

Software Engineering Emphasis

Fall 2025 Requirements

Major (74-76 Hours)

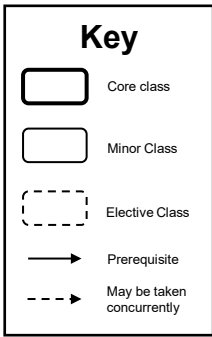
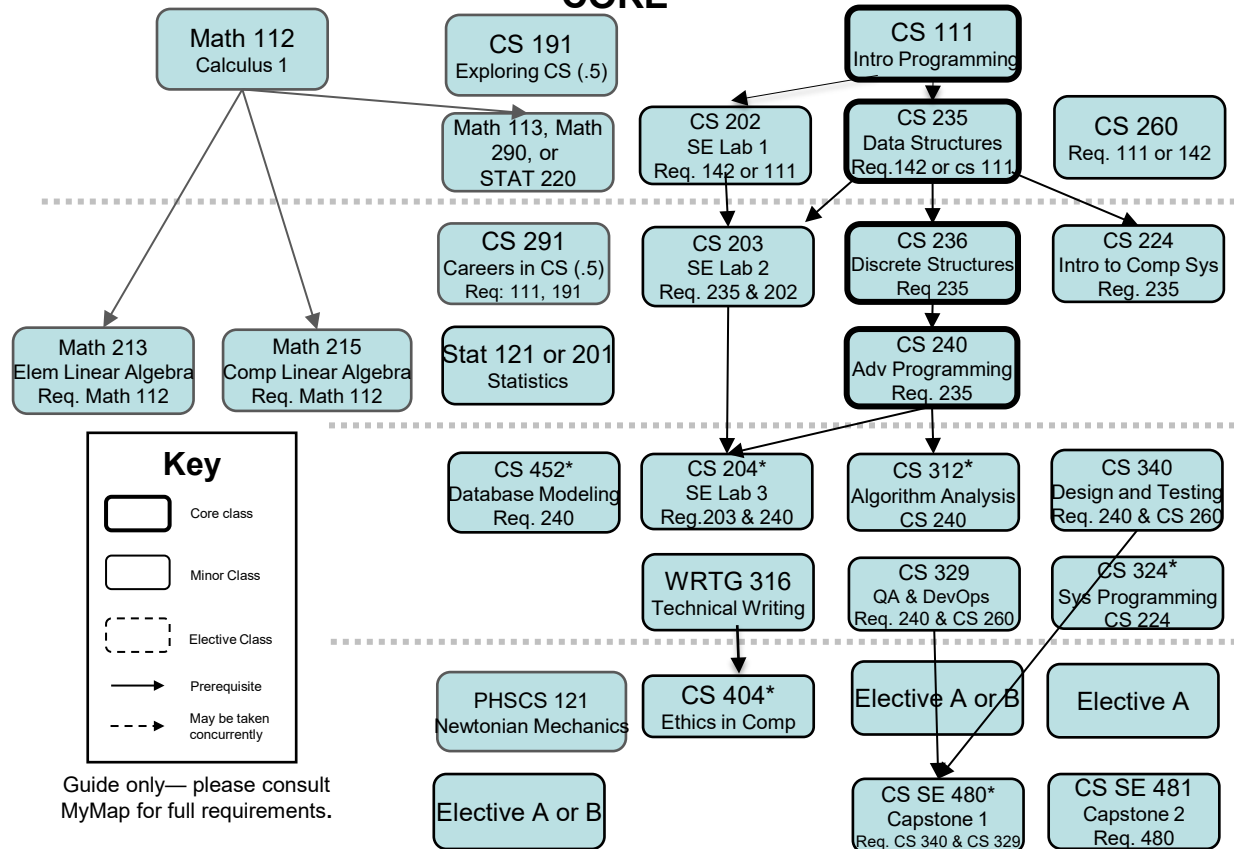
- Grades below C- are not allowed in major courses.
- Complete the following courses: CS 111, 191, 202, 203, 204, 224, 235, 236, 240, 260, 291, 312, 324, 329, 340, 404, 452, 480, 481
 - Complete the following supporting courses: WRTG 316, Math 112, 213, 215, and Phscs 121
 - Complete one of the following: Stat 121 or Stat 201
 - Complete one of the following three courses: Math 113, Math 290 or STAT 220
 - Complete 2 courses from the following courses: CS 256, 270, 330, 345, 356, 453, 456, 460, 462, 465, 473, 486
 - Complete 1 courses from the following courses: CS 252, 256, 270, 330, 345, 355, 356,393, 401R**, 405, 412, 416, 430, 450, 453, 455, 456, 460, 462, 465, 466, 470,471, 473, 474, 479, 486, 493R**, 497R**, 498R**, 501R**, 513, 556, 574, 575, 580, EC EN 424, EC EN 425, IT&C 567, MATH 411, Math 431, MATH 485

(If CS 401R, 493R, 497R, 498R, or 501R is chosen, it must be taken for three credit hours)

Elective Information:

Students must complete a total of 3 elective courses.2 from Elective A and 1 from Elective B. Courses may not double count between Elective A and Elective B.

CORE



Guide only— please consult MyMap for full requirements.

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

Elective A

(Choose 2 courses)

CS 256 Intro to HCI	CS 456 UI Software Req: 240, 356
CS 270 Intro to Machine Learning	CS 460 Networks Req: 324
CS 330 Prog Languages Req: 240	CS 462 Distributed Systems Req: 260, 324
CS 345 Operating Sys Dsgn Req: 224 & 240	CS 465 Security Req: 324
CS 356 Adv. Tech in HCI Req: 256 & 260	CS 473 Avd. Machine Learning Req: 312, Math 215, Stat 121
CS 453 Info Retrieval Req: 240	CS 486 Verification & Valid Req: 312

Elective B

(Choose 1 courses)

CS 252 Intro Comp Theory Req: 235	CS 356 Adv. Tech in HCI Req: 256 & 260	CS 430 Formal Verification Req: CS 330 or Math 290	CS 497R** Research	CS 575 Intro to Network Science Req: 312	MATH 431 Probability Theory Req: Math 213
CS 256 Intro to HCI	CS 393 Collaborative Problem Solving	CS 450 Computer Vision Req: 312, 355, Math 313	CS 498R** Special Projects Req: 240	CS 580 Theory of Predictive Modeling	MATH 485 Cryptography Req: MATH 213
CS 270 Intro to Machine Learning Req:	CS 401R** Topics in CS	CS 453 Info Retrieval Req: 240	CS 465 Security Req: 324	CS 474 Deep Learning Req: 312, Math 213, 215	EC EN 424 Computer Systems
CS 330 Prog Languages Req: 240	CS 405 Software Business Req: 240 & Engr 316	CS 455 Comp Graphics Req: 355, Math 213, 215	CS 466 Block Chain Req: 312	CS 479 Intro to Machine Translation	EC EN 425 Real-Time Operating Systems
CS 345 Operating Sys Dsgn Req: 224 & 240	CS 412 Convex Optimization Req: 240	CS 456 Mobile & Ubiquitous HCI Req: 240, 356	CS 470 Artificial Intelligence Req: 312, Math 215, Stat 121	CS 486 Verification & Valid Req: 312	IT&C 567 Security Testing Req: CS 465 or IT 366
CS 356 Adv. Tech in HCI Req: 256 & 260	CS 416 Advanced Algorithms Req: 312, 355, Math 313	CS 460 Networks Req: 235	CS 471 Voice User Interfaces	CS 493R** Comp. Competition Req: 240	MATH 411 Numerical Methods Req: MATH 334