

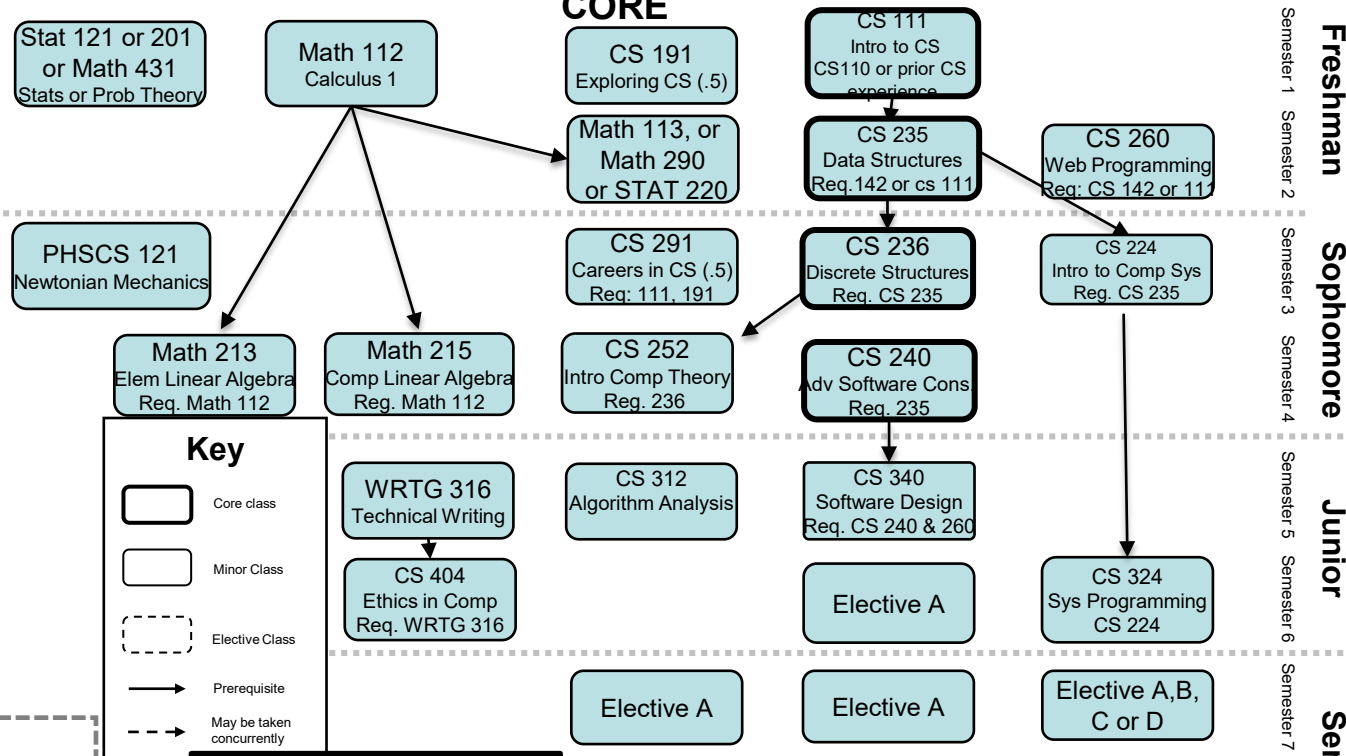
BYU Computer Science Major

Fall 2024 Requirements

Major (74-75 Hours)

Grades below C- are not allowed in major courses.

- Complete the following courses: CS 111, 191, 224, 235, 236, 240, 252, 260, 291, 312, 324, 340, 404
 - Complete the following supporting courses: WRTG 316, Math 112, 213, 215, and Phscs 121, 3
 - Complete one of the following: Math 431, Stat 121 or Stat 201
 - Complete one of the following: Math 113, Math 290 or STAT 220
 - Complete 21 hours from the following options
 - 12 hours **must** be from the following courses, but may take up to 21 hours: CS 329, 330, 345, 355, 356, 393, 401R**, 412, 428, 431, 450, 452, 453, 455, 456, 460, 462, 465, 466, 470, 471, 473, 474, 479, 486, 501R**, 513, 556, 574, 575, 580
 - Up to 6 hours from the following: CS 180, 202, 203, 204, 256, 270, 405, EC EN 220, MATH 113, Math 290, STAT 220
 - Up to 8 hours from the following courses: EC EN 330, EC EN 427, IS 567, or Math 485
 - Up to 9 hours from the following courses: CS 480, 481, 482, 483, 493R**, 494, 495, 497R**, 498R** (If CS, 493R, 497R, 498R, or 501R is chosen, it must be taken for three credit hours)
- Guide only—please consult MyMap for full requirements.



Elective Information:
At least 12 hours **must** come from elective group A. The remaining 9 hours can be taken from any of the elective groups A (up to 9), B (up to 6), C (up to 8), or D (up to 9).

Elective A
(Complete 12 (required) up to 21 hours)

CS 329 Test, Analysis, Verify Req: 240	CS 330 Prog Languages Req: 240	CS 345 Operating Sys Dsgn Req: 224 & 240	CS 355 Interactive Graphic Req: 240, Math 213, 215	CS 356 Adv. Tech in HCI Req: 256 & 260	CS 393 Algorithms & Problem Solving Req: 312	CS 401R** Topics in CS	CS 412 Convex Optimization Req: 240, Math 213 or 312	CS 428 Software Engineer Req: 340
CS 431 A. Lang & Compilers Req: 240	CS 450 Computer Vision Req: 312, 355, Math 313	CS 452 Database Modeling Req: 240	CS 453 Info Retrieval Req: 240	CS 455 Comp Graphics Req: 355, Math 213, 215	CS 456 UI Software Req: 240, 356	CS 460 Networks Req: 324	CS 462 Distributed Systems Req: 260, 324	CS 465 Security Req: 324
CS 466 Blockchain Tech Req: CS 312	CS 470 Artificial Intelligence Req: 312, Math 215, Stat 121	CS 471 Voice User Interfaces	CS 473 Avd. Machine Learning Req: 312, Math 215, Stat 121	CS 474 Deep Learning Req: 312, Math 213, 215	CS 477 Intro to Network Science Req: 312	CS 479 Machine Translation Req: CS 240	CS 486 Verification & Valid. Req: 312	CS 501R** Adv CS Topics
CS 513 Robust Control Req: Math 213, 215	CS 556 Research Methods in HCI	CS 574 Transformers for NLP Req: 270, 312	CS 575 Intro to Network Science Req: 312	CS 580 Theory of Predictive Modeling				

Elective B
(Choose up to 6 hours)

CS 180 Intro to Data Science	CS 202 SE Lab 1 (1 credit) Req: CS 142 or 111	CS 203 SE Lab 2 (1 credit) Req: CS 202 & 235	CS 204 SE Lab 3 (1 credit) Req: CS 203 & 240	CS 256 Intro to HCI	CS 270 Intro Machine Learning	MATH 113 Calculus 2 Req: MATH 112	MATH 290 Fundamentals of Math Req: MATH 112	STAT 220 Stat Modeling for DS Req: MATH 334
CS 405 Software Business Req: 240 & Engl 316	ECEN 220 Fund of Digital sys Req: CS 142 or 111							

Elective C
(Choose up to 8 hours)

EC EN 330 Embedded Program Req: EC EN 323 & 330	EC EN 427 Embedded systems Req: MATH 213	IS 567 Cybersecurity & Pen Req: CS 465 or IT 366	MATH 485 Cryptography Req: MATH 213
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Elective D
(Choose up to 9 hours)

CS 480 Software Eng Cap 1 Req: 240, 340, 329	CS 481 Software Eng Cap 2 Req: CS 480	CS 482 Data Science Cap 1 Req: 240	CS 483 Data Science Cap 2 Req: 282	CS 494 Capstone 1 Req: 240
CS 495 Capstone 2 Req: 240, 494	CS 493R** Comp. Competitions Req: 240	CS 497R** Research	CS 498R** Special Projects Req: 240	**Must be taken for 3 hours to fill the requirement

Freshman
Semester 1
Semester 2
Sophomore
Semester 3
Semester 4
Junior
Semester 5
Semester 6
Senior
Semester 7
Semester 8