

College of Engineering & Applied Science – B.I. Electrical Engineering

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Student Success Center Advising Hours:

Monday: 9am-5pm Walk-in Advising
Tuesday–Friday: 9am-4pm Appointments Only
To schedule an appointment, call 719-255-3260. The Student Success Center is located in Main Hall 208.

General Academic Information

Academic Policies

It is the responsibility of each student to know and follow all Academic policies established by the University and the College of Engineering & Applied Science (EAS) that are set forth in the Catalog (catalog.uccs.edu).

Course Prerequisites

Students are responsible for knowing and completing all course prerequisites. Course prerequisites are strictly enforced for all classes at UCCS.

Restrictions and Limitations

Students must be admitted into the degree major in the College of Engineering and Applied Science at least 30 credit hours prior to graduation. Only three hours of Independent Study may count toward the degree. Work Experience/Military Science/ROTC credit will not apply toward fulfillment of the requirements for a degree from the College of Engineering.

Probation/Suspension

Students whose full-time semester's or cumulative GPA falls below 2.0 will be placed on probation for the next semester in which they are enrolled in the College of Engineering & Applied Science and will be notified by email and mail. If, after that semester, the semester or cumulative GPA is still below 2.0, the student will be suspended from the college. PLEASE NOTE: *While on probation, registration for the subsequent semester will be blocked until final grades are posted for the current semester. This is to verify that the minimum semester GPA for each student has been fulfilled.*

Compass Curriculum

Compass Curriculum is the campus-wide general education program at UCCS. The Compass Curriculum has multiple components many of which will coincide with the degree requirements listed in this guide. Please visit the Compass Curriculum website at www.uccs.edu/compasscurriculum, review your degree audit, or check out the Compass Curriculum advising guide for specific course details. The required components are listed below and referenced in the guide.

REQUIRED COMPASS CURRICULUM COMPONENTS:

Component	Course
Gateway	GPS 1010
Explore – Arts, Humanities and Cultures	INOV 1010
Explore – Society, Behavior and Health	ENTP 1000
Explore – Physical and Natural World	See List
Navigate	INOV 3010
Summit	ENTP 4500
Writing Intensive Course (WIC)¹ <i>Two courses with at least one upper-division (3000+ level).</i>	INOV 2010 INOV 3010
Inclusiveness¹	INOV 1010
Sustainability¹	ENTP 1000

¹ Can count towards other requirements within the Compass Curriculum or within a student's degree program.



DEPARTMENT OF ELECTRICAL & COMPUTER ENGINEERING

Department website: www.uccs.edu/ece

Degree Requirements	Courses					
Electrical Engineering Core Courses (39 hours) NOTE ¹ : If a student chooses ECE 1001 to fulfill this requirement, then any GPS 1010 course other than “Mindstorms” can be selected and will fulfill one of the open elective requirements for the program. <i>Courses marked with an asterisk (*) must be passed with a C or better.</i>	ECE 1001 ¹ or GPS 1010	Intro to Robotics Gateway Program Seminar “Mindstorms”				3
	ECE 1021	Computer Based Modeling (<i>pre-req MATH 1350, ECE 1001</i>)				3
	ECE 1411*	Logic Circuits I				2
	ECE 2050	Intro to Physical Electronics (<i>co-req MATH 3400, PES 2130</i>)				3
	ECE 2205	Circuits and Systems I (<i>pre-req ECE 2610, co-req MATH 3400</i>)				4
	ECE 2411*	Logic Circuits II (<i>pre-req ECE 1411</i>)				2
	ECE 2610*	Intro to Signals and Systems (<i>pre-req MATH 1360, ECE 1021</i>)				4
	ECE 3020	Semiconductor Devices (<i>pre-req ECE 2050, ECE 2205</i>)				3
	ECE 3110	Electromagnetic Fields I (<i>pre-req ECE 2205</i>)				3
	ECE 3205	Circuits and Systems II (<i>pre-req ECE 2205</i>)				4
	ECE 3210	Electronics I (<i>pre-req ECE 2205</i>)				3
	ECE 3230	Electronics Lab I (<i>co-req ECE 3210</i>)				1
	ECE 3420	Microprocessor Systems Lab (<i>pre-req ECE 1411, co-req ECE 3430</i>)				1
	ECE 3430	Intro to Microcomputer Systems (<i>pre-req ECE 1411, co-req ECE 3420</i>)				3
Technical Electives (9 hours) <i>Other courses in BIOL, CHEM, CS, ECE, MAE, MATH and PES numbered 4000+ may be accepted with a petition completed prior to taking the course.</i>	Complete 9 hours from the following courses (<i>or ECE courses at the 3000-4000 level</i>).					
	BIOL 3020	BIOL 3100	BIOL 3140	BIOL 3210	BIOL 3220	BIOL 3330
	BIOL 3610	BIOL 3620	BIOL 3700	BIOL 3830	BIOL 3910	BIOL 4360
	CHEM 3001	CHEM 3002	CHEM 3101	CHEM 3102	CHEM 3111	CHEM 3112
	CHEM 3203	CHEM 3213	CHEM 4521	CS 3010	CS 3020	CS 3060
	CS 3160	CS 3300	MAE 3130	MAE 3135	MAE 3201	MAE 3310
	MAE 3401	MAE 3560	MATH 3110	MATH 3130	MATH 3410	MATH 3500
	MATH 3510	PES 3060	PES 3130	PES 3210	PES 3410	PES 3650
	PES 3670					
	Innovation Core (24 hours)	BLAW 2010	Business and Intellectual Property Law (<i>pre-req Soph Standing</i>)			
ENTP 1000		Introduction to Entrepreneurship				3
ENTP 4500		Entrepreneurship and Strategy (<i>pre-req BLAW 2010 and INOV 3010</i>)				3
INOV 1010		The Innovation Process				3
INOV 2010		Innovation Team: Analyze and Report (<i>pre-req INOV 1010 and ENTP 1000</i>)				3
INOV 2100		Technical Writing, Proposals, and Presentations (<i>pre-req ENGL 1310 or ENGL 1410</i>)				3
INOV 3010		Innovation Team: Research and Execute (<i>pre-req INOV 2010</i>)				3
INOV 4010		Innovation Team: Design and Lead (<i>pre-req INOV 2100 and INOV 3010</i>)				3
Cross-Discipline Core (15 hours)	Complete one of the Cross-Discipline Cores listed below. Each Cross-Discipline Core consists of 15 credit hours. See the BI website for specific courses (innovation.uccs.edu). Business Creative Communication Globalization				15	

Composition Courses (3 hours)	Complete ENGL 1310 and the Writing Portfolio.		
	ENGL 1310	Rhetoric & Writing I	3
	PORT 3000	Writing Portfolio Assessment	0
Mathematics (18 hours) <i>NOTE: Math courses require a grade of C or better to progress through the Math sequence.</i>	Complete all of the following courses.		
	MATH 1350	Calculus I (<i>pre-req MATH 1050</i>)	4
	MATH 1360	Calculus II (<i>pre-req MATH 1350</i>)	4
	MATH 2350	Calculus III (<i>pre-req MATH 1360</i>)	4
	MATH 3400	Intro to Differential Equations (<i>pre-req MATH 2350</i>)	3
	ECE 3610	Engineering Probability and Statistics (<i>pre-req MATH 2350</i>)	3
	MATH Elective	MATH elective number 3100 or higher (except MATH 3810)	3
Basic Science (11 hours)	Complete PES 1110, PES 1120, and PES 2130.		
	PES 1110	PES 1120	PES 2130
Compass Curriculum (3 hours)	In addition to the courses outlined above a Gateway Seminar (GPS 1010) must be completed by all students to complete the Compass Curriculum.		
Open Electives (6 hours)	Complete any 6 hours of Elective coursework except Computer Science courses numbered below CS 1150, or Math courses numbered below MATH 1350.		

UCCS Bachelor of Innovation, Electrical Engineering Major Degree Requirements

- > A minimum of 128 hours must be completed with a cumulative CU grade point average of 2.0; at least 45 of these hours must be at the upper-division level (courses numbered 3000+).
- > The last 30 hours of the degree must be completed while registered in the College of Engineering and Applied Science at UCCS.
- > Courses numbered below 1000 do not count towards degree completion.
- > This guide is provided for student use only. It does not represent an official documentation of a student's progress towards completion of their degree program. The EE program requires a minimum 2.0 GPA in all ECE course work taken in order to graduate. Students must also complete an Exit Interview with the ECE Department during their final semester to graduate.



Four-Year Degree Plan – B.I. Electrical Engineering

The following four-year plan lists all the specific course requirements for the Bachelor of Innovation in Electrical Engineering degree at UCCS. The order in which these courses are taken may vary with course availability. **Students are responsible for completing all course prerequisites.** Please note that this is a *suggested* degree program; your program may vary.

Suggested First Year

FALL			SPRING		
√	Course	Hours	√	Course	Hours
	ECE 1411	2		ECE 2411	2
	ECE 1001 or Open Elective	3		ECE 1021	3
	MATH 1350	4		INOV 1010	3
	ENTP 1000	3		MATH 1360	4
	GPS 1010	3		PES 1110	4
	TOTAL	15		TOTAL	16

Suggested Second Year

FALL			SPRING		
√	Course	Hours	√	Course	Hours
	ECE 2610	4		ECE 2250	4
	PES 1120	4		ECE 2050	3
	ENGL 1310	3		INOV 2100	3
	INOV 2010	3		MATH 3400	3
	MATH 2350	4		PES 2130	3
	TOTAL	18		TOTAL	16

Suggested Third Year

FALL			SPRING		
√	Course	Hours	√	Course	Hours
	ECE 3210	3		ECE 3110	3
	ECE 3230	1		ECE 3610	3
	ECE 3205	4		Technical Elective	3
	ECE 3420	1		INOV 3010	3
	ECE 3430	3		Cross Discipline Core Course	3
	BLAW 2010	3			
	Cross Discipline Core Course	3			
	TOTAL	18		TOTAL	15

Suggested Fourth Year

FALL			SPRING		
√	Course	Hours	√	Course	Hours
	MATH elective numbered 3100 or higher	3		ENTP 4500	3
	Technical Elective Courses	3		Technical Elective	3
	ECE 3020	3		Cross Discipline Core Course	3
	INOV 4010	3		Cross Discipline Core Course	3
	Cross Discipline Core Course	3		Open Elective	3
	TOTAL	15		TOTAL	15