

B.A. Computer Science Degree Checklist (2024/25 catalog)

Complete	Core Curriculum (30-36 Units)	Course that Satisfies Requirement	Units
	First Year Writing (CFYW)	FYW 150	3
	Mathematical Reasoning (CMRP)	MATH 150	
	Second Language Competency		3 to 9
	Lower-Division Theological and Religious Inquiry (FTRI)		3
	Upper-Division Theological and Religious Inquiry (FTRI)		3
	Philosophical Inquiry (FPHI)		3
	Ethical Inquiry (FETI)	PHIL 345 or PHIL 348	
	Scientific and Technological Inquiry (ESTI)		
	Historical Inquiry (EHSI)		3
	Social and Behavioral Inquiry (ESBI)		3
	Literary Inquiry (ELTI)		3
	Artistic Inquiry (EARI)		3
	Diversity, Inclusion, Social Justice (FDD1)		
	Diversity, Inclusion, Social Justice (FDD2 or FDG2)		
	Advanced Writing (CADW)	COMP 305	
	Oral Communication (CORL)		3
	Quantitative Reasoning (CQUR)		
	First Year Integration (CINL)	LLC Course	
	Advanced Integration (CINT)	COMP 492	
Complete	Math/Science Courses (10 Units)	Prerequisites/(Corequisites)	
	MATH 150 - Calculus I	MATH 115 or placement in MATH 130 or higher	4
	MATH 262 - Discrete Math or MATH 260 - Found. Higher Math	MATH 150	3
	ISYE 330 - Engr. Prob. & Stats or MATH 320 - Linear Algebra	MATH 262 (C- or better) or MATH 151 (C- or better)	3
Complete	Computer Science Core Courses (14 Units)	Prerequisites/(Corequisites)	
	COMP 110 - Computational Problem Solving	MATH 115 or placement in MATH 130 or higher	3.5
	COMP 120 - Programming Abstractions and Methodologies	COMP 110 (C- or better)	3.5
	COMP 230 - Advanced Computational Problem Solving	COMP 120 (C- or better), MATH 262 (C- or better)	3.5
	COMP 280 - Intro to Computer Systems	COMP 120 (C- or better)	3.5
Complete	Computer Science Required Courses (15.5 Units)	Prerequisites/(Corequisites)	
	PHIL 345 - Computer Ethics or PHIL 348 - Ethics of AI & Robotics		3
	COMP 305 - Object-Oriented Software Design	COMP 230 (C- or better)	3.5
	COMP 480 - Algorithms	COMP 230 (C- or better), MATH 260/262 (C- or better)	3
	COMP 491 - Senior Project I	COMP 280 (C- or better), COMP 305 (C- or better)	3
	COMP 492 - Senior Project II	COMP 491	3
Complete	Systems Courses (1 required - 3.5 Units)	Prerequisites/(Corequisites)	
	COMP 300 - Principles of Digital Hardware	COMP 280 (C- or better) & MATH 262 (C- or better)	3.5
	COMP 310 - Operating Systems	COMP 280 (C- or better)	3.5
	COMP 375 - Networking	COMP 280 (C- or better)	3.5
Complete	Computer Science Elective Courses (3 required - 9 units)	Prerequisites/(Corequisites)	
	COMP 340 - Numerical Analysis	COMP 110 (C- or better) or MATH 150 (C- or better), MATH 151 (C- or better)	
	COMP 341 - Numerical Analysis II	MATH 250, MATH 320, COMP 340 (all C- or better), (MATH 330)	
	COMP 345 - Database Management Systems Design	COMP 230 (C- or better)	
	COMP 350 - Computer Graphics	MATH 320 (C- or better), COMP 230 (C- or better)	
	COMP 360 - Principles of Programming Languages	COMP 230 (C- or better), MATH 260/262 (C- or better)	
	COMP 365 - Principles of Information Security	COMP 280 (C- or better)	
	COMP 370 - Automata, Commutability and Formal Languages	COMP 230 (C- or better), MATH 260/262 (C- or better)	
	COMP 380 - Neural Networks	COMP 230 (C- or better), MATH 320 (C- or better)	
	COMP 382 - Introduction to Data Mining	COMP 230 (C- or better), ISYE 330 (C- or better)	
	COMP 421 - Embedded Software Development	COMP 280 (C- or better)	
	COMP 422 - Advanced Embedded Software Development	COMP 421 (C- or better) or GENG 421 (C- or better)	
	COMP 494 - Special Topics	Permission of Instructor	
	Approved CYBR, AAI, ADS Graduate Level Courses	Permission of Chair	
Complete	Additional Requirements	Notes for Additional Requirements	
	Connect (Career Readiness Program)	Complete 12 points (orientation, networking, senior survey, and 9 flex points)	
	Free Electives	Complete additional units needed to meet 124 Unit requirement for degree	
	Upper-Division Courses	Complete additional upper-division units needed to meet 48 Upper-Division Unit requirement for degree	
Total COMP Degree Units			124