COMPUTER SCIENCE B.S.



ACADEMIC ADVISING

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

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

GENERAL ACADEMIC INFORMATION

Minimum Graduation Requirements

- 1. 128 credit hours
- 2. 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:

- 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

Computer science is the study of processes that interact with data and that can be represented as data in the form of programs. It enables the use of algorithms to manipulate, store, and communicate digital information. 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, software engineering, programming, and computer graphics.

	Comp	outer Science Requirements						
Computer Science Courses	Course/Area	Course Title	Credit Hours					
(48 hours)	CS 1150	Principles of Computer Science	3					
	CS 1450	Data Structures & Algorithms	3					
You must be admitted into the College of	CS 2060	Programming in C	3					
Engineering in order to take any CS coursework.	CS 2080	Programming with UNIX	2					
COUISEWOIK.	CS 2160	Computer Org. & Assembly Language	3					
All CS course work requires a grade of "C"	CS 3050	Social & Ethical Implications of Computing	1					
or better.	CS 3020, CS 3060, OR	Adv Object Tech Using C#/.NET.C# Object Oriented Programming in C++	3					
	CS 3080	Python Programming						
	CS 3160	Concepts of Programming Languages	3					
	CS 3300	Software Engineering	3					
	CS 4100	Compiler Design	3					
	CS 4200	Computer Architecture I	3					
	CS 4500	Operating Systems I	3					
	CS 4700	Computability, Automata & Formal Languages	3					
	CS 4720	Design & Analysis of Algorithms	3					
	CS Electives	Complete 9 hours of CS courses numbered between 4000-5999 that are NOT being used for the CS core	9					
Table in the stress	Constate Oto							
Technical Electives	Complete 9 hours of Technical Electives from the following options that are not being used to fulfill another							
(9 hours)	requirement:	1000 Lloval Computer Science course						
	any 3000+ level Computer Science course							
		any 3000+ level Game Design & Development course						
		2000+ level Electrical Engineering course (except ECE 2400)						
		100+ level Mathematics course (except MATH 4650)						
		additional courses from the Basic Science list or additional courses with prerequisites from Science list						
	 any 3 	3000+ level College of Business course (except BUAD 3010, 3020, or 3030)						

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(General Education and Elective I	Requirements			
Composition (6 hours) Mathematics	ENGL 1310 ENGL 1410, TCID 2080, OR TCID 2090 BORT 3000 (0 Credits) – Writing Portfolio MATH 1350				
(17 hours)	 MATH 1360 CS 2020 OR MATH 3810 CS 2150 OR MATH 2150 CS 2300 OR MATH 3130 				
Basic Science (8-10 hours) Complete one Basic Science sequence from those listed	 Biology - BIOL 1300, BIOL 1310, BIOL 1350 Chemistry - CHEM 1401, 1402, 1411, 1412 Physics - PES 1110, PES 1120, and PES 116 	(10 hours)			
Compass Curriculum	Component	Course			
(12-21 hours)Explore and Navigate courses must be	Gateway Explore – Arts, Humanities and Cultures	GPS 1010 See Degree Audit			
outside major requirements	Explore – Society, Behavior and Health	See Degree Audit			
Writing Intensive, Inclusiveness, and Custo inclusive and a sound to be a sou	Explore – Physical and Natural World	BIOL 1350, CHEM 1401, or PES 1110 (included in Basic Science requirement)			
Sustainability courses can count	Navigate	See Degree Audit			
towards other requirements within	Summit	CS 4100 (included in major requirements)			
degree	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 (17-28 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.

		\checkmark	FALL	Hours	1	SPRING	Hours
Year One	a)		CS 1150	3		CS 1450	3
	Ē		ENGL 1310	3		CS 2060	3
	<u> </u>		GPS 1010	3		MATH 1360	4
	ea		MATH 1350	4		Basic Science Sequence Courses	4
	~		Explore – Society, Behavior & Health Course	3		Explore – Arts, Humanities & Cultures Course	3
			TOTAL	16		TOTAL	17

•	\checkmark	FALL	Hours	\checkmark	SPRING	Hours
		CS 2080	2		CS 2150 OR MATH 2150	3
Š		CS 2160	3		CS 3020, CS 3060 OR CS 3080	3
Year T		CS 2300 OR MATH 3130	3		CS 3050	1
		ENGL 1410, TCID 2080, OR TCID 2090	3		Inclusiveness Course	3
		Basic Science Sequence Courses	4		General Electives	6
		TOTAL	16		TOTAL	16

Year Three	\checkmark	FALL	Hours	\checkmark	SPRING	Hours
		CS 3160	3		CS 2020 OR MATH 3810	3
		CS 4720	3		CS 3300	3
		Navigate Course	3		CS 4200	3
		Technical Elective	3		CS 4000+ Computer Science Elective	3
		Sustainability Course	3		Writing Intensive Course (WIC)	3
		General Elective	3		PORT 3000	0
		τοται	18		τοται	15

_	1	FALL	Hours	\checkmark	SPRING	Hours
		CS 4500	3		CS 4100 (Spring Only)	3
no		CS 4700	3		CS 4000+ Computer Science Elective	3
Year F		CS 4000+ Computer Science Elective	3		Technical Elective	3
		Technical Elective	3		General Electives	7
		General Elective	3			
		TOTAL	15		TOTAL	16