



**COLLEGE OF  
LETTERS,  
ARTS AND  
SCIENCES**

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

Catalog Year: 2023-2024

This is a degree plan for completing a Bachelor of Science in Mathematics with Applied 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	3
--	Arts and Humanities I	3	--	Arts and Humanities II	3
--	Any course to satisfy hours reqs.	3			
<b>Semester 1 Total</b>		<b>16</b>	<b>Semester 2 Total</b>		<b>14</b>

Year Two					
Semester 3			Semester 4		
Fall		Credits	Spring		Credits
MTH 2420	Calculus III	4	MTH 3140	Linear Algebra	4
MTH 3100	Introduction to Proofs	3	--	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
<b>Semester 3 Total</b>		<b>16</b>	<b>Semester 4 Total</b>		<b>16</b>

Year Three					
Semester 5			Semester 6		
Fall		Credits	Spring		Credits
MTH 3440	Ordinary Differential Equations	4	MTH 3440	Partial Diff Eq or MTH Elective	4
--	Probability and Statistics	4	--	Elective III	3 or 4
--	Elective I	3 or 4	--	Minor IV	3
--	Minor III	3	--	Ethnic Studies & Social Justice	3
			--	Any course to satisfy hours reqs.	3
<b>Semester 5 Total</b>		<b>14-15</b>	<b>Semester 6 Total</b>		<b>16-17</b>

Year Four					
Semester 7			Semester 8		
Fall		Credits	Spring		Credits
MTH 4480	Numerical I (Senior Experience)	4	MTH 4490	Numerical II or Sequence II	3 or 4
--	Elective II or Sequence I	3 or 4	--	Elective IV	3 or 4
--	Minor V	3	--	Elective V	3 or 4
--	Global Diversity	3	--	Minor VI	3
--	Any course to satisfy hours reqs.	3			
<b>Semester 7 Total</b>		<b>16-17</b>	<b>Semester 8 Total</b>		<b>12-15</b>

**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](mailto: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
<b>General Studies Total</b>		<b>30-33</b>

### Core Requirements

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

### Specific Degree Requirements

--	Programming Course	4
MTH 3140	Linear Algebra	4
MTH 3210	Probability and Statistics	4
MTH 3420	Ordinary Differential Equations	4
MTH 4480	Numerical I (Senior Experience)	4
--	Upper division sequence	7-8
--	Math Electives	Varies
<b>Specific Degree Requirements Total</b>		<b>28</b>

### Program Totals

General Studies Requirements	33
Major Courses	15
Concentration Courses	28
Unrestricted Electives	26
Minor	18
<b>Total to Graduate</b>	<b>120</b>