

# MATHEMATICS, BACHELOR OF SCIENCE

## Mathematics, Bachelor of Science Requirements

Code	Title	Credits
<b>GENERAL EDUCATION REQUIREMENTS - 34 Hours Required</b>		
Minimum of "C-" required		
<b>Fundamental Skills</b>		<b>15</b>
<b>Writing – 6 hrs.</b>		
ENGL 1150	ENGLISH COMPOSITION I	
ENGL 1160	COLLEGE RESEARCH AND INFORMATION LITERACY	
<b>Oral Communication – 3 hrs.</b>		
CMST 1110	PUBLIC SPEAKING FUNDS	
or CMST 2120	ARGUMENTATION AND DEBATE	
<b>Quantitative Literacy – 3 hrs.</b>		
MATH 1120	INTRODUCTION TO MATHEMATICAL AND COMPUTATIONAL THINKING	
or MATH 1130	QUANTITATIVE LITERACY	
or MATH 1140	QUANTITATIVE REASONING FOR HEALTHCARE PROFESSIONALS	
or MATH 1300	COLLEGE ALGEBRA WITH SUPPORT	
<b>Data Literacy – 3 hrs.</b>		
Select one from the following:		
STAT 1100	DATA LITERACY AND VISUALIZATION	
STAT 1530	ELEMENTARY STATISTICS	
Until Fall 2028, students can satisfy this requirement with an approved data literacy course, or any approved natural or social science general education course.		
<b>Breadth of Knowledge</b>		<b>13</b>
Social Science – 3 hrs.		
Humanities – 3 hrs.		
Natural & Physical Science (must complete a lab) – 4 hrs.		
Arts – 3 hrs.		
<b>Individual and Social Responsibility</b>		<b>6</b>
Cultural Knowledge – 3 hrs.		
Civic Knowledge and Engagement – 3 hrs.		
<b>MAJOR REQUIREMENTS</b>		
**Course will satisfy UNO's General Education requirement		
^Course requires pre-requisite(s)		
<b>Mathematics Major - 46 Hours Required</b>		<b>25</b>
<b>Required Coursework</b>		
MATH 1950	CALCULUS I (^)	
MATH 1960	CALCULUS II	
MATH 1970	CALCULUS III	
MATH 2050	APPLIED LINEAR ALGEBRA	
MATH 2230	INTRODUCTION TO ABSTRACT MATH	
MATH 2350	DIFFERENTIAL EQUATIONS	
MATH 3230	INTRODUCTION TO ANALYSIS	
<b>Select one of the following</b>		<b>3</b>
CIST 1400	INTRODUCTION TO COMPUTER SCIENCE I	
MATH 2200	MATHEMATICAL COMPUTING I	

MATH 3250 INTRODUCTION TO NUMERICAL METHODS

**An additional 18 credits of approved 3000/4000 Level MATH/STAT courses (excludes STAT 3000), which must include at least 9 credits at the 4000 Level** **18**

**College Breadth (choose one option)** **15-30+**

Option 1: Complete any UNO minor or undergraduate certificate - 15+ hours

Option 2: Additional General Education Requirements - 18+ hours

Additional quantitative literacy - 3 hours

Additional Social Science Gen. Ed. from another Discipline - 3 hours

Additional Humanities Gen. Ed. from another Discipline - 3 hours

HIST 1000 and HIST 1010 - 6 hours

Additional Nat. and Physical Science w/ or without Lab - 3-5 hours

Option 3: CAS comprehensive major (50+ hours) OR any second UNO major (30+ hours)

**Bachelor of Science Cognate Requirement** **15**

The Bachelor of Science Degree requires at least 15 hours of advisor-approved, complementary Cognate coursework.

### ELECTIVES

Elective hours as required to reach a total of 120 hours

## Mathematics, Bachelor of Science Concentrations

- Applied and Computational Mathematics (<http://catalog.unomaha.edu/undergraduate/college-arts-sciences/mathematics/mathematics-bs/applied-computational-math-conc/>)
- Data Science (<http://catalog.unomaha.edu/undergraduate/college-arts-sciences/mathematics/mathematics-bs/data-science-conc/>)
- Mathematics Education (<http://catalog.unomaha.edu/undergraduate/college-arts-sciences/mathematics/mathematics-bs/math-ed-conc/>)
- Operations Research (<http://catalog.unomaha.edu/undergraduate/college-arts-sciences/mathematics/mathematics-bs/operations-research-conc/>)
- Pre-Actuarial Mathematics (<http://catalog.unomaha.edu/undergraduate/college-arts-sciences/mathematics/mathematics-bs/preactuarial-math-conc/>)
- Pure Mathematics (<http://catalog.unomaha.edu/undergraduate/college-arts-sciences/mathematics/mathematics-bs/pure-math-conc/>)
- Statistics (<http://catalog.unomaha.edu/undergraduate/college-arts-sciences/mathematics/mathematics-bs/statistics-conc/>)