

# MATHEMATICS B.A.

Secondary Education Option



University of Colorado  
Colorado Springs

## ACADEMIC ADVISING

**Partnering with students to successfully navigate college**

**Location:** Main Hall 208

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## GENERAL ACADEMIC INFORMATION

### Minimum Graduation Requirements

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

### 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](http://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: [Department of Mathematics \(uccs.edu\)](http://www.uccs.edu/math)

| Major Requirements  |  |   |              |
|---|--|---|--------------|
| <b>Mathematics Major (BA) -<br/>Secondary Education<br/>(45 hours)</b> <ul style="list-style-type: none"> <li>Requires a minimum of 45 credit hours of MATH course work.</li> <li>Requires a minimum of 27 credit hours of upper-division (3000+ level) MATH course work.</li> <li>All MATH courses must be completed with a grade of "C" or better.</li> </ul> | Course/Area  | Course Title  | Credit Hours |
|   | <b>Core Courses</b> - Complete all Core Courses listed below for a total of 30 credit hours                |   |              |
|   | MATH 1350  | Calculus I  | 4            |
|   | MATH 1360  | Calculus II   | 4            |
|   | MATH 2150  | Discrete Mathematics  | 3            |
|   | MATH 2350  | Calculus III  | 4            |
|   | MATH 3110  | Theory of Numbers   | 3            |
|   | MATH 3130  | Introduction to Linear Algebra  | 3            |
|   | MATH 3400  | Introduction to Differential Equations                                    | 3            |
|   | MATH 3410  | Introduction to Analysis  | 3            |
|   | MATH 3810  | Introduction to Probability & Statistics                                  | 3            |
|   | <b>Secondary Education Track Courses</b> - Complete all Track Courses below for a total of 12 credit hours |   |              |
|   | MATH 2650  | Introduction to Computational Mathematics ( <i>fall only</i> )            | 3            |
|   | MATH 3010  | Mathematics for Elementary Teachers I                                     | 3            |
|   | MATH 3020  | Mathematics for Elementary Teachers II                                    | 3            |
|   | MATH 3210  | Introduction to Geometry  | 3            |
|   | <b>Electives</b>   |   |              |
|   | MATH Electives   | Complete 3 additional hours of MATH courses numbered 4130 or higher       | 3            |
| <b>UCCS Teach Courses<br/>(37 hours)</b> <p>A grade of "B-" or better must be earned in all UCCS Teach courses.</p> <p>Courses should be taken in the appropriate semester. See the four-year plan for details.</p>   | EDUC 1000  | Intro to Inclusive Education  | 3            |
|   | EDUC 2000  | Intro to Educational Psychology   | 3            |
|   | EDUC 2700  | Schools, Society, & Diversity   | 3            |
|   | EDUC 3800  | ESL for Educators   | 3            |
|   | EDUC 3994  | Intro to Professional Year  | 1            |
|   | UTED 1030  | Inquiry Approaches/Lesson Plan Design for Secondary Math/Science Teaching | 3            |
|   | UTED 3020  | Classroom Interactions ( <i>spring only</i> )                             | 3            |
|   | UTED 4710  | Project-Based Instruction   | 3            |
|   | UTED 4720  | Reading in the Content Area   | 3            |
|   | UTED 4730  | Apprentice Teaching UCCS Teach and Seminar                                | 12           |

## General Education and Elective Requirements

|   |   |  |  |
|---|---|--|--|
| <b>Core Writing Requirement</b><br>(6 hours)  | <ul style="list-style-type: none"><li>ENGL 1310, 1308, or 1305 (<i>Students choosing ENGL 1305 must complete ENGL 1300 first.</i>)</li><li>ENGL 1410</li><li>Writing Portfolio – PORT 3000 (0 credits) <b>or</b> PORT 4000 (1 credit) <b>or</b> alternative – See Degree Audit</li></ul>  |  |  |
| <b>Reasoning Skills</b>   | <ul style="list-style-type: none"><li>MATH 1350 (included in major requirements)</li><li>MATH 3810 (included in major requirements)</li></ul>   |  |  |
| <b>Core Humanities</b><br>(3 hours)   | <ul style="list-style-type: none"><li>HUM 3990<ul style="list-style-type: none"><li>This course also fulfills Navigate and one Writing Intensive course.</li></ul></li></ul>  |  |  |
| <b>Natural Sciences Lab</b><br>(1 hour)   | <ul style="list-style-type: none"><li>See Degree Audit<ul style="list-style-type: none"><li>This can be taken as part of an Explore – PNW course that has a lab component</li></ul></li></ul>   |  |  |
| <b>Oral Communication</b>   | <ul style="list-style-type: none"><li>UTED 4730 (<i>Apprentice Teaching</i>)</li></ul>  |  |  |
| <b>LAS Language other than English Requirement</b>  | Complete two semesters of a language other than English equivalent to 1010 & 1020 with high school, transfer, placement exam, or UCCS coursework. <i>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.</i> |  |  |
| <b>Compass Curriculum</b><br>(18 hours) <ul style="list-style-type: none"><li>Explore and Navigate courses must be taken in departments other than the major.</li><li>Writing Intensive, Inclusiveness, and Sustainability courses may count toward other requirements within the degree.</li></ul> | <b>Component</b>  |  | <b>Course</b>  |
|   | <b>Gateway Program Seminar</b>  |  | GPS 1010   |
|   | <b>Explore – Arts, Humanities and Cultures (2 courses)</b>  |  | See Degree Audit   |
|   | <b>Explore – Society, Behavior and Health (2 courses)</b>   |  | <ul style="list-style-type: none"><li>UTED 1030 (included in UCCS Teach requirements)</li><li>See Degree Audit</li></ul>                               |
|   | <b>Explore – Physical and Natural World (2 courses)</b>   |  | See Degree Audit   |
|   | <b>Navigate</b>   |  | HUM 3990 (included in LAS gen ed requirements)   |
|   | <b>Summit</b>   |  | UTED 4730 (included in UCCS Teach requirements)  |
|   | <b>Writing Intensive Courses (WIC) (2 courses)</b>  |  | <ul style="list-style-type: none"><li>HUM 3990 (included in LAS gen ed requirements)</li><li>UTED 4720 (included in UCCS Teach requirements)</li></ul> |
|   | <b>Inclusiveness (2 courses)</b>  |  | See Degree Audit   |
| <b>Sustainability</b>   |   |  | See Degree Audit   |
| <b>General Electives</b> (10 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.**

| Year One | ✓ | FALL   | Hours | ✓ | SPRING  | Hours |
|----------|---|--|-------|---|---|-------|
|          |   | ENGL 1310                                    | 3     |   | ENGL 1410                                     | 3     |
|          |   | MATH 1350                                    | 4     |   | MATH 1360                                     | 4     |
|          |   | UTED 1030                                    | 3     |   | EDUC 2000                                     | 3     |
|          |   | GPS 1010                                     | 3     |   | Explore – Society, Behavior and Health Course | 3     |
|          |   | Explore – Arts, Humanities & Cultures Course | 3     |   | Explore – Physical & Natural World Course     | 3     |
|          |   | <b>TOTAL</b>                                 | 16    |   | <b>TOTAL</b>                                  | 16    |

| Year Two | ✓ | FALL   | Hours | ✓ | SPRING                                    | Hours |
|----------|---|--|-------|---|---|-------|
|          |   | MATH 2150                                    | 4     |   | MATH 3110                                 | 3     |
|          |   | MATH 2350                                    | 3     |   | MATH 3810                                 | 3     |
|          |   | MATH 2650 ( <i>fall only</i> )               | 3     |   | EDUC 2700                                 | 3     |
|          |   | EDUC 1000                                    | 3     |   | Explore – Physical & Natural World Course | 3     |
|          |   | Explore – Arts, Humanities & Cultures Course | 3     |   | Natural Science Lab                       | 1     |
|          |   |  |       |   | General Elective                          | 1     |
|          |   | <b>TOTAL</b>                                 | 16    |   | <b>TOTAL</b>                              | 14    |

| Year Three | ✓ | FALL                                      | Hours | ✓ | SPRING                           | Hours |
|------------|---|---|-------|---|----------------------------------|-------|
|            |   | MATH 3010                                 | 3     |   | MATH 3020                        | 3     |
|            |   | MATH 3130                                 | 3     |   | MATH 3400                        | 3     |
|            |   | MATH 3210                                 | 3     |   | MATH 3410                        | 3     |
|            |   | EDUC 3800                                 | 3     |   | EDUC 3994                        | 1     |
|            |   | General Elective ( <i>Inclusiveness</i> ) | 3     |   | UTED 3020 ( <i>spring only</i> ) | 3     |
|            |   |   |       |   | UTED 4710                        | 3     |
|            |   | <b>TOTAL</b>                              | 15    |   | <b>TOTAL</b>                     | 16    |

| Year Four | ✓ | FALL  | Hours | ✓ | SPRING       | Hours |
|-----------|---|---|-------|---|--------------|-------|
|           |   | MATH 4000-level Elective ( <i>4130 or above</i> ) | 3     |   | UTED 4730    | 12    |
|           |   | UTED 4720   | 3     |   |              |       |
|           |   | HUM 3990  | 3     |   |              |       |
|           |   | General Elective ( <i>Sustainability</i> )        | 3     |   |              |       |
|           |   | General Elective ( <i>Inclusiveness</i> )         | 3     |   |              |       |
|           |   | <b>TOTAL</b>                                      | 15    |   | <b>TOTAL</b> | 12    |

**NOTE:** Students must complete all course requirements other than UTED 4730 before the final semester.