ZOOLOGY, 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

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<td>General Education Requirements</td>
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**English Composition**

See Academic Regulation 3.5 (http://catalog.okstate.edu/university-academic-regulations/#english-composition)

ENGL 1113  Composition I, or ENGL 1313  Critical Analysis and Writing I

Select one of the following:  

- ENGL 1213  Composition II
- ENGL 1413  Critical Analysis and Writing II
- ENGL 3323  Technical Writing

**American History & Government**

HIST 1103  Survey of American History, or HIST 1483  American History to 1865 (H), or HIST 1493  American History Since 1865 (DH)

POLS 1113  American Government

**Analytical & Quantitative Thought (A)**

MATH 1813  Preparation for Calculus (A) (or higher)  

STAT 4013  Statistical Methods I (A), or STAT 2013  Elementary Statistics (A), or STAT 3023  Statistical Reasoning for Medical Applications (A)

**Humanities (H)**

Courses designated (H)

**Natural Sciences (N)**

Must include one Laboratory Science (L) course

PHYS 1114  College Physics I (LN)  

or PHYS 2014  University Physics I (LN)

PHYS 1214  College Physics II (LN), or PHYS 2114  University Physics II (LN)

**Social & Behavioral Sciences (S)**

Course designated (S)

**Additional General Education**

Courses designated (A), (H), (N), or (S)

**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)

Arts & Humanities

See note 2.a.

**Natural & Mathematical Sciences**

CHEM 1314  Chemistry I (LN)  

CHEM 1515  Chemistry II (LN)

**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**

Minimum grade of "C" in each course.

**Core Courses**

BIOL 1113  Introductory Biology (N)  

& BIOL 1111  and Introductory Biology Laboratory (LN)

or BIOL 1114  Introductory Biology (LN)

BIOL 1604  Animal Biology

BIOL 3023  General Genetics  

BIOL 3034  General Ecology

BIOL 3104  Invertebrate Zoology

BIOL 3114  Vertebrate Zoology

BIOL 3204  Physiology

BIOL 4133  Evolution  

BIOL 4700  Undergraduate Research Problems (1 hour)

or BIOL 4710  Internships in Integrative Biology

MICR 2123  Introduction to Microbiology

or MICR 3033  Cell and Molecular Biology

Select one of the following:  


- CHEM 3053  Organic Chemistry I  

& CHEM 3112  and Organic Chemistry Laboratory

& CHEM 3153  and Organic Chemistry II

Select 10 hours upper-division BIOL courses with a laboratory in at least one course (excluding general education courses)

**Supplemental Courses**

Select 2 of the following from different prefixes:  

- BIOC 3653  Survey of Biochemistry

- 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 4033  Biogeography

- GEOG 4073  Climate Change: Past, Present, and Future

- GEOG 4083  Geography of Grass-Dominated Ecosystems

- GEOG 4203  Fundamentals of Geographic Information Systems

- GEOG 4333  Remote Sensing
### 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, 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.

### Other Requirements

- See the College of Arts and Sciences Requirements.
- Minimum 2.0 GPA in all BIOL courses.

### Course List

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<tr>
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<td>General Genetics</td>
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<tr>
<td>BIOL 4133</td>
<td>Evolution</td>
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<tr>
<td>CS 4883</td>
<td>Social Issues in Computing</td>
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<tr>
<td>GEOL 3043</td>
<td>Geology of the National Parks (N)</td>
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<td>GEOL 3503</td>
<td>Environmental Geology (N)</td>
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<tr>
<td>GEOL 4453</td>
<td>Hydrogeology</td>
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<tr>
<td>GEOL 4503</td>
<td>Introduction to Oceanography (N)</td>
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<td>GEOL 4513</td>
<td>Marine Geology</td>
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<td>HLTH 3113</td>
<td>Health Issues in Diverse Populations (D)</td>
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<td>HLTH 3603</td>
<td>Understanding HIV (DS)</td>
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<td>HHP 4063</td>
<td>Neuroanatomy</td>
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<td>HIST 3913</td>
<td>History of Medicine (H)</td>
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<td>HIST 4523</td>
<td>American Environmental History (H)</td>
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<tr>
<td>MICR 3553</td>
<td>Foundations of Cancer</td>
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<td>NREM 3503</td>
<td>Principles of Wildlife Ecology and Management</td>
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<td>NREM 3523</td>
<td>Fish and Wildlife Population Biology</td>
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<td>NREM 4023</td>
<td>Restoration Ecology</td>
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<td>NREM 4033</td>
<td>Ecology of Invasive Species</td>
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<td>NREM 4043</td>
<td>Natural Resource Administration and Policy</td>
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<td>NREM 4443</td>
<td>Watershed Hydrology and Water Quality</td>
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<td>NREM 4523</td>
<td>Wildlife Management Techniques</td>
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<tr>
<td>PHIL 3703</td>
<td>Animal Ethics (H)</td>
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<td>PHIL 3833</td>
<td>Biomedical Ethics (H)</td>
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<tr>
<td>PHIL 4713</td>
<td>Philosophy of Science (H)</td>
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<tr>
<td>PHIL 4733</td>
<td>Philosophy of Biology (H)</td>
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<tr>
<td>PSYC 3443</td>
<td>Psychopathology (S)</td>
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<td>SOC 4153</td>
<td>Sociology of Health and Illness</td>
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<td>SOC 4433</td>
<td>Environmental Sociology (S)</td>
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<tr>
<td>SOC 4453</td>
<td>Environmental Inequality (S)</td>
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### Electives

- **Hours Subtotal**: 55
- Select 11 hours
- May need to include 6 hours of a foreign language. See note 3
- **Hours Subtotal**: 11
- MATH 1513 required for students who do not place directly into MATH 1813 (or MATH 1613).
- PSYC 1113 and SOC 1113 recommended.
- May need to include 6 hours upper-division general education outside major department (see note 2.c.) and 4 additional upper-division hours
- **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.
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 1813 | Preparation for Calculus (A) | 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
CHEM 1314 | Chemistry I (LN) | 4
BIOL 1604 | Animal Biology | 4
General Education courses | 4
| **Hours** | 15 |  
**Sophomore** |  |  
**Fall** |  |  
CHEM 1515 | Chemistry II (LN) | 5
MICR 2123 or MICR 3033 | Introduction to Microbiology or Cell and Molecular Biology | 3
STAT 4013 or STAT 2013 | Statistical Methods I (A) or Elementary Statistics (A) | 3
General Education courses | 4
| **Hours** | 15 |  
**Spring** |  |  
PHYS 1114 or PHYS 2114 | College Physics I (LN) or University Physics I (LN) | 4
CHEM 3013 | Survey of Organic Chemistry | 3
General Education and Major courses | 8
| **Hours** | 15 |  
**Junior** |  |  
**Fall** |  |  
PHYS 1214 or PHYS 2114 | College Physics II (LN) or University Physics II (LN) | 4
BIOL 4700 or BIOL 4710 | Undergraduate Research Problems or Internships in Integrative Biology | 1
CHEM 3012 | Survey of Organic Chemistry Laboratory | 2
Major, College, and Elective courses | 8
| **Hours** | 15 |  
**Spring** |  |  
BIOL 3104 | Invertebrate Zoology | 4
BIOL 3023 | General Genetics | 3
Major, College, and Elective courses | 8
| **Hours** | 15 |  
**Senior** |  |  
**Fall** |  |  
BIOL 3034 | General Ecology | 4
BIOL 3114 | Vertebrate Zoology | 4
Major, College, and Elective courses | 7
| **Hours** | 15 |  
**Spring** |  |  
BIOL 4304 | Physiology | 4
BIOL 4133 | Evolution | 3
Major, College, and Elective courses | 8
| **Hours** | 15 |  
| **Total Hours** | 120 |  

Speak with academic advisor about saving General Education electives and Humanities (H) for Upper-division courses with International (I) and Diversity (D) dimensions.