## *Four-Year Degree Plan: Bachelor of Science in Mathematics with Probability and Statistics Concentration* Catalog Year: 2023-2024

MSU

COLLEGE OF

LETTERS,

**ARTS AND** 

**SCIENCES** 

This is a degree plan for completing a Bachelor of Science in Mathematics with Probability and Statistics 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** <u>MSU Denver catalog</u> **for degree requirements.** 

Year One						
Semester 1	Fall	Credits	Semester 2	Spring	Credits	
MTH 1110	College Algebra for Calculus	4	MTH 1120	College Trigonometry	3	
	Written Communication I	3		Written Communication II	4	
	Oral Communication	3		Arts and Humanities II	3	
	Arts and Humanities I	3		Any courses to satisfy hours reqs.	6	
	Any course to satisfy hours reqs.	3				
	Semester 1 Total	16		Semester 2 Total	16	

Year Two						
Semester 3	Fall	Credits		Semester 4	Spring	Credits
MTH 1410	Calculus I	4		MTH 2410	Calculus II	4
	Natural and Physics Sciences I	3			Historical	3
	Natural and Physics Sciences II	1			Natural and Physical Sciences III	3
	Social and Behavioral Sciences I	3			Minor II	3
	Minor I	3			Social and Behavioral Sciences II	3
	Any courses to satisfy hours reqs.	3				
	Semester 3 Total 17 Semester 4 Total 16					

Year Three						
Semester 5	Fall	Credits	Semester 6	Spring	Credits	
MTH 3100	Introduction to Proofs	3	MTH 3210	Probability and Statistics	4	
MTH 2420	Calculus III	4		Programming elective	4	
	Linear algebra elective	4		Ethic Studies & Social Justice	3	
	Minor III	3		Minor IV	3	
Semester 5 Total 14 Semester 6 Total						

Year Four						
Semester 7	Fall	Credits		Semester 8	Spring	Credits
MTH 3220	Statistical Methods	4		MTH 4230	Regression & Comput. Statistics	4
MTH 4210	Probability Theory	4			Upper division elective	4
	Minor V	3			Minor VI	3
	Global Diversity	3			Any course to satisfy hours reqs.	2
Semester 7 Total 14 Semester 8 Total					13	

## 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, Ibutle14@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				
MTH 3210	Probability and Statistics	4		
MTH 3220	Statistical Methods	4		
MTH 4210	Probability Theory	4		
MTH 4230	Regression & Comput. Statistics	4		
	Programming elective	4		
	Linear algebra elective	4		
	Upper division elective	4		
	Specific Degree Requirements Total	28		

Program Totals	
General Studies Requirements	33
Ethic Studies & Social Justice	3
Required Pre-Requisites	7
Major Courses	15
Concentration Courses	28
Unrestricted Electives	16
Minor	18
Total to Graduate	120



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