MATHEMATICS MAJOR

Requirements

For a 51-credit major in mathematics, students complete the following:

Code	Title	Credits
CPSC 1101	Introduction to Computing [1]	3
MATH 1171	Calculus I	4
MATH 1172	Calculus II	4
MATH 2231	Discrete Mathematics	3
MATH 2235	Linear Algebra	3
MATH 2273	Multivariable Calculus	4
MATH 3336	Abstract Algebra	3
MATH 3371	Real Analysis	3
Select six 3000-level mathematics electives		18
Select two semesters of a laboratory science [2]		6
Mathematics Capstone [3]		
Total Credits		**51**

[1] An equivalent course may be substituted. Students who can demonstrate proficiency in a computer programming language can have this requirement waived by the department chair.

[2] Although physics is the usual science taken by majors in mathematics, another laboratory science may be substituted with permission of the chair.

[3] All mathematics majors must complete a two-part Capstone Experience consisting of completion of the Senior Comprehensive Exam in Mathematics in the spring of their senior year and attendance at five or more Mathematics Department Colloquia (or equivalent) in their junior and senior years. Results are noted on the transcript as follows: Senior Comprehensive Exam in Mathematics "Passed with Distinction" or "Passed" or "Failed"; Capstone Experience in Mathematics: "Completed" or "Not Completed."

Students who wish to double major in mathematics and another area are encouraged to meet with the chairs of the respective departments so that appropriate modifications to the requirements can be made to allow these students to graduate in four years. Popular double majors with mathematics include computer science, economics, and physics.

Mathematics majors are required to have a graphing calculator at least as powerful as a TI-84.

Honors Seminar

Students who take the MATH 4391 or MATH 4392 Honors Seminar receive three credits for one of their mathematics electives upon completion of one semester of MATH 4391 or MATH 4392. Students who complete both MATH 4391 and MATH 4392 earn six credits: the first semester counts as a 3-credit mathematics elective, while the second counts as a 3-credit free elective.

Students Interested in Teaching Mathematics in High School or Middle School

Students planning a career in secondary education should consult with the department chair, and with the Graduate School of Education and Allied Professions, as early as possible. Consult the catalog section for the Program in Education for information concerning requirements for the Five-Year Integrated Bachelor's and Master's Degree program in Secondary Education with Initial 7-12 Certification.

Plan of Study

The curriculum given below represents a typical option for completing the major in mathematics.

Course	Title	Credits
First Year		
Fall		
CPSC 1101	Introduction to Computing	3
MATH 1171	Calculus I	4
Other Courses		9
	Credits	**16**
Spring		
MATH 1172	Calculus II	4
Other Courses		12
	Credits	**16**
Second Year		
Fall		
MATH 2231	Discrete Mathematics	3
MATH 2273	Multivariable Calculus	4
Other Courses		9
	Credits	**16**
Spring		
MATH 2235	Linear Algebra	3
Math Elective		3
Other Courses		9
	Credits	**15**
Third Year		
Fall		
MATH 3336	Abstract Algebra	3
MATH 3371	Real Analysis	3
Laboratory Science		4
Other Courses		6
	Credits	**16**
Spring		
Math Electives		6
Laboratory Science		4
Other Courses		6
	Credits	**16**
Fourth Year		
Fall		
Math Electives		6

Other Courses	9
Credits	**15**
Spring	
Math Elective	3
Other Courses	9
Mathematics Comprehensive Exam	0
Credits	**12**
Total Credits	**122**