

# Computer Science and Engineering

*Program Educational Objectives:* A few years after completing the Computer Science and Engineering program, graduates will:

- (1) establish a productive Computer Science and Engineering career in industry, government or academia;
- (2) engage in professional practice of computer systems engineering and software systems engineering;
- (3) promote the development of innovative systems and solutions using hardware and software integration;
- (4) promote design, research, and implementation of products and services in the field of Computer Science & Engineering through strong communication, leadership, and entrepreneurial skills.

*Computer Science and Engineering (CSE) Student Outcomes:*

Computing Accreditation Commission (CAC)

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions;
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline;
3. Communicate effectively in a variety of professional contexts;
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles;
5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
6. Apply computer science theory and software development fundamentals to produce computing-based solutions.

Engineering Accreditation Commission (EAC)

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics;
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors;
3. an ability to communicate effectively with a range of audiences;
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts;
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives;
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions;
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

