

# MATHEMATICS TEACHER CONCENTRATION, BACHELOR OF SCIENCE - MATT

## Major Requirements (60 Hours)

Code	Title	Credits
<b>Required</b>		
MATH 131 & MATH 132 or MATH 133	Calculus I and Calculus II Theory and Application of Calculus	4-8
MATH 225	Foundations of Higher Mathematics	3
MATH 231	Calculus III	4
MATH 326	Linear Algebra and Differential Equations	4
MATH 496	Pro-Seminar	2
CPSC 207 & 207L	Computer Programming and Computer Programming Laboratory	3
MATH 339	Discrete Mathematics	3
MATH 345	Probability	3
MATH 346	Statistics	3
MATH 353	Abstract Algebra I	3
MATH 361	Geometry	3
MATH 341 or MATH 354	Analysis I Abstract Algebra II	3
<b>Required Supporting Courses</b>		
Select 15 credit hours of science other than mathematics or computer science including one of the following full-year sequences:		15
BIO 155 & BIO 156 & BIO 157 & BIO 158	Foundations of Molecular Biology and Foundations of Ecology and Evolution and Foundations of Cellular Biology and Foundations of Form and Function	
CHEM 121 & CHEM 122	Principles of Chemistry I and Principles of Chemistry II	
PHYS 121 & PHYS 122	General Physics I: Mechanics and Waves and General Physics II: Temperature, Electricity, and Light	
Additional mathematics, computer science, or science electives to bring the total to 60 hours if needed		3-7
<b>Total Credits</b>		<b>56-64</b>

## Advanced Writing Proficiency

The purpose of this requirement is to nurture the development of mathematical writing in order to deepen the student's understanding of mathematics and to enable the student to communicate technical ideas to a range of audiences. Sophomores are expected to demonstrate proficiency in expository mathematics by the submission of an acceptable portfolio. Juniors are expected to demonstrate proficiency in technical or analytical mathematical writing by the submission of an acceptable portfolio. Seniors demonstrate their ability by completing a senior comprehensive paper, which is evaluated by a committee of three faculty.

## Senior Comprehensive

All mathematics majors, in Pro-Seminar (MATH 496 Pro-Seminar), independently study a mathematical topic of their choice and work with a faculty advisor. They present their work in a series of talks in the seminar. The project culminates in a paper and a formal presentation. This final presentation, followed by questioning by a faculty committee, constitutes the Senior Comprehensive in mathematics.

## Faculty

S. Cox, C. Dwyer, C. Hoover, K. Kuter, E. Misiolek, P. Paranamana, C. Periton, M. Porter, R. Rohatgi, R. Solava, B. Vajiac, C. Wedrychowicz