DEGREE REQUIREMENTS FOR B.S. IN COMPUTER SCIENCE (as of SPRING 2021)

Updated March 2022

Name _____ Class of _____ CPSC GPA _____ (from Transcript)

Required Math courses

Sem	Grade	Course	
		MATH 131	Calculus I
		MATH 132	Calculus II

Required Foundation courses

Sem	Grade	Course		Sem	Grade	Course	
		CPSC 115L	Intro to Computing			CPSC 203	Math Found. of Computing
		CPSC 215L	Data Structures and Algorithms			CPSC 275L	Introduction to Computer Systems

Required Theory courses - 1 needed

Sem	Grade	Course	
		CPSC 219	Theory of Computation
		CPSC 320	Analysis of Algorithms

Required Systems courses - 1 needed

Sem	Grade	Course	
		CPSC 315	Systems Software
		CPSC 333	Computer Networks
		CPSC 375	High-Performance Computing
		CPSC 385	Computer Security

Required Software courses - 1 needed

Sem	Grade	Course	
		CPSC 304	Computer Graphics
		CPSC 310	Software Design
		CPSC 316	Found. of Programming Languages
		CPSC 340	Principles of Software Engineering
		CPSC 352	Artificial Intelligence
		CPSC 372	Database Fundamentals

Elective courses - 3 needed (only 1 can be CPSC 110)

Sem	Grade	Course		Sem	Grade	Course	
		CPSC 110	Computers, Information, and Society				
		CPSC 110	Visual Computing			CPSC 395	Sensitive Information in a Connected World
		CPSC 110	Computing with Mobile Phones			CPSC 415	Special Topics in Computing
		CPSC 219	Theory of Computation				
		CPSC 225	Topics in Application Programming				
		CPSC 304	Computer Graphics	***can only do 1 (at most) of the following electives***			
		CPSC 310	Software Design			ENGR 221L	Digital Circuits and Systems
		CPSC 315	Systems Software			ENGR 323L	Microprocessor Systems
		CPSC 316	Foundations of Programming Languages			MATH 228	Linear Algebra
		CPSC 320	Analysis of Algorithms			MATH 229	Applied Linear Algebra
		CPSC 333	Computer Networks			MATH 252	Introduction to Mathematical Modeling I
		CPSC 340	Principles of Software Engineering			MATH 254	Introduction to Mathematical Modeling II
		CPSC 352	Artificial Intelligence			MATH 305	Probability
		CPSC 372	Database Fundamentals			MATH 309	Numerical Analysis
		CPSC 375	High-Performance Computing			MATH 314	Combinatorics and Computing
		CPSC 360	Deep Learning			MATH 326	Graph Theory with Applications
		CPSC 385	Computer Security			.....	.....

Senior Exercise (Seminar + Project)

Sem	Grade	Course	Sem	Grade	Course
		CPSC 403			CPSC 498
		CPSC 404			CPSC 499

Students must register for all four seperately. They also receive seperate grades.

B.S. IN COMPUTER SCIENCE

Recommended Course Load

	FALL	SPRING
1st year	Freshman Seminar CPSC 115L Intro to Computing MATH 131 Calculus I	CPSC 215L Data Structures and Algorithms CPSC 203 Math Found. of Computing MATH 132 Calculus II
2nd year	Theory Course CPSC 275L Intro. To Computer Systems	Systems Course
3rd year	Software Course Elective 1	Elective 2
4th year	CPSC 403 Senior Seminar CPSC 498 Senior Project Elective 3	CPSC 404 Senior Seminar CPSC 499 Senior Project Elective 4