



SECONDARY EDUCATION: BIOLOGY, BS

The following plan is for students matriculating in or before the academic year **2024-2025**

This plan may be adjusted based on individual needs. For official degree requirements visit <https://registrar.okstate.edu/Degree-Requirements>.

Minimum Overall GPA: 2.50

Total Hours: 120

YEAR 1		FALL (16 hours)
	UNIV 1111 First Year Seminar (Fall Only)	
	SMED 1012 Inquiry Approaches to Teaching	
	ENGL 1113 Composition I or ENGL 1313 Critical Analysis and Writing I	
	BIOL 1114 Introductory Biology (LN) or BIOL 1113 Introductory Biology (N) & BIOL 1111 Introductory Biology Laboratory (LN)	
	MATH 1813 Preparation for Calculus (A) [MATH 1513]* or MATH 1613 Trigonometry [MATH 1513]*	
	HIST 1103 Survey of American History or HIST 1483 American History to 1865 or HIST 1493 American History Since 1865	
Students must select at least one Diversity (D) course and one International (I) course to be completed in any part of the degree plan.		
Complete the Application for Admission to Professional Education. http://tinyurl.com/osuprofedapp		
		SPRING (15 hours)
	EDHS 1111 First Year Seminar Supplement (Spring Only)	
	ENGL 1213 Composition II or ENGL1413 Critical Analysis and Writing II or ENGL 3323 Technical Writing [ENGL 1113]*	
	CHEM 1314 Chemistry I (LN) [MATH 1483 or 1513 or 1613 or 1715 or 1813 or 2103 or 2123 or 2144]*	
	BIOL 1604 Animal Biology [BIOL 1114 or BIOL 1113 & 1111]*	
	POLS 1113 American Government	
YEAR 2		FALL (17 hours)
	PBIO 1404 Plant Biology (LN)	
	CHEM 1515 Chemistry II (LN) [CHEM 1314 or CHEM 1414]*	
	PHIL 3933 Creation and Evolution (H)	
	SPED 3202 Educating Exceptional Learners (D)	
	Course designated (H) – 3 hours	
		SPRING (15 hours)
	PHYS 1114 College Physics (LN) [MATH 1513 or 1613 or 1715 or 1813 or 2103 or 2123 or 2144]* or PHYS 2014 University Physics I (LN) [MATH 2103 or 2123 or 2144]*	
	MICR 2123 Introduction to Microbiology [CHEM 1215 or 1314 and BIOL 1114 or BIOL 1113 & 1111]*	
	MICR 2132 Introduction to Microbiology Laboratory [MICR 2123]*	
	SMED 3013 Knowing and Learning in Mathematics and Science [SMED 1012]*	
	Course designated (S) – 3 hours	
YEAR 3		FALL (15 hours)
For CIED 3313 block 6-8 hrs/ 1day for observation		
	BIOL 3023 General Genetics [MICR 2123 or MICR 3033 or CHEM 3013 or CHEM 3053 or PBIO 2403]*	
	MICR 3033 Cell and Molecular Biology [MICR 2123 & MICR 2132 or BIOL 1604 & CHEM 1225 or CHEM 1515 or BOT 1404 or PBIO 1404 or ZOOL 1604]*	
	CIED 3313 Field Experience in the Secondary Schools	
	upper division PBIO – 3 hours	
	Elective – 3 hours	
Full admission to Professional Education requires: (1) A grade of "C" or better in SMED 3013 and CIED 3313 , (2) minimum overall GPA of 2.50 , and (3) one measure of general education knowledge satisfied by: ACT score of 22 or higher with writing section; or SAT score of 1120 or higher with minimum scores of writing - 5, analysis - 4, reading - 5; or passing PRAXIS test score; or minimum general education 2.75 GPA (30 hours minimum)		

SPRING (17 hours)	
	BIOL 4133 Evolution [BIOL 3023]*
	CHEM 3013 Survey of Organic Chemistry [CHEM 1225 or 1515]*
	BIOL 3204 Physiology [BIOL 1114 or BIOL 1113 & 1111 and CHEM 1215 or 1314 or 1414]*
	CIED 4133 Introduction to K-12 English Language Learners
	SMED 4611 Authentic Research in the Classroom [full admission to Profesional Education Program]* (Spring Only)
	SMED 4613 Teaching Science Through Inquiry [full admission to Profesional Education Program]* (Spring Only) - OSAT Required
NOTE: Students must take the OSAT (Oklahoma Subject Area Test) or PRAXIS prior to student teaching placement. The OSAT is recommended.	
YEAR 4	FALL (16 hours)
	BIOL 3034 General Ecology [BIOL 1114 or BIOL 1113 & 1111 and PBIOL 1404 or BIOL 1604 and MATH 1513 or 1613 or 1715 or 1813 2144]*
	STAT 2013 Elementary Statistics (A) [MATH 1483 or 1513 or 1613 or 1715 or 1813 or 2103 or 2144]* or STAT 4013 Statistical Methods I (A) [MATH 1513 or 1613 or 1715 or 1813 or 2144]*
	SMED 4023 Problem-Based Learning [full admission to Profesional Education Program]* (Fall Only)
	SMED 4713 Teaching and Learning in the Secondary Schools [full admission to Profesional Education Program]* (Fall Only)
	Elective – 3 hours
SPRING (9 hours)	
	CIED 4720 Internship in the Secondary Classroom – 6 hours [[full admission to Profesional Education Program & OSAT taken]*
	SMED 4723 Senior Seminar in Secondary Mathematics and Science Education [full admission to Profesional Education Program]*
File graduation application with enrollment.	
Fingerprint background check; Register for and pass the PPAT; Apply for Oklahoma certification	

*[Prerequisite courses are listed in brackets]

This plan is provided as a courtesy. The official degree requirements sheet is used to determine eligibility for graduation.

Course Attribute Guide: (A) Analytical and Quantitative Thought; (H) Humanities; (S) Social and Behavioral Sciences; (N) Natural Sciences; (L) Scientific Investigation – Laboratory Science; (D) Diversity; (I) International Dimension

Other Requirements

- 40 hours of upper-division coursework.
- Required for graduation and recommendation for Standard Certification:
2.50 Overall GPA;
2.50 GPA in Major Requirements; and
2.50 GPA in Professional Core Requirements.
- The student must earn minimum grades of “C” or “P” in each course in the Major Requirements and Professional Core Requirements and specified courses in General Education; and must earn grades of “P” in all sections of observation courses and student teaching for recommendation for Certification.
- For teacher certification, students must successfully complete OSAT (110), “Biological Sciences”.

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.

Visit our college's Career Development office for career & professional development assistance.
106 Willard | careersuccess@okstate.edu | Schedule an appointment via the SLATE system
Check out our Student Success Community on Canvas!