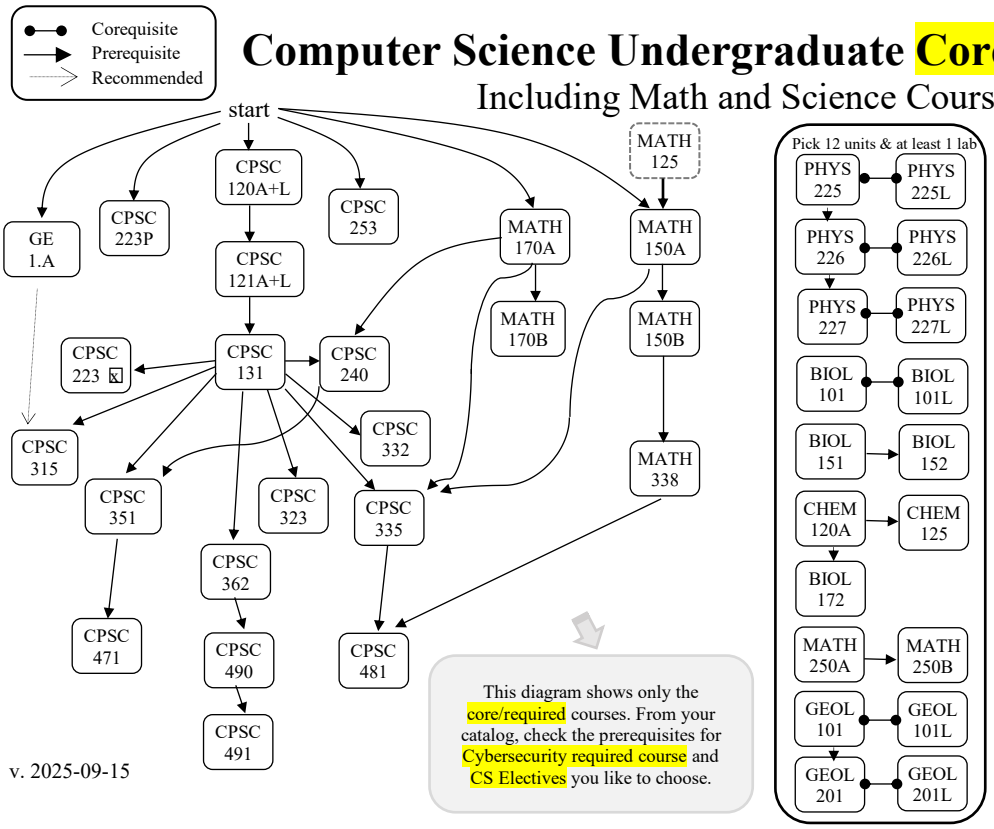
Computer Science Undergraduate Core Courses - Cybersecurity

Including Math and Science Courses



Students must complete all G.E. courses, all the lower- and upper-division Computer Science core courses, all the required math courses, 12-units of Math and science electives, 12 units of required cybersecurity courses and 3-units of Computer Science elective courses. The degree is a total of 120-units. Students must complete 30-units per year to complete a degree in 4-years. Students must apply for graduation two semesters prior to graduating.

Do not plan on taking all your elective courses in your last year.

All 100 and 200-level courses may be completed at community college. See <<http://assist.org/>> for CA community college articulation agreements.

University Catalog
https://catalog.fullerton.edu/

Computer Science Department (Resources/Contact)
http://www.fullerton.edu/ecs/cs/

Advising (new/transferred students)
http://www.fullerton.edu/ecs/resources/StudentSuccessCenter.php

Advising (junior/senior)
http://www.fullerton.edu/ecs/cs/resources/advisement.php

	Lower Division Core (18 units)		CS Electives (3 units)
CPSC 120A	Intro to Programming Lecture	CPSC 254	Applied Artificial Intelligence
CPSC 120L	Intro to Programming Lab	CPSC 349	Web Front-End Engineering
CPSC 121A	Object-Oriented Programming Lecture	CPSC 375	Intro to Data Science and Big Data
CPSC 121L	Object-Oriented Programming Lab	CPSC 386	Intro to Game Design and Production
CPSC 131	Data Structures	CPSC 411	Mobile Device Application Programming (iOS)
CPSC 223x, 223P	{x = C/Java/C#/Swift} P=Python Programming	CPSC 411A	Mobile Device App Programming for Android
CPSC 240	Computer Organization and Assembly Language	CPSC 431	Database and Applications
CPSC 253	Cybersecurity Foundations and Principles	CPSC 439	Theory of Computation
	Upper Division Core (30 units)	CPSC 440	Computer System Architecture
CPSC 315	Professional Ethics in Computing	CPSC 449	Web Back-End Engineering
CPSC 323	Compilers and Languages	CPSC 458	Malware Analysis
CPSC 332	File Structures & Database Systems	CPSC 459	Blockchain Technologies
CPSC 335	Algorithm Engineering	CPSC 462	Software Design
CPSC 351	Operating Systems Concepts	CPSC 463	Software Testing
CPSC 362	Foundations of Software Engineering	CPSC 464	Software Architecture
CPSC 471	Computer Communications	CPSC 465	Modern Software Deployment and Operations
CPSC 481	Artificial Intelligence	CPSC 466	Software Process
CPSC 490	Undergraduate Seminar in CS	CPSC 474	Parallel & Distributed Computing
CPSC 491	Senior Capstone Project in CS	CPSC 479	Intro to High Performance Computing
	Math Requirements (18 units)	CPSC 483	Intro to Machine Learning
Math 150A	Calculus 1	CPSC 484	Principles of Computer Graphics
Math 150B	Calculus 2	CPSC 485	Computational Bioinformatics
Math 170A	Math Structures 1	CPSC 486	Game Programming
Math 170B	Math Structures 2	CPSC 487	Computational Epidemiology
Math 338	Statistics Applied to Natural Sciences	CPSC 488	Natural Language Processing
	Science/Math Electives (12 units)	CPSC 499	Independent Study
	General Education (GE) (24 units)	EGGN 495	Professional Practice (Internship)
	Cybersecurity Concentration Required (12 units)	Math xxx	…some math electives… M-335/340/370
CPSC 352	Cryptography		
CPSC 454	Cloud Computing and Security		
CPSC 455	Web Security		
CPSC 456	Network Security Fundamentals		
	Graduation Requirement (3 units)		

(Total 120 units) See your catalog-year (e.g., 2025F) https://catalog.fullerton.edu/preview_program.php?catoid=95&poid=44977