

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE
Bachelor of Science in Computer Science

Mission Statement

The mission of the Computer Science Curriculum is to provide students with an understanding of computer science concepts, processes, and tools and to equip students with the analytical, design, and communication skills necessary to build computing systems. The focus of the curriculum is on computer organization, programming, internet technology, and theoretical computer science.

Goal 1: Student will understand the underlying architecture of the digital computer.

- **Objective 1.1:** Recognize and define the basic computer hardware components..
- **Objective 1.2:** Describe and implement a computer machine language program.

Goal 2: Students will understand the algorithms and data structures that underlie all software development.

- **Objective 2.1:** Explain the differences between programming languages.
- **Objective 2.2:** Describe, organize, and apply data structures.

Goal 3: Students will demonstrate expertise in the development and design of software.

- **Objective 3.1:** Design, implement, test, and document large programming projects.
- **Objective 3.2:** Design, implement, test and document web based projects.

Goal 4: Students will develop problem-solving skills, especially those required to analyze, design and implement solutions involving the use of a computer.

- **Objective 4.1:** Develop solutions to problems that are new to them, and implement these solutions efficiently.
- **Objective 4.2:** Develop the skills needed to work in small groups on medium to large-scale projects.

Goal 5: Students will be educated with a broad and in-depth knowledge of computer science.

- **Objective 5.1:** Students will be well prepared for a professional career or graduate studies in computer science.