

Mathematics

Bachelor of Arts

Students in the Mathematics Program will develop their analytical skills and learn how to work in a problem-solving environment. Advanced modeling, theory and methods make up the foundation of a mathematics degree and allow students to enter the work force or continue their education.

Career Options:

- Education
- Actuarial Science
- Financial Services
- Biomathematics
- Cryptography

Major Requirements:

Calculus I
Calculus II
Multivariate Calculus
Probability and Statistics
Transition to Advanced Mathematics
Linear Algebra
Abstract Algebra
Mathematics Seminar

Three of the following elective mathematics courses:

Transition to Advanced Mathematics
Discrete Methods
Geometry
Introduction to Complex Variable
Elementary Differential Equations
Special Topics

Programming Component course (3 semester hours):
Programming Structures
or other course approved by adviser.

Applied Mathematics course (3 semester hours) from:
Analytical Chemistry I w/Laboratory
Physical Chemistry I w/Laboratory
Genetics
Global Water Issues
Ecology
Ecological Methods
Corporate Finance
Operations Management
Object-Oriented Programming

Minor Requirements:

Calculus I
Calculus II
Elementary Statistics
or Probability and Statistics

Three of the following elective mathematics courses:

Multivariate Calculus
Number Theory
Discrete Methods
Geometry
Transition to Advanced Mathematics

Linear Algebra
Abstract Algebra
Introduction to Complex Variable
Elementary Differential Equations
Special Topics

Department Contact:

Bill Yankosky, Ph.D.
Professor of Mathematics
Mathematics Program Coordinator
byankosky@ncwc.edu
252.985.5149



General Education Requirements

I. Interdisciplinary Requirements	Credits
Ethics	3
International Studies	3
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Total Hours	6
II. Science Courses	Credits
Mathematics	3
Biology, including lab	4
Physics, Earth Science or Chemistry, incl. lab	4
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Total Hours	11
III. Social Science Courses	Credits
History, Political Science	3
Communication, Economics, Geography or Criminal Justice	3
Psychology or Sociology	3
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Total Hours	9

IV. Humanities Courses	Credits
Religion	3
English Composition	6
Literature	3
Art, Music or Entertainment/Theatre	3
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Total Hours	15
TOTAL GENERAL EDUCATION HOURS	41

Unless otherwise specified, transferred credits may be used to fulfill the general requirements at the Registrar's discretion.

Major Requirements

	Credits		Credits
MAT 121	Calculus I	4	
MAT 122	Calculus II	4	
MAT 221	Multivariate Calculus	4	
MAT 323	Probability and Statistics	3	
MAT 340	Transition to Advanced Mathematics	3	
MAT 403	Linear Algebra	3	
MAT 404	Abstract Algebra	3	
MAT 427	Mathematics Seminar	3	
<i>Three of the following elective mathematics courses:</i>			
MAT 340	Transition to Advanced Mathematics	3	
MAT 318	Discrete Methods	3	
MAT 325	Geometry	3	
MAT 411	Introduction to Complex Variable	3	
MAT 415	Elementary Differential Equations	3	
MAT 495	Special Topics	1-6	
			<i>Programming Component course (3 semester hours):</i>
CIS 211	Programming Structures	3	
			<i>or other course approved by adviser.</i>
			<i>Applied Mathematics course (3 semester hours) from:</i>
CHM 341	Analytical Chemistry I w/Laboratory	3	
CHM 342	Analytical Chemistry I Laboratory	1	
CHM 361	Physical Chemistry I	3	
CHM 362	Physical Chemistry I Laboratory	3	
BIO 303	Genetics	4	
BIO 330	Global Water Issues	5	
BIO 401	Ecology	3	
BIO 402	Ecological Methods	2	
BUS 307	Corporate Finance	3	
BUS 350	Operations Management	3	
CIS 330	Object-Oriented Programming	3	

General Graduation Guidelines:

Total of 120 semester hours, 39 of which must be numbered 300 or 400.

(Other programs may require coursework beyond 120 semester hours.)

At least 9 semester hours of courses designated as writing intensive.

A declared major.

A cumulative GPA average of C (2.00) and at least a C average in the graduation major.