

# Accelerated B.S. Biology, Ecology and Conservation Biology Concentration

## Accelerated BS to MS Program

Students accepted into an accelerated undergraduate program may take departmentally approved graduate coursework as part of their undergraduate curriculum. These credits will count towards both their bachelor's and master's degrees and can fulfill major requirements, upper-division requirements, and/or free electives. For details on accelerated programs at Idaho State University, please see (Degree Requirements (<https://coursecat.isu.edu/undergraduate/degree-requirements/>)).

Once accepted into an accelerated degree program, it is strongly recommended for students to stay in close communication with their advisor regarding pursuit of acceptance into the Graduate School and the master's degree program at Idaho State University. Acceptance into an accelerated program during the bachelor's degree program is the first step in the admissions process. A separate application to the Graduate School is necessary for all accelerated programs. For more information regarding application and admission to the Graduate School at Idaho State University, please see the Graduate Admissions section of the graduate catalog (<http://coursecat.isu.edu/graduate/graduateadmissions/>).

## Biology Accelerated Criteria

This accelerated program gives outstanding bachelor's degree students in Biology a "fast-track" option to pursue their Master of Science in Biology degree.

Students accepted into the accelerated program may take up to 8 credit hours of 5000 level courses during the last two semesters of their bachelor's program that will apply to both the bachelor's and master's degree requirements. Students have to meet all requirements for both the bachelor's degree and master's degree.

Additional requirements for students in this program are:

- Students need to identify a suitable advisor for their MS program (see <https://www.isu.edu/biology/degree-programs/graduate-degrees/ms-biology/>).
- Students must earn at least a "B" (3.0) in each graduate-level course counted for the program.

Eligibility for this program:

- Completion of at least 70 undergraduate credits applicable to the Bachelor of Science in Biology program at the time of application.
- Overall GPA of at least 3.0 on a 4.0 scale at the time of application.

Students who wish to enroll in this program should submit an application no later than the end of the second semester of their junior year. Applicants are not required to take the Graduate Record Examination (GRE) test.

Meeting these eligibility requirements does not guarantee acceptance into the accelerated master's degree programs.

## Program Admissions Requirements

There are no program admission requirements for the BS in Biology, Ecology and Conservation Biology.

## General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MATH 1160 or MATH 1170		3
Objective 4		6
Objective 5 - BIOL 1101, BIOL 1101L, PHYS 1111		7
Objective 6		6
<b>Students must fulfill Objective 7 or Objective 8</b>		<b>3</b>
Objective 7		
Objective 8		
Objective 9		3
<b>Total Credits</b>		<b>37</b>

## Major Requirements

Code	Title	Credits
BIOL 1101 & 1101L	Biology I and Biology I Lab (Partially satisfies General Education Objective 5)	4
BIOL 1102 & 1102L	Biology II and Biology II Lab	4
BIOL 1191	Wonder about Biology	1
BIOL 2206 & BIOL 2207	Cell Biology and Cell Biology Laboratory <sup>1</sup>	4
BIOL 2209 & 2209L	General Ecology and General Ecology Laboratory	4
BIOL 3316	Biometry Laboratory	1
BIOL 3358	Genetics	3
BIOL 4417	Organic Evolution	3
BIOL 4491/4492	Seminar	1
MATH 1160 or MATH 1170	Survey of Calculus (Satisfies General Education Objective 3) or Calculus I	3-4
MATH 3350	Statistical Methods	3
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4
CHEM 3301 & CHEM 3303	Organic Chemistry I and Organic Chemistry Laboratory I	4
PHYS 1111 & PHYS 1113	General Physics I and General Physics I Laboratory (Partially satisfies General Education Objective 5)	4
<b>Select two of the following:</b>		<b>7</b>

CHEM 3302 & CHEM 3304	Organic Chemistry II and Organic Chemistry Laboratory II
PHYS 1112 & PHYS 1114	General Physics II and General Physics II Laboratory
BIOL 4432	Biochemistry

**Ecology and Conservation Biology Concentration Requirements****Field Research: 4**

BIOL 4489/4493	Field Ecology
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**Ecology Courses: (minimum of 7 credits) \* 7**

BIOL 1192	Careers in Ecology and Conservation Biology
BIOL 3337	Conservation Biology
BIOL 4408/5508	Plant Ecology
BIOL 4408L/5508L	Plant Ecology Lab
BIOL 4416/5516	Population Ecology
BIOL 4416L/5516L	Population Ecology Lab
BIOL 4418/5518	Ecological Topics
BIOL 4442/5542	Plant Animal Interactions
BIOL 4459/5559	Fish Ecology
BIOL 4459L/5559L	Fish Ecology Laboratory
BIOL 4462/5562	Freshwater Ecology
BIOL 4462L/5562L	Freshwater Ecology Lab
BIOL 4490/GEOL 5590	Ecosystem Ecology and Global Changes

**Diversity or Evolutionary Courses: (minimum of 7 credits) \* 7**

BIOL 2213	Fall Flora
BIOL 2214	Spring Flora
BIOL 4423/5523	General Parasitology
BIOL 4426/5526	Herpetology
BIOL 4426L/5526L	Herpetology Lab
BIOL 4427/5527	Ichthyology
BIOL 4427L/5527L	Ichthyology Lab
BIOL 4431/5531	General Entomology
BIOL 4431L/5531L	General Entomology Lab
BIOL 4434/5534	Microbial Diversity
BIOL 4434L/5534L	Microbial Diversity Lab
BIOL 4435/5535	Vertebrate Paleontology
BIOL 4438/5538	Ornithology
BIOL 4441/5541	Mammalogy
BIOL 4441L/5541L	Mammalogy Lab
BIOL 4495/5595	Animal Behavior

**Additional Biology, Research and Quantitative Courses (a minimum of 6 credits) 6**

BIOL 4481/5581	Independent Problems
BIOL 4482/5582	Independent Problems
BIOL 2280/4480/5580	Mentored Research Alliance
GEOL 4403 & 4403L	Principles of Geographic Information Systems and Principles of GIS Laboratory
GEOL 4404	Advanced Geographic Information Systems
GEOL 4407	GPS/GNSS Applications in Research
GEOL 4409	Remote Sensing

GEOL 4451	Field Methods in Environmental Sciences
MATH 3310	Mathematical Modeling
MATH 4457	Applied Regression Analysis
MATH 4458	Experimental Design

**Total Credits 79-80**

<sup>1</sup> BIOL 2233, BIOL 2233L, Principles of Microbiology and Lab, may substitute for BIOL 2206, BIOL 2207 in the ECB and IOB concentrations.

\* at least one lab course

**Degree Totals**

Code	Title	Credits
	Program Admission Requirements	0
	General Education	37
	Major Requirements (Required General Education credits removed)	69
	Upper Division Free Electives	0
	Free Electives	14
	<b>Total Credits</b>	<b>120</b>

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degree requirements/>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation/>)

Major Academic Plan (MAP) (<https://www.isu.edu/advising/maps/>)

**Master of Science in Biology** (<https://coursecat.isu.edu/graduate/scienceengineering/biologicalsciences/msbiology/>)