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

MATH 160 Calculus for Physical Scientists I (GT-MA1) 1B MATH 161 Calculus for Physical Scientists II (GT-MA1) 1B MATH 192 First Year Seminar in Mathematical Sciences Select four credits from the following: 3B CS 150A Culture and Coding: Python (GT-AH3) 3B CS 150A Culture and Coding: Python (GT-AH3) 3B CS 152 Python for STEM 5 CS 153 CS 1-Omputational Thinking with Java MATH 151 MATH 151 Mathematical Algorithms in C 5 CS 154 CS1-Computational Thinking with Java MATH 152 MATH 152 Mathematical Algorithms in Matbal MATH 152 MATH 152 Mathematical Algorithms in Maple STAT 158 Introduction to R Programming GT-Computational Thinking with Java 3B Diversity, Equity, and Inclusion (http://catalog.colostate.edu/general-catalog/all-university-core- 1C 3C Cariculum Acc/fdiversity-equity-inclusion) 3D 3C 3C Historical Perspectives (http://catalog.colostate.edu/general-catalog/all-university-core- 1C 3C Electives 3D 3C 3C 3C			AUCC	Credits
MATH 161 Calculus for Physical Scientists II (GT-MA1) 1B MATH 192 First Year Seminar in Mathematical Sciences Select four credits from the following: CS 150A Culture and Coding: Java (GT-AH3) 3B CS 150B Culture and Coding: Python (GT-AH3) 3B CS 150B Culture and Coding: Python (GT-AH3) 3B CS 1512 Python for STEM Select four Credits from the following: CS 153 CS 1-No Prior Programming Experience Statistical Algorithms in C CS 154 CS1-Computational Thinking with Java MATH 151 MATH 152 Mathematical Algorithms in Matlab I MATH 152 MATH 154 Mathematical Algorithms in Matlab I MATH 158 MATH 155 Mathematical Algorithms in Matlab I Mathematical Algorithms in Matlab I MATH 151 Mathematical Algorithms in Matlab I Mathematical Colling Lipottical Algorithms in Matlab I Matrishumanities (http://catalog.colostate.edu/general-catalog/all-university-core- 1C Science/Historical-genergectives (http://catalog.colostate.edu/general-catalog/all-university-core- 1C Electives Total Credits 3I 3I Sophomore Scobooling in the United States (GT-SS3) 3C Sci	CO 150	College Composition (GT-CO2)	1A	3
MATH 192 First Year Seminar in Mathematical Sciences Select four credits from the following: CS 150A Culture and Coding: Java (GTAH3) 3B CS 150B Culture and Coding: Python (GTAH3) 3B CS 150B Culture and Coding: Python (GTAH3) 3B CS 152 Python for STEM CS 153 MATH 158 Mathematical Algorithms in C CS 163 CS1-N Prior Programming Experience CS 164 CS1-Computational Thinking with Java MATH 151 Mathematical Algorithms in Matle 1 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/ 3B Tata Credits Diversity-Equity.and Inclusion (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/ 4diversity-equity-inclusion) Historical-perspectives EEUUC 275 Schooling in the United States (GTSS3) 3C EDUC 2340 Literacy and the Learner MATH 251 Calculus for Physical Scientists null MATH 251 Calculus for Scientists and Engineers I (GTSC1) 3A Advanced Writing (http://catalog.colostate.edu/general-catalog/all-university-core- Curriculum/aucc/#biological-physical-sciences)	MATH 160	Calculus for Physical Scientists I (GT-MA1)	1B	4
Select four credits from the following:	MATH 161	Calculus for Physical Scientists II (GT-MA1)	1B	4
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curriculum/aucc/#biological-physical-sciences) ¹			2	3
Electives			3A	4
	Electives			3

Junior

	Program Total Credits:		120
	Total Credits		27
Electives ³			7
MATH 425	History of Mathematics	4C	3
EDUC 493A	Seminar: Professional Relations		1
EDUC 486E	Practicum: Instruction II		1
EDUC 485B	Student Teaching: Secondary		11
EDUC 450	Instruction II-Standards and Assessment		4
Senior			
	Total Credits		32
Elective			3
Mathematical Science	ces Elective ²		3
Additional Biological and Physical Sciences ¹ 3A		4	
STAT 315	Intro to Theory and Practice of Statistics		3
MATH 470	Euclidean and Non-Euclidean Geometry		3
MATH 366	Introduction to Abstract Algebra	4A	3
MATH 317	Advanced Calculus of One Variable	4B	3
EDUC 464	Methods and Materials in Teaching Mathematics		4
EDUC 386	Practicum-Instruction I		1
EDUC 350	Instruction I-Individualization/Management		3
EDUC 331	Educational Technology and Assessment		2

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 400level).