Bachelor of Science in Computer Science
Catalog Year 2023-2024

This flowchart provides guidance on what order to take your major courses due to prerequisites. The flowchart and course roadmap together can help you plan out your major requirements. Note that they do not replace meeting with an advisor!

For more information regarding the Computer Science B.S., scan the QR code.

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**LOWER DIVISION CORE**

- CS 101: COMPUTER SCIENCE I (F/SP)
- CS 201: COMPUTER SCIENCE II (F/SP)
- CS 211: DISCRETE STRUCTURES (F/SP)
- MATH 130: CALCULUS I (F/SP)
- PHYS 135: PHYSICS FOR SCIENTISTS AND ENGINEERS I (F/SP)
- CS 221: COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE (F/SP)
- CS 230: COMPUTING AND SOCIAL RESPONSIBILITY (F/SP)
- MATH 225: NUMERICAL ALGORITHMS AND LINEAR ALGEBRA FOR COMPUTER SCIENCE (F/SP)

**UPPER DIVISION CORE**

- CS 211: DISCRETE STRUCTURES (F/SP)
- MATH 131: CALCULUS II (F/SP)
- PHYS 135: PHYSICS FOR SCIENTISTS AND ENGINEERS I (F/SP)
- CS 301: DATA STRUCTURES AND ALGORITHMS (F/SP)
- CS 311: PROGRAMMING LANGUAGE CONCEPTS (F/SP)
- CS 321: COMPUTER ARCHITECTURE (F/SP)
- CS 331: COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE (F/SP)
- CS 341: COMPUTER ARCHITECTURE (F/SP)
- CS 351: WEBSITE DEVELOPMENT (F/SP)
- CS 361: COMPUTER GRAPHICS (F/SP)
- CS 371: SECURITY AND INFORMATION ASSURANCE (F/SP)
- CS 401: SOFTWARE ENGINEERING (F/SP)
- CS 411: AUTOMATA AND COMPUTATION (F/SP)
- CS 413: ANALYSIS OF ALGORITHMS (F/SP)
- CS 421: OPERATING SYSTEMS (F/SP)
- CS 441: COMPUTER NETWORKS (F/SP)
- CS 451: DATABASE ARCHITECTURE (F/SP)
- CS 453: MOBILE PROGRAMMING (F/SP)
- CS 461: ARTIFICIAL INTELLIGENCE (F/SP)
- CS 471: SECURITY AND INFORMATION ASSURANCE (F/SP)

Must take ALL

**ELECTIVE**

- Must take TWO

**CS BREADTH**

*Courses must not be the same as those already used. Note: 3-6 units of CS 497, Topics in Computer Science, and/or 1-3 units of CS 498, Internship, and/or 1-3 units of CS 490, Independent Study, may be used to fulfill the Electives category.*