MAJOR IN MATHEMATICS, MATHEMATICS EDUCATION CONCENTRATION

Requirements
Effective Fall 2022

A minimum grade of C (2.000) is required in all mathematics, statistics, and computer science courses that are required for graduation.

Freshman

		AUCC	Credits
CO 150	College Composition (GT-CO2)	1A	3
MATH 160	Calculus for Physical Scientists I (GT-MA1)	1B	4
MATH 161	Calculus for Physical Scientists II (GT-MA1)	1B	4
MATH 192	First Year Seminar in Mathematical Sciences		1
Select four credits from the following:			4
CS 150A	Culture and Coding: Java (GT-AH3)	3B	
CS 150B	Culture and Coding: Python (GT-AH3)	3B	
CS 152	Python for STEM		
CS 158/MATH 158	Mathematical Algorithms in C		
CS 163	CS1—No Prior Programming Experience		
CS 164	CS1–Computational Thinking with Java		
MATH 151	Mathematical Algorithms in Matlab I		
MATH 152	Mathematical Algorithms in Maple		
STAT 158	Introduction to R Programming		
Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)		3B	6
Diversity, Equity, and Inclusion (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#diversity-equity-inclusion)		1C	3
Historical Perspectives (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#historical-perspectives)		3D	3
Electives			2
	Total Credits		**30**

Sophomore

EDUC 275	Schooling in the United States (GT-SS3)	3C	3
EDUC 340	Literacy and the Learner		3
MATH 230	Discrete Mathematics for Educators		3
MATH 261	Calculus for Physical Scientists III		4
MATH 369	Linear Algebra I		3
PH 141[1]	Physics for Scientists and Engineers I (GT-SC1)	3A	5
Advanced Writing (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#advanced-writing)		2	3
Biological and Physical Sciences (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#biological-physical-sciences)[1]		3A	4
Electives			3
	Total Credits		**31**

Junior

EDUC 331	Educational Technology and Assessment		2
EDUC 350	Instruction I-Individualization/Management		3
EDUC 386	Practicum-Instruction I		1
EDUC 464	Methods and Materials in Teaching Mathematics		4
MATH 317	Advanced Calculus of One Variable	4B	3
MATH 366	Introduction to Abstract Algebra	4A	3
MATH 470	Euclidean and Non-Euclidean Geometry		3
STAT 315	Intro to Theory and Practice of Statistics		3
Additional Biological and Physical Sciences[1]		3A	4
Mathematical Sciences Elective[2]			3
Elective			3
	Total Credits		**32**

Senior

EDUC 450	Instruction II-Standards and Assessment		4
EDUC 485B	Student Teaching: Secondary		11
EDUC 486E	Practicum: Instruction II		1
EDUC 493A	Seminar: Professional Relations		1
MATH 425	History of Mathematics	4C	3
Electives[3]			7
	Total Credits		**27**
	Program Total Credits:		**120**

1. Students in this major must take a minimum of 13 credits from at least two subject codes selected from category 3A, Biological and Physical Sciences, in the All-University Core Curriculum (AUCC). At least one course must include a laboratory.
2. Select from STAT 420, STAT 430, or upper-division mathematics courses except those ending in -80 to -99.
3. Select enough elective credits to bring the program total to a minimum of 120 credits, of which at least 42 must be upper-division (300- to 400-level).