## **MATHEMATICS B.S.**



## **ACADEMIC ADVISING**

Partnering with students to successfully navigate collegeLocation:Main Hall 208Phone:719.255.3260Website:Academic Advising

## **GENERAL ACADEMIC INFORMATION**

#### Minimum Graduation Requirements

- 120 credit hours
- 45 upper-division credit hours (3000-4999 level)
- 2.0 CU cumulative GPA
- Residency: Last 30 credit hours of degree must be completed while registered in the College of Letters, Arts, and Sciences at UCCS

#### **Connect With Your Advisor**

**Current UCCS Students** 

• Appointments: <u>www.uccs.edu/advising/current-students</u> Prospective Students: <u>www.uccs.edu/admissions/contact</u>

#### Student Responsibilities

Students are required to know and follow:

- All academic policies set forth by the University, College, and academic department in the UCCS Catalog: <u>catalog.uccs.edu</u>
- All course prerequisites designated by the University. Failure to meet course prerequisites may result in an administrative drop of the course from a student's schedule. See degree audit for course prerequisites within the academic major.

#### **DEGREE REQUIREMENTS**

### Explore Mathematics: B.S. Program | Department of Mathematics (uccs.edu)

		Major Requirem	ents						
MATH Major (BS)	Course/Area	Course Title				Credit H	lours		
(46 hours)	MATH 1350 Calculus I								
	MATH 1360	60 Calculus II							
The BS in MATHEMATICS	MATH 2150	MATH 2150 Discrete Mathematics							
major in the Statistics,	MATH 2350	IATH 2350 Calculus III							
Flexible, and Pure options	MATH 3110	Theory of Numbers				3			
require a minimum of 46 credit hours of MATH course	MATH 3130	Introduction to Linear Algebra					3		
work and the Applied	MATH 3400	Introduction to Differential Equations	5				3		
Mathematics option requires	MATH 3410	Introduction to Analysis							
a minimum of 49 credit hours	MATH 3810	Intro to Probability & Statistics							
of MATH course work.	MATH 4040	Senior Seminar				1			
	Required Option								
All options require a	All BS Mathematics Majors must select one of the Options below.								
minimum of 31 credit hours	A	oplied Mathematics Option <sup>1</sup>	Statistics Option						
of upper-division (3000+	MATH 2650	Introduction to Computational	3	MATH 4810	Mathematical Statistics I		3		
level) MATH course work.		Mathematics							
	MATH 4310	Modern Analysis I	3	MATH 4820	Mathematical Statistics II		3		
All MATH courses must have	MATH 4470	Methods of Applied Mathematics	3	MATH 4850	Stochastic Modeling		3		
a grade of "C" or better.	MATH 4650	Numerical Analysis	3	Math Electives	Complete 6 additional hou MATH 4000+.	ırs of	6		
Option Course Recommendations:	Math Electives	Complete 6 additional hours of MATH 4000+.	6						
See the degree audit for	Flexible Option Pure Mathematics Option								
recommended elective courses based on post-	Directed Elective Choose one	MATH 4130, 4140, 4310	3	MATH 4140	Modern Algebra I		3		
graduate goals.	Math Electives	Complete 12 additional hours of MATH 4000+.	12	MATH 4310	Modern Analysis I		3		
<sup>1</sup> <b>NOTE:</b> The Applied Math option requires completion of CS 1120 and PES 1110, 1120, and 1160.				Math Electives	Complete 9 additional hou MATH 4000+.	ırs of	9		

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G	eneral Education and Elective R	equirements			
Core Writing Requirement (6 hours)	<ul> <li>ENGL 1310, 1308, or 1305 (Students choosing EN</li> <li>ENGL 1410</li> <li>PORT 3000 (0 Credits) – Writing Portfolio</li> </ul>	IGL 1305 must complete ENGL 1300 first.)			
Reasoning Skills	<ul> <li>MATH 1350 (included in major requirements)</li> <li>MATH 3810 (included in major requirements)</li> </ul>				
Area Requirements (27 hours) • Maximum 2 courses from any one discipline may be applied to the area requirements	<ul> <li>Humanities – 9 credit hours of which 3 credits m</li> <li>Social Sciences – 9 credit hours</li> <li>Natural Sciences – 9 credits hours of which at least Applied Mathematics Option should take PES 11</li> <li>NOTE: Cannot select courses from primary majo</li> </ul>	ast 1 credit must be from a lab course; students pursuing the 10, 1120, and 1160 to fulfill this requirement.			
Oral Communication, Cultural Diversity, and Global Awareness Requirements LAS Language other than English Requirement	One course from each list (see degree audit). All courses that fulfill these requirements may also count towards other general education or major requirements. Complete two semesters of a language other than English equivalent to 1010 & 1020 with high school, transfer, placement exam, or UCCS coursework. Courses taken to fulfill this requirement may also count toward Compass Curriculum Explore - Arts, Humanities and Cultures or general electives. See degree audit for details.				
Compass Curriculum	Component	Course			
<ul> <li>(12 hours)</li> <li>Explore and Navigate courses must be outside major and area requirements</li> <li>Writing Intensive, Inclusiveness, and Sustainability courses can count towards other requirements within degree</li> </ul>	Gateway Explore – Arts, Humanities and Cultures Explore – Society, Behavior and Health Explore – Physical and Natural World Navigate Summit Writing Intensive Courses (WIC) Two courses with one upper-division (3000+ level) Inclusiveness Sustainability	GPS 1010         See Degree Audit         See Degree Audit         HUM 3990 (included in LAS area requirements)         MATH 4040 (included in major requirements)         • HUM 3990 (included in LAS area requirements)         • See Degree Audit         See Degree Audit			
NOTE: Applied Mathematics Option Computer Science Sequence	Complete CS 1120 (3 hours)				
General Electives (23-29 hours)	Complete additional courses to meet total and upper-	division requirements for your degree program.			

## FOUR-YEAR DEGREE PLAN

	Please note that this is an example degree program and your program may vary. Students are responsible for completing all course prerequisites.								
	1	FALL	Hours	$\checkmark$	SPRING	Hours			
a		ENGL 1310	3		ENGL 1410	3			
ů O		MATH 1350			MATH 1360	4			
ž		GPS 1010	3		Humanities Elective	3			
ea		Explore – Arts, Humanities & Cultures Course	3		Explore – Society, Behavior & Health Course	3			
>		General Elective	3		General Elective	3			
		TOTAL	16		TOTAL	16			

	$\checkmark$	FALL	Hours	$\checkmark$	SPRING	Hours
		MATH 2150			MATH 3400	3
Š		MATH 2350			MATH 3110 (Spring Only)	3
Year T		Explore - Physical & Natural World Course	3		Natural Science Elective w/ Lab	4
		Humanities Elective (Writing Intensive)	3		Social Science Elective (Global Awareness)	3
		General Elective	3		General Elective	4
		TOTAL	16		TOTAL	17

ear Three	$\checkmark$	FALL	Hours	$\checkmark$	SPRING	Hours
		MATH 3130	3		MATH 3410	3
		MATH 3810	3		MATH Option Course	3
		Natural Science Elective	3		Natural Science Elective	2
		Social Science Elective (Cultural Diversity)	3		Social Science Elective	3
¥		Upper Division (UD) General Elective	3		UD General Elective (Inclusiveness)	3
		TOTAL	15		TOTAL	14

	$\checkmark$	FALL	Hours	$\checkmark$	SPRING	Hours
		MATH 4040			MATH Option Course	3
on		MATH Option Course			MATH Option Course	3
ear F		MATH Option Course	3		General Elective or MATH Option Course	
		HUM 3990	3		UD General Elective	3
~		UD General Elective (Sustainability)	3		UD General Elective	3
		TOTAL	13		TOTAL	13