Undergraduate Computer Related Programs at the School of Engineering

The Computer Science & Engineering (CSE) and Electrical & Computer Engineering (ECE) departments offer a range of undergraduate programs designed to meet student and employer interest in the computer field. Four programs are offered: Computer Science (CSCI), Computer Science and Engineering (CSE), Computer Engineering (CMPE) and Electrical Engineering (EE). While these degrees share core-computing topics, they differ significantly in content and emphasis with respect to software, hardware, computing foundation, computing devices and computing applications.

Computer Science

Computing: Principles and Practice

This program produces graduates with a broad understanding of both computing principles and computing practice. The program emphasizes the fundamental computing models through the design and analysis of algorithms and software. Included in .he program is coursework in a computing application area outside of the School of Engineering such as business or bioinformatics.

This program leads to a Bachelor of Science (BS), and requires a minimum of 120 credits.

Computer Science and Engineering

Computing Systems: Software Engineering and Architecture

This program produces graduates with a broad perspective in both software and hardware topics pertinent to computing systems. It provides the foundation and specialized knowledge necessary to analyze, design and evaluate system software, utility programs and software-hardware architectures.

This program leads to a Bachelor of Science in Engineering (BSE), and requires a minimum of 126 credits.

Computer Engineering

Digital Systems: Foundation and Engineering Design

This program produces graduates with skills in designing computer hardware and peripherals, and emphasizes the electrical characteristics of the computer itself. It is focused particularly on designing the computer hardware, associated core software structures and their interfaces.

This program leads to a Bachelor of Science in Engineering (BSE), and requires a minimum of 126 credits.