

# DEGREE REQUIREMENTS FOR B.A. IN COMPUTER SCIENCE (as of FALL 2025)

Updated September 2025

Name \_\_\_\_\_

Class of \_\_\_\_\_

CPSC GPA \_\_\_\_\_ (from Transcript)

## Required Math courses

Sem	Grade	Course
_____	_____	MATH 131 Calculus I

## Required Foundation courses

Sem	Grade	Course	Sem	Grade	Course
_____	_____	CPSC 115L Introduction to Computer Science	_____	_____	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 Essentials of Computing with Python
_____	_____	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

_____	_____	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 Introduction to Computer Science  
 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  
 \_\_\_\_\_  
 \_\_\_\_\_