

**B.S. Computer Science Degree Checklist (2025/26 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)	Natural Science with Lab	
	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
	Critical Thinking (CCTH)		
	Information Literacy (CILT)		
	Quantitative Reasoning (CQUR)	ISYE 330	
	First Year Integration (CINL)	LLC Course	
	Advanced Integration (CINT)	COMP 492	
<b>Complete</b>	<b>Math/Science Courses (23 Units)</b>	<b>Prerequisites/(Corequisites)</b>	
	MATH 150 - Calculus I	MATH 115 or placement in MATH 130 or higher	4
	MATH 151 - Calculus II	MATH 150 (C- or better)	4
	MATH 262 - Discrete Math	MATH 150	3
	MATH 320 - Linear Algebra	MATH 262 (C- or better)	3
	ISYE 330 - Engineering Probability and Statistics	MATH 151	3
	Natural Science (BIOL 240/240L, BIOL 242/242L, BIOL 300, CHEM 151/151L, CHEM 152/152L, EOCS 104/104L, EOCS 105, EOCS 110, EOCS 123, EOCS 220, PHYS 136/136L, PHYS 137/137L, PHYS 270/270L, PHYS 271/271L)	See Undergraduate Catalog for respective course prerequisites/corequisites	6
<b>Complete</b>	<b>Computer Science Core Courses (14 Units)</b>	<b>Prerequisites/(Corequisites)</b>	
	COMP 110 - Computational Problem Solving	MATH 115 or placement in MATH 133/150	3.5
	COMP 120 - Programming Abstractions and Methodologies	COMP 110 (C- or better)	3.5
	COMP 230 - Advanced Computational Problem Modeling	COMP 120 (C- or better), MATH 262 (C- or better)	3.5
	COMP 280 - Introduction to Computer Systems	COMP 120 (C- or better)	3.5
<b>Complete</b>	<b>Computer Science Required Courses (18.5 Units)</b>	<b>Prerequisites/(Corequisites)</b>	
	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 370 - Automata, Commutability and Formal Languages	COMP 230 (C- or better), MATH 262 (C- or better)	3
	COMP 480 - Algorithms	COMP 230 (C- or better), MATH 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
<b>Complete</b>	<b>Systems Courses (2 required - 7 Units)</b>	<b>Prerequisites/(Corequisites)</b>	
	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
<b>Complete</b>	<b>Computer Science Elective Courses (3 required - 9 units)</b>	<b>Prerequisites/(Corequisites)</b>	
	Any COMP Course Not Required Numbered 300 and Above	See Undergraduate Catalog for respective course prerequisites/corequisites	3
	COMP 494 - Special Topics	See instructor for specific prerequisites/corequisites	1 - 4
	COMP 499 - Independent Study	Permission of Instructor	1 - 3
	ADS 501 - Foundations of Data Science & Data Ethics	COMP 352, ISYE 330, MATH 320, Permission of COMP Chair and ADS Program	3
	ADS 502 - Applied Data Mining	COMP 352, ISYE 330, MATH 320, Permission of COMP Chair and ADS Program	3
	*ADS 503 to ADS 508	ADS 501 (C- or better), ADS 502 (C- or better), Admission into 4+1 Program	3
	CYBR 501 - Intro to Cybersecurity Concepts and Tools	COMP 375, Permission of COMP Chair and CYBR Program Director	3
	CYBR 502 - Cybersecurity Network Defense	CYBR 501 (C- or better), Permission of COMP Chair and CYBR Program Director	3
	*CYBR 503 - Cybersecurity Domain	CYBR 502 (C- or better), Admission into 4+1 Program	3
	*CYBR 504 - Applied Cryptography	CYBR 502 (C- or better), Admission into 4+1 Program	3
<b>Complete</b>	<b>Additional Requirements</b>	<b>Notes for Additional Requirements</b>	
	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	
<b>Total COMP Degree Units</b>			<b>124</b>

\* Students admitted into one of the approved Combined BS/MS Degree programs (4+1 Program) can take a maximum of 12 credits of graduate coursework in their undergraduate program that will count towards both the BS and the MS degrees. Refer to USD 2025-26 Undergraduate Catalog for more details.