ZOOLOGY: ECOLOGY AND CONSERVATION BIOLOGY, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2023-2024. Learn more about University Academic Regulation 3.1 (http://catalog.okstate.edu/university-academic-regulations/#matriculation).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

Code	Title	Hours
General Education Requirements		
English Composition		
See Academic Regulation 3.5 (http://catalog.okstate.edu/university-academic-regulations/#english-composition)		
ENGL 1113	Composition I	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II	
ENGL 1413	Critical Analysis and Writing II	
ENGL 3323	Technical Writing	
American History & Government		
HIST 1103	Survey of American History	3
or HIST 1483	American History to 1865 (H)	
or HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Analytical & Quantitative Thought (A)		
MATH 1813	Preparation for Calculus (A) (or higher) [1]	3
STAT 4013	Statistical Methods I (A) [1]	3
or STAT 2013	Elementary Statistics (A)	
or STAT 3023	Statistical Reasoning for Medical Applications (A)	
Humanities (H)		
Courses designated (H)		6
Natural Sciences (N)		
Must include one Laboratory Science (L) course		
PHYS 1114	College Physics I (LN) [1]	4
or PHYS 2014	University Physics I (LN)	
PHYS 1214	College Physics II (LN) [1]	4
or PHYS 2114	University Physics II (LN)	
Social & Behavioral Sciences (S)		
Course designated (S)		3
Additional General Education		
Courses designated (A), (H), (N), or (S)		6
Hours Subtotal		**41**
Diversity (D) & International Dimension (I)		
May be completed in any part of the degree plan		
Select at least one Diversity (D) course		
Select at least one International Dimension (I) course		
College/Departmental Requirements		
First Year Seminar		
(Transfer students with 15 hours exempt)		1
Arts & Humanities		
See note 2.a.		3
Natural & Mathematical Sciences		
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
Foreign Language		
See note 3		
0-6 hours		
Upper-Division General Education		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		**13**
Major Requirements [2]		
Minimum grade of "C" in each course.		
Core Courses		
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
or BIOL 1114	Introductory Biology (LN)	
BIOL 1604	Animal Biology	4
BIOL 3023	General Genetics [2]	3
BIOL 3034	General Ecology	4
BIOL 3104	Invertebrate Zoology	4
BIOL 3114	Vertebrate Zoology	4
BIOL 3204	Physiology	4
BIOL 4133	Evolution [2]	3
BIOL 4700	Undergraduate Research Problems (1 hour)	1
or BIOL 4710	Internships in Integrative Biology	
MICR 2123	Introduction to Microbiology	3
or MICR 3033	Cell and Molecular Biology	
Select one of the following:		5
CHEM 3013 & CHEM 3012	Survey of Organic Chemistry and Survey of Organic Chemistry Laboratory	
CHEM 3053 & CHEM 3112 & CHEM 3153	Organic Chemistry I and Organic Chemistry Laboratory and Organic Chemistry II	
Select 4 additional hours upper-division BIOL courses with a laboratory in at least one course (excluding general education courses)		4
Related Courses		
BIOL 3153	Animal Behavior	3
BIOL 3513	Principles of Conservation Biology	3
PBIO 1404	Plant Biology (LN)	4
or PBIO 4005	Field Botany	
Supplemental Courses		
Select one of the following:		3
ENGL 3323	Technical Writing	
ENTO 4223	Ecological Methodology	
ENVR 3113	Sampling and Analyses for Solving Environmental Problems	
GEOG 3023	Climatology (N)	
GEOG 3153	Conservation of Natural Resources (S)	

GEOG 3373	Health and Maps	
GEOG 4053	Biogeography	
GEOG 4073	Climate Change: Past, Present, and Future	
GEOG 4203	Fundamentals of Geographic Information Systems	
GEOG 4333	Remote Sensing	
GEOL 3503	Environmental Geology (N)	
GEOL 4453	Hydrogeology	
GEOL 4503	Introduction to Oceanography (N)	
NREM 3503	Principles of Wildlife Ecology and Management	
NREM 3523	Fish and Wildlife Population Biology	
NREM 4023	Restoration Ecology	
NREM 4033	Ecology Of Invasive Species	
NREM 4043	Natural Resource Administration and Policy	
NREM 4443	Watershed Hydrology and Water Quality	
NREM 4523	Wildlife Management Techniques	
SOC 4433	Environmental Sociology (S)	
Hours Subtotal		**56**
Electives [2]		
Select 10 hours		10
MATH 1513 required for students who do not place directly into MATH 1813 (or MATH 1613).		
May need to include 6 hours of a foreign language. (see note 3)		
May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 7 additional upper-division hours		
PSYC 1113 and SOC 1113 recommended.		
Hours Subtotal		**10**
Total Hours		**120**

1

College and Departmental Requirements that may be used to meet General Education Requirements.

2

With approval from the advisor and department head and a minimum GPA of 3.0, a maximum of 30 hours from an accredited doctoral health program may be substituted for electives or major requirements other than BIOL 3023 General Genetics and BIOL 4133 Evolution.

Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.0 GPA in all BIOL courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

1. **Hours in One Department:** For B.A. and B.S. degrees, no more than 54 hours in one department may be required to meet degree requirements. Courses used to satisfy the General Education English Composition, U.S. History, American Government, and Mathematics or Statistics requirements will not count toward the 54-hour maximum required from one department.
2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (A), PHIL 3003 Symbolic Logic (A) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOC, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. Six upper-division hours are required from General Education or any CAS courses outside the student's major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One course in Non-Western Studies (N.W.). This requirement may be satisfied by courses also used to satisfy any part of a student's degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   e. The College of Arts & Sciences requires a minimum 2.0 GPA in all major requirements and a minimum 2.0 GPA in all major-prefix courses applied to the degree.
3. **Foreign Language Proficiency**
   a. The foreign language requirement for the B.A. may be satisfied by 9 hours college credit in the same language, which must include 3 hours at the 2000-level, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement. Currently Arabic and Mvskoke are not offered at the 2000-level at OSU.
   b. The foreign language requirement for the B.S., B.M. and B.F.A. may be satisfied by presenting a high school transcript which demonstrates two years of study of a single foreign language (passing grades at second-year level of study). It may also be satisfied by 6 hours college credit in the same language, which must include language courses 1713 and 1813, or equivalent proficiency (e.g., passing an advanced standing examination; TOEFL exam; presenting a high school transcript which demonstrates the high school was primarily conducted in a language other than English; etc.). Computer Science courses may not be used to satisfy this requirement.
   c. In addition to a. and b., students pursuing teacher certification must meet novice-high foreign language proficiency by presenting a high school transcript which demonstrates two years of study of a single foreign language with no grade below B. Or, students may complete 3 hours college credit in a single language with no grade below C (or pass an advanced standing examination, College Level Examination Program (CLEP) exam, or Oral Proficiency Interview developed by the American Council on the Teaching of Foreign Languages, equivalent to 3 hours of college credit.) Or, students may meet the requirement by transfer of documentation of meeting the foreign language competency from one of the teacher education programs in the State of

Oklahoma approved by the Oklahoma State Regents for Higher Education.

4. **Exclusions**. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2029.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an example of how students can successfully complete degree requirements in four years. This suggested class schedule plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
MATH 1513	College Algebra (A) (If required before MATH 1813)	3
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
General Education courses		5
	Hours	**15**
Spring		
ENGL 1213 or ENGL 1413	Composition II or Critical Analysis and Writing II	3
MATH 1813	Preparation for Calculus (A)	3
CHEM 1314	Chemistry I (LN)	4
General Education courses		5
	Hours	**15**
Sophomore		
Fall		
CHEM 1515	Chemistry II (LN)	5
MICR 2123 or MICR 3033	Introduction to Microbiology or Cell and Molecular Biology	3
PBIO 1404	Plant Biology (LN)	4
STAT 4013 or STAT 2013	Statistical Methods I (A) or Elementary Statistics (A)	3
	Hours	**15**
Spring		
BIOL 3513	Principles of Conservation Biology	3
BIOL 3204	Physiology	4
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4
General Education and Major courses		4
	Hours	**15**
Junior		
Fall		
CHEM 3013 or CHEM 3053	Survey of Organic Chemistry or Organic Chemistry I	3
CHEM 3012	Survey of Organic Chemistry Laboratory	2
PHYS 1214 or PHYS 2114	College Physics II (LN) or University Physics II (LN)	4
Major, College, and Elective courses		6
	Hours	**15**
Spring		
BIOL 3034	General Ecology	4
BIOL 4700 or BIOL 4710	Undergraduate Research Problems or Internships in Integrative Biology	1
Major, College, and Elective courses		10
	Hours	**15**
Senior		
Fall		
BIOL 3023	General Genetics	3
BIOL 3153	Animal Behavior	3
BIOL 3104	Invertebrate Zoology	4
BIOL 3114	Vertebrate Zoology	4
Elective courses		1
	Hours	**15**
Spring		
BIOL 4133	Evolution	3
Major and Elective courses		12
	Hours	**15**
	Total Hours	**120**