## PHYSICS: SECONDARY TEACHER CERTIFICATION, BS

### Degree Requirements

Requirements for Students Matriculating in or before Academic Year 2022-2023. Learn more about University Academic Regulation 3.1 ([http://catalog.okstate.edu/university-academic-regulations/#matriculation](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>ENGL 1113</td>
<td>Composition I</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 1313</td>
<td>Critical Analysis and Writing I</td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1213</td>
<td>Composition II</td>
<td></td>
</tr>
<tr>
<td>ENGL 1413</td>
<td>Critical Analysis and Writing II</td>
<td></td>
</tr>
<tr>
<td>ENGL 3323</td>
<td>Technical Writing</td>
<td></td>
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</tbody>
</table>

### American History & Government

HIST 1103  
Survey of American History  
or HIST 1483  
American History to 1865 (H)  
or HIST 1493  
American History Since 1865 (DH)

POLS 1113  
American Government

### Analytical & Quantitative Thought (A)

MATH 2144  
Calculus I (A)  
MATH 2153  
Calculus II (A)

### Humanities (H)

PHIL 3933  
Creation and Evolution

Course designated (H)

### Natural Sciences (N)

Must include one Laboratory Science (L) course

CHEM 1314  
Chemistry I (LN)

PHYS 2014  
University Physics I (LN)

Select four hours from the following:

<table>
<thead>
<tr>
<th>BIOL 1113</th>
<th>Introductory Biology (N)</th>
<th>1,2</th>
</tr>
</thead>
<tbody>
<tr>
<td>&amp; BIOL 1111</td>
<td>Introductory Biology Laboratory (LN)</td>
<td>1,2</td>
</tr>
</tbody>
</table>

BIOL 1114  
Introductory Biology (LN)

### Social & Behavioral Sciences (S)

Courses designated (S)

### 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**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 2203</td>
<td>University Physics III</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 3013</td>
<td>Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 3323</td>
<td>Modern Laboratory Methods I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 3513</td>
<td>Mathematical Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 3623</td>
<td>Modern Laboratory Methods II</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 3713</td>
<td>Modern Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 4113</td>
<td>Electricity and Magnetism</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2163</td>
<td>Calculus III</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2173</td>
<td>Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>STAT 4013</td>
<td>Statistical Methods I (A)</td>
<td>3</td>
</tr>
</tbody>
</table>

Additional Requirements:

3 upper-division hours in Physics

### Secondary Education Professional Core

Minimum GPA 2.50 and minimum grade of “C” or “P” in each course

SMED 1012  
Inquiry Approaches to Teaching

SMED 3013  
Knowing and Learning in Mathematics and Science

SMED 4013  
Problem Interactions

SMED 4023  
Problem-Based Learning in Mathematics and Science

SMED 4611  
Authentic Research in the Science Classroom

SMED 4613  
Teaching the Nature of Science Through an Inquiry Approach

SMED 4713  
Teaching and Learning Science in the Secondary School

SMED 4723  
Senior Seminar in Secondary Mathematics and Science Education

SPED 3202  
Educating Exceptional Learners (D)

CIED 4720  
Internship in the Secondary Classroom

### Hours Subtotal

62

### Electives

Select 5 hours

May need to include 6 hours of a foreign language (see note 3)

MATH 1513 and MATH 1813 required for students who do not place directly into MATH 2144.
College of Arts and Sciences Requirements

1. General Education Requirements
   No more than two courses (or eight hours) from the major department (http://catalog.okstate.edu/college-arts-sciences-major-departments/) may be used to meet General Education and College and Departmental Requirements. The General Education required English Composition, required U.S. History, required American Government, one required MATH or STAT course, and required foreign language for B.A. degrees do not count against the two-course maximum.

2. A&S College/Departmental Requirements
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DAN, 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, BIOL, BIOL, CHEM, CS (except CS 4883 Social Issues in Computing), GEOI, MATH, MICR, PBIO, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. The required six hours of upper-division General Education may not include courses from 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 3-hour 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
   a. 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 allowed from one department.
   b. Courses with ATHL or LEIS prefixes and leisure activity courses may not be used for degree credit.

5. Teacher Certification
   Students can satisfy the requirements for secondary schools teaching certification while earning a B.A. or B.S. in the College of Arts & Sciences. Those interested should see their Arts and Sciences advisor and the OSU Professional Education Unit in room 325 Willard.

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 2028.