ENGINEERING EDUCATION B.S.

UCCS University of Colorado
Colorado Springs

ACADEMIC ADVISING

Partnering with students to successfully navigate college
Location: Main Hall 208
Phone: 719.255.3260
Website: www.uccs.edu/advising

Connect With Your Advisor
Current UCCS Students
- Appointments: www.uccs.edu/advising/current-students
- Drop In Advising: Most Wednesdays, 1:00pm - 4:00pm

Prospective Students: www.uccs.edu/admissions/contact

GENERAL ACADEMIC INFORMATION

Minimum Graduation Requirements
1. 128 credit hours
2. 2.0 CU cumulative GPA
3. 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:
1. All academic policies set forth by the University, College, and academic department in the UCCS Catalog: catalog.uccs.edu
2. 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.

MAJOR INFORMATION

The Engineering Education degree prepares secondary teachers with a STEM education degree (science, technology, engineering, and math). This 4-year multi-disciplinary degree program includes background in engineering and technology, exposure to teaching experiences throughout and culminates in student teaching in a local classroom. Graduates completing this degree will be eligible for educator licensing in Colorado in both math and science.

Major Requirements			
B.S. Engineering Education Core Courses (22-24 hours) The BSEEd major requires a minimum of 24 credit hours of Engineering course work selected from the following areas: Introductory Courses, Engineering Foundations, and Capstone Experience. Pre-requisites will not be waived, plan sequences accordingly using electives to take pre-requisites when necessary. Any EAS course that is NOT listed as an Introductory or Capstone course may be used toward the Foundations requirement. *You must be admitted into the College of Engineering in order to take any CS, MAE, ECE, or ENGR coursework.*	**Course/Area**	**Course Title**	**Credit Hours**
	MAE 1503	Introduction to Engineering Design	3
	MAE 2200	Materials Engineering	3
	ECE 3610	Engineering Probability and Statistics	3
	Introductory Course	*Complete one additional introductory course from the following:* CS 1120, 1150, ECE 1001, 1021, MAE 1502	3
	Engineering Foundations	*Complete 6 hours of Engineering Foundation courses from the following:* CS 1450, 2060, 2160, 3020, ECE 1411, 2411, 2205, 2610, MAE 2103, 2104, 2301	6
	Engineering Capstone – Complete a minimum of 4 hours within one department from the following courses.		
	ENGR 3300 **AND** ENGR 4010	Software Engineering **AND** Computer Science Education Seminar	6
	MAE 4000 **AND** ENGR 4510 **AND** ENGR 4511	Mechanical Engineering Seminar (optional) **AND** Project Design I **AND** Project Design II	5-6
	ENGR 4890 **AND** ENGR 4898	Senior Seminar **AND** Senior Design Project	4
UCCS Teach Courses (32 hours) - A grade of "B-" or better must be earned in all Education courses. Courses should be taken in the appropriate semester. See the four-year plan for details.	UTED 1010	Step I: Inquiry Approaches to Teaching	1
	UTED 1020	Step II: Inquiry-Based Lesson Design	1
	UTED 2010	Knowing and Learning in Mathematics and Science	3
	UTED 3020	Classroom Interactions	3
	UTED 4710	Project-Based Instruction	3
	UTED 4720	Reading in the Content Area	3
	UTED 4730	Apprentice Teaching UCCS Teach and Seminar	12
	UTLS 3030	Perspectives on Science and Math	3
	UTLS 3480	Functions and Modeling	3

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General Education and Elective Requirements

Composition (6 hours)	1. ENGL 1310 2. TCID 2090 3. PORT 3000 (0 Credits) – Writing Portfolio
Mathematics (21 hours) **NOTE:** Math courses require a grade of C or better to progress through the Math sequence.	1. MATH 1350 2. MATH 1360 3. MATH 2150 4. MATH 2350 5. MATH 3130 6. MATH 3210
Basic Science (23-24 hours)	1. BIOL 1300/1310 **AND** BIOL 1350/1360 2. CHEM 1401/1402 3. ENSC 1600 4. GEOL 1010 **OR** PES 1050 5. PES 1110

Compass Curriculum (9 hours) • Explore and Navigate courses must be outside major requirements Writing Intensive, Inclusiveness, and Sustainability courses can count towards other requirements within degree	**Component**	**Course**	
	Gateway	GPS 1010	
	Explore – Arts, Humanities and Cultures	See Degree Audit	
	Explore – Society, Behavior and Health	EDUC 2700	
	Explore – Physical and Natural World	PES 1110 (included in Basic Science requirement)	
	Navigate	ECE 3610 (included in Engineering Core requirement)	
	Summit	UTED 4730 (included in UCCS Teach requirement)	
	Writing Intensive Courses (WIC) *Two courses with one upper-division (3000+ level)*	1. UTED 4720 (included in UCCS Teach requirement) 2. ECE 3610 (included in Engineering Core requirement)	
	Inclusiveness	MAE 1503 (included in Engineering Core requirement)	
	Sustainability	ENSC 1600 (included in Basic Science requirement)	

General Electives (12-15 hours)	Complete courses of your choosing to fulfill the total minimum hour requirement (128) for the degree program. The chosen course(s) can be selected from any discipline but may not include any math course 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.**

	√	FALL	Hours	√	SPRING	Hours
Year One		ENGL 1310	3		MAE 1503	3
		GPS 1010	3		MATH 1360	4
		MATH 1350	4		PES 1110	4
		UTED 1010	1		UTED 1020	1
		Engineering Intro Course	3		Compass Explore: Arts, Humanities, Cultures Elective	3
		Open Elective	3		Open Elective	3
		TOTAL	17		**TOTAL**	18
	√	FALL	Hours	√	SPRING	Hours
Year Two		CHEM 1401	4		ECE 3610 (Spring Only)	3
		CHEM 1402	1		MAE 2200	3
		ENSC 1600	3		TCID 2090	3
		MATH 2350	4		UTED 3020	3
		UTED 2010	3		Engineering Foundation Course	3
		Engineering Foundation course	3			
		TOTAL	18		**TOTAL**	15
	√	FALL	Hours	√	SPRING	Hours
Year Three		ENGR Capstone	1-3		BIOL 1300	3
		GEOL 1010 **OR** PES 1050	3-4		BIOL 1310	1
		MATH 2150	3		ENGR Capstone	3
		UTED 4720	3		MATH 3130	3
		UTLS 3480 (Fall Only)	3		UTLS 3030 (Spring Only)	3
		Open Elective[1]	0-3		Open Elective	3
					PORT 3000	0
		TOTAL	16		**TOTAL**	16
	√	FALL	Hours	√	SPRING	Hours
Year Four		BIOL 1350	3		UTED 4730	12
		BIOL 1360	1			
		EDUC 2700	3			
		MATH 3210	3			
		UTED 4710	3			
		Open Elective	3			
		TOTAL	16		**TOTAL**	12

[1] Dependent on ENGR Capstone and GEOL 1010/PES 1050 selections.

2020-2021