## Computer Science, B.S.

## **Degree Type**

Major

## Program Goals for Computer Science

In order to provide high caliber instruction in the quantitative element of a liberal arts education, this department offers majors in mathematics and in computer science designed:

- To provide the student with a breadth of knowledge in the disciplines of mathematics or computer science
- To provide the tools to assist the further study of mathematics, computer science, or related disciplines
- To offer a sufficient depth of knowledge in order to prepare students for research in mathematics, computer science, or related disciplines
- To prepare students for careers in education, in business, and in scientific, mathematical, or technical fields
- To provide a learning community supportive of collaboration in academics, social responsibility, and engaged teaching

The Bachelor of Science plan is designed for students seeking a career in computer science in a scientific laboratory or in a software development firm.

## Requirements for the Major

Item #	Title	Credits
CPSC 151	Computer Science I	4
CPSC 152	Computer Science II	4
CPSC 205	Web Design	3
CPSC 240	Introduction to Computer Security	3
CPSC 275	Data Structures and Algorithms	3
CPSC 277	Computer Ethics	3
CPSC 330	Computer Organization and Assembly Language	4
CPSC 360	Programming Languages	3
CPSC 370	Operating Systems	3
CPSC 373	Writing for Mathematics and Computer Science	2
CPSC 440	Data Communications and Network Architecture	3
CPSC 477	Seminar in Mathematics and Computer Science	2
CPSC 490	Senior Project	2-4
CPSC 495	Comprehensive Exams	
	Computer Science Elective	3
MATH 201	Calculus I	4
MATH 202	Calculus II	4
MATH 210	Discrete Mathematics	3
MATH 354	Linear Algebra	3
MATH 383	Probability & Statistics I	3
PHYS 201	General Physics I	4
PHYS 202	General Physics II	4

Strongly recommended:

Item #	Title	Credits
CPSC 310	Artificial Intelligence	3

During the first semester, beginning students are expected to complete:

Item #	Title	Credits
CPSC 151	Computer Science I	4
MATH 201	Calculus I	4
		78-80