ENGINEERING EDUCATION B.S.



ACADEMIC ADVISING

Partnering with students to successfully navigate college

Location: Main Hall 208 **Phone:** 719.255.3260 **Website:** Academic Advising

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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: <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 Engineering Education: Bachelor of Science in Engineering Education | Bachelor of Science in Engineering Education (uccs.edu)

		M	ajor Requirements			
B.S	. Engineering Education Core Courses	Course/Area	Course Title	Credit Hours		
	(22-24 hours)	MAE 1503	Introduction to Engineering Design	3		
	Requires a minimum of 22-24 credit hours of Engineering course work.	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		
•	A minimum overall 2.0 GPA must be maintained on all Engineering Core Courses.	Engineering Foundations	Complete 6 hours of Engineering Foundation courses from the following: CS 1450, 2060, 2160, 3020, ECE 1411, 2205, 2411, 2610, MAE 2103, 2104, 2301	6		
	60.6 664.665.	Engineering Capstone – Complete a minimum of 4 hours of ENGR courses from one of the following options.				
•	Any EAS course that is NOT listed as an Introductory or Capstone course may be used toward the Foundations requirement.	Computer Science: ENGR 3300 AND ENGR 4010 Mechanical Eng:	Software Engineering I AND Computer Science Education Seminar	6		
•	Prerequisites are strictly enforced. Plan course sequences accordingly using open electives to take prerequisites when necessary.	ENGR 4510 AND ENGR 4511 Plus (optional) MAE 4000	Engineering Design I AND Engineering Design II PLUS Mechanical and Aerospace Engineering Seminar (optional)	5-6		
•	You must be admitted into the College of Engineering in order to take any CS, MAE, ECE, or ENGR coursework. Electrical Eng: ENGR 4890 AND ENGR 4899		Senior Seminar AND Senior Design Project			
	UCCS Teach Courses	UTED 1030	Inquiry Approaches and Lesson Plan Design for Secondary Math and Science	3		
	(33 hours)	UTED 2010	Knowing and Learning in Mathematics and Science	3		
_	A grade of "B-" or better must be earned in all UTED courses.	UTED 3020	Classroom Interactions	3		
•		UTLS 3030	Perspectives on Science and Math	3		
		UTLS 3480	Functions and Modeling	3		
	UTLS 3480 must be completed with a "C" or better.	UTED 4710	Project-Based Instruction	3		
		UTED 4720	Reading in the Content Area	3		
•	UTED courses should be taken in the appropriate semester. See the four-year plan for details.	UTED 4730	Apprentice Teaching UCCS Teach and Seminar	12		

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G	eneral Education and Elective R	equirements			
Core Writing Requirement (6 hours) • ENGL 1310, 1308, or 1305 (Students choosing ENGL 1305 must complete ENGL 1300 first.) • TCID 2090					
Mathematics (21 hours) NOTE: Math courses require a grade of C or better to progress through the Math sequence. Basic Science (23-24 hours)	 Writing Portfolio – PORT 3000 (0 credits) or PORT 4000 (1 credit) or alternative – See Degree Audit MATH 1350 MATH 1360 MATH 2150 MATH 2350 MATH 3130 MATH 3120 BIOL 1300/1310 AND BIOL 1350/1360 CHEM 1401/1402 ENSC 1600 GEOL 1010 OR PES 1050 PES 1110 				
Compass Curriculum	Component	Course			
 (6 hours) Explore and Navigate courses must be taken in departments other than the major. Writing Intensive, Inclusiveness, and Sustainability courses may count toward other requirements within the degree. 	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	GPS 1010 See Degree Audit UTED 1030 (included in UCCS Teach requirements) PES 1110 (included in Basic Science requirements) See Degree Audit UTED 4730 (included in UCCS Teach requirements) • UTED 4720 (included in UCCS Teach requirements) • ECE 3610 (included in Engineering Core requirements) MAE 1503 (included in Engineering Core requirements)			
Open Electives (14-17 hours)	Sustainability ENSC 1600 (included in Basic Science requirements) Complete additional courses to fulfill total minimum hours for the degree program. Courses may be selected fit 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.

	rica	se note that this is an <i>example</i> degree program and your program		Stud		
	J	FALL	Hours	J	SPRING	Hours
a		ENGL 1310	3		MAE 1503	3
One		GPS 1010	3		MATH 1360	4
2		MATH 1350	4		PES 1110	4
Year		Engineering Intro Course	3		Open Elective	3
>		UTED 1030	3		Open Elective	3
		TOTAL	16		TOTAL	17
	J	FALL	Hours	1	SPRING	Hours
_		CHEM 1401	4		ECE 3610 (spring only)	3
Τwo		CHEM 1402	1		MAE 2200	3
\vdash		ENSC 1600	3		TCID 2090	3
ar		MATH 2350	4		UTED 3020	3
Year		UTED 2010	3		Engineering Foundation Course	3
-		Engineering Foundation course	3		Explore - Arts, Humanities and Cultures Course	3
		TOTAL	18		TOTAL	18
	J	FALL	Hours	1	SPRING	Hours
		ENGR Capstone	1-3		ENGR Capstone	3
Year Three		GEOL 1010 OR PES 1050	3-4		BIOL 1300	3
ځ		MATH 2150	3		BIOL 1310	1
F		UTED 4720	3		MATH 3130	3
ā		UTLS 3480 (fall only)	3		UTLS 3030 (spring only)	3
Ϋ́		Open Elective ¹	1-3		Open Elective (Navigate)	3
					PORT 3000	0
		TOTAL	17		TOTAL	16
	J	FALL	Hours	J	SPRING	Hours
Ξ.		BIOL 1350	3		UTED 4730	12
Four		BIOL 1360	1			
_		MATH 3210	3			
Year		UTED 4710	3			
×		Open Elective	5			
		TOTAL	15		TOTAL	12

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