



**COLLEGE OF
LETTERS,
ARTS AND
SCIENCES**

Four-Year Degree Plan: Bachelor of Science in Mathematics with Theoretical Concentration

Catalog Year: 2023-2024

This is a degree plan for completing a Bachelor of Science with Theoretical Concentration in eight semesters. This document is meant to be used as a guide for planning purposes only and is intended for use in consultation with a Professional Academic or Faculty advisor. **Students are responsible for consulting advisors and the [MSU Denver catalog](#) for degree requirements.**

Year One					
Semester 1			Semester 2		
Fall		Credits	Spring		Credits
MTH 1410	Calculus I	4	MTH 2410	Calculus II	4
--	Written Communication I	3	--	Programming Elective	4
--	Oral Communication	3	--	Written Communication II	3
--	Arts and Humanities I	3	--	Arts and Humanities II	3
--	Any course to satisfy hours reqs.	3			
Semester 1 Total		16	Semester 2 Total		14

Year Two					
Semester 3			Semester 4		
Fall		Credits	Spring		Credits
MTH 2420	Calculus III	4	MTH 3100	Introduction to Proofs	3
--	Elective I	3 or 4	--	Historical	3
--	Natural and Physical Sciences I	3	--	Natural and Physical Sciences II	3
--	Social and Behavioral Sciences I	3	--	Minor II	3
--	Minor I	3	--	Social and Behavioral Sciences II	3
Semester 3 Total		16-17	Semester 4 Total		15

Year Three					
Semester 5			Semester 6		
Fall		Credits	Spring		Credits
MTH 3110	Abstract Algebra	3	MTH 3140	Linear Algebra	4
--	MTH Elective I	3 or 4	--	Elective IV	3 or 4
--	Elective II	3 or 4	--	Minor IV	3
--	Elective III	3 or 4	--	Ethnic Studies & Social Justice	3
--	Minor III	3	--	Any course to satisfy hours reqs.	3
Semester 5 Total		15-18	Semester 6 Total		16-17

Year Four					
Semester 7			Semester 8		
Fall		Credits	Spring		Credits
MTH 4410	Real Analysis I (Senior Exp.)	4	MTH 4420	Real Analysis II	3
--	MTH Elective II	3 or 4	--	Elective V	3 or 4
--	Minor V	3	--	Elective VI	3 or 4
--	Global Diversity	3	--	Minor VI	3
--	Any course to satisfy hours reqs.	3			
Semester 7 Total		16-17	Semester 8 Total		12-14

Program Total: 120

Students must complete all courses in the major with a grade of C- or better. A minor is required for students who are not dual majors or completing a concurrent or second degree. Students must meet with a faculty advisor to declare the mathematics major and to register for Introduction to Proofs (MTH 3100).

Advisor Contact Information: Leah Butler, lbutle14@msudenver.edu, 303-605-7526, or visit [CLAS Academic Advising](#)

Detailed Course Listing

General Studies

--	Written Communication	6
--	Oral Communication	3
--	Arts and Humanities	6
--	Social and Behavioral Sciences	6
--	Natural and Physical Sciences	6
--	Historical	3
--	Global Diversity	0-3
General Studies Total		30-33

Core Requirements

MTH 1410	Calculus I	4
MTH 2410	Calculus II	4
MTH 2420	Calculus III	4
MTH 3100	Introduction to Proofs	3
Core Requirements Total		15

Specific Degree Requirements

--	Programming Course	4
MTH 3110	Abstract Algebra	3
MTH 3140	Linear Algebra	4
MTH 4410	Real Analysis I	4
MTH 4420	Real Analysis II	3
--	2 Upper division courses	7-8
--	Math Electives	Varies
Specific Degree Requirements Total		26

Program Totals

General Studies Requirements	33
Minor Courses	15
Concentration Courses	26
Unrestricted Electives	28
Minor	18
Total to Graduate	120