COMPUTER SCIENCE B.S.

University of Colorado Colorado Springs

ACADEMIC ADVISING

Partnering with students to successfully navigate college
Location: Main Hall 208
Phone: 719.255.3260
Website: Academic Advising

Connect With Your Advisor
Current UCCS Students
- Appointments: www.uccs.edu/advising/current-students

Prospective Students: www.uccs.edu/admissions/contact

GENERAL ACADEMIC INFORMATION

Minimum Graduation Requirements
- 120 credit hours
- 45 upper-division credit hours (3000-4999 level)
- 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: catalog.uccs.edu
- 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 Computer Science: Computer Science Home | College of Engineering and Applied Science (uccs.edu)

Computer Science Requirements

	Course/Area	Course Title	Credit Hours
Computer Science Core Courses (43 hours) • Requires a minimum of 43 credit hours of core CS course work with an additional 12 hours in a required Specialty Area. • Requires a minimum of 37 credit hours of upper-division (3000-4999 level) CS course work. • All CS courses must be completed with a grade of "C" or better. *You must be admitted into the College of Engineering to take CS 1450 or any 2000-level or higher CS coursework.*	CS 1150	Principles of Computer Science	3
	CS 1450	Data Structures & Algorithms	3
	CS 2060	Programming in C	3
	CS 2080	Programming with UNIX	3
	CS 2160	Computer Org. & Assembly Language	3
	CS 3050	Social & Ethical Implications of Computing	1
	CS 3020, CS 3060, **or** CS 3080	Adv Object Tech Using C#/.NET.C# Object Oriented Programming in C++ **or** Python Programming	3
	CS 3160	Concepts of Programming Languages	3
	CS 3300	Software Engineering	3
	CS 4200	Computer Architecture I	3
	CS 4220	Computer Networks	3
	CS 4300	Advanced Software Engineering	3
	CS 4500	Operating Systems I	3
	CS 4720	Design & Analysis of Algorithms	3
	CS 4910	Introduction to Computer Security	3
Specialty Area (12 hours) • Students are required to complete one of the specialty areas listed. • Some specialty areas require additional advanced mathematics courses. Students should carefully check prerequisites when deciding on a track.	Advanced Software Engineering	*Complete 12 credit hours from the following courses:* CS 3110, 4310, 4320, 4340, 4350	12
	Artificial Intelligence and Machine Learning	*Complete 12 credit hours from the following courses:* CS 3820, 3840, 3850, 4435, 4440, 4460, 4710, 4730, 4820, 4860, 4870, 4890	12
	Computer Systems and Networking	*Complete 12 credit hours from the following courses:* CS 3910, 4420, 4740, ECE 4330	12
	Cybersecurity	*Complete 12 credit hours from the following courses:* CS 2910, 3910, 3920, 4910, 4915, 4920, 4930, 4940, 4950, 4980, 4985	12
	General	*Complete 12 credit hours of* **UNUSED** *upper-division (3000+ level) CS courses in consultation with your faculty advisor. At least 6 hours must be 4000-level or higher.* **NOTE:** *Internships, Independent Studies, and similar courses cannot be taken for this requirement.*	12

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General Education and Elective Requirements

Core Writing Requirement (6 hours)	• ENGL 1310, 1308, or 1305 *(Students choosing ENGL 1305 must complete ENGL 1300 first.)* **or** ENGL 1410 • TCID 2090 • PORT 3000 (0 Credits) – Writing Portfolio
Mathematics (17 hours)	• MATH 1350 • MATH 1360 • CS 2020 **or** MATH 3810 • CS 2150 **or** MATH 2150 • CS 2300 **or** MATH 3130
Basic Science (9-10 hours)	Complete all of the Basic Science sequence courses listed below for either Chemistry or Physics. • Chemistry - CHEM 1401, 1402, 1411, 1412 (10 hours) **or** • Physics - PES 1110, 1120, and 1160 (9 hours)

Compass Curriculum
(9 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	CHEM 1401 **or** PES 1110 (included in Basic Science requirement)
Navigate	See Degree Audit
Summit	CS 4300 (included in major requirements)
Writing Intensive Courses (WIC) *Two courses with one upper-division (3000+ level)*	• CS 3050 (included in major requirements) • See Degree Audit
Inclusiveness	See Degree Audit
Sustainability	See Degree Audit

General Electives (24 hours)	*Complete general electives to fulfill the total hours requirement for the degree program. The chosen course(s) can be selected from any discipline but may not include any math course 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.**

	√	FALL	Hours	√	SPRING	Hours
Year One		CS 1150	3		CS 1450	3
		ENGL 1310 **or** 1410	3		CS 2060	3
		GPS 1010	3		Explore – Arts, Humanities & Cultures Course	3
		MATH 1350	4		MATH 1360	4
		Explore – Society, Behavior & Health Course	3		General Elective	3
		TOTAL	16		**TOTAL**	16

	√	FALL	Hours	√	SPRING	Hours
Year Two		CS 2080	3		CS 2020 **or** MATH 3810	3
		CS 2160	3		CS 2300 **or** MATH 3130	3
		CS 2150 **or** MATH 2150	3		CS 3020, CS 3060 **or** CS 3080	3
		TCID 2090	3		CS 3050	1
		Basic Science Sequence Course I w/lab	5		Basic Science Sequence Course II	4-5
		TOTAL	17		**TOTAL**	14-15

	√	FALL	Hours	√	SPRING	Hours
Year Three		CS 3160	3		CS 3300	3
		CS 4220	3		CS 4200	3
		CS 4720	3		CS Specialty Area Course	3
		General Elective (*Writing Intensive*)	3		General Elective	3
		General Elective (*Sustainability*)	3		General Elective (*Inclusiveness*)	3
					PORT 3000	0
		TOTAL	15		**TOTAL**	15

	√	FALL	Hours	√	SPRING	Hours
Year Four		CS 4300	3		CS 4910	3
		CS 4500	3		CS Specialty Area Course	3
		CS Specialty Area Course	3		CS Specialty Area Course	3
		Upper-Division (UD) General Elective	2-3		UD General Elective	3
		UD General Elective *(Navigate)*	3			
		TOTAL	14-15		**TOTAL**	12