

Computer Science (BS)

This program is offered by the Walker School of Business & Technology/Math & Computer Science Department.

Program Description

Students in this major are focused on making the computer system perform at its highest level. They will become proficient in programming and in understanding the best uses of the machine. These individuals will become the IT professionals who keep the infrastructure running. They will be qualified to create new systems, as well as having the skills to maintain and update older systems.

Graduates from this program will be versatile professionals who can solve problems that would jeopardize an organization; they will form the backbone of the internal IT staff.

Learning Outcomes

- Students will demonstrate critical thinking skills in the field of computer science.
- Students will demonstrate the ability to solve problems related to the program content.
- Students will demonstrate an understanding of the concepts and principles of software systems.
- Students will analyze, design and document a system component using appropriate computer science techniques and models.
- Students will make a formal presentation of a software system project including the demonstration of a working application.
- Students will demonstrate an in-depth knowledge of advanced software development techniques.

Degree Requirements

A minimum of 128 credit hours consisting of the following:

- 36 required credit hours
- Applicable University Global Citizenship Program hours
- Electives

At least 18 of the required 36 computer science credit hours must be taken at Webster University. All upper-level courses must be taken at Webster University.

Required Courses

- COSC 1550 Computer Programming I (3 hours)
- COSC 1560 Computer Programming II (3 hours)
- COSC 1570 Math for Computer Science (3 hours)
- COSC 2610 Operating Systems (3 hours)
- COSC 2670 Telecommunications (3 hours)
- COSC 2810 Systems Analysis and Design (3 hours)
- COSC 3050 Data Structures I (3 hours)
- COSC 3100 Data Structures II (3 hours)
- COSC 4110 Database Concepts (3 hours)
- COSC 4120 Database Applications (3 hours)

Students will choose two of the following courses:

- Computer science courses (COSC) numbered 3000 or above (6 hours),
excluding: COSC 3900 Practicum (3 hours)
and COSC 3910 Project (3 hours)