Mathematics (BA/BS)

The field of mathematics sits midway between the sciences and the humanities. Like the sciences, mathematical thought is very analytical, precise, and rigorous. But like the arts and humanities, mathematics is about exploring places of incredible grace and beauty, some of which can only be accessed through the power of imagination. You can explore geometry in ten-dimensional space, learn about advanced and exotic number systems, and study statistical techniques for finding patterns in data sets, all in a supportive and collaborative environment.

Students majoring in mathematics can choose a track from three areas: applied mathematics, pure mathematics, and secondary teaching. Applied mathematics studies physical, biological, and sociological aspects; pure mathematics focuses on the development of mathematical principles for their own sake; and secondary teaching prepares students to teach math. Regardless of your focus, the mathematics major will teach you the art of disciplined and logical thought, skills that are very valuable to future employers. A mathematics degree prepares you for work in fields like engineering, computer programming, information technology, financial planning, data management, business, and education.

Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate proficiency with the calculational techniques and applications of calculus, including the ability to show that limits and derivatives do or do not exist.
- Demonstrate a familiarity with the breadth of mathematics, including linear algebra and at least one area from modern algebra, basic analysis, and number theory.
- Read and write mathematical proofs, producing arguments that are logically and syntactically correct.
- Demonstrate an in-depth understanding of some area of mathematics.
- For students on the secondary education track only: Pass the licensure examination in mathematics.

The department offers undergraduate preparation for positions in government, business, and industry and for graduate work in mathematics and statistics. Each student's major program is individually constructed in consultation with an advisor.

Upper-division courses used to satisfy major requirements must be taken for letter grades, and only one D grade (D+ or D or D–) may be counted toward the upper-division requirement. At least 12 credits in upper-division mathematics courses must be taken in residence at the university.

Statistical Methods I (MATH 425 (http://catalog.uoregon.edu/archive/2023-2024/search/?P=MATH%20425)) cannot be used to satisfy requirements for a mathematics major or minor.

To qualify for a bachelor's degree with a major in mathematics, a student must satisfy the requirements for one of three options: the standard track, pure mathematics, or secondary teaching. In each option, most courses require calculus as a prerequisite, and in each option some of the courses require satisfying the bridge requirement.

- Standard Track (p. 1)
- Pure Mathematics (p. 2)
- Secondary Teaching (p. 3)

Mathematics Major - Standard Track

Code	Title	Credits
MATH 253	Calculus III	4
MATH 281–282	Several-Variable Calculus I-II	8
MATH 341–342	Elementary Linear Algebra	8
CS 122	Introduction to Programming and Problem Solving	4
Select one of the following sets of Bridge courses:		12
MATH 231–232 and two of MATH 201–206		
MATH 261–262 and two of MATH 201–206		
MATH 307 and four of MATH 201–206		
Select one of the following Fundamentals sequences:		8
MATH 316–317	Fundamentals of Analysis I-II	
MATH 347–348	Fundamentals of Number Theory I-II	
MATH 391–392	Fundamentals of Abstract Algebra I-II	
Select four of the following, including at least one two-term sequence: [2]		16
MATH 316	Fundamentals of Analysis I	
MATH 317	Fundamentals of Analysis II	
MATH 320	Theory of Differential Equations	
MATH 343	Statistical Models and Methods [3, 4]	
MATH 345M	Probability and Statistics for Data Science [3, 4]	
DSCI 345M	Probability and Statistics for Data Science [3, 4]	
MATH 347	Fundamentals of Number Theory I	
MATH 348	Fundamentals of Number Theory II	
MATH 351	Elementary Numerical Analysis I	
MATH 352	Elementary Numerical Analysis II	
MATH 391	Fundamentals of Abstract Algebra I	
MATH 392	Fundamentals of Abstract Algebra II	
MATH 394	Geometries from an Advanced Viewpoint I	
MATH 395	Geometries from an Advanced Viewpoint II	
MATH 397	History and Applications of Calculus	
MATH 411	Functions of a Complex Variable I	
MATH 412	Functions of a Complex Variable II	
MATH 413	Introduction to Analysis I	
MATH 414	Introduction to Analysis II	
MATH 415	Introduction to Analysis III	
MATH 421M	Partial Differential Equations: Fourier Analysis I	
MATH 422	Partial Differential Equations: Fourier Analysis II	
MATH 431	Introduction to Topology I	
MATH 432	Introduction to Topology II	
MATH 433	Introduction to Differential Geometry	

	MATH 441	Linear Algebra
	MATH 444	Introduction to Abstract Algebra I
	MATH 445	Introduction to Abstract Algebra II
	MATH 446	Introduction to Abstract Algebra III
	MATH 456	Networks and Combinatorics
	MATH 458	Introduction to Mathematical Cryptography
	MATH 461	Introduction to Mathematical Methods of Statistics I
	MATH 462	Introduction to Mathematical Methods of Statistics II [3, 4]
	MATH 463	Mathematical Methods of Regression Analysis and Analysis of Variance
	MATH 467	Stochastic Processes
Total Credits		**60**

1 For students who have completed Calculus with Theory I-III (MATH 261–263) with a grade of mid-C or better, the department will waive the requirement for Fundamentals of Analysis I-II (MATH 316–317).

2 Sequences include Fundamentals of Analysis I-II (MATH 316–317), Fundamentals of Number Theory I-II (MATH 347–348), Elementary Numerical Analysis I-II (MATH 351–352), Fundamentals of Abstract Algebra I-II (MATH 391–392), Geometries from an Advanced Viewpoint I-II (MATH 394–395), Functions of a Complex Variable I-II (MATH 411–412), Partial Differential Equations: Fourier Analysis I (MATH 421M) - Partial Differential Equations: Fourier Analysis II (MATH 422), Introduction to Analysis I-III (MATH 413–415), Introduction to Topology (MATH 431–432), Introduction to Abstract Algebra I-III (MATH 444–446), Introduction to Mathematical Methods of Statistics I-II (MATH 461–462), Introduction to Mathematical Methods of Statistics I (MATH 461) - Stochastic Processes (MATH 467); credit for these courses cannot count for both the two-term Fundamentals sequence and the four upper-division electives.

3 After completing Introduction to Mathematical Methods of Statistics II (MATH 462), students cannot receive credit for: Statistical Models and Methods (MATH 343), Probability and Statistics for Data Science (MATH 345M), nor Probability and Statistics for Data Science (DSCI 345M).

4 Students can only use one of the following toward the two-course upper-division requirement: Statistical Models and Methods (MATH 343), Probability and Statistics for Data Science (MATH 345M), Probability and Statistics for Data Science (DSCI 345M), and Introduction to Mathematical Methods of Statistics II (MATH 462).

Mathematics Major - Pure Mathematics

Code	Title	Credits
MATH 253	Calculus III	4
MATH 281–282	Several-Variable Calculus I-II	8
MATH 316–317	Fundamentals of Analysis I-II [1]	8
MATH 341–342	Elementary Linear Algebra	8
CS 122	Introduction to Programming and Problem Solving	4
Select one of the following sets of Bridge courses:		12
MATH 231–232	Elements of Discrete Mathematics I-II (and two from MATH 201–206)	
MATH 261–262	Calculus with Theory I-II (and two from MATH 201–206)	
MATH 307	Introduction to Proof (and four from MATH 201–206)	
Select one of the following Abstract Algebra sequences:		8
MATH 391–392	Fundamentals of Abstract Algebra I-II	
MATH 444–445	Introduction to Abstract Algebra I-II	
Select two of the following: [2]		8
MATH 320	Theory of Differential Equations	
MATH 343	Statistical Models and Methods [3]	
MATH 345M	Probability and Statistics for Data Science [3, 4]	
DSCI 345M	Probability and Statistics for Data Science [3, 4]	
MATH 347	Fundamentals of Number Theory I	
MATH 348	Fundamentals of Number Theory II	
MATH 351	Elementary Numerical Analysis I	
MATH 352	Elementary Numerical Analysis II	
MATH 391	Fundamentals of Abstract Algebra I	
MATH 392	Fundamentals of Abstract Algebra II	
MATH 394	Geometries from an Advanced Viewpoint I	
MATH 395	Geometries from an Advanced Viewpoint II	
MATH 397	History and Applications of Calculus	
MATH 411	Functions of a Complex Variable I	
MATH 412	Functions of a Complex Variable II	
MATH 413	Introduction to Analysis I	
MATH 414	Introduction to Analysis II	
MATH 415	Introduction to Analysis III	
MATH 421M	Partial Differential Equations: Fourier Analysis I	
MATH 422	Partial Differential Equations: Fourier Analysis II	
MATH 431	Introduction to Topology I	
MATH 432	Introduction to Topology II	
MATH 433	Introduction to Differential Geometry	
MATH 441	Linear Algebra	
MATH 444	Introduction to Abstract Algebra I	
MATH 445	Introduction to Abstract Algebra II	
MATH 446	Introduction to Abstract Algebra III	
MATH 461	Introduction to Mathematical Methods of Statistics I	
MATH 462	Introduction to Mathematical Methods of Statistics II [3]	
MATH 463	Mathematical Methods of Regression Analysis and Analysis of Variance	
MATH 467	Stochastic Processes	
Total Credits		**60**

1 For students who have completed Calculus with Theory I-III (MATH 261–263) with grades of mid-C or better, the department will waive the requirement for Fundamentals of Analysis I-II (MATH 316–317).

[2] The two-term abstract algebra sequence—Introduction to Abstract Algebra I (MATH 444), Introduction to Abstract Algebra II (MATH 445)—cannot also count toward the two upper-division electives.

[3] Students can only use one of the following toward the two-course upper-division requirement: Statistical Models and Methods (MATH 343), Probability and Statistics for Data Science (MATH 345M), Probability and Statistics for Data Science (DSCI 345M), and Introduction to Mathematical Methods of Statistics II (MATH 462).

[4] After completing Introduction to Mathematical Methods of Statistics II (MATH 462), students cannot receive credit for: Statistical Models and Methods (MATH 343), Probability and Statistics for Data Science (MATH 345M), nor Probability and Statistics for Data Science (DSCI 345M).

Mathematics Major - Secondary Teaching

Code	Title	Credits
MATH 253	Calculus III	4
MATH 281	Several-Variable Calculus I	4
MATH 341	Elementary Linear Algebra	4
MATH 343	Statistical Models and Methods	4
CS 122	Introduction to Programming and Problem Solving	4
Select one of the following sets of Bridge courses:		12
MATH 231–232	Elements of Discrete Mathematics I-II (and two from MATH 201–206)	
MATH 261–262	Calculus with Theory I-II (and two from MATH 201–206)	
MATH 307	Introduction to Proof (and from from MATH 201–206)	
Select two of the following Fundamentals sequences: [1]		16
MATH 316–317	Fundamentals of Analysis I-II	
MATH 347–348	Fundamentals of Number Theory I-II	
MATH 391–392	Fundamentals of Abstract Algebra I-II	
MATH 394–395	Geometries from an Advanced Viewpoint I-II	8
MATH 397	History and Applications of Calculus	4
Total Credits		**60**

[1] For students who have completed Calculus with Theory I-III (MATH 261–263) with grades of mid-C or better, the department will waive the requirement for Fundamentals of Analysis I-II (MATH 316–317).

Four-Year Degree Plan

The degree plan shown is only a sample of how students may complete their degrees in four years. There are alternative ways. Students should consult their advisor to determine the best path for them.

To enroll with courses that have prerequisites, students must complete the prerequisite course with grades of C– or better or P. All upper-division mathematics courses must be taken for letter grades to count toward a mathematics major or minor, and only one D grade (D+ or D or D–) may be counted toward the upper-division requirements for the major or minor.

- **Standard Track**
- Pure Mathematics **(**p. 5**)**
- Secondary Teaching **(**p. 7**)**

Bachelor of Arts in Mathematics: Standard Track

Course	Title		Credits Milestones
First Year			
Fall			
MATH 203	Analysis and Number Theory Math Lab		2
MATH 251	Calculus I		4
WR 121Z	Composition I		4
First term of first-year second-language sequence			5
	Credits		**15**
Winter			
MATH 252	Calculus II		4
WR 122Z or WR 123	Composition II or College Composition III		4
MATH 201	Algebra Math Lab		2
Second term of first-year second-language sequence			5
	Credits		**15**
Spring			
MATH 253	Calculus III		4
Third term of first-year second-language sequence			5
Social science area-satisfying course			4
Science group area-satisfying course			4
	Credits		**17**
Second Year			
Fall			
MATH 281	Several-Variable Calculus I		4
MATH 341	Elementary Linear Algebra		4
Arts and letters area-satisfying course			4
First term of second-year second-language sequence			4
	Credits		**16**
Winter			
MATH 282	Several-Variable Calculus II		4
MATH 342	Elementary Linear Algebra		4
Second term of second-year second-language sequence			4
Social science area-satisfying course			4
	Credits		**16**
Spring			
MATH 202	Geometry Math Lab		2
MATH 205	Foundations Math Lab		2
MATH 307	Introduction to Proof	Mathematics major bridge requirement completed	4

Third term of second-year second-language sequence		BA language requirement completed	4
Science area-satisfying course			4
	Credits		**16**
Third Year			
Fall			
MATH 316	Fundamentals of Analysis I		4
Arts and letters group satisfying course			4
Science group-satisfying course		Science group requiremer completed	4
Upper-division Elective			4
	Credits		**16**
Winter			
MATH 317	Fundamentals of Analysis II	Mathematics major fundamentals requirement completed	4
Social science group satisfying course			4
Arts and letters group satisfying course			4
Upper-division elective			4
	Credits		**16**
Spring			
MATH 458	Introduction to Mathematical Cryptography		4
CS 122	Introduction to Programming and Problem Solving		4
Social science area satisfying course		Social science area requiremer completed	4
Arts and letters area satisfying course		Arts and letters area requirement completed	4
	Credits		**16**
Fourth Year			
Fall			
MATH 461	Introduction to Mathematical Methods of Statistics I		4
Upper-division elective			4
Upper-division elective		Completed the multicultural requirement	4
	Credits		**12**
Winter			
MATH 462	Introduction to Mathematical Methods of Statistics II	Upper-division mathematics sequence completed	4
Upper-division elective			4
Upper-division elective		Need 26 upper-division credits beyond the mathematics major	4
	Credits		**12**
Spring			
MATH 397	History and Applications of Calculus	Mathematics major requirements completed	4
Upper-division elective			4
Elective			4
Elective		180 credits completed	4
	Credits		**16**
	Total Credits		**183**

Bachelor of Science in Mathematics: Standard Track

Course	Title	Credits	Milestones
First Year			
Fall			
MATH 251	Calculus I	BS mathematics requirement completed;	4
WR 121Z	Composition I		4
Social science group-satisfying course			4
Science group-satisfying course			4
	Credits		**16**
Winter			
WR 122Z or WR 123	Composition II or College Composition III		4
Arts and letters group-satisfying course			4
MATH 201	Algebra Math Lab		2
MATH 206	Combinatorics Math Lab		2
MATH 252	Calculus II		4
	Credits		**16**
Spring			
MATH 253	Calculus III		4
Arts and letters group-satisfying course			4
Social science group-satisfying course			4

Elective			4
	Credits		**16**
Second Year			
Fall			
MATH 202	Geometry Math Lab		2
MATH 205	Foundations Math Lab		2
MATH 281	Several-Variable Calculus I		4
Arts and letters group-satisfying course			4
Science group-satisfying course			4
	Credits		**16**
Winter			
MATH 282	Several-Variable Calculus II		4
MATH 341	Elementary Linear Algebra		4
Elective			4
Social science group-satisfying course			4
	Credits		**16**
Spring			
MATH 307	Introduction to Proof	Mathemati major bridge requiremer completed	4
MATH 342	Elementary Linear Algebra		4
Arts and letters group-satisfying course		Arts and letters group requiremer completed	4
Science group-satisfying course			4
	Credits		**16**
Third Year			
Fall			
CS 210	Computer Science I		4
MATH 391	Fundamentals of Abstract Algebra I		4
Social science group-satisfying course		Social science group requirement completed	4
Upper-division Elective			4
	Credits		**16**
Winter			
MATH 392	Fundamentals of Abstract Algebra II	Mathemati major fundament requiremer completed	4
Upper-division elective			4
Elective			4
Elective			4
	Credits		**16**
Spring			
MATH 397	History and Applications of Calculus		4
Upper-division elective			4
Upper-division elective			4
Elective			4
	Credits		**16**
Fourth Year			
Fall			
MATH 444	Introduction to Abstract Algebra I		4
Upper-division elective			4
Elective		Completed multicultura requiremer	4
	Credits		**12**
Winter			
MATH 445	Introduction to Abstract Algebra II	Mathemati major upper-division sequence requiremer completed	4
Upper-division elective			4
Upper-division elective			4
	Credits		**12**
Spring			
MATH 458	Introduction to Mathematical Cryptography	Mathemati major completed	4
Elective			4
Elective		180 credits completed	4
	Credits		**12**
	Total Credits		**180**

Bachelor of Arts in Mathematics: Pure Mathematics

Course	Title	Credits	Milestones
First Year			
Fall			
MATH 203	Analysis and Number Theory Math Lab	2	
MATH 251	Calculus I	4	
WR 121Z	Composition I	4	
First term of first-year second-language sequence		5	
	Credits	**15**	
Winter			
WR 122Z or WR 123	Composition II or College Composition III	4	
MATH 201	Algebra Math Lab	2	
MATH 252	Calculus II	4	
Second term of first-year second-language sequence		5	
	Credits	**15**	
Spring			
MATH 253	Calculus III	4	
Third term of first-year second-language sequence		5	
Social science group-satisfying course		4	

Science group group-satisfying course			4
	Credits		**17**
Second Year			
Fall			
MATH 281	Several-Variable Calculus I		4
MATH 341	Elementary Linear Algebra		4
Arts and letters group-satisfying course			4
First term of second-year second-language sequence			4
	Credits		**16**
Winter			
MATH 282	Several-Variable Calculus II		4
MATH 342	Elementary Linear Algebra		4
Second term of second-year second-language sequence			4
Social science group-satisfying course			4
	Credits		**16**
Spring			
MATH 202	Geometry Math Lab		2
MATH 205	Foundations Math Lab		2
MATH 307	Introduction to Proof	MATH major Bridge requiremer completed	4
Third term of second-year second-language sequence		BA language requirement completed	4
Science group-satisfying course			4
	Credits		**16**
Third Year			
Fall			
MATH 316	Fundamentals of Analysis I		4
Arts and letters group satisfying course			4
Science group-satisfying course		Science group requiremer completed	4
Upper-division Elective			4
	Credits		**16**
Winter			
MATH 317	Fundamentals of Analysis II	MATH major Analysis requirement completed	4
Social science group satisfying course			4
Arts and letters group satisfying course			4
Upper-division elective			4
	Credits		**16**
Spring			
CS 122	Introduction to Programming and Problem Solving		4
MATH 433	Introduction to Differential Geometry		4
Social science group satisfying course		Social science group requiremer completed	4
Arts and letters group satisfying course		Arts and letters group requirement completed	4
	Credits		**16**
Fourth Year			
Fall			
MATH 444	Introduction to Abstract Algebra I		4
Upper-division elective			4
Upper-division elective		Complete the multi-cultural requirement by now	4
	Credits		**12**
Winter			
MATH 445	Introduction to Abstract Algebra II	MATH major Abstract Algebra requirement completed	4
Upper-division elective			4
Upper-division elective			4
	Credits		**12**
Spring			
MATH 320	Theory of Differential Equations (MATH major requirements completed)		4
Upper-division elective			4
Elective			4
Elective		180 credits completed	4
	Credits		**16**
	Total Credits		**183**

Bachelor of Science in Mathematics: Pure Mathematics

Course	Title		Credits Milestones
First Year			
Fall			
WR 121Z	Composition I		4
MATH 251	Calculus I (Only one MATH course can be counted toward science group requirement)	BS MATH requiremer completed	4
Social science group-satisfying course			4
Science group-satisfying course			4
	Credits		**16**

Winter			
WR 122Z or WR 123	Composition II or College Composition III		4
MATH 201	Algebra Math Lab		2
MATH 206	Combinatorics Math Lab		2
MATH 252	Calculus II		4
Arts and letters group-satisfying course			4
	Credits		**16**
Spring			
MATH 253	Calculus III		4
Arts and letters group-satisfying course			4
Social science group-satisfying course			4
Elective			4
	Credits		**16**
Second Year			
Fall			
MATH 202	Geometry Math Lab		2
MATH 205	Foundations Math Lab		2
MATH 281	Several-Variable Calculus I		4
Arts and letters group-satisfying course			4
Science group-satisfying course			4
	Credits		**16**
Winter			
MATH 282	Several-Variable Calculus II		4
MATH 341	Elementary Linear Algebra		4
Elective			4
Social science group-satisfying course			4
	Credits		**16**
Spring			
MATH 307	Introduction to Proof	MATH major Bridge requiremer completed	4
MATH 342	Elementary Linear Algebra		4
Arts and letters group-satisfying course		Arts and letters group requiremer completed	4
Science group-satisfying course			4
	Credits		**16**
Third Year			
Fall			
CS 210	Computer Science I		4
MATH 391	Fundamentals of Abstract Algebra I		4
Social science group-satisfying course		Social science group requirement completed	4
Upper-division Elective			4
	Credits		**16**
Winter			
MATH 392	Fundamentals of Abstract Algebra II	MATH major Abstract Algebra requiremer completed	4
Upper-division elective			4
Elective			4
Elective			4
	Credits		**16**
Spring			
MATH 320	Theory of Differential Equations		4
Upper-division elective			4
Upper-division elective			4
Elective			4
	Credits		**16**
Fourth Year			
Fall			
MATH 316	Fundamentals of Analysis I		4
Upper-division elective			4
Elective		Complete the multi-cultural requiremer by now	4
	Credits		**12**
Winter			
MATH 317	Fundamentals of Analysis II	MATH major Analysis requiremer complete	4
Upper-division elective			4
Upper-division elective			4
	Credits		**12**
Spring			
MATH 458	Introduction to Mathematical Cryptography	MATH major completed	4
Elective			4
Elective		180 credits completed	4
	Credits		**12**
	Total Credits		**180**

Bachelor of Arts in Mathematics: Secondary Teaching

Course	Title	Credits	Milestones
First Year			
Fall			
WR 121Z	Composition I	4	
MATH 203	Analysis and Number Theory Math Lab	2	

MATH 251	Calculus I (Only one MATH course can be counted toward science group requirement)		4
First term of first-year second-language sequence			5
	Credits		**15**
Winter			
WR 122Z or WR 123	Composition II or College Composition III		4
MATH 201	Algebra Math Lab		2
MATH 252	Calculus II		4
Second term of first-year second-language sequence			5
	Credits		**15**
Spring			
MATH 253	Calculus III		4
Third term of first-year second-language sequence			5
Social science group-satisfying course			4
Science group-satisfying course			4
	Credits		**17**
Second Year			
Fall			
MATH 281	Several-Variable Calculus I		4
MATH 341	Elementary Linear Algebra		4
Arts and letters group-satisfying course			4
First term of second-year second-language sequence			4
	Credits		**16**
Winter			
CS 122	Introduction to Programming and Problem Solving		4
MATH 307	Introduction to Proof		4
Second term of second-year second-language sequence			4
Social science group-satisfying course			4
	Credits		**16**
Spring			
MATH 202	Geometry Math Lab		2
MATH 205	Foundations Math Lab	MATH major Bridge requirement completed	2
MATH 343	Statistical Models and Methods		4
Third term of second-year second-language sequence		BA language requirement completed	4
Science group-satisfying course		Science group requiremer completed	4
	Credits		**16**
Third Year			
Fall			
MATH 391	Fundamentals of Abstract Algebra I		4
Science group-satisfying course		Science group requirement completed	4
Arts and letters group satisfying course			4
Upper-division Elective			4
	Credits		**16**
Winter			
MATH 392	Fundamentals of Abstract Algebra II		4
Upper-division elective			4
Social science group satisfying course			4
Arts and letters group satisfying course			4
	Credits		**16**
Spring			
MATH 397	History and Applications of Calculus		4
Social science group satisfying course		Social science group requirement completed	4
Arts and letters group satisfying course		Arts and letters group requiremer completed	4
Elective			4
	Credits		**16**
Fourth Year			
Fall			
MATH 394	Geometries from an Advanced Viewpoint I		4
Upper-division elective			4
Upper-division elective		Complete the multi-cultural requirement by now	4
	Credits		**12**
Winter			
MATH 347	Fundamentals of Number Theory I		4
MATH 395	Geometries from an Advanced Viewpoint II		4
Upper-division elective			4
Upper-division elective			4
	Credits		**16**
Spring			
MATH 348	Fundamentals of Number Theory II	MATH major completed	4
Upper-division elective			4

Elective		180 credits completed	4
	Credits		**12**
	Total Credits		**183**

Bachelor of Science in Mathematics: Secondary Teaching

Course	Title	Credits	Milestones
First Year			
Fall			
WR 121Z	Composition I		4
MATH 251	Calculus I (Only one MATH course can be counted toward science group requirement)	BS MATH requiremer completed	4
Social science group-satisfying course			4
Science group-satisfying course			4
	Credits		**16**
Winter			
WR 122Z or WR 123	Composition II or College Composition III		4
MATH 201	Algebra Math Lab		2
MATH 206	Combinatorics Math Lab		2
MATH 252	Calculus II		4
Arts and letters group-satisfying course			4
	Credits		**16**
Spring			
MATH 253	Calculus III		4
Arts and letters group-satisfying course			4
Social science group-satisfying course			4
Elective			4
	Credits		**16**
Second Year			
Fall			
MATH 202	Geometry Math Lab		2
MATH 205	Foundations Math Lab		2
MATH 281	Several-Variable Calculus I		4
Arts and letters group-satisfying course			4
Science group-satisfying course			4
	Credits		**16**
Winter			
MATH 307	Introduction to Proof	MATH major Bridge requirement completed	4
MATH 341	Elementary Linear Algebra		4
Elective			4
Social science group-satisfying course			4
	Credits		**16**
Spring			
CS 122	Introduction to Programming and Problem Solving		4
MATH 343	Statistical Models and Methods		4
Arts and letters group-satisfying course		Arts and letters group requiremer completed	4
Science group-satisfying course			4
	Credits		**16**
Third Year			
Fall			
MATH 391	Fundamentals of Abstract Algebra I		4
Social science group-satisfying course		Social science group requiremer completed	4
Elective			4
Upper-division elective			4
	Credits		**16**
Winter			
MATH 347	Fundamentals of Number Theory I		4
MATH 392	Fundamentals of Abstract Algebra II	MATH major Abstract Algebra requirement completed	4
Upper-division elective			4
Elective			4
	Credits		**16**
Spring			
MATH 348	Fundamentals of Number Theory II		4
Upper-division elective			4
Upper-division elective			4
Elective			4
	Credits		**16**
Fourth Year			
Fall			
MATH 394	Geometries from an Advanced Viewpoint I		4
Upper-division elective			4
Elective		Complete the multi-cultural requiremer by now	4
	Credits		**12**
Winter			
MATH 395	Geometries from an Advanced Viewpoint II		4
Upper-division elective			4
Upper-division elective			4
	Credits		**12**

Spring			
MATH 397	History and Applications of Calculus (MATH major requirements completed)		4
Elective			4
Elective		180 credits completed	4
	Credits		**12**
	Total Credits		**180**