

BIOLOGY, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2024-2025. 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		
<i>English Composition</i>		
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	
<i>American History & Government</i>		
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
<i>Analytical & Quantitative Thought (A)</i>		
STAT 4013	Statistical Methods I (A) ¹	3
or STAT 2013	Elementary Statistics (A)	
or STAT 3023	Statistical Reasoning for Medical Applications (A)	
MATH 1813	Preparation for Calculus (A) (or higher) ¹	3
<i>Humanities (H)</i>		
Courses designated (H)		6
<i>Natural Sciences (N)</i>		
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)	
<i>Social & Behavioral Sciences (S)</i>		
Course designated (S)		3
<i>Additional General Education</i>		
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		
<i>First Year Seminar</i>		
(Transfer students with 15 hours exempt)		1
<i>Arts & Humanities</i>		

See note 2.a.		3
<i>Natural & Mathematical Sciences</i>		
CHEM 1314	Chemistry I (LN)	4
CHEM 1515	Chemistry II (LN)	5
<i>Foreign Language</i>		
See note 3		0
0-6 hours		
<i>Upper-Division General Education</i>		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		13
Major Requirements ²		
Minimum GPA 2.50 in Major Requirements OR minimum grade of "C" in each course.		
<i>Core Courses</i>		
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 4133	Evolution ²	3
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
MICR 3033	Cell and Molecular Biology	3
PBIO 1404	Plant Biology (LN)	4
Select 9 hours upper-division coursework from: BIOL, MICR, PBIO (excluding general education courses)		9
<i>Related Courses</i>		
Physiology, choose from:		4
BIOL 3204	Physiology (or)	
PBIO 4463 & PBIO 4462	Plant Physiology and Plant Physiology Laboratory	
Organic Chemistry, choose from:		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	
<i>Supplemental Courses</i>		
Select 9 hours upper-division coursework from at least 2 different prefixes from the following (no more than 3 hours of general education in the natural sciences):		9
ANSI 3543	Principles of Animal Nutrition	
ENGL 3323	Technical Writing	
HDFS 4813	Dying, Death and Bereavement	
HLTH 3113	Health Issues in Diverse Populations (D)	
HLTH 3603	Understanding HIV (DS)	
HLTH 3723	Principles of Epidemiology	
HHP 4063	Neuroanatomy	
HIST 3913	History of Medicine (H)	
PHIL 3733	Environmental Ethics (H)	
PHIL 3833	Biomedical Ethics (H)	

PHIL 4713	Philosophy of Science (H)
PHIL 4733	Philosophy of Biology (H)
POLS 4363	Environmental Law And Policy
PSYC 3073	Neurobiological Psychology (N)
PSYC 3443	Psychopathology (S)
PSYC 4263	Affective Neuroscience
SOC 4153	Sociology of Health and Illness
SOC 4433	Environmental Sociology (S)
SOC 4453	Environmental Inequality (S)
Or from BIOC, CHEM, ENTO, ENVR, GEOG, GEOL, HORT, MATH, NREM, PHYS, PLNT, PLP, SOIL, and STAT	
Hours Subtotal	57
Electives ²	
Select 9 hours	9
MATH 1513 required for students who do not place directly into MATH 1813.	
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.	
Hours Subtotal	9
Total Hours	120

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

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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 GPA 2.00 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 2030.

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		
First Year Seminar		1
BIOL 1113 & BIOL 1111	Introductory Biology (N) and Introductory Biology Laboratory (LN)	4
MATH 1813	Preparation for Calculus (A)	3
General Education courses		7
Hours		15
Spring		
BIOL 1604	Animal Biology	4
CHEM 1314	Chemistry I (LN)	4
General Education courses		7
Hours		15
Sophomore		
Fall		
CHEM 1515	Chemistry II (LN)	5
MICR 2123 & MICR 2132	Introduction to Microbiology and Introduction to Microbiology Laboratory	5
General Education courses		5
Hours		15
Spring		
BIOL 3034	General Ecology	4
PBIO 1404	Plant Biology (LN)	4
MICR 3033	Cell and Molecular Biology	3
Major or Elective courses		4
Hours		15
Junior		
Fall		
CHEM 3053 or CHEM 3013 <i>and</i> CHEM 3012	Organic Chemistry I or Survey of Organic Chemistry <i>and</i> Survey of Organic Chemistry Laboratory	5
PHYS 1114	College Physics I (LN)	4
Major or Elective courses		6
Hours		15
Spring		
BIOL 3204 or PBIO 4462 <i>and</i> PBIO 4463	Physiology or Plant Physiology Laboratory <i>and</i> Plant Physiology	4
PHYS 1214 or CHEM 3153 <i>and</i> CHEM 3112	College Physics II (LN) or Organic Chemistry II <i>and</i> Organic Chemistry Laboratory	4

General Education or Supplemental courses		7
Hours		15
Senior		
Fall		
BIOL 3023	General Genetics	3
PHYS 1214	College Physics II (LN) (If taking CHEM 3153 and CHEM 3112)	4
General Education, Major, or Supplemental courses		8
Hours		15
Spring		
BIOL 4133	Evolution	3
General Education, Major, or Supplemental courses		12
Hours		15
Total Hours		120

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