

DEGREE REQUIREMENTS FOR B.A. 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

Required Foundation course:

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

Cognate Requirements

One non-computer science course which is designated writing intensive.

Sem Grade Course

One additional numeric or symbolic reasoning course from the following list: (if MATH, must be 107 or higher)

Sem	Grade	Course
_____	_____	POLS 242 Political Science Research Methods
_____	_____	PSYC 221L Research Design and Analysis
_____	_____	SOCL 201L Research Methods in the Soc. Sciences
_____	_____	MATH

Elective courses - 2 needed (only 1 can be CPSC 110)

Sem	Grade	Course
_____	_____	CPSC 110 Computers, Info., and Society
_____	_____	CPSC 110 Visual Computing
_____	_____	CPSC 110 Computing with Mobile Phones
_____	_____	CPSC 219 Theory of Computation
_____	_____	CPSC 225 Topics in Application Programming
_____	_____	CPSC 304 Computer Graphics
_____	_____	CPSC 310 Software Design
_____	_____	CPSC 315 Systems Software
_____	_____	CPSC 316 Found. of Programming Languages
_____	_____	CPSC 320 Analysis of Algorithms
_____	_____	CPSC 333 Computer Networks
_____	_____	CPSC 340 Principles of Software Engineering
_____	_____	CPSC 352 Artificial Intelligence
_____	_____	CPSC 372 Database Fundamentals
_____	_____	CPSC 375 High-Performance Computing
_____	_____	CPSC 360 Deep Learning
_____	_____	CPSC 385 Computer Security

Sem	Grade	Course
_____	_____	CPSC 395 Sensitive Inf. in a Connected World
_____	_____	CPSC 415 Special Topics in Computing

can only do 1 (at most) of the following electives

Sem	Grade	Course
_____	_____	ENGR 221L Digital Circuits and Systems
_____	_____	ENGR 323L Microprocessor Systems
_____	_____	MATH 228 Linear Algebra
_____	_____	MATH 229 Applied Linear Algebra
_____	_____	MATH 252 Intro. to Mathematical Modeling I
_____	_____	MATH 254 Intro. to Mathematical Modeling II
_____	_____	MATH 305 Probability
_____	_____	MATH 309 Numerical Analysis
_____	_____	MATH 314 Combinatorics and Computing
_____	_____	MATH 326 Graph Theory with Applications

Senior Exercise (Seminar + Project)

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

Students must register for all four separately. They also receive separate grades.

B.A. 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 _____ _____
2nd year	Theory Course Writing Course CPSC 275L Intro. To Computer Systems _____ _____	Systems Course Cognate Course _____ _____
3rd year	Software Course _____ _____ _____	Elective 1 _____ _____ _____
4th year	CPSC 403 Senior Seminar CPSC 498 Senior Project Elective 2 _____ _____	CPSC 404 Senior Seminar CPSC 499 Senior Project Elective 3 _____ _____