

INTERDISCIPLINARY BIOLOGY B.A.

The B.A. in Interdisciplinary Biology is designed for students who seek an interdisciplinary science program. This major is not research-oriented and is not considered a preparatory program for traditional research-based graduate programs. It is, however, designed for students seeking careers in environmental education, science writing, journalism or illustration, business, programming, wildlife film-making, or natural history centers and museums. There is enough latitude in the requirements to allow for a minor or even a double major in a related field of interest (e.g. journalism, art, computer science, media arts, etc.).

General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (<https://catalog.umat.edu/academics/general-education-requirements/>) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (<https://catalog.umat.edu/academics/graduation-requirements/>).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (<https://catalog.umat.edu/academics/policies-procedures/>) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

Bachelor of Arts - Interdisciplinary Biology

The lower-division core should be completed before attempting most upper-division major courses. AP Biology credit with a score of 3 may be substituted for either BIOB 160 /BIOB 161NorBIOB 170N/BIOB 171N.

Course Requirements

Code	Title	Hours
Core Courses		
Complete all of the following courses:		
BIOB 160	Principles of Living Systems	3
BIOB 161N	Principles of Living Systems Lab	1
BIOB 170N	Principles of Biological Diversity	3
BIOB 171N	Principles of Biological Diversity Lab	2
BIOB 194	Your Future in Biology	1
BIOB 272	Genetics and Evolution	4
Complete one of the following Ecology courses:		3-5
BIOE 172N	Introductory Ecology	
BIOE 342	Field Ecology	
BIOE 370	General Ecology	
Electives		

Complete 25 credits of upper-division (300-level or above) credits in the biological sciences. This includes courses with the following subject codes:

BIOB - General
BIOE - Ecological
BIOH - Human
BIOM - Microbiology
BIOO - Organismal
BCH - Biochemistry
NEUR - Neuroscience
WILD 346 Wildlife Physiological Ecology

Chemistry and Mathematics

Complete all of the following courses:

CHMY 121N	Introduction to General Chemistry	4
M 121	College Algebra	3
or M 122	College Trigonometry	
or M 151	Precalculus	
or M 162	Applied Calculus	
or M 171	Calculus I	

Interdisciplinary Electives ¹

Complete 12 credits of courses in the following areas. Credits may be combined among disciplines.

Art		
ARTZ 211A	Drawing I	
ARTZ 214	Illustration	
ARTZ 221A	Painting I	
ARTZ 231A	Ceramics I	
ARTZ 251A	Sculpture I	
ARTZ 284A	Photography I: Technologies and Processes	
ARTZ 314A	Environmental Drawing	

Business and Analytics

BGEN 105S	Introduction to Business	
BGEN 220E	Business Ethics and Social Responsibility	
BMIS 270	MIS Foundations for Business	
BMIS 326	Introduction to Data Analytics	
ECNS 201S	Principles of Microeconomics	

Computer Science

CSCI 150	Introduction to Computer Science	
CSCI 151	Interdisciplinary Computer Science I	
CSCI 152	Interdisciplinary Computer Science II	
CSCI 232	Intermediate Data Structures and Algorithms	
CSCI 451	Computational Biology	

Journalism

JRNL 100H	Journalism and American Society	
JRNL 140A	Intro Radio/Audio Storytelling	
JRNL 170	Writing the News	
JRNL 257A	Beginning Video and Photojournalism	
JRNL 270	Reporting the News	
JRNL 331	Digital and Interactive Reporting	
JRNL 384	Documentary Film History	

Media Arts

MART 101L	Intro to Media Arts
MART 112A	Introduction to Film Editing
MART 245	Sound Production & Design Fundamentals
MART 255	Photoshop: Art and Design
MART 256	Illustrator: Vector and Layout Design
MART 341	Introduction to Web Design
Natural History	
ASTR 131N	Planetary Astronomy
ASTR 132N	Stars, Galaxies, and the Universe
ASTR 134N	Planetary Astronomy Lab
ASTR 135N	Stars, Galaxies, and the Universe Lab
ASTR 142N	The Evolving Universe
ERTH 101N	Earth Systems Science
ERTH 103N	Earth Systems Science Lab
GEO 201	The Rocky Planet
GEO 202	The Water Planet
GEO 318	Earth's Changing Climate
GPHY 111N	Intro to Physical Geography: Climate, Landforms, and Vegetation
GPHY 112N	Intro to Physical Geography Laboratory: Climate, Landforms, and Vegetation
GPHY 311N	Biogeography

Writing in the Disciplines Requirement

To complete the General Education Requirement for Writing in the Disciplines, Interdisciplinary Biology students can either take a complete writing course (in or outside of DBS) or partial writing courses (2-3) within the DBS Distributed Model.

Total Hours 61-63

Writing in the Disciplines Distributed Model Courses for Biological Sciences

Code	Title	Hours
1/3 Writing in the Disciplines Courses		
BCH 482	Advanced Biochemistry II	3
BIOB 410	Immunology	3
BIOB 425	Advanced Cellular & Molecular Biology	3
BIOB 483	Phylogenics and Evolution	3
BIOE 371	General Ecology Lab (equivalent to 271)	2
BIOE 403	Comparative Vertebrate Anatomy	4
BIOE 428	Freshwater Ecology	5
BIOH 447	Genes and Development Lab	3
BIOM 327	Vector-Borne Diseases: Public Health Perspectives	3
BIOM 435	Virology	3
BIOO 470	Ornithology	4
BIOO 475	Mammalogy	4
WILD 470	Conservation of Wildlife Populations	4
2/3 Writing in the Disciplines Courses		
BCH 486	Biochemistry Research Lab	3
BCH 499	Senior Thesis/Capstone	3-6
BIOB 411	Immunology Laboratory	2
BIOB 499	Undergraduate Thesis	3-6
BIOE 448	Terrestrial Plant Ecology	4

BIOE 485	Plant Evolution	3
BIOM 499	Undergraduate Thesis	3-6

Full Writing in the Disciplines Courses

BIOH 462	Principles of Medical Physiology	3
BIOM 420	Host-Microbe Interactions	3

Four Year Plan

Course	Title	Hours
Freshman		
Autumn		
BIOB 160 & BIOB 161N	Principles of Living Systems and Principles of Living Systems Lab	4
CHMY 121N	Introduction to General Chemistry	4
M 121 or M 122 or M 151 or M 162 or M 171	College Algebra or College Trigonometry or Precalculus or Applied Calculus or Calculus I	3-4
WRIT 101	College Writing I	4
BIOB 194	Your Future in Biology	1
Hours		16-17
Spring		
BIOB 170N & BIOB 171N	Principles of Biological Diversity and Principles of Biological Diversity Lab	5
Interdisciplinary Elective		3
General Education Requirement		3
Elective		4
Hours		15
Sophomore		
Autumn		
Interdisciplinary Elective		3
Language 101		4-5
Intermediate Writing Course		3
Elective		6
Hours		16-17
Spring		
BIOB 272	Genetics and Evolution	4
BIOE 172N	Introductory Ecology ¹	3
Language 102		4-5
General Education Requirement		3
Hours		14-15
Junior		
Autumn		
BIOE 370	General Ecology ¹	3
BIOO 475	Mammalogy	4
General Education Requirement		3
Elective		5
Hours		15
Spring		
BIOO 335	Rocky Mountain Flora ¹	4
BIOO 470	Ornithology ¹	4
Interdisciplinary Elective		3
General Education Requirement		3
Elective		1
Hours		15
Senior		
Autumn		
BIOE 406	Behavior & Evolution ¹	4
BIOB 480	Conservation Genetics ¹	3
Upper Division Elective		8
Hours		15

Spring

BIOE 447	Ecosystem Ecology ¹	3
Interdisciplinary Elective		3
General Education Requirement		3
Upper Division Elective		6
Hours		15
Total Hours		121-124

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¹ *Indicates you have a choice of alternative courses for degree completion.
See catalog, Degree Works, or your advisor for other options.*