SECONDARY EDUCATION: MATHEMATICS, BS

Degree Programs

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).

Minimum Overall Grade Point Average: 2.50
Total Hours: 120

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</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>
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<td></td>
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<tr>
<td>ENGL 1213</td>
<td>Composition II</td>
<td>3</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>
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American History & Government

Select one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>HIST 1103</td>
<td>Survey of American History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1483</td>
<td>American History to 1865 (H)</td>
<td></td>
</tr>
<tr>
<td>HIST 1493</td>
<td>American History Since 1865 (DH)</td>
<td></td>
</tr>
<tr>
<td>POLS 1113</td>
<td>American Government</td>
<td>3</td>
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Analytical & Quantitative Thought (A)

MATH 2144 | Calculus I (A)                              | 4     |

Select 3 hours from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 1103</td>
<td>Computer Programming (A)</td>
<td>3</td>
</tr>
<tr>
<td>CS 1113</td>
<td>Computer Science I (A)</td>
<td></td>
</tr>
</tbody>
</table>

Humanities (H)

Course designated (H) | 6

Natural Sciences (N)

Courses designated (N) with one (L)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>PHYS 1114</td>
<td>College Physics I (LN)</td>
<td>4</td>
</tr>
<tr>
<td>or PHYS 2014</td>
<td>University Physics I (LN)</td>
<td></td>
</tr>
<tr>
<td>PHYS 1214</td>
<td>College Physics II (LN)</td>
<td>4</td>
</tr>
<tr>
<td>or PHYS 2114</td>
<td>University Physics II (LN)</td>
<td></td>
</tr>
</tbody>
</table>

Social & Behavioral Sciences (S)

Courses designated (S) | 3

Additional General Education

Courses designated (A), (H), (N), or (S) | 4

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

Minimum grade of "C" or "P" in each course
EDHS 1112 | First Year Seminar                        | 2     |
Select 8 hours of electives | 8
6 hours may need to be foreign language

Hours Subtotal | 10

Major Requirements

Minimum GPA 2.50 with a minimum grade of "C" or "P" in each course in the emphasis area and those with 1, 2 footnote.

Calculus, Abstract Algebra, Geometry

MATH 2153 | Calculus II (A)                            | 3     |
MATH 2163 | Calculus III                               | 3     |
MATH 3613 | Introduction to Abstract Algebra           | 3     |
MATH 4403 | Geometry                                   | 3     |

Differential Equations, Linear Algebra, Modern Analysis, Combinatorial Math, Number Theory

MATH 2233 | Differential Equations                     | 3     |
MATH 3013 | Linear Algebra (A)                         | 3     |
MATH 4023 | Introduction to Analysis                   | 3     |
MATH 4663 | Combinatorics                              | 3     |

Select one of the following:

<table>
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<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>MATH 4713</td>
<td>Number Theory</td>
<td>3</td>
</tr>
<tr>
<td>MATH 4753</td>
<td>Introduction to Cryptography</td>
<td></td>
</tr>
<tr>
<td>MATH 4813</td>
<td>Groups and Representations</td>
<td></td>
</tr>
</tbody>
</table>

History, Mathematical Modeling, Research

MATH 3303 | Advanced Perspectives on Functions and Modeling for Secondary Teachers | 3 |
MATH 3933 | Research Methods                           | 3     |
MATH 4033 | History of Mathematics                     | 3     |

Statistical Methods

STAT 4013 | Statistical Methods I (A)                  | 3     |
or STAT 4053 | Statistical Methods I for the Social Sciences (A) |       |

Select 3 hours of 4000-level MATH or STAT or upper-division CS or PHYS

Hours Subtotal | 42

Professional Core Requirements

Minimum GPA 2.50 with a minimum grade of "C" or "P" in each course

CIED 4720 | Internship in the Secondary Classroom      | 3     |
SMED 1012 | Inquiry Approaches to Teaching             | 2     |
SMED 3013 | Knowing and Learning in Mathematics and Science | 3 |

SMED 4003 | Teaching Fundamental Concepts of Mathematics | 3 |
SMED 4013 | Classroom Interactions                     | 3     |
SMED 4023 | Problem-Based Learning in Mathematics and Science | 3 |

SMED 4053 | Teaching Geometry in the Secondary School | 3 |

SMED 4723 | Senior Seminar in Secondary Mathematics and Science | 3 |
SPED 3202 | Educating Exceptional Learners (D)         | 2     |

Hours Subtotal | 28

Total Hours | 120
Secondary Education: Mathematics, BS

Minimum grade of "C"

Included in the Major Requirements when calculating Major GPA

Full admission to Professional Education required

Other Requirements
• 40 hours of upper-division coursework.
• Required for graduation and recommendation for Standard Certification:
  a. 2.50 Overall GPA;
  b. 2.50 GPA in Major Requirements and specified general education courses; and
  c. 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 must earn grades of "P" in all sections of observation courses and student teaching for recommendation for Certification.
• Students must demonstrate proficiency in a foreign language at the novice high level from among those languages identified by the Office of Educational Quality and Accountability. For clarification see OSU academic advisor. This proficiency can be demonstrated by presenting a high school transcript which demonstrates two years of study of a single foreign language with grades of "B" or better. 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.) Students whose primary language is other than English may document proficiency in English as their second language with a score of 550 or more on the Test of English as a Foreign Language. 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.

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.