BIOLOGY, MINOR

REQUIREMENTS

REQUIREMENTS

The biology minor requires a minimum of 24 credits. A minimum cumulative grade point average of 2.75 is required, based on all biology minor coursework taken on the UW–Madison campus. Biocore sequence coursework may also be used to meet these requirements; consult with an advisor in Education Student Services.

Discipline-related course work is also required, but not calculated into the minor credits or GPA.

REQUIRED DISCIPLINE-RELATED COURSES

Code	Title	Credits
Select a minimum of 6 credits in Mathematics (MATH) and/or Statistics (STAT)		
Select one of the following:		5-10
CHEM 103 & CHEM 104	General Chemistry I and General Chemistry II	
CHEM 109	Advanced General Chemistry	
CHEM 115 & CHEM 116	Chemical Principles I and Chemical Principles II	
Select one of the following:		8-10
PHYSICS 103 & PHYSICS 104	General Physics and General Physics	
PHYSICS 201 & PHYSICS 202	General Physics and General Physics	
PHYSICS 207 & PHYSICS 208	General Physics and General Physics	

MINOR REQUIREMENTS

Introductory Biology

Select one of the following options:

Code	Title	Credits
Option 1: [1]		
BIOLOGY/ ZOOLOGY 101	Animal Biology	3
BIOLOGY/ ZOOLOGY 102	Animal Biology Laboratory	2
BIOLOGY/ BOTANY 130	General Botany	5
Option 2:		
BIOLOGY/BOTANY/ ZOOLOGY 151	Introductory Biology	5
BIOLOGY/BOTANY/ ZOOLOGY 152	Introductory Biology	5

[1] Students earning Advanced Placement (AP) or International Baccalaureate (IB) Biology scores of 4 or above are given credit for BIOLOGY/BOTANY/ZOOLOGY 151 at UW–Madison. This course fulfills the entire 151–152 sequence. Students taking BIOLOGY/BOTANY/ ZOOLOGY 151 coursework at UW–Madison or transfer it from another campus must complete both BIOLOGY/BOTANY/ZOOLOGY 151 and BIOLOGY/BOTANY/ZOOLOGY 152 to complete the 151–152 sequence.

Genetics

Code	Title	Credits
GENETICS 466	Principles of Genetics	3

Electives

Complete biology elective coursework from the approved lists to reach a minimum of 24 credits. The courses must be numbered 300 and above and include at least one course from two of the following three areas: (1) Ecology, Evolution, Genetics, (2) Cell and Molecular Biology, and (3) Physiology. Additional courses may, with the consent of an advisor, be selected to meet the elective requirements.

Area 1: Ecology/Evolution/Genetics

Code	Title	Credits
AN SCI 610	Quantitative Genetics	3
BOTANY 300	Plant Anatomy [1]	4
BOTANY 305	Plant Morphology and Evolution [1]	4
BOTANY 330	Algae	3
BOTANY/ PL PATH 332	Fungi [1]	4
BOTANY 400	Plant Systematics [1]	4
BOTANY 401	Vascular Flora of Wisconsin [1]	4
BOTANY/ F&W ECOL 402	Dendrology: Woody Plant Identification and Ecology [1]	3
BOTANY 403	Field Collections and Identification [1]	1-4
BOTANY 422	Plant Geography	3
BOTANY/ F&W ECOL 455	The Vegetation of Wisconsin [1]	4
BOTANY/ F&W ECOL/ ZOOLOGY 460	General Ecology [1]	4
BOTANY/ PL PATH 563	Phylogenetic Analysis of Molecular Data	3
ZOOLOGY/ ENTOM 302	Introduction to Entomology [1]	4
ZOOLOGY/ ENVIR ST 315	Limnology-Conservation of Aquatic Resources	2
ZOOLOGY 316	Laboratory for Limnology-Conservation of Aquatic Resources [1]	2-3
ZOOLOGY/ENTOM/ M M & I/PATH-BIO 350	Parasitology	3
ZOOLOGY/ ENVIR ST/ F&W ECOL 360	Extinction of Species	3
ZOOLOGY/ ANTHRO/ BOTANY 410	Evolutionary Biology	3
ZOOLOGY 430	Comparative Anatomy of Vertebrates	5
ZOOLOGY/ BOTANY/ F&W ECOL 460	General Ecology [1]	4

ZOOLOGY/ ENVIR ST 510	Ecology of Fishes	3
ZOOLOGY/ ENVIR ST 511	Ecology of Fishes Lab [1]	2
ZOOLOGY/AN SCI/ F&W ECOL 520	Ornithology	3
ZOOLOGY/AN SCI/ F&W ECOL 521	Birds of Southern Wisconsin [1]	3
ZOOLOGY 525	Tropical Herpetology	1
MICROBIO 607	Advanced Microbial Genetics	3
ENTOM 331	Taxonomy of Mature Insects [1]	4
ENTOM 468	Studies in Field Entomology [1]	3
GENETICS/ MD GENET 565	Human Genetics	3
GENETICS/ BIOCHEM/ MICROBIO 612	Prokaryotic Molecular Biology	3
GENETICS/ BIOCHEM/ MD GENET 620	Eukaryotic Molecular Biology	3
HORT/ AGRONOMY 501	Principles of Plant Breeding	3
LAND ARC/ ENVIR ST 361	Wetlands Ecology [1]	3
PL PATH 300	Introduction to Plant Pathology [1]	4

[1] Courses are lab or field courses.

Area 2: Cell and Molecular Biology

Code	Title	Credits
MICROBIO 303	Biology of Microorganisms	3
MICROBIO 607	Advanced Microbial Genetics	3
M M & I/PATH-BIO 528	Immunology	3
BOTANY/ PL PATH 563	Phylogenetic Analysis of Molecular Data	3
PL PATH/M M & I/ ONCOLOGY 640	General Virology-Multiplication of Viruses	3
GENETICS/ BIOCHEM/ MICROBIO 612	Prokaryotic Molecular Biology	3
ZOOLOGY 430	Comparative Anatomy of Vertebrates	5
ZOOLOGY 570	Cell Biology	3

Area 3: Physiology

Code	Title	Credits
BOTANY 500	Plant Physiology	3-4
ZOOLOGY 611	Comparative and Evolutionary Physiology	3
ZOOLOGY 612	Comparative Physiology Laboratory [1]	2
ANAT&PHY 335	Physiology [1]	5

[1] Courses are lab or field courses.