

MAJOR IN ZOOLOGY

science, and mathematical courses used to meet requirements for the major. This applies to courses taken as substitutions for meeting these requirements. The minimum scholastic average acceptable for graduation is 2.000 computed only for courses attempted at CSU.

Requirements Effective Fall 2024

To be qualified for graduation, students in the Zoology major must have a minimum grade of C- in each of their biological, physical

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	
Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)			6
Diversity, Equity, and Inclusion (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#diversity-equity-inclusion)			3
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 Introduction to Biostatistics		3
Historical Perspectives (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#historical-perspectives)			3D 3
Social and Behavioral Sciences (http://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 (http://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 List

Code	Title	Credits			
ANEQ 320	Principles of Animal Nutrition	3	BZ 455	Human Heredity and Birth Defects	3
ANEQ 322	Pet Nutrition	2	BZ 460	Genome Evolution	4
ANEQ 323	Zoo Nutrition	2	BZ 462/MIP 462/ BSPM 462	Parasitology and Vector Biology	5
ANTH 470	Paleontology Field School	4	BZ 471	Stream Biology and Ecology	3
BSPM 302	Applied and General Entomology	2	BZ 472	Stream Biology and Ecology Laboratory	1
BSPM 303A	Entomology Laboratory: General	2	BZ 475	Marine Mammalogy	3
BZ 300	Animal Behavior	3	BZ 476/BZ 576	Genetics of Model Organisms	3
BZ 311	Developmental Biology	4	BZ 477	Genome Editing Laboratory	2
BZ 329	Herpetology	4	BZ 478/VS 478	Biology and Behavior of Cats	3
BZ 330	Mammalogy	4	BZ 479/VS 479	Biology and Behavior of Dogs	3
BZ 333	Introductory Mycology	4	BZ 492A	Seminar: Behavior	1-3
BZ 335	Ornithology	4	BZ 492B	Seminar: Ecology	1-3
BZ 340	Field Mammalogy	4	BZ 492C	Seminar: Genetics	1-3
BZ 342	Exploring Range Shifts in a Changing World	3	BZ 492D	Seminar: Ornithology	1-3
BZ 348/MATH 348	Theory of Population and Evolutionary Ecology	4	BZ 492E	Seminar: Herpetology	1-3
BZ 349	Tropical Ecology and Evolution	3	BZ 492F	Seminar: Evolution	1-3
BZ 360	Bioinformatics and Genomics	4	BZ 496	Group Study—Biology	1-3
BZ 401	Comparative Animal Physiology	3	BZ 505	Cognitive Ecology	3
BZ 415	Marine Biology	4	BZ 515	Physiological Ecology of Marine Vertebrates	3
BZ 418	Ecology of Infectious Diseases	4	BZ 525	Advanced Conservation & Evolutionary Genomics	4
BZ 420	Evolutionary Medicine	3	BZ 535	Behavioral and Cognitive Ecology	3
BZ 424/BSPM 424	Principles of Systematic Science	3	BZ 560	Teaching and Communicating Science	3
BZ 425	Conservation and Population Genomics	3	BZ 562	Computational Approaches in Molecular Ecology	2
BZ 430	Animal Behavior and Conservation	3	BZ 565/MIP 565	Next Generation Sequencing Platform/ Libraries	1
BZ 433	Behavioral Genetics	3	BZ 568/FW 568	Sustaining River Ecosystems in Changing World	3
BZ 435A	Study Abroad—Honduras: Field Course-- Dolphin Behavior and Physiology	2	FW 300	Biology and Diversity of Fishes	2
BZ 435B	Study Abroad—Mexico: Practices in Marine Biology and Ecology	3	FW 301	Ichthyology Laboratory	1
BZ 435C	Study Abroad—Kenya: Biology and Behavior of African Mammals	3	FW 400	Conservation of Fish in Aquatic Ecosystems	3
BZ 449A	Study Abroad: Ecology/Conservation— Ecuadorian Biodiversity	4	FW 405	Fish Physiology	3
			GEOL 342	Paleontology	3

NR 312	Applied Insect Ecology	3
PHIL 325	Philosophy of Natural Science	3
PHIL 326	Philosophy of Biology	3

A maximum of 6 credits may be selected from the following courses:

BMS 300	Principles of Human Physiology
BMS 305	Domestic Animal Gross Anatomy
MIP 300	General Microbiology
MIP 302	General Microbiology Laboratory
MIP 315	Pathology of Human and Animal Disease
MIP 342	Immunology
MIP 343	Immunology Laboratory

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.