BIOLOGY: SECONDARY TEACHER CERTIFICATION, 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: 2.50
Total Hours: 120

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Education Requirements</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**English Composition**
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  3
Select one of the following:  3
ENGL 1213  Composition II
ENGL 1413  Critical Analysis and Writing II
ENGL 3323  Technical Writing

**American History & Government**
HIST 1103  Survey of American History  3
or HIST 1483  American History to 1865 (H)  3
or HIST 1493  American History Since 1865 (DH)  3
POLS 1113  American Government  3

**Analytical & Quantitative Thought (A)**
MATH 1813  Preparation for Calculus (A) (or higher)  3
or MATH 2014  Calculus I (A)  3
STAT 4013  Statistical Methods I (A)  3
or STAT 2013  Elementary Statistics (A)  3

**Humanities (H)**
PHIL 3933  Creation and Evolution (H)  3
Course designated (H)  3

**Natural Sciences (N)**
Must include one Laboratory Science (L) course
PHYS 1114  College Physics I (LN)  3
or PHYS 2014  University Physics I (LN)  3
BIOL 1113  Introductory Biology (N)  3
& BIOL 1111  and Introductory Biology Laboratory (LN)  3
or BIOL 1114  Introductory Biology (LN)  3
PBIO 1404  Plant Biology (LN)  3

**Social & Behavioral Sciences (S)**
Course designated (S)  3

**Additional General Education**
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** | | |

| **First Year Seminar** | (Transfer students with 15 hours exempt) | 1 |
| **Arts & Humanities** | | 3 |
| **Natural & Mathematical Sciences** | | |
CHEM 1314  Chemistry I (LN)  2  4
CHEM 1515  Chemistry II (LN)  2  5

| **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** | | |

**Biology Core:**
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  3
MICR 3033  Cell and Molecular Biology  3

Select 3 hours PBIO coursework 3000- or 4000-level.

**Secondary Education Professional Core:**
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  1
SMED 4613  Teaching the Nature of Science Through an Inquiry Approach  3
SMED 4713  Teaching and Learning Science in the Secondary School  3
SMED 4723  Senior Seminar in Secondary Mathematics and Science Education  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  6

| **Hours Subtotal** | 64 |

| **Electives** | | 3 |
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)

<table>
<thead>
<tr>
<th>Hours Subtotal</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Hours</td>
<td>120</td>
</tr>
</tbody>
</table>

**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. 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 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.