

PLANT BIOLOGY: PRE-PHARMACY, BS

Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about University Academic Regulation 3.1 (<http://catalog.okstate.edu/university-academic-regulations/#matriculation>).

Minimum Overall Grade Point Average: 2.5

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	
ENGL 1213	Composition II	3
or ENGL 1413	Critical Analysis and Writing II	
or 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>Quantitative Thought & Logical Reasoning (Q)</i>		
MATH 2144	Calculus I (Q)	4
<i>Understanding Humanities-Human Heritage & Cultures (H)</i>		
Courses designated (H)		6
<i>Reasoning in the Natural Sciences (N)</i>		
Must include one Laboratory-Based Inquiry (L) course.		
PHYS 1114	College Physics I (LN) ¹	4
PHYS 1214	College Physics II (LN) ¹	4
<i>Exploring Society & Human Behavior (S)</i>		
Course designated (S)		3
<i>Diversity (D)</i>		
Courses designated (D)		3
<i>Global Cultural Competency (G)</i>		
Courses designated (G)		3
<i>Additional General Education</i>		
Additional general education credit hours (at least 1 hour) are required to meet the total 40-hour minimum. If courses carry more than one general education designation and can be used to meet multiple minimum general education designation hours above, more than 1 hour of additional general education will be required here to meet the 40-hour minimum.		
Courses designated (Q), (H), (N), (S), (D), (G), or (F).		1
Hours Subtotal		40
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1

Arts & Humanities

(See note 2.a.) 3

Natural & Mathematical Sciences

CHEM 1314 Chemistry I (LN) 4

CHEM 1515 Chemistry II (LN) 5

Foreign Languages

(See note 3.)

0-6 hours

Upper-Division General Education

6 hours outside major department

(See note 2.c.)

Hours Subtotal 13

Major Requirements

Core Courses:

BIOL 1113 Introductory Biology (N) 4
& BIOL 1111 and Introductory Biology Laboratory (LN)
or BIOL 1114 Introductory Biology (LN)

BIOL 3023 General Genetics 3

BIOL 3204 Physiology 4

BIOL 3214 Human Anatomy 4

BIOL 4133 Evolution 3

BIOC 3653 Survey of Biochemistry 3

CHEM 3053 Organic Chemistry I 3

CHEM 3112 Organic Chemistry Laboratory 2

CHEM 3153 Organic Chemistry II 3

MICR 2132 Introduction to Microbiology Laboratory 2

MICR 2123 Introduction to Microbiology 3

MICR 3033 Cell and Molecular Biology 3

PBIO 1404 Plant Biology (LN) 4

PBIO 2403 Introduction to Plant Molecular Biology 3

PBIO 3273 Medical Botany (N) 3

PBIO 4400 Undergraduate Research 1

PBIO 4654 Plant Secondary Metabolism 4

7 additional hours of PBIO courses 7

Hours Subtotal 59

Electives 8

May need to include 6 hours of a foreign language

May need to include 6 hours upper-division general education outside major department (see note 2.c.)

MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144

Additional requirements dependent on pharmacy school

Hours Subtotal 8

Total Hours 120

Other Requirements:

- See College of Arts & Sciences Requirements.
- Minimum GPA of 2.00 in all PBIO courses.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.

College of Arts and Sciences Requirements

- 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.
- A&S College/Departmental Requirements**
 - 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 (Q), PHIL 3003 Symbolic Logic (Q) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
 - 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.
 - 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).
 - 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).
 - 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.
- Foreign Language Proficiency**
 - 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.
 - 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.
 - 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.

- 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 and 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 2031.

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		
A&S 1111	A&S First Year Seminar	1
CHEM 1314	Chemistry I (LN)	4
ENGL 1113	Composition I	3
or ENGL 1313	or Critical Analysis and Writing I	
MATH 2144	Calculus I (Q)	4
PBIO 1404	Plant Biology (LN)	4
Hours		16
Spring		
BIOL 1113	Introductory Biology (N)	4
& BIOL 1111	and Introductory Biology Laboratory (LN)	
ENGL 1213	Composition II	3
or ENGL 1413	or Critical Analysis and Writing II	
CHEM 1515	Chemistry II (LN)	5
General Education courses		3
Hours		15
Sophomore		
Fall		
BIOL 1604	Animal Biology	4
CHEM 3053	Organic Chemistry I	3
MICR 2123	Introduction to Microbiology	3

MICR 2132	Introduction to Microbiology Laboratory	2
General Education courses		3
Hours		15
Spring		
CHEM 3153	Organic Chemistry II	3
CHEM 3112	Organic Chemistry Laboratory	2
PBIO 2403	Introduction to Plant Molecular Biology	3
PBIO 3273	Medical Botany (N)	3
Major, College, General Education courses		4
Hours		15
Junior		
Fall		
BIOC 3653	Survey of Biochemistry	3
MICR 3033	Cell and Molecular Biology	3
PHYS 1114	College Physics I (LN)	4
Major, College, and Elective courses		5
Hours		15
Spring		
BIOL 3023	General Genetics	3
PBIO 4400	Undergraduate Research	1
PHYS 1214	College Physics II (LN)	4
Major courses		7
Hours		15
Senior		
Fall		
BIOL 4133	Evolution	3
Major and Elective courses		12
Hours		15
Spring		
BIOL 3214	Human Anatomy	4
PBIO 4654	Plant Secondary Metabolism	4
Major and Elective courses		6
Hours		14
Total Hours		120