# **USCS: Exploratory Studies Information Science & Technology Interest**

CSU's Computer Science department has one major: Computer Science. Students then choose a concentration from the following:

Artificial Intelligence & Machine Learning	Computer Science Education	Computing Systems
Human Centered Computing, Networks & Security	Software Engineering	General Computer Science

**Important note:** CSU has other technology-related majors outside of the department of Computer Science, such as Business Information Systems, Journalism & Media Communication, and more. <u>Be sure to check out all of the options on the Exploratory Studies website.</u>

#### **Computer Science Entrance Requirements:**

Grade of B or better in	C or better in any of the following:	2.5 cumulative GPA at CSU
CS150B (Culture & Coding),	<ul> <li>CS162 (Intro to Programming Java),</li> </ul>	
or CS152 (Python for STEM)	<ul> <li>CS163 (CS1 Intro to Programming)</li> </ul>	
	<ul> <li>CS164 (CS1 Computational Thinking with Java),</li> </ul>	
	<ul> <li>MATH160 (Calculus for Physical Scientists),</li> </ul>	
	<ul> <li>MATH156 (Mathematics for Computational Science 1).</li> </ul>	

**Important note:** Exploring Info-Technology-Interest students have limited "CS" classes available until they complete algebra. Students should focus on algebra in the first semester.



The course registration pyramid – our framework for course selection

## **FIRST YEAR EXPERIENCE options – choose one:**

First year experience options are for first-time, first-year students. They include a first-year seminar course designed to foster connection, academic success, and exploration. Please talk with your advisor about the option best for you.

Key communities	Seminar Super-	Seminar Cluster	Stand-alone	Explorer's Challenge
<b>Cluster</b> (seminar + 2 AUCC classes)	<b>Cluster</b> (IU172 + composition + & AUCC Arts & Humanities class)	(IU172 + composition class)	seminar (IU172)	(independent exploration)

### FOUNDATIONAL computer science course options:

**Important note: All concentrations in the computer science major require calculus.** Students should complete pre-calculus in their first year at CSU. Completing the math placement tool is critical prior to orientation (or first day of classes).

1 <sup>st</sup> Semester (algebra / pre-calculus ready)	2 <sup>nd</sup> Semester
Math:	Math:
• 1 credit pre-calculus options (MATH117, 118, 124,	<ul> <li>Mathematics for Computational Science (MATH156),</li> </ul>
125, 126 – depends on placement), OR	OR
Pre-Calculus course (MATH127)	Calculus 1 (MATH160)
Computer Science (also AUCC Humanities):	Computer Science:
• Culture and Coding: Python (CS150B)	<ul> <li>Computational Thinking with Java (CS164)</li> </ul>
	DECLARE AT END OF FIRST YEAR
1 <sup>st</sup> semester (calculus-ready)	2 <sup>nd</sup> semester
1 <sup>st</sup> semester (calculus-ready) Math:	2 <sup>nd</sup> semester Computer Science:
1 <sup>st</sup> semester (calculus-ready) Math: • Mathematics for Computational Science (MATH156),	2 <sup>nd</sup> semester Computer Science: • Computational Thinking with Java (CS164)
1 <sup>st</sup> semester (calculus-ready) Math: Mathematics for Computational Science (MATH156), OR	2 <sup>nd</sup> semester Computer Science: • Computational Thinking with Java (CS164)
1 <sup>st</sup> semester (calculus-ready) Math: • Mathematics for Computational Science (MATH156), OR • Calculus 1 (MATH160)	2 <sup>nd</sup> semester Computer Science: • Computational Thinking with Java (CS164)
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<ul> <li>1<sup>st</sup> semester (calculus-ready)</li> <li>Math:         <ul> <li>Mathematics for Computational Science (MATH156), OR</li> <li>Calculus 1 (MATH160)</li> </ul> </li> <li>Computer Science (also AUCC Humanities):         <ul> <li>Culture and Coding: Python (CS150B)</li> </ul> </li> </ul>	<ul> <li>2<sup>nd</sup> semester</li> <li>Computer Science: <ul> <li>Computational Thinking with Java (CS164)</li> </ul> </li> </ul>

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### **COURSES AVAILABLE in COMPUTER SCIENCE:**

- CS201 or PHIL201 Ethical Computing Systems (also satisfies AUCC 3B: Arts & Humanities)
- CS165: CS 2 -Data Structures
- CS220: Discrete Structures and their Applications

Please consult the curriculum guides for the Exploring Math, Physical Science & Engineering major track OR the Exploring Organization, Management & Enterprise major track for classes that help you explore technology-related majors.

AUCC options: Please visit <u>https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/</u>