COMPUTER ENGINEERING 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

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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

Computer Engineering integrates the fields of computer science and electrical engineering to develop hardware and software. Computer engineers have training in electrical engineering, software design, and hardware-software integration and are thusly involved in many hardware and software aspects of computing from the design of individual microcontrollers, microprocessors, personal computers, and supercomputers, to circuit design.

Major Requirements			
Computer Engineering Core Courses (62 hours)	**Course/Area**	**Course Title**	**Credit Hours**
	CS 1150*	Principles of Computer Science	3
	CS 1450*	Data Structures & Algorithms	3
	CS 2060	Programming with C	3
You must be admitted into the College of Engineering in order to take any CS or ECE coursework.	CS 2080	Programming with UNIX	2
	CS 3060	Object Oriented Programming with C++	3
	CS 3300	Software Engineering	3
	CS 4500	Operating Systems	3
Courses marked with an asterisk (*) must be passed with a C or better.	CS 4720	Design & Analysis of Algorithms	3
	ECE 1001	Intro to Robotics	3
	ECE 1411*	Logic Circuits I	2
	ECE 2205	Circuits and Systems I	4
	ECE 2411*	Logic Circuits II	2
	ECE 2610*	Intro to Signals and Systems	4
	ECE 3210	Electronics I	3
	ECE 3420	Microprocessor Systems Lab	1
	ECE 3430	Intro to Microcomputer Systems	3
	ECE 3440	Microcomputer Systems Lab	1
	ECE 3610	Engineering Probability and Statistics	3
	ECE 4242	Advanced Digital Design Methods	3
	ECE 4330	Embedded System Design	3
	ECE 4480 OR CS 4200	Computer Architecture & Design Computer Architecture I	3
	ECE 4891	Senior Seminar	1
	ECE 4899	Senior Design Project	3
Technical Electives (10 hours)	Complete 10 hours of Technical Electives from the following: CS 3010, 3020, 3160, 3350, 4100, 4220, 4420, 4600, 4700, 4800, 4820, ECE 2050, 3020, 3110, 3120, 3205, 3220, 3230, 3240, 4200, 4211, 4220, 4320, MATH 3130 **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.		10

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General Education and Elective Requirements

Composition (6 hours)	1. ENGL 1310 OR ENGL 1410 2. TCID 2090 3. PORT 3000 (0 Credits) – Writing Portfolio
Mathematics (18 hours)	1. MATH 1350 2. MATH 1360 3. MATH 2150 4. MATH 2350 5. MATH 3400
Basic Science (14 hours)	1. PES 1110 2. PES 1120 3. 6 hours from: CHEM 1401, 1402, 1411, 1412, GEOL 1010, 1020, any course with a PES 1110 prerequisite.
Hum/Social Sci. Electives (15 hours)	See the degree audit for course options.

Compass Curriculum
(3 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 (counts towards HUM/SS Electives)
Explore – Arts, Humanities and Cultures	See Degree Audit (counts towards HUM/SS Electives)
Explore – Society, Behavior and Health	See Degree Audit (counts towards HUM/SS Electives)
Explore – Physical and Natural World	PES 1110 (included in Basic Science requirement)
Navigate	See Degree Audit (can count towards HUM/SS Electives)
Summit	ECE 4890/4899 (included in Computer Engineering Core requirement)
Writing Intensive Courses (WIC) *Two courses with one upper-division (3000+ level)*	1. ECE 3610 (included in Computer Engineering Core requirement) 2. See Degree Audit
Inclusiveness	See Degree Audit
Sustainability	See Degree Audit

General Electives (3 hours)	Complete 3 hours of open electives from any discipline. *May not include MATH 1040, 1050 or 1120.*

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	Hours	√	SPRING	Hours
	CS 1150	3		CS 1450	3
	ECE 1001	3		CS 2060	3
	ENGL 1310	3		MATH 1360	4
	GPS 1010	3		PES 1110	4
	MATH 1350	4		TCID 2090	3
	TOTAL	16		**TOTAL**	17

Year Two

√	FALL	Hours	√	SPRING	Hours
	CS 2080	2		CS 3060	3
	ECE 1411	2		ECE 2205	4
	ECE 2610	4		ECE 2411	2
	MATH 2350	4		MATH 3400	3
	PES 1120	4		Explore – Society, Behavior & Health Course	3
	TOTAL	16		**TOTAL**	15

Year Three

√	FALL	Hours	√	SPRING	Hours
	ECE 3210	3		CS 3300	3
	ECE 3420	1		ECE 3440	1
	ECE 3430	3		ECE 3610	3
	ECE 4242	3		ECE 4480	3
	MATH 2150	3		Basic Science Elective (w/Lab)	4
	Explore – Arts, Humanities & Cultures Course	3		2000+ HUM/SS Elective (Inclusiveness/WIC)	3
				PORT 3000	0
	TOTAL	16		**TOTAL**	17

Year Four

√	FALL	Hours	√	SPRING	Hours
	CS 4500	3		ECE 4899 – Senior Design Project	3
	CS 4720	3		Technical Elective	3
	ECE 4330	3		Technical Elective	3
	ECE 4891	1		Technical Elective Lab	1
	Technical Elective	3		2000+ HUM/SS Elective (Sustainability)	3
	Basic Science Elective	2		Open Elective	3
	TOTAL	15		**TOTAL**	16

2020-2021