MATHEMATICS EDUCATION CONCENTRATION

Mathematics, Bachelor of Science with a Concentration in Mathematics Education Requirements

Code	Title	Credits
GENERAL EDUCATION REQUIREMENTS - 34 Hours Required		
Minimum of "C-"required		
Fundamental Skills		**15**
Writing – 6 hrs.		
ENGL 1150	ENGLISH COMPOSITION I	
ENGL 1160	COLLEGE RESEARCH AND INFORMATION LITERACY	
Oral Communication – 3 hrs.		
CMST 1110	PUBLIC SPEAKING FUNDS	
or CMST 2120	ARGUMENTATION AND DEBATE	
Quantitative Literacy – 3 hrs.		
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	
Data Literacy – 3 hrs.		
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.		
Breadth of Knowledge		**13**
Social Science – 3 hrs.		
Humanities – 3 hrs.		
Natural & Physical Science (must complete a lab) – 4 hrs.		
Arts – 3 hrs.		
Individual and Social Responsibility		**6**
Cultural Knowledge – 3 hrs.		
Civic Knowledge and Engagement – 3 hrs.		
MAJOR REQUIREMENTS		
**Course will satisfy UNO's General Education requirement		
^Course requires pre-requisite(s)		
Mathematics Major with a Concentration in Mathematics Education - 46 Hours Required		
This concentration is recommended for students interested in pursuing a career in Secondary Education. In some cases it is possible to simultaneously earn a B.S. or a B.A. in Math and a B.S. in Secondary Education.		
Required Coursework		**25**
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	
Select one of the following		**3**
CIST 1400	INTRODUCTION TO COMPUTER SCIENCE I	
MATH 2200	MATHEMATICAL COMPUTING I (Recommended for Mathematics Education Concentration)	
MATH 3250	INTRODUCTION TO NUMERICAL METHODS	
Select all of the following Mathematics Education Concentration courses		**12**
MATH 3640	MODERN GEOMETRY	
MATH 3850	HISTORY OF MATHEMATICS	
MATH 4030	MODERN ALGEBRA	
MATH 4740	INTRODUCTION TO PROBABILITY AND STATISTICS I	
Select two of the following Mathematics Education Concentration courses		**6**
MATH 3100	APPLIED COMBINATORICS	
MATH 3200	MATHEMATICAL COMPUTING II	
MATH 4050	LINEAR ALGEBRA	
MATH 4560	NUMBER THEORY & CRYPTOGRAPHY	
MATH 4610	INTRODUCTION TO TOPOLOGY	
Select all of the following Educator Preparation Program Requirements		**27**
TED 2100	EDUCATIONAL FOUNDATIONS (^)	
TED 2200	HUMAN RELATIONS FOR BIAS-FREE CLASSROOMS (** ^)	
or TED 2060	EQUITY, LANGUAGE, AND CULTURAL LITERACY	
TED 2380	DEVELOPMENT AND LEARNING IN ADOLESCENCE	
TED 2400	PLANNING FOR EFFECTIVE TEACHING	
TED 3550	SECONDARY CLASSROOM MANAGEMENT (^)	
TED 3690	LITERACY AND LEARNING (^)	
TED 4000	SPECIAL METHODS IN THE CONTENT AREA (^)	
SPED 3800	DIFFERENTIATION AND INCLUSIVE PRACTICES (^)	
For those who want a Nebraska Math 6-12 Teaching Certificate		**12**
TED 4600	CLINICAL PRACTICE AND SEMINAR: ELEMENTARY OR SECONDARY LEVEL (^)	
College Breadth		
College of Arts and Sciences' college breadth requirement satisfied by this major's concentration		
Bachelor of Science Cognate Requirement		
The BS Cognate is satisfied within this concentration.		
ELECTIVES		
Elective hours as required to reach a total of 120 hours		

Mathematics, Bachelor of Science with a Concentration in Mathematics Education Four Year Plan

Freshman

Fall

		Credits
ENGL 1150	ENGLISH COMPOSITION I	3
MATH 1950	CALCULUS I	5
General Education Course or Elective		4
General Education Course or Elective		3

Attend Durango Days; other campus events. Set up a Handshake account and take the Pathway U career assessment. Attend the Student Involvement & Volunteer Fair to explore student organizations. Make advising appointment for spring: Sept-Oct. Work with your advisor to develop your Pathway in Stellic.

		Credits	15

Spring

		Credits
CMST 1110 or CMST 2120	PUBLIC SPEAKING FUNDS or ARGUMENTATION AND DEBATE	3
ENGL 1160	COLLEGE RESEARCH AND INFORMATION LITERACY	3
MATH 1960	CALCULUS II	4
MATH 2050	APPLIED LINEAR ALGEBRA	3
General Education Course or Elective		3

Recommended: Begin studying for Praxis CORE Academic Skills.

Attend campus events such as major exploration week to get an idea of interests and career paths. Schedule a resume review with UNO Career Services. Visit faculty office hours and ask about undergraduate research opportunities. Make advising appointment for summer and fall: February – March.

		Credits	16

Sophomore

Fall

		Credits
MATH 1970	CALCULUS III	4
MATH 2230	INTRODUCTION TO ABSTRACT MATH	3
TED 2100	EDUCATIONAL FOUNDATIONS	3
TED 2200 or TED 2060	HUMAN RELATIONS FOR BIAS-FREE CLASSROOMS or EQUITY, LANGUAGE, AND CULTURAL LITERACY	3
General Education Course or Elective		3

Required: Apply for Educator Preparation Program at this time.

Recommended but not required: Pass the Praxis CORE Academic Skills.

Attend the Career & Internship Fair to start networking with employers. Look for volunteer, research, or part-time work to gain experience. Join a student organization or club related to your field or interests. Make advising appointment for spring: Sept. - Oct.

		Credits	16

Spring

		Credits
MATH 3230	INTRODUCTION TO ANALYSIS	3
MATH 3850	HISTORY OF MATHEMATICS	3
TED 2400	PLANNING FOR EFFECTIVE TEACHING (*)	6

		Credits
TED 2380	DEVELOPMENT AND LEARNING IN ADOLESCENCE (*)	3

*TED 2400 and 2380 must be taken back-to-back, in either a Morning or Afternoon block.

Required: Pass Praxis CORE Academic Skills by the end of this semester.

Required: Acceptance into Educator Preparation Program. Must have 2.75 GPA.

Attend a career fair for informational and networking purposes. Update your resume and LinkedIn profile with new experiences. Investigate and apply for summer internships, research, or study abroad programs. Make advising appointment for summer and fall: February – March.

		Credits	15

Junior

Fall

		Credits
MATH 2200	MATHEMATICAL COMPUTING I	3
MATH 3640	MODERN GEOMETRY	3
MATH 4740	INTRODUCTION TO PROBABILITY AND STATISTICS I	3
General Education Course or Elective		3
General Education Course or Elective		3
Elective		1

Apply for a paid internship or research assistantship. Attend a mock interview workshop or use online interview tools with Career Services. Start researching and visiting graduate programs or professional schools. Visit Career Center, continue updating resume. Make advising appointment for spring: Sept-Oct.

		Credits	16

Spring

		Credits
MATH/CSCI 3100 or MATH 4560 or MATH 4050	APPLIED COMBINATORICS or NUMBER THEORY & CRYPTOGRAPHY or LINEAR ALGEBRA	3
MATH 3200	MATHEMATICAL COMPUTING II	3
TED 3550	SECONDARY CLASSROOM MANAGEMENT (*)	3
TED 3690	LITERACY AND LEARNING (*)	3
General Education Course or Elective		3

*TED 3550 and TED 3690 must be taken back-to-back, in either a Morning or Afternoon block.

Apply for a paid internship or research assistantship. Attend a mock interview workshop or use online interview tools with Career Services. Start researching and visiting graduate programs or professional schools. Visit Career Center, continue updating resume. Make advising appointment for spring: Sept-Oct.

		Credits	15

Senior

Fall

		Credits
MATH 2350	DIFFERENTIAL EQUATIONS	3
MATH 4030	MODERN ALGEBRA	3
SPED 3800	DIFFERENTIATION AND INCLUSIVE PRACTICES (*)	3
TED 4000	SPECIAL METHODS IN THE CONTENT AREA	3
General Education Course or Elective		3

*SPED 3800: Must be taken concurrently with TED 4000 or TED 3550

Recommended but not required: Pass Praxis II.

Check in with Career Center for networking tips. Finalize graduate school applications or job search strategy. Attend a career fair and start applying for full-time jobs. Prepare for interviews and salary negotiations with Career Services. Make advising appointment for spring: Sept. - Oct.

	Credits	**15**

Spring

TED 4600	CLINICAL PRACTICE AND SEMINAR: ELEMENTARY OR SECONDARY LEVEL	12

Complete your final advising check before graduation. Polish your resume, cover letters, and LinkedIn profile. Stay connected by joining alumni networks and professional organizations. Apply for graduation via MavLink.

	Credits	**12**
	Total Credits	**120**

Upper Level Credits: Students need 27 upper level credits throughout the degree with at least 18 upper level credits within the major. Electives may need to be selected at the 3000-4000 level to reach these minimums.

Additional Information About this Plan:

University Degree Requirements: The minimum number of hours for a UNO undergraduate degree is 120 credit hours. Please review the requirements for your specific program to determine all requirements for the program. In order to graduate on-time (four years for an undergraduate degree), you need to take 30 hours each year.

Placement Exams: For Math, English, World Language, a placement exam may be required. More information on these exams can be found at https://www.unomaha.edu/enrollment-management/testing-center/placement-exams/information.php

Transfer credit or placement exam scores may change suggested plan of study.

GPA Requirements: TED 2100 and TED 2200 require a 2.50 GPA. TED 2380 and TED 2400 as well as Admission into the Teacher Prep Program require a 2.75 GPA.

Graduation Requirements: 2.75 GPA.