

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

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 ¹	3
or ENGL 1313	Critical Analysis and Writing I	
Select one of the following:		3
ENGL 1213	Composition II ¹	
ENGL 1413	Critical Analysis and Writing II ¹	
ENGL 3323	Technical Writing ¹	
<i>American History & Government</i>		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
<i>Analytical & Quantitative Thought (A)</i>		
MATH 2144	Calculus I (A) ^{1,2}	4
Select 3 hours from the following:		3
CS 1103	Computer Programming (A) ^{1,2}	
CS 1113	Computer Science I (A) ^{1,2}	
<i>Humanities (H)</i>		
Course designated (H)		6
<i>Natural Sciences (N)</i>		
Courses designated (N) with one (L)		
PHYS 1114	College Physics I (LN)	4
or PHYS 2014	University Physics I (LN)	
PHYS 1214	College Physics II (LN)	4
or PHYS 2114	University Physics II (LN)	
<i>Social & Behavioral Sciences (S)</i>		
Courses designated (S)		3
<i>Additional General Education</i>		
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.		
<i>Calculus, Abstract Algebra, Geometry</i>		
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:		3
MATH 4713	Number Theory	
MATH 4753	Introduction to Cryptography	
MATH 4813	Groups and Representations	
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		3
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	6
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	3
SMED 4013	Classroom Interactions ³	3
SMED 4023	Problem-Based Learning in Mathematics and Science ³	3
SMED 4053	Teaching Geometry 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
Hours Subtotal		28
Total Hours		120

1

Minimum grade of "C"

2

Included in the Major Requirements when calculating Major GPA

3

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.

Example Plan of Study

Finish in Four Plan of Study

The plan below is an **example** of how students can successfully complete degree requirements in four years. This suggested class schedule

plan may be used as a guide and can be adjusted based on individual needs. Students are required to meet with an academic advisor prior to enrollment each semester to plan their class schedule, and students are ultimately responsible for completing all degree requirements.

Course	Title	Hours
Freshman		
Fall		
ENGL 1113 or ENGL 1313	Composition I or Critical Analysis and Writing I	3
HIST 1103 or HIST 1483 or HIST 1493	Survey of American History or American History to 1865 (H) or American History Since 1865 (DH)	3
MATH 2144	Calculus I (A)	4
Course designated (S)		3
SMED 1012	Inquiry Approaches to Teaching	2
EDHS 1112	First Year Seminar	2
Hours		17
Spring		
ENGL 1213 or ENGL 1413 or ENGL 3323	Composition II or Critical Analysis and Writing II or Technical Writing	3
POLS 1113	American Government	3
Course designated (H)		3
MATH 2153	Calculus II (A)	3
CS 1103 or CS 1113	Computer Programming (A) or Computer Science I (A)	3
Hours		15
Sophomore		
Fall		
Elective or Foreign Language		3
PHYS 1114 or PHYS 2014	College Physics I (LN) or University Physics I (LN)	4
MATH 2163	Calculus III	3
MATH 3013	Linear Algebra (A)	3
Elective		2
Hours		15
Spring		
SMED 3013	Knowing and Learning in Mathematics and Science	3
PHYS 1214 or PHYS 2114	College Physics II (LN) or University Physics II (LN)	4
Elective or Foreign Language		3
MATH 2233	Differential Equations	3
MATH 3613	Introduction to Abstract Algebra	3
Hours		16
Junior		
Fall		
SMED 4013	Classroom Interactions	3
MATH 3303	Advanced Perspectives on Functions and Modeling for Secondary Teachers	3
MATH 4033	History of Mathematics	3
SPED 3202	Educating Exceptional Learners (D)	2
STAT 4013 or STAT 4053	Statistical Methods I (A) or Statistical Methods I for the Social Sciences (A)	3
Course designated (A), (H), (N), or (S)		1
Hours		15
Spring		
SMED 4003	Teaching Fundamental Concepts of Mathematics	3
MATH 3933	Research Methods	3
MATH 4663	Combinatorics	3
Course designated (H)		3
Select 3 hours of 4000-level MATH or STAT or upper-division CS or PHYS		3
Course designated (A), (H), (N) or (S)		3
Hours		18

Senior**Fall**

SMED 4053	Teaching Geometry in the Secondary School	3
SMED 4023	Problem-Based Learning in Mathematics and Science	3
MATH 4403	Geometry	3
MATH 4713 or MATH 4753	Number Theory or Introduction to Cryptography	3
MATH 4023	Introduction to Analysis	3

Hours	15
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Spring

CIED 4720	Internship in the Secondary Classroom	6
SMED 4723	Senior Seminar in Secondary Mathematics and Science Education	3

Hours	9
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Total Hours	120
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