ELECTRICAL ENGINEERING B.S.



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

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

Connect With Your Advisor

Current UCCS Students

- Appointments: <u>www.uccs.edu/advising/current-students</u>
- Drop In Advising: Most Wednesdays, 1:00pm 4:00pm
- Prospective Students: www.uccs.edu/admissions/contact

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: <u>catalog.uccs.edu</u>
- 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

Electrical Engineering is the study of design and application of electrical systems, power distribution, machine control, and communications in components from microchips to power generators.

		Major Requirements			
Electrical Engineering Core Courses	Course/Area	Course Title	Credit Hours		
(64 hours)	ECE 1001	Intro to Robotics	3		
	ECE 1021	Computer Based Modeling	3		
You must be admitted into the College	ECE 1411*	Logic Circuits I	2		
of Engineering in order to take any ECE coursework.	ECE 2050	Intro to Physical Electronics	3		
	ECE 2205	Circuits and Systems I	4		
Courses marked with an asterisk (*)	ECE 2411*	Logic Circuits II	2		
must be passed with a C or better.	ECE 2610*	Intro to Signals and Systems	4		
	ECE 3020	Semiconductor Devices	3		
	ECE 3110	Electromagnetic Fields I	3		
	ECE 3205	Circuits and Systems II	4		
	ECE 3210	Electronics I	3		
	ECE 3220	Electronics II	3		
	ECE 3230	Electronics Lab I	1		
	ECE 3240	Electronics Lab II	1		
	ECE 3420	Microprocessor Systems Lab			
	ECE 3430	Intro to Microcomputer Systems			
	ECE 3610	Engineering Probability and Statistics	3		
	ECE 4890	Senior Seminar (Must be taken semester prior to ECE 4898)	1		
	ECE 4898	Senior Design Project	3		
	EE Electives -	Complete 12 hours from the following courses:	12		
	Lectures	ECE 3120, 4020, 4242, 4340, 4480, 4510, 4625, 4650, 4910			
	EE Electives -	Complete 2 hours from the following courses:	2		
	Labs	ECE 3440, 4040, 4150, 4200, 4530, 4560, 4670, 4680			
Technical Electives (9 hours)	BIOL 3000, 3020	s from the following courses (or ECE courses at the 3000-4000 level, except ECE 30 3100, 3140, 3220, 3610, 3700, 3830, 3910, CHEM 3001, 3002, 3101, 3102, 3111 060, 3160, 3300, MAE 3130, 3201, 3401, MATH 3110, 3130, 3410, 3500, 3510, PE	, 3112, 3203, 3213,		
	NOTE: Other courses in CS, ECE, MAE, MATH and PES numbered 3000+ (except MATH 3010 and 3020) may be accepted with a petition completed prior to taking the course.				

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G	eneral Education and Elective R	Requirements
Composition (6 hours)	 ENGL 1310 TCID 2090 PORT 3000 (0 Credits) – Writing Portfolio 	
Mathematics (15 hours)	 MATH 1350 MATH 1360 MATH 2350 MATH 3400 MATH elective 3110+ (except MATH 3810) 	
Basic Science (16 hours)	 PES 1110 PES 1120 PES 2130 5 hours from: GEOL 1010, GEOL 1020 or any 	y other PES course with PES 1110 as a prerequisite.
Hum/Social Sci. Electives (15 hours)	See the degree audit for course options.	1
Compass Curriculum (3 hours)	Component Gateway	Course GPS 1010 See Degree Audit (counte towards 11104/SC Floritum)
 Explore and Navigate courses must be outside major requirements Writing Intensive, Inclusiveness, and 	Explore – Arts, Humanities and Cultures Explore – Society, Behavior and Health Explore – Physical and Natural World Navigate	See Degree Audit (counts towards HUM/SS Electives) See Degree Audit (counts towards HUM/SS Electives) PES 1110 See Degree Audit (can count towards HUM/SS Electives)
Sustainability courses can count towards other requirements within degree	Summit Writing Intensive Courses (WIC) Two courses with one upper-division (3000+ level)	ECE 4890/4898 1. ECE 3610 2. See Degree Audit
	Inclusiveness Sustainability	See Degree Audit See Degree Audit

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.

	1	FALL	Hours	\checkmark	SPRING	Hours
e		ECE 1001	3		ECE 1021	3
2		ECE 1411	2		MATH 1360	4
Year O		MATH 1350	4		ENGL 1310	3
		PES 1110	4		PES 1120	4
		GPS 1010	3			
		TOTAL	16		TOTAL	14

Year Two	\checkmark	FALL	Hours	\checkmark	SPRING	Hours
		ECE 2610	4		ECE 2050	3
		MATH 2350	4		ECE 2205	4
		Basic Science Elective (w/lab)	5		MATH 3400	3
		Explore – Society, Behavior & Health Course	3		PES 2130	3
					ENGL 2090	3
					ECE 2411	2
		TOTAL	16		TOTAL	18

	\checkmark	FALL	Hours	1	SPRING	Hours
/ear Three		ECE 3020	3		ECE 3110	3
		ECE 3205	4		ECE 3220	3
		ECE 3210	3		ECE 3240	1
		ECE 3230	1		ECE 3610	3
		ECE 3420	1		Electrical Engineering Lab Elective	1
		ECE 3430	3		Technical Elective Course	3
-		Electrical Engineering Elective	3		2000+ HUM/SS Elective (Inclusiveness/WIC)	3
					PORT 3000	
		TOTAL	18		TOTAL	17

	1	FALL	Hours	\checkmark	SPRING	Hours
		ECE 4890	1		ECE 4898	3
'n		Electrical Engineering Elective	3		Electrical Engineering Elective	3
R		Electrical Engineering Lab Elective	1		Electrical Engineering Elective	3
Year		MATH Elective (3110+)	3		Technical Elective Course	3
		Technical Elective Course	3		Explore – Arts, Humanities & Cultures Course	3
		2000+ HUM/SS Elective (Sustainability)	3			
		TOTAL	14		TOTAL	15