# **COMPUTER SCIENCE B.S.**



## **ACADEMIC ADVISING**

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

## **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

### **Connect With Your Advisor**

Current UCCS Students

• Appointments: <u>www.uccs.edu/advising/current-students</u> Prospective Students: <u>www.uccs.edu/admissions/contact</u>

### 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: <u>catalog.uccs.edu</u>
- 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 Courses	Course/Area	uter Science Requirements	Credit Hours
(40 hours)	CS 1150	Principles of Computer Science	3
	CS 1450	Data Structures & Algorithms	3
Requires a minimum of 36 credit	CS 2060	Programming in C	3
hours of CS course work.	CS 2080	Programming with UNIX	3
	CS 2160	Computer Org. & Assembly Language	3
<ul> <li>Requires a minimum of 30 credit hours of upper-division (3000-4999</li> </ul>	CS 3050	Social & Ethical Implications of Computing	1
level) CS course work.	CS 3020,	Adv Object Tech Using C#/.NET.C#	3
	CS 3060,	Object Oriented Programming in C++	
All CS courses must be completed	OR		
with a grade of "C" or better.	CS 3080	Python Programming	
	CS 3160	Concepts of Programming Languages	3
	CS 3300	Software Engineering	3
You must be admitted into the College of	CS 4200	Computer Architecture I	3
Engineering to take any 2000-level or hiaher CS coursework.	CS 4220	Computer Networks	3
night CS coursework.	CS 4300	Advanced Software Engineering	3
	CS 4500	Operating Systems I	3
	CS 4720	Design & Analysis of Algorithms	3
Specialty Area	Advanced	Complete 12 credit hours from the following courses:	12
(12 hours)	Software	CS 3110, 4310, 4320, 4340, 4350	
	Engineering		
<ul> <li>Students are required to complete</li> </ul>	Artificial	Complete 12 credit hours from the following courses:	12
one of the specialty areas listed.	Intelligence and Machine	CS 3880, 4435, 4440, 4460, 4710, 4730, 4820, 4850, 4860, 4870, 4890	
	Learning		
<ul> <li>Some specialty areas require additional advanced mathematics</li> </ul>	Computer	Complete 12 credit hours from the following courses:	12
courses. Students should carefully	Systems and	CS 3910, 4410, 4420, 4540, 4550, 4740, ECE 4330	
check prerequisites when deciding	Networking		
on a track.	Cybersecurity	Complete 12 credit hours from the following courses:	12
		CS 2910, 3910, 4910, 4920, 4930, 4940, 4950, 4970, 4980	
	General	Complete 12 credit hours from upper-division (3000+ level) CS courses, with at	12
	Computer	least 6 hours at the 4000-level.	
	Science		

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0	eneral Education and Elective F	Requirements				
<b>Core Writing Requirement</b> (6 hours)	<ul> <li>ENGL 1310, 1308, or 1305 (Students choosing ENGL 1305 must complete ENGL 1300 first.) OR ENGL 1410</li> <li>TCID 2090</li> <li>PORT 3000 (0 Credits) – Writing Portfolio</li> </ul>					
Mathematics (17 hours)	<ul> <li>MATH 1350</li> <li>MATH 1360</li> <li>CS 2020 OR MATH 3810 OR ECE 3610</li> <li>CS 2150 OR MATH 2150</li> <li>CS 2300 OR MATH 3130</li> </ul>					
Basic Science (9-10 hours)	<ul> <li>Complete all of the Basic Science sequence courses listed below for either Chemistry or Physics.</li> <li>Chemistry - CHEM 1401, 1402, 1411, 1412 (10 hours)</li> <li>Physics - PES 1110, PES 1120, and PES 1160 (9 hours)</li> </ul>					
Compass Curriculum	Component	Course				
(12 hours)	Gateway	GPS 1010				
• Explore and Navigate courses must be	Explore – Arts, Humanities and Cultures	See Degree Audit				
outside major requirements	Explore – Society, Behavior and Health	See Degree Audit				
Writing Intensive, Inclusiveness, and	Explore – Physical and Natural World	CHEM 1401, or PES 1110 (included in Basic Science requirement)				
<ul> <li>Writing Intensive, Inclusiveness, and Sustainability courses can count</li> </ul>	Navigate	See Degree Audit				
,	Summit	CS 4300 (included in major requirements)				
towards other requirements within	Writing Intensive Courses (WIC)	CS 3050 (included in major requirements)				
degree	Two courses with one upper-division (3000+ level)	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.

	$\checkmark$	FALL	Hours	$\checkmark$	SPRING	Hours
a		CS 1150	3		CS 1450	3
ŝ		ENGL 1310	3		CS 2060	3
r o		GPS 1010	3		MATH 1360	4
ea		MATH 1350	4		Basic Science Sequence Course	5
~		Explore – Society, Behavior & Health Course	3			
		TOTAL	16		TOTAL	15

	$\checkmark$	FALL	Hours	$\checkmark$	SPRING	Hours
		CS 2080	23		CS 2150 <b>OR</b> MATH 2150	3
9		CS 2160	3		CS 3020, CS 3060 <b>OR</b> CS 3080	3
₽ L		CS 2300 <b>OR</b> MATH 3130	3		CS 3050	1
ar		TCID 2090	3		Explore – Arts, Humanities & Cultures Course	3
Ye		Basic Science Sequence Course	4		Inclusiveness Course	3
					General Elective	3
		TOTAL	16		ΤΟΤΑΙ	. 16

	$\checkmark$	FALL	Hours	$\checkmark$	SPRING	Hours
		CS 2020 OR MATH 3810 OR ECE 3610	3		CS 3300	3
ee		CS 3160	3		CS 4200	3
Ē		CS 4220	3		CS Specialty Area Course	3
Year <sup>-</sup>		CS 4720	3		Navigate Course	3
		Sustainability Course	3		Writing Intensive Course (WIC)	3
					PORT 3000	0
		TOTAL	15		TOTAL	15

	1	FALL	Hours	1	SPRING	Hours
<u> </u>		CS 4300	3		CS Specialty Area Course	3
on		CS 4500	3		CS Specialty Area Course	3
ŭ L		CS Specialty Area Course	3		General Elective	3
ea		General Elective	3		General Elective	3
~		General Elective	3			
		TOTAL	15		TOTAL	12