B.S. Biology, Integrative Organismal Biology Concentration

Program Admissions Requirements

There are no program admission requirements for the BS in Biology, Integrative Organismal Biology concentration.

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
Students must fulfill Objective 7 or Objective 8		**3**
Objective 7		
Objective 8		
Objective 9		3
Total Credits		**37**

Major Requirements

Code	Title	Credits
Core Courses		
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 [1]	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	Seminar	1
or BIOL 4492	Seminar	
MATH 1160	Survey of Calculus (Satisfies General Education Objective 3)	3-4
or MATH 1170	Calculus I	
MATH 3350	Statistical Methods	3
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab (Partially Satisfies General Education Objective 5)	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	4
Select two of the following:		**7**
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	
Integrative Organismal Biology Requirements		
Anatomy, Physiology and Development (a minimum of 10 credits) *		**10**
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	
BIOL 3302 & 3302L	Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	
BIOL 3303 & 3303L	Principles of Animal Physiology and Principles of Animal Physiology Lab	
BIOL 3314 & 3314L	Comparative Vertebrate Anatomy and Comparative Vertebrate Anatomy Lab	
BIOL 3324 & 3324L	Developmental Biology and Developmental Biology Lab	
BIOL 4404 & 4404L	Plant Physiology and Plant Physiology Lab	
BIOL 4432	Biochemistry	
BIOL 4433 & 4433L	Microbial Physiology and Microbial Physiology Laboratory	
BIOL 4443	Endocrinology	
PSYC 3301	Psychopathology	
PSYC 3352	Cognitive Neuroscience	
PSYC 4431	Behavioral Neuroscience I	
PSYC 4445	Learning and Behavior	
Diversity or Evolutionary Courses - (a minimum of 7 credits) *		**7**
BIOL 2213	Fall Flora	
BIOL 2214	Spring Flora	
BIOL 4423	General Parasitology	
BIOL 4426 & 4426L	Herpetology and Herpetology Lab	
BIOL 4427 & 4427L	Ichthyology and Ichthyology Lab	
BIOL 4431 & 4431L	General Entomology and General Entomology Lab	

BIOL 4434 & 4434L	Microbial Diversity and Microbial Diversity Lab	
BIOL 4435	Vertebrate Paleontology	
BIOL 4438	Ornithology	
BIOL 4441 & 4441L	Mammalogy and Mammalogy Lab	
BIOL 4495	Animal Behavior	
Biology Electives - (a minimum of 7 credits)		**7**
Any upper division BIOL course		
BIOL 4481/4482	Independent Problems	
BIOL 2280/4480	Mentored Research Alliance	
Total Credits		**79**

[1] BIOL 2233, BIOL 2233L, General 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
Total Credits		**120**

ISU Degree Requirements (https://coursecat.isu.edu/undergraduate/degreerequirements/)

ISU General Education (https://coursecat.isu.edu/undergraduate/academicinformation/generaleducation/)

Major Academic Plan (MAP)