

# Computer Science Major, B.S.

## I. Required Core Courses

CS 1309 Problem Solving and Computation (3 credits)	Every Semester
CS 2321 Computer Science I (4 credits)	Every Semester
CS 2322 Computer Science II (4 credits)	Every Semester
CS 2810 Computer Organization and Assembly Language Programming (3 credits)	Every Spring
CS 3528 Data Structures and Algorithms (4 credits)	Every Fall
CS 4390 Social, Ethical, and Professional Issues in Computing (3 credits)	Every Spring

**Subtotal 21 credits**

## II. Select 21 credits from among the following courses, with at least 3 courses from Section A and 3 courses from Section B.

### A. Core Computer Science

CS 3507 Databases (3 credits)	Fall Odd Years
CS 3560 Data Communications and Networking (3 credits)	Fall Even Years
CS 3752 Data Mining (3 credits)	Spring Even Years
CS 4298 Compiler Construction (3 credits)	Spring Even Years
CS 4410 Digital Image Processing (3 credits)	Fall Even Years
CS 4627 Theory of Computation (3 credits)	Spring Odd Years
CS 4840 Operating Systems (3 credits)	Fall Odd Years
Math 3720 Numerical Methods (3 credits)	Varies

### B. Software Development

CS 3270 Advanced Web Programming (3 credits)	Every Spring
CS 3350 Event-Driven Programming (3 credits)	Spring Odd Years
CS 3360 Object-Oriented Software Development (3 credits)	Fall Odd Years
CS 3370 Mobile Application Development (3 credits)	Spring Even Years
CS 3380 Game Development (3 credits)	Fall Even Years
CS 4360 Software Engineering (3 credits)	Fall Even Years

**Subtotal 21 credits**

## III. Required Outside Courses

MATH 1470 Precalculus or MATH 2471 Calculus I (5 credits)  
MATH 2210 Discrete Mathematics (4 credits)

Select one of the following three courses (4 credits):

- STAT 2610 Applied Statistics
- MATH 3310 Linear Algebra
- STAT 3631 Probability and Statistics I

Select one of the following two courses (3 credits):

- COMM 1100 Public Speaking (3 credits)
- COMM 2100 Career & Professional Communication (3 credits)

Select one of the following three courses:

- ENGL 2150 Technical Writing (3 credits)
- ENGL 3150 Writing in the Disciplines (3 credits)
- ENGL 3155 Professional Writing (3 credits)

**Subtotal 19 credits**

**Total Semester Credits Required for Major:**

**61 credits**

**All students pursuing a computer science major are strongly encouraged to complete either a minor or a second major. If you are considering graduate school you should minor (or major) in Mathematics. Otherwise the minor or second major should represent an area of interest to you and be chosen in consultation with your advisor.**

**Note: BSU requires that you complete at least 40 credits at the 3000-level or above. By completing the requirements for the Computer Science major, you may complete only 28 credits at the 3000-level or above.**

**A Total of 120 Semester Credits is Required for a Bachelor of Science Degree**