

## College of Engineering & Applied Science – B.I. Computer Science

### Contact Information:

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### Student Success Center Advising Hours:

Monday: 9am-5pm Walk-in Advising

Tuesday–Friday: 9am-4pm Appointments Only

To schedule an appointment, call 719-255-3260. The Student Success Center is located in Main Hall 208.

## General Academic Information

### Academic Policies

It is the responsibility of each student to know and follow all Academic policies established by the University and the College of Engineering & Applied Science (EAS) that are set forth in the Catalog ([catalog.uccs.edu](http://catalog.uccs.edu)).

### Course Prerequisites

Students are responsible for knowing and completing all course prerequisites. Course prerequisites are strictly enforced for all classes at UCCS.

### Restrictions and Limitations

Students must be admitted into the degree major in the College of Engineering and Applied Science at least 30 credit hours prior to graduation. Only three hours of Independent Study may count toward the degree. Work Experience/Military Science/ROTC credit will not apply toward fulfillment of the requirements for a degree from the College of Engineering.

### Probation/Suspension

Students whose full-time semester's or cumulative GPA falls below 2.0 will be placed on probation for the next semester in which they are enrolled in the College of Engineering & Applied Science and will be notified by email and mail. If, after that semester, the semester or cumulative GPA is still below 2.0, the student will be suspended from the college. PLEASE NOTE: *While on probation, registration for the subsequent semester will be blocked until final grades are posted for the current semester. This is to verify that the minimum semester GPA for each student has been fulfilled.*

### Compass Curriculum

Compass Curriculum is the campus-wide general education program at UCCS. The Compass Curriculum has multiple components many of which will coincide with the degree requirements listed in this guide. Please visit the Compass Curriculum website at [www.uccs.edu/compasscurriculum](http://www.uccs.edu/compasscurriculum), review your degree audit, or check out the Compass Curriculum advising guide for specific course details. The required components are listed below and referenced in the guide.

#### REQUIRED COMPASS CURRICULUM COMPONENTS:

Component	Course
<b>Gateway</b>	GPS 1010
<b>Explore – Arts, Humanities and Cultures</b>	INOV 1010
<b>Explore – Society, Behavior and Health</b>	ENTP 1000
<b>Explore – Physical and Natural World</b>	See List
<b>Navigate</b>	INOV 3010
<b>Summit</b>	ENTP 4500
<b>Writing Intensive Course (WIC)<sup>1</sup></b> <i>Two courses with at least one upper-division (3000+ level).</i>	INOV 2010 INOV 3010
<b>Inclusiveness<sup>1</sup></b>	INOV 1010
<b>Sustainability<sup>1</sup></b>	ENTP 1000

<sup>1</sup> Can count towards other requirements within the Compass Curriculum or within a student's degree program.

Degree Requirements	Courses		
<b>Computer Science Core Courses</b> (48 hours)  <i>You must be admitted into the College of Engineering in order to take any CS 3000+ course.</i>	CS 1150	Principles of Computer Science	3
	CS 1450	Data Structures & Algorithms ( <i>pre-req CS 1150</i> )	3
	CS 2060	Programming in C ( <i>pre-req CS 1150</i> )	3
	CS 2080	Programming with UNIX ( <i>pre-req CS 1450</i> )	2
	CS 2160	Computer Org. & Assembly Language ( <i>pre-req CS 1450, CS 2060</i> )	3
	CS 3050	Social & Ethical Implications of Computing ( <i>pre-req CS 2080</i> )	1
	CS 3060 or CS 3020	Object Oriented Programming in C++ ( <i>pre-req CS 2060, CS 2080</i> ) Adv Object Tech Using C#/.NET.C# ( <i>pre-req CS 1450</i> )	3
	CS 3160	Concepts of Programming Languages ( <i>pre-req CS 2060, CS 2160, CS 3020 or CS 3060</i> )	3
	CS 3300	Software Engineering ( <i>pre-req CS 2080, CS 3020 or CS 3060</i> )	3
	CS 4200	Computer Architecture I ( <i>pre-req CS 2160</i> )	3
	CS 4220	Computer Networks ( <i>pre-req CS 2060 and MATH 2150</i> )	3
	CS 4420	Database Systems I ( <i>pre-req CS 3300</i> )	3
	CS 4500	Operating Systems I ( <i>pre-req CS 2060, CS 2080 or CS 4200</i> )	3
	CS 4720	Design & Analysis of Algorithms ( <i>pre-req CS 1450, MATH 2150</i> )	3
	Computer Science Elective	Complete three hours of Computer Science courses numbered 4000-5999 that are not being used to fulfill another requirement.	3
Computer Science Professional Elective	<i>Complete 6 hours of Professional Electives from the following options that are not being used to fulfill another requirement:</i> 1. any 3000+ level Computer Science course 2. any 3000+ level Electrical Engineering course 3. any 3100+ level Mathematics course 4. any 3000+ level Natural Science course 5. any 3000+ level College of Business course (except BUAD 3010, 3020, or 3030)	6	
<b>Innovation Core</b> (24 hours)	BLAW 2010	Business and Intellectual Property Law ( <i>pre-req Soph Standing</i> )	3
	ENTP 1000	Introduction to Entrepreneurship	3
	ENTP 4500	Entrepreneurship and Strategy ( <i>pre-req BLAW 2010 and INOV 3010</i> )	3
	INOV 1010	The Innovation Process	3
	INOV 2010	Innovation Team: Analyze and Report ( <i>pre-req INOV 1010 and ENTP 1000</i> )	3
	INOV 2100	Technical Writing, Proposals, and Presentations ( <i>pre-req ENGL 1310 or ENGL 1410</i> )	3
	INOV 3010	Innovation Team: Research and Execute ( <i>pre-req INOV 2010</i> )	3
	INOV 4010	Innovation Team: Design and Lead ( <i>pre-req INOV 2100 and INOV 3010</i> )	3
<b>Cross-Discipline Core</b> (15 hours)	<i>Complete one of the Cross-Discipline Cores listed below. Each Cross-Discipline Core consists of 15 credit hours. See the BI website for specific courses (<a href="http://innovation.uccs.edu">innovation.uccs.edu</a>).</i>  <b>Business</b> <b>Creative Communication</b>		15

Globalization						
<b>Composition Courses</b> (3 hours)	Complete ENGL 1310 and the Writing Portfolio.					
	ENGL 1310	Rhetoric & Writing I				3
	PORT 3000	Writing Portfolio Assessment				0
<b>Mathematics</b> (17 hours)  <i>NOTE: Math courses require a grade of C or better to progress through the Math sequence.</i>	Complete all of the following courses.					
	MATH 1350	Calculus I ( <i>pre-req MATH 1050</i> )				4
	MATH 1360	Calculus II ( <i>pre-req MATH 1350</i> )				4
	MATH 2150	Discrete Mathematics ( <i>pre-req MATH 1350</i> )				3
	CS 1300 or MATH 3130	Computational Linear Algebra ( <i>pre-req MATH 90</i> )				3
	ECE 3610 or QUAN 2010	Engineering Probability & Statistics ( <i>pre-req MATH 2350</i> )  Business Statistics				3
<b>Basic Science</b> (10 hours)	Complete one full year of Basic Science with Lab in the same subject. (If Biology sequence is chosen, select two additional hours from BIOL, PES, or CHEM and inform Academic Advisor.)					
	BIOL 1300	BIOL 1310	BIOL 1350	BIOL 1360	CHEM 1301	CHEM 1311
	PES 1110	PES 1160	PES 1120	PES 2160		
<b>Compass Curriculum</b> (3 hours)	In addition to the courses outlined above a Gateway Seminar ( <b>GPS 1010</b> ) must be completed by all students to complete the Compass Curriculum.					
<b>Open Electives</b> (8 hours)	Complete any 8 hours of Elective coursework except Computer Science courses numbered below CS 1150, or Math courses numbered below MATH 1350.					

### UCCS Bachelor of Innovation, Computer Science Major Degree Requirements

- > A minimum of 128 hours must be completed with a cumulative CU grade point average of 2.0; at least 45 of these hours must be at the upper-division level (courses numbered 3000+).
- > The last 30 hours of the degree must be completed while registered in the College of Engineering and Applied Science at UCCS.
- > Courses numbered below 1000 do not count towards degree completion.
- > This guide is provided for student use only. It does not represent an official documentation of a student's progress towards completion of their degree program. The CS program requires a minimum 2.0 GPA in all CS course work taken in order to graduate. Students must also complete an Exit Interview with the CS Department during their final semester to graduate.



## Four-Year Degree Plan – B.I. Computer Science

The following four-year plan lists all the specific course requirements for the Bachelor of Innovation in Computer Science degree at UCCS. The order in which these courses are taken may vary with course availability. **Students are responsible for completing all course prerequisites.** Please note that this is a *suggested* degree program; your program may vary.

### Suggested First Year

FALL			SPRING		
√	Course	Hours	√	Course	Hours
	ENGL 1310	3		CS 1450	3
	CS 1150	3		CS 2060	3
	GPS 1010	3		MATH 1360	4
	MATH 1350	4		INOV 1010	3
	ENTP 1000	3		Cross Discipline Core Course	3
	<b>TOTAL</b>	16		<b>TOTAL</b>	16

### Suggested Second Year

FALL			SPRING		
√	Course	Hours	√	Course	Hours
	CS 2080	2		CS 3060 or CS 3020	3
	CS 2160	3		MATH 2150	3
	BLAW 2010	3		INOV 2100	3
	CS 1300 or MATH 3130	3		INOV 2010	3
	Basic Science with Lab	5		Basic Science with Lab	5
	<b>TOTAL</b>	16		<b>TOTAL</b>	17

### Suggested Third Year

FALL			SPRING		
√	Course	Hours	√	Course	Hours
	CS 3160	3		CS 3300	3
	CS 4720	3		CS 4200	3
	CS 4220	3		ECE 3610 or QUAN 2010	3
	Cross Discipline Core Course	3		INOV 3010	3
	Cross Discipline Core Course	3		Cross Discipline Core Course	3
				Open Elective	2
	<b>TOTAL</b>	15		<b>TOTAL</b>	17

### Suggested Fourth Year

FALL			SPRING		
√	Course	Hours	√	Course	Hours
	CS 4500	3		CS 3050	1
	CS 4420	3		CS Professional Elective Course (3000+)	3
	CS Professional Elective Course (3000+)	3		CS Elective (4000-5999)	3
	Cross Discipline Core Course	3		ENTP 4500	3
	Open Elective	3		INOV 4010	3
				Open Elective	3
	<b>TOTAL</b>	15		<b>TOTAL</b>	16