	
Oral Communication		
Select one from the following:		3.00
COMM-101	FUNDAMENTALS OF ORAL COMMUNICATION	
COMM-203	SMALL GROUP COMMUNICATION	
COMM-204	PUBLIC SPEAKING	
Mathematical Ways of Knowing		
Select one of the following:		3.00-5.00
MATH-143	PRECALCULUS I: ALGEBRA	
MATH-147	PRECALCULUS	
MATH-170	CALCULUS I	
Humanistic & Artistic Ways of Knowing		
Select one course from two categories:		6.00-8.00
Literature		
ENGL-175	LITERATURE AND IDEAS	
ENGL-257	WORLD CLASSICS	
ENGL-258	INTERNATIONAL LITERATURE	
ENGL-260	NATIVE AMERICAN LITERATURE	
ENGL-261	MYTHOLOGIES	
Arts		
ART-100	INTRODUCTION TO ART	
HUM-101	THE ART AND HISTORY OF THE MOTION PICTURE	
HUM-150	INTRODUCTION TO THE ARTS	
MUS-101	SURVEY OF MUSIC	
MUS-102	MUSIC IN AMERICA	
MUS-150	WORLD MUSIC	
MUS-151	HISTORY OF MUSICAL THEATER	
MUS-152	HISTORY OF JAZZ AND POPULAR MUSIC STYLES	

THEA-101	SURVEY OF THE THEATER	
Language		
NP-101	NEZ PERCE LANGUAGE AND CULTURE	
NP-102	NEZ PERCE LANGUAGE AND HISTORY	
SPAN-101	ELEMENTARY SPANISH I	
SPAN-102	ELEMENTARY SPANISH II	
Scientific Ways of Knowing		
Select two of the following:		8.00
CHEM-111	PRINCIPLES OF CHEMISTRY I	
PHYS-111	GENERAL PHYSICS I	
or PHYS-211	PHYSICS FOR SCIENTISTS AND ENGINEERS I	
Social & Behavioral Ways of Knowing		
Select one course from two disciplines:		6.00
ANTH-102	CULTURAL ANTHROPOLOGY	
ANTH-120	WORLD PREHISTORY	
ANTH-170	INTRODUCTION TO NATIVE AMERICAN STUDIES	
ECON-201	PRINCIPLES OF MACROECONOMICS	
ECON-202	PRINCIPLES OF MICROECONOMICS	
GEOG-102	INTRODUCTION TO GEOGRAPHY	
HIST-101	WORLD HISTORY I	
HIST-102	WORLD HISTORY II	
HIST-111	UNITED STATES HISTORY I	
HIST-112	UNITED STATES HISTORY II	
HRPT-184	DIVERSITY IN ORGANIZATIONS	
HRPT-185	HUMAN RELATIONS IN ORGANIZATIONS	
POLS-101	AMERICAN NATIONAL GOVERNMENT	
POLS-237	INTERNATIONAL POLITICS	
POLS-285	COMPARATIVE GOVERNMENT	
PSYC-101	INTRODUCTION TO GENERAL PSYCHOLOGY	
PSYC-205	LIFESPAN DEVELOPMENTAL PSYCHOLOGY	
SOC-101	INTRODUCTION TO SOCIOLOGY	
SOC-102	SOCIAL PROBLEMS	
SS-184	DIVERSITY IN ORGANIZATIONS	
SS-185	HUMAN RELATIONS IN ORGANIZATIONS	
Global Perspectives		
Select one of the following:		3.00-4.00
ANTH-102	CULTURAL ANTHROPOLOGY	
ANTH-120	WORLD PREHISTORY	
ANTH-170	INTRODUCTION TO NATIVE AMERICAN STUDIES	
ANTH-360	RACE AND ETHNICITY	
COMM-345	INTERCULTURAL COMMUNICATION	
ENGL-258	INTERNATIONAL LITERATURE	
ENGL-474	NATIVE AMERICAN WRITTEN LITERATURE	
GEOG-102	INTRODUCTION TO GEOGRAPHY	
HIST-101	WORLD HISTORY I	
HIST-102	WORLD HISTORY II	
HIST-111	UNITED STATES HISTORY I	
HIST-112	UNITED STATES HISTORY II	
HRPT-184	DIVERSITY IN ORGANIZATIONS	
ID-300C	ETHICS AND IDENTITY	
KIN-220	SOCIAL-CULTURAL ASPECTS OF SPORTS	
NP-101	NEZ PERCE LANGUAGE AND CULTURE	

NP-102	NEZ PERCE LANGUAGE AND HISTORY	
POLS-285	COMPARATIVE GOVERNMENT	
SOC-101	INTRODUCTION TO SOCIOLOGY	
SPAN-101	ELEMENTARY SPANISH I	
SPAN-102	ELEMENTARY SPANISH II	
SPAN-201	INTERMEDIATE SPANISH I	
SPAN-202	INTERMEDIATE SPANISH II	
Integrative Seminar: Ethics & Values		
Select one of the following:		3.00
ID 300A - 300Z (see course descriptions for options)		
ID-301A	HELLS CANYON INSTITUTE	
Foreign/Heritage Language		
Select 16 credits of language if selecting Bachelor of Arts Degree		16.00
Total Credits		38.00-43.00

Program Requirements

Code	Title	Credits
Major Courses		
BIOL-181	ECOLOGY, EVOLUTION, DIVERSITY OF LIFE	4.00
BIOL-182	CONCEPTS IN CELLULAR MECHANISMS	4.00
BIOL-213	PLANT AND ANIMAL FORM AND FUNCTION	4.00
or BIOL-228	HUMAN ANATOMY AND PHYSIOLOGY II	
BIOL-331	ECOLOGY	3.00
BIOL-341	GENETICS	4.00
BIOL-355	GENERAL MICROBIOLOGY	4.00
or BIOL-362	CELLULAR AND MOLECULAR BIOLOGY	
BIOL-372	COMPUTATIONAL BIostatISTICS	4.00
BIOL-460	EVOLUTION	4.00
CHEM-112	PRINCIPLES OF CHEMISTRY II	4.00
CHEM-371	ORGANIC CHEMISTRY I	4.00
& CHEM-373	and ORGANIC CHEMISTRY I LAB	
CHEM-481	BIOCHEMISTRY I	4.00
MATH-170	CALCULUS I (Required if not completed as core)	
PHYS-112	GENERAL PHYSICS II	4.00
Program Electives		
Select 19 credits from the following: ¹		19.00
Select 3 credits from BIOL/CHEM/GIS in the 200/300/400 level		
Select 4 credits from BIOL/CHEM/GIS in the 300/400 level		
Select 4 credits from BIOL/CHEM in the 300/400 level		
Select 8 credits from BIOL in the 300/400 level		
Electives		
Select 16 elective credits		16.00
Total Credits		82.00

¹ 8 or less credits of CHEM/GIS and 3 or less credits total from courses ending in -94, -95, or -99.

² 3 or less credits total from BIOL-485. BIOL-280 and BIOL-480 cannot be used as Biology electives.

Sequential Plan of Study

Course	Title	Credits
First Year		
Fall		
BIOL-181	ECOLOGY, EVOLUTION, DIVERSITY OF LIFE	4.00

CHEM-111	PRINCIPLES OF CHEMISTRY I	4.00
ENGL-101	WRITING AND RHETORIC I	3.00
CORE	MATH-143, MATH-147 or MATH-170	3.00-5.00
Credits		14.00-16.00
Spring		
BIOL-182	CONCEPTS IN CELLULAR MECHANISMS	4.00
CHEM-112	PRINCIPLES OF CHEMISTRY II	4.00
CORE	Oral Communication	3.00
ENGL-102	WRITING AND RHETORIC II	3.00
Credits		14.00
Second Year		
Fall		
BIOL-213 or BIOL-228	PLANT AND ANIMAL FORM AND FUNCTION or HUMAN ANATOMY AND PHYSIOLOGY II	4.00
CHEM-371	ORGANIC CHEMISTRY I	3.00
CHEM-373	ORGANIC CHEMISTRY I LAB	1.00
CORE	Humanistic & Artistic Ways of Knowing	3.00
Elective	Elective Credits	3.00
Credits		14.00
Spring		
BIOL-372	COMPUTATIONAL BIOSTATISTICS	4.00
CORE	Humanistic & Artistic Ways of Knowing	3.00
Program Requirement	Select BIOL, CHEM, GIS course in 200/300/400 level	3.00
Elective	Elective Credits	4.00
Credits		14.00
Third Year		
Fall		
BIOL-341	GENETICS	4.00
BIOL-355 or BIOL-362	GENERAL MICROBIOLOGY or CELLULAR AND MOLECULAR BIOLOGY	4.00
PHYS-111 or PHYS-211	GENERAL PHYSICS I or PHYSICS FOR SCIENTISTS AND ENGINEERS I	4.00
CORE	Social & Behavioral Ways of Knowing	3.00
Credits		15.00
Spring		
BIOL-331	ECOLOGY	3.00
CORE	Social & Behavioral Ways of Knowing	3.00
PHYS-112	GENERAL PHYSICS II	4.00
Program Requirement	Select BIOL or CHEM course in 300/400 level	4.00
Elective	Elective Credits	2.00
Credits		16.00
Fourth Year		
Fall		
CHEM-481	BIOCHEMISTRY I	4.00
CORE	Integrative Seminar: Ethics & Values	3.00
Program Requirement	Select BIOL course in 300/400 level	4.00
Program Requirement	Select BIOL, CHEM, GIS course in 300/400 level	4.00
Credits		15.00
Spring		
BIOL-460	EVOLUTION	4.00
CORE	Global Perspectives	3.00
Program Requirement	Select BIOL course in 300/400 level	4.00

Elective	Elective Credits	3.00
Elective	Elective Credits	4.00
Credits		18.00
Total Credits		120.00-122.00

Graduates with a BA/BS in Biology go on to obtain careers in a variety of fields:

- Biotechnology
- Botany
- Bioinformatics
- Biomedical
- Microbiology
- Genetics
- Healthcare
- Legislation/Law
- Zoology, Marine, Aquatic Biology
- Technical and Pharmaceutical Sales