COMPUTER SCIENCE B.A.

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. 120 credit hours
2. 45 upper-division credit hours (3000-4999 level)
3. 2.0 CU cumulative GPA
4. 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 science is the study of both computer hardware and software design. It encompasses both the study of theoretical algorithms and the practical problems involved in implementing them through computer hardware and software. The study of computer science has many branches, including artificial intelligence and machine learning, cybersecurity, and game development.

Computer Science Requirements

	Course/Area	Course Title	Credit Hours
Computer Science Courses (35 hours) • You must be admitted into the College of Engineering in order to take any CS coursework. • All CS course work requires a grade of "C" or better.	**Computer Science Foundation Courses**		
	CS 1120	Computational Thinking with Beginning Programming	3
	CS 1150	Principles of Computer Science	3
	CS 1450	Data Structures & Algorithms	3
	CS 2060	Programming with C	3
	CS 3020, CS 3060, **OR** CS 3080	Advanced Object Technology Using C#/.NET Object Oriented Programming in C++ Python Programming	3
	Computer Science Core Courses *Complete 17 hours from the courses below.*		
	CS 2080	Programming with UNIX	2
	CS 2160	Computer Organization & Assembly Language Programming	3
	CS 3160	Concepts of Programming Languages	3
	CS 3300	Software Engineering I	3
	CS 4200	Computer Architecture I	3
	CS 4500	Operating Systems I	3
	CS 4720	Design & Analysis of Algorithms	3
	Computer Science Capstone		
	CS 4300	Advanced Software Engineering	3
Computer Science Track (18 hours) • Students are required to complete one of the tracks listed. • Some tracks require additional advanced mathematics courses. Students should carefully check prerequisites when deciding on a track.	Artificial Intelligence & Machine Learning	*Complete 6 courses from those listed below.* CS 3880, 4440, 4710, 4820, 4860, 4870, 4960	18
	Cybersecurity	*Complete 6 courses from those listed below.* CS 2910, 3910, 4910, 4920, 4930, 4940, 4950, 4980	18
	Game Development	*Complete the following courses:* CS 3350, GDD 2150, 3200 *Complete 3 courses from the following:* GDD 3100, 4000, 4400, 4500 **NOTE:** Students choosing this track should replace CS 1120 in the core with GDD 1100	18
	General	*Complete 6* **UNUSED** *CS courses in consultation with your faculty advisor. Only two courses can be below 4000-level.*	18

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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 (12-13 hours)	1. MATH 1040 **OR** MATH 1350 2. CS 2150 3. CS 2200 4. CS 2300

Compass Curriculum
(15 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	See Degree Audit
Explore – Physical and Natural World	See Degree Audit
Navigate	See Degree Audit
Summit	CS 4300 (included in major requirements)
Writing Intensive Courses (WIC) *Two courses with one upper-division (3000+ level)*	See Degree Audit
Inclusiveness	See Degree Audit
Sustainability	See Degree Audit

General Electives (34 hours)	*Complete 34 hours of open electives to fulfill the total and upper-division hours required for the degree program.*

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		CS 1120	3		CS 1150	3
		ENGL 1310	3		TCID 2090	3
		GPS 1010	3		Explore – Arts, Humanities & Cultures Course	3
		MATH 1040 **OR** MATH 1350	3-4		Open Elective	3
		Explore – Society, Behavior & Health Course	3		Open Elective	3
		TOTAL	15-16		**TOTAL**	15

	√	FALL	Hours	√	SPRING	Hours
Year Two		CS 1450	3		CS 2060	3
		CS 2300	3		CS 2150	3
		Explore – Physical and Natural World	3		CS 2200	3
		Open Elective	3		Track Elective	3
		Open Elective	3		Open Elective (Writing Intensive)	3
		TOTAL	15		**TOTAL**	15

	√	FALL	Hours	√	SPRING	Hours
Year Three		CS 3020, CS 3060, **OR** CS 3080	3		CS Core Course	3
		CS Core Course	2-3		CS Core Course	3
		CS Core Course	3		Track Elective	3
		Track Elective	3		Navigate	3
		Open Elective (Inclusiveness)	3		Open Elective	3-4
					PORT 3000	0
		TOTAL	14-15		**TOTAL**	15-16

	√	FALL	Hours	√	SPRING	Hours
Year Four		CS Core Course	3		CS 4300	3
		Track Elective	3		CS Core Course	3
		Track Elective	3		Track Elective	3
		Open Elective (Sustainability)	3		Open Elective (UD Writing Intensive)	3
		Upper-Division (UD) Open Elective	3		Open Elective	3
		TOTAL	15		**TOTAL**	15