

B.S. in Computer Science, 2022-23

	Course	Title	Cr.	When	Prerequisites
GE Courses are required to graduate with a Bachelor's Degree from SUU.					
Foundational Coursework	CS 2300	Discrete Structures	3	F	CS 1410
	MATH 1210	Calculus I	4	F/S/Su	ACT 26 or ALEKS 75 or MATH 1050 & 1060
	MATH 2170	Applied Linear Algebra	3	F	MATH 1210 and CSIS 1400
	Select 5 Credits from the following:				
	MATH 1100	Applied Calculus	3	S	ACT 25 or ALEKS 60 or MATH 1050
	MATH 1220	Calculus II	4	F/S/Su	MATH 1210
	MATH 2900	Mathematical Software: Topic	1	As Needed	MATH 1210 (may be repeated up to 3 credits)
	MATH 3700	Probability & Statistics	3	F/S/Su	MATH 1220
(Select two (2) lectures with their corresponding labs from the following)	BIOL 1610/15	General Biology I/Lab	3/1	F/S/Su	
	BIOL 1620/25	General Biology II/Lab	3/1	F/S/Su	
	CHEM 1210/15	Principles of Chemistry I/Lab	4/1	F/S/Su	MATH 1050
	CHEM 1220/25	Principles of Chemistry II/Lab	4/1	F/S/Su	CHEM 1210/15
	PHYS 2210/15	Physics for Sci & Engineers I/Lab	4/1	F/S/Su	MATH 1210
	PHYS 2220/25	Physics for Sci & Engineers II/Lab	4/1	F/S/Su	PHYS 2210/15 & MATH 1220
CSIS Common Core	CSIS 1000	Intro to Computer Apps & Internet	3	F/Su	
	CSIS 1300	Programming with Python	3	S	MATH 1050
	IS 2000	Web Development	3	F/S	
	IS 2400	Technology & Ethics	3	F/S/Su	
	IS 2600	Data Communications & Networking	3	F/S	
	IS 2670	Fundamentals of Security	3	F/S/Su	IS 2600
CS Required Core	CS 1400	Fundamentals of Programming	3	F/S	*CSIS 1030 or *MATH 1050 w/i last 4 years
	CS 1410	Object Oriented Programming	3	F/S/Su	CS 1400
	CS 2420	Intro to Algorithms & Data Structure	3	F/S/Su	CS 1410
	CS 2450	Software Engineering	3	F	CS 2420
	CS 2810	Computer Organization & Architecture	3	S	CS 1410 & EET 2780
	CS 3000	Advanced Algorithms & Data Structures	3	S	CS 2300 & 2420
	CS 3150	C and C++ Programming	3	F	CS 2420
	CS 3200	Database Design & Management	3	F/S/Su	Jr or Sr Standing
	CS 3550	Foundations of Computation Theory	3	S	CS 2300 or MATH 3120
	CS 3600	Operating Systems	3	S	CS 2420
	CS 4550	Programming Languages	3	F	CS 3550
	CS 4800	CS Capstone Project	3	S	CS 2300, 2810 & 3000
CS Major Electives (choose 9 credits)	CS 3300	Mobile App Development for Android	3	S-odd	CS 2420
	CS 4300	Mobil App Development for iOS	3	S-even	CS 2420
	CS 4350	Web Programming	3	S-even	CS 2420
	CS 4720	Artificial Intelligence	3	F-even	CS 2420
	CSIS 3700	Introduction to Digital Forensics	3	F	IS 2600 or 2670
	CSIS 4540	Human-Computer interfaces	3	S-odd	CS 2420
	CSIS 4560	Big Data Analytics	3	S-even	CS 3200
	CSIS 4700	Advanced Digital Forensics	3	S	CSIS 3700
CS Electives (3 Credits)	CSIS 1100	Outreach Computing Projects	1	F/S/Su	May be repeated up to 3 credits
	CSIS 3990	Undergraduate Research	1-5	as needed	May be repeated up to 5 credits
	CSIS 4850	Special Topics	1-4	as needed	May be repeated up to 4 credits
	CSIS 4880	Community Engagement	1-3	as needed	May be repeated up to 3 credits
	CSIS 4890	Internship	1-9	as needed	May be repeated up to 9 credits
Any additional course from the Computer Science Major Electives list (3 credits)					
Additional Free Elective credits to total 120 and 40 Upper Division if needed					
					*Can be taken concurrently