

BIOLOGY: SECONDARY TEACHER CERTIFICATION, 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: 2.50

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>		
MATH 1813	Preparation for Calculus (A) (or higher) ^{1,2}	3
STAT 4013	Statistical Methods I (A) ^{1,2}	3
or STAT 2013	Elementary Statistics (A)	
<i>Humanities (H)</i>		
PHIL 3933	Creation and Evolution	3
Courses designated (H)		3
<i>Natural Sciences (N)</i>		
Must include one Laboratory Science (L) course		
PHYS 1114	College Physics I (LN) ^{1,2}	4
or PHYS 2014	University Physics I (LN)	
BIOL 1113	Introductory Biology (N)	4
& BIOL 1111	and Introductory Biology Laboratory (LN) ^{1,2}	
or BIOL 1114	Introductory Biology (LN)	
PBIO 1404	Plant Biology (LN) ^{1,2}	4
<i>Social & Behavioral Sciences (S)</i>		
Course designated (S)		3
<i>Additional General Education</i>		
Courses designated (A), (H), (N), or (S)		1
Hours Subtotal		40
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.		
Course designated (H)		3
<i>Natural & Mathematical Sciences</i>		
CHEM 1314	Chemistry I (LN) ²	4
CHEM 1515	Chemistry II (LN) ²	5
<i>Foreign Language</i>		
See note 3		
0-6 hours		
<i>Upper-Division General Education</i>		
Select 6 hours outside major department		
See note 2.c.		
Hours Subtotal		13
Major Requirements		
<i>Biology Core:</i>		
Minimum GPA 2.50 and minimum grade of "C" or "P" for courses in Biology Core and those denoted with ²		
BIOL 1604	Animal Biology	4
BIOL 3023	General Genetics	3
BIOL 3034	General Ecology	4
BIOL 3204	Physiology	4
BIOL 4133	Evolution	3
CHEM 3013	Survey of Organic Chemistry	3
MICR 2123	Introduction to Microbiology	3
MICR 2132	Introduction to Microbiology Laboratory	2
MICR 3033	Cell and Molecular Biology	3
Select 3 hours PBIO coursework 3000- or 4000-level.		3
<i>Secondary Education Professional Core:</i>		
Minimum GPA 2.50 and minimum grade of "C" or "P" in each course		
SMED 1012	Inquiry Approaches to Teaching	2
SMED 3013	Knowing and Learning in Mathematics and Science	3
SMED 4023	Problem-Based Learning in Mathematics and Science	3
SMED 4611	Authentic Research in the Science Classroom ³	1
SMED 4613	Teaching the Nature of Science Through an Inquiry Approach ³	3
SMED 4713	Teaching and Learning Science in the Secondary School ³	3
SMED 4723	Senior Seminar in Secondary Mathematics and Science Education ³	3
SPED 3202	Educating Exceptional Learners (D)	2
CIED 3313	Field Experience in the Secondary Schools	3
CIED 4133	Introduction to K-12 English Language Learners	3
CIED 4720	Internship in the Secondary Classroom ³	6
Hours Subtotal		64

Electives

Select 3 hours	3
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MATH 1513 required for students who do not place directly into MATH 1813 (or MATH 1613).

May need to include 3 hours of a foreign language (see note 3)	
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Hours Subtotal	3
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Total Hours	120
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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.

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.