# **MATHEMATICS B.S.**



# **ACADEMIC ADVISING**

Partnering with students to successfully navigate college Location: Main Hall 208 Phone: 719.255.3260 Website: 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: www.uccs.edu/advising/current-students • Prospective Students: www.uccs.edu/admissions/contact

#### **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: catalog.uccs.edu
- 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 Requireme	nts							
Mathematics Major (BS)	Course/Area	Course Title				Credit H	ours			
(46 hours)	MATH 1350	Calculus I								
	MATH 1360	Calculus II								
• Requires a minimum of 46	MATH 2150	Discrete Mathematics								
credit hours of course	MATH 2350	0 Calculus III								
work for the Statistics,	MATH 3110	10 Theory of Numbers								
Flexible, and Pure options,	MATH 3130	Introduction to Linear Algebra								
and a minimum of 49	MATH 3400	Introduction to Differential Equations								
hours for the Applied	MATH 3410	Introduction to Analysis								
Mathematics option.	MATH 3810	Intro to Probability & Statistics					3			
All options require a	MATH 4040	Senior Seminar					1			
minimum of 31 credit hours of upper-division	<b>Required Option</b> All BS Mathematics Majors must select one of the Options below.									
(3000+ level) MATH course	Applied Mathematics Option*				Statistics Option					
work.	MATH 2650	Introduction to Computational Mathematics	3	MATH 4810	Mathematical Statistics I		3			
All MATH courses must	MATH 4310	Modern Analysis I	3	MATH 4820	Mathematical Statistics II		3			
have a grade of "C" or	MATH 4470	Methods of Applied Mathematics	3	MATH 4850	Stochastic Modeling		3			
better.	MATH 4650	Numerical Analysis	3	Math Electives	Complete 6 additional ho MATH 4000+.	urs 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-graduate goals.	Directed Elective Choose one	MATH 4130, 4140, 4310	3	MATH 4140 (spring only)	Modern Algebra I		3			
*NOTE: The Applied Math	Math Electives	Complete 12 additional hours of MATH 4000+.	12	MATH 4310	Modern Analysis I		3			
option requires completion of CS 1120 and PES 1110, 1120, and 1160.				Math Electives	Complete 9 additional ho MATH 4000+.	urs of	9			

# **MATHEMATICS B.S.**



G	eneral Education and Elective Re	equirements				
Core Writing Requirement	ENGL 1310, 1308, or 1305 (Students choosing ENGL 1305 must complete ENGL 1300 first.)					
(6 hours)	• ENGL 1410					
	PORT 3000 (0 Credits) – Writing Portfolio					
Reasoning Skills	MATH 1350 (included in major requirements)					
-	MATH 3810 (included in major requirements)					
Core Humanities	• HUM 3990					
(3 hours)	• This course also fulfills Navigate and one Writing Intensive course.					
Natural Sciences Lab	See Degree Audit					
(1 hour)	<ul> <li>This can be taken as part of an Explore</li> </ul>	e – PNW course that has a lab component				
Oral Communication	MATH 4040 (included in major requirements)					
LAS Language other than English	Complete two semesters of a language other than English equivalent to 1010 & 1020 with high school, transfer,					
Requirement	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				
(21 hours)	Gateway Program Seminar	GPS 1010				
Explore and Navigate courses must be	Explore – Arts, Humanities and Cultures (2 courses)	See Degree Audit				
outside major requirements	Explore – Society, Behavior and Health (2 courses)	See Degree Audit				
Writing Intensive, Inclusiveness, and	Explore – Physical and Natural World (2 courses)	See Degree Audit				
Sustainability courses can count	Navigate	HUM 3990 (included in LAS gen ed requirements)				
towards other requirements within	Summit	MATH 4040 (included in major requirements)				
degree	Writing Intensive Courses (WIC) (2 courses)	<ul> <li>HUM 3990 (included in LAS gen ed requirements)</li> </ul>				
uegree	Must include one upper-division (3000+ level)	See Degree Audit				
	Inclusiveness (2 courses)	See Degree Audit				
	Sustainability	See Degree Audit				
NOTE: Applied Mathematics Option	Complete CS 1120 and PES 1110, 1120, and 1160.					
Additional Required Courses	• The CS and PES courses will fulfill General Elective hours in the 4-Year Degree Plan below, except for PES					
	1160 which will complete the Natural Science	ce Lab for this Option.				
General Electives (40-43 hours)	Complete additional courses to meet total and upper-c	livicion requiremente for vour 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.

		$\checkmark$	FALL	Hours	$\checkmark$	SPRING	Hours
r One	a)		ENGL 1310	3		ENGL 1410	3
	ŝ		MATH 1350	4		MATH 1360	4
	Ľ.		GPS 1010	3		Explore - Physical & Natural World Course	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	1	SPRING	Hours
0		MATH 2150	3		MATH 3400	<mark>3</mark>
Ň	MATH 2350		4		MATH 3110	<mark>3</mark>
L L		Explore – Arts, Humanities & Cultures Course	3		Explore - Physical & Natural World Course	3
Year		Explore – Society, Behavior & Health Course	3		Natural Science Lab	1
		General Elective	3		General Elective	4
		TOTAL	16		TOTAL	14

	$\checkmark$	FALL	Hours	$\checkmark$	SPRING	Hours
		MATH 3130	<mark>3</mark>		MATH 3410	
ee,		MATH 3810	<mark>3</mark>		MATH Option Course	
Ē		HUM 3990	<mark>3</mark>		MATH Option Course or UD MATH Elective*	
		General Elective	3		<mark>General Elective</mark>	3
rear		General Elective (Inclusiveness)	3		General Elective	3
-						
		TOTAL	15		TOTAL	15

	$\checkmark$	FALL	Hours	$\checkmark$	SPRING	Hours
<u> </u>		MATH 4040	<mark>1</mark>		MATH Option Course or UD MATH Elective*	<mark>3</mark>
on	MATH Option Course or UD MATH Elective*		<mark>3</mark>		MATH Option Course <b>or</b> General Elective	<mark>3</mark>
Ľ		MATH Option Course or UD MATH Elective*	<mark>3</mark>		Upper Division (UD) General Elective	<mark>3</mark>
ea		General Elective	<mark>3</mark>		UD General Elective	<mark>3</mark>
<b>&gt;</b>		General Elective (Inclusiveness)	<mark>3</mark>		UD General Elective (Sustainability)	<mark>3</mark>
		TOTAL	13		TOTAL	15

\*Course choice depends on which Option is chosen.