ENGINEERING EDUCATION B.S.

ACADEMIC ADVISING

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

Connect With Your Advisor
Current UCCS Students
- Appointments: www.uccs.edu/advising/current-students
Prospective Students: www.uccs.edu/admissions/contact

GENERAL ACADEMIC INFORMATION

Minimum Graduation Requirements
- 128 credit hours
- 2.0 CU cumulative GPA
- Residency: Last 30 credit hours of degree must be completed while registered in the College Engineering & Applied Science 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
- 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 Engineering Education: Bachelor of Science in Engineering Education | Bachelor of Science in Engineering Education (uccs.edu)

Major Requirements

<table>
<thead>
<tr>
<th>Course/Area</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAE 1503</td>
<td>Introduction to Engineering Design</td>
<td>3</td>
</tr>
<tr>
<td>MAE 2200</td>
<td>Materials Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ECE 3610</td>
<td>Engineering Probability and Statistics</td>
<td>3</td>
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<tr>
<td>Introductory Course</td>
<td>Complete one additional introductory course from the following: CS 1120, 1150, ECE 1001, 1021, MAE 1502</td>
<td>3</td>
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<tr>
<td>Engineering Foundations</td>
<td>Complete 6 hours of Engineering Foundation courses from the following: CS 1450, 2060, 2160, 3020, ECE 1411, 2411, 2205, 2610, MAE 2103, 2104, 2301</td>
<td>6</td>
</tr>
</tbody>
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Engineering Capstone – Complete a minimum of 4 hours of ENGR courses from one of the following options.

Computer Science:
- ENGR 3300
- AND
- ENGR 4010
- Software Engineering
- AND
- Computer Science Education Seminar
- 6

Mechanical Eng:
- ENGR 4510
- AND
- ENGR 4511
- Plus (optional)
- MAE 4000
- Project Design I
- AND
- Project Design II
- PLUS
- Mechanical Engineering Seminar (optional)
- 5-6

Electrical Eng:
- ENGR 4890
- AND
- ENGR 4899
- Senior Seminar
- AND
- Senior Design Project
- 4

UTED 1030 Inquiry Approaches and Lesson Plan Design for Secondary Math and Science 3
UTED 2010 Knowing and Learning in Mathematics and Science 3
UTED 3020 Classroom Interactions 3
UTLS 3030 Perspectives on Science and Math 3
UTLS 3480 Functions and Modeling 3
UTED 4710 Project-Based Instruction 3
UTED 4720 Reading in the Content Area 3
UTED 4730 Apprentice Teaching UCCS Teach and Seminar 12

UCCS Teach Courses (33 hours)
- A grade of "B-" or better must be earned in all UTED courses.
- UTLS 3480 must be completed with a "C" or better.
- UTED courses should be taken in the appropriate semester. See the four-year plan for details.
ENGINEERING EDUCATION B.S.

General Education and Elective Requirements

Core Writing Requirement (6 hours)
- ENGL 1310, 1308, or 1305 (Students choosing ENGL 1305 must complete ENGL 1300 first.)
- TCID 2090
- PORT 3000 (0 Credits) – Writing Portfolio

Mathematics (21 hours)
- MATH 1350
- MATH 1360
- MATH 2150
- MATH 2350
- MATH 3130
- MATH 3210

NOTE: Math courses require a grade of C or better to progress through the Math sequence.

Basic Science (23-24 hours)
- BIOL 1300/1310 AND BIOL 1350/1360
- CHEM 1401/1402
- ENSC 1600
- GEOL 1010 OR PES 1050
- PES 1110

Compass Curriculum (6 hours)
- Explore and Navigate courses must be taken outside of the major discipline.
- Writing Intensive, Inclusiveness, and Sustainability courses may double count towards other requirements in the degree.

Gateway
- Explore – Arts, Humanities and Cultures: See Degree Audit
- Explore – Society, Behavior and Health: UTED 1030 (included in UCCS Teach requirements)
- Explore – Physical and Natural World: PES 1110 (included in Basic Science requirements)

Navigate
- See Degree Audit

Summit
- UTED 4730 (included in UCCS Teach requirements)

Writing Intensive Courses (WIC)
- UTED 4720 (included in UCCS Teach requirements)
- ECE 3610 (included in Engineering Core requirements)

Inclusiveness
- MAE 1503 (included in Engineering Core requirements)

Sustainability
- ENSC 1600 (included in Basic Science requirements)

Open Electives (14-17 hours)
Complete additional courses to fulfill total minimum hours for the degree program. Courses may be selected from any discipline, but may not include any math courses below MATH 1350. Only 3 credit hours of CS course work numbered below CS 1150 may count towards electives.

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
  - ENGL 1310: 3
  - GPS 1010: 3
  - MATH 1350: 4
  - Engineering Intro Course: 3
  - UTED 1030: 3
  - TOTAL: 16

- √ SPRING
  - MAE 1503: 3
  - MATH 1360: 4
  - PES 1110: 4
  - Open Elective: 3
  - TOTAL: 17

Year Two
- √ FALL
  - CHEM 1401: 4
  - CHEM 1402: 1
  - ENSC 1600: 3
  - MATH 2150: 3
  - UTED 2010: 3
  - Engineering Foundation course: 3
  - TOTAL: 18

- √ SPRING
  - ECE 3610 (spring only): 3
  - MAE 2200: 3
  - TCID 2090: 3
  - UTED 3020: 3
  - Explore - Arts, Humanities and Cultures Course: 3
  - TOTAL: 18

Year Three
- √ FALL
  - ENGR Capstone: 1-3
  - GEOL 1010 OR PES 1050: 3-4
  - MATH 2350: 3
  - UTED 4720: 3
  - UTLS 3480 (fall only): 3
  - Open Elective: 1-3
  - TOTAL: 17

- √ SPRING
  - ENGR Capstone: 3
  - BIOL 1300: 3
  - MATH 3130: 3
  - UTLS 3030 (spring only): 3
  - Open Elective (Navigate): 3
  - PORT 3000: 0
  - TOTAL: 16

Year Four
- √ FALL
  - BIOL 1350: 3
  - BIOL 1360: 1
  - MATH 3210: 3
  - UTED 4710: 3
  - Open Elective: 5
  - TOTAL: 15

- √ SPRING
  - BIOL 1350: 3
  - UTED 4730: 12
  - TOTAL: 12

1 Dependent on ENGR Capstone and GEOL 1010 or PES 1050 choices.