

MAJOR IN ZOOLOGY

Requirements Effective Fall 2025

To be qualified for graduation, students must have a minimum grade of C- in all BZ, LIFE, and major electives courses used to meet program requirements.

Freshman

		AUCC	Credits
CHEM 111	General Chemistry I (GT-SC2)	3A	4
CHEM 112	General Chemistry Lab I (GT-SC1)	3A	1
CO 150	College Composition (GT-CO2)	1A	3
LIFE 102	Attributes of Living Systems (GT-SC1)	3A	4
LIFE 103	Biology of Organisms-Animals and Plants (GT-SC1)	3A	4
Select one from the following:			4
MATH 155	Calculus for Biological Scientists I (GT-MA1)	1B	
MATH 160	Calculus for Physical Scientists I (GT-MA1)	1B	
1C (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#aucc)			3
Arts and Humanities (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)			6
Total Credits			29

Sophomore

BZ 212	Animal Biology-Invertebrates		4
BZ 214	Animal Biology-Vertebrates		4
BZ 220	Introduction to Evolution		3
CHEM 113	General Chemistry II		3
CHEM 114	General Chemistry Lab II		1
CHEM 245 ²	Fundamentals of Organic Chemistry		4
CHEM 246	Fundamentals of Organic Chemistry Laboratory		1
STAT 301 or 307	Introduction to Applied Statistical Methods		3
	Introduction to Biostatistics		
Historical Perspectives (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#historical-perspectives)			3D 3
Social and Behavioral Sciences (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#social-behavioral-sciences)			3C 3
Electives ¹			2
Total Credits			31

Junior

BZ 310	Cell Biology		4
Select one group from the following:			4-6
Group A:			
BC 351	Principles of Biochemistry		
Group B:			
BC 401	Comprehensive Biochemistry I		
BC 403	Comprehensive Biochemistry II		
Select one group from the following:			10
Group A:			
PH 121	General Physics I (GT-SC1)	3A	

PH 122	General Physics II (GT-SC1)	3A	
Group B:			
PH 141	Physics for Scientists and Engineers I (GT-SC1)	3A	
PH 142	Physics for Scientists and Engineers II (GT-SC1)	3A	
Upper-Division Zoology List			6
Electives ¹			4-6
Total Credits			30
Senior			
BZ 350	Molecular and General Genetics	4A,4B	4
LIFE 320	Ecology	4C	3
Upper-Division Zoology List			9
Advanced Writing (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#advanced-writing)		2	3
Electives ¹			11
Total Credits			30
Program Total Credits:			120

Upper-Division Zoology Electives (minimum of 8 credits must be BZ courses)

Code	Title	Credits	
BZ 300	Animal Behavior	3	
BZ 311	Developmental Biology	4	
BZ 320	Biogeographic Approaches to Conservation	3	
BZ 329	Herpetology	4	
BZ 330	Mammalogy	4	
BZ 333	Introductory Mycology	4	
BZ 335	Ornithology	4	
BZ 339	Biology Field Practicum	3	
BZ 340	Field Mammalogy	4	
BZ 342	Exploring Range Shifts in a Changing World	3	
BZ 348/MATH 348	Theory of Population and Evolutionary Ecology	4	
BZ 349	Tropical Ecology and Evolution	3	
BZ 360	Bioinformatics and Genomics	4	
BZ 390	Biology of Sex	3	
BZ 401	Comparative Animal Physiology	3	
BZ 414	Vertebrate Climate Change Responses	3	
BZ 415	Marine Biology	4	
BZ 418	Ecology of Infectious Diseases	4	
BZ 420	Evolutionary Medicine	3	
BZ 424/BSPM 424	Principles of Systematic Science	3	
BZ 425	Conservation and Population Genomics	3	
BZ 430	Animal Behavior and Conservation	3	
BZ 433	Behavioral Genetics	3	
BZ 435A	Study Abroad--Honduras: Field Course--Dolphin Behavior and Physiology	2	
BZ 435B	Study Abroad--Mexico: Practices in Marine Biology and Ecology	3	
BZ 435C	Study Abroad--Kenya: Biology and Behavior of African Mammals	3	
BZ 435D	Study Abroad--Madagascar: Biology and Behavior of Primates	3	
BZ 449A	Study Abroad--Ecuador: Ecology/Conservation--Ecuadorian Biodiversity	4	
BZ 455	Human Heredity and Birth Defects	3	
BZ 460	Genome Evolution	4	
BZ 462/MIP 462/BSPM 462	Parasitology and Vector Biology	5	
BZ 471	Stream Biology and Ecology	3	
BZ 472	Stream Biology and Ecology Laboratory	1	
BZ 475	Marine Mammalogy	3	
BZ 477	Genome Editing Laboratory	2	
BZ 478/VS 478	Biology and Behavior of Cats	3	
BZ 479/VS 479	Biology and Behavior of Dogs	3	
BZ 482F	Study Abroad--French Polynesia: Environmental and Cultural Studies	3	
BZ 492A	Seminar: Behavior	1-3	
BZ 492B	Seminar: Ecology	1-3	
BZ 492C	Seminar: Genetics	1-3	
BZ 492D	Seminar: Ornithology	1-3	
BZ 492E	Seminar: Herpetology	1-3	
BZ 492F	Seminar: Evolution	1-3	
BZ 496	Group Study Biology	1-3	
BZ 515	Physiological Ecology of Marine Vertebrates	3	
BZ 525	Advanced Conservation & Evolutionary Genomics	4	
BZ 535	Behavioral and Cognitive Ecology	3	
BZ 548	Theory of Population and Evolutionary Ecology	4	
BZ 560	Teaching and Communicating Science	3	
BZ 562	Computational Approaches in Molecular Ecology	2	
BZ 565/MIP 565	Next Generation Sequencing Platform/Libraries	1	
BZ 568/FW 568	Sustaining River Ecosystems in Changing World	3	

A maximum of 7 credits may be selected from the following courses:

AB 303	General Entomology Laboratory
AB 340	Insect Biotechnology
ANEQ 320	Principles of Animal Nutrition
ANEQ 322	Pet Nutrition
ANEQ 323	Zoo Nutrition
ANTH 470	Paleontology Field School
BMS 300	Principles of Human Physiology
BMS 305	Domestic Animal Gross Anatomy
BSPM 302	Applied and General Entomology
FW 300	Biology and Diversity of Fishes
FW 301	Ichthyology Laboratory
FW 400	Conservation of Fish in Aquatic Ecosystems
FW 405	Fish Physiology
GEOL 342	Paleontology
MIP 300	General Microbiology
MIP 302	General Microbiology Laboratory
MIP 315	Pathology of Human and Animal Disease
MIP 342	Immunology
MIP 343	Immunology Laboratory
NR 312	Applied Insect Ecology
PHIL 325	Philosophy of Science
PHIL 326	Philosophy of Biology

A maximum of 3 credits may be selected from the following courses:

BZ 384	Supervised College Teaching
BZ 487	Internship
BZ 495	Independent Study
BZ 498	Laboratory or Field Research

¹ Select enough elective credits to bring the program total to a minimum of 120 credits, of which at least 42 must be upper-division (300- to 400-level).

² CHEM 341, CHEM 343, and CHEM 344 may be taken as an alternative to CHEM 245 and CHEM 246.