Computer Systems Engineering (CSE)

Courses

CSE A102 Introduction to Computer Systems 1 Credit
Introduction to hardware, operating systems, networking, security, storage, maintenance and related topics in computer systems. This course prepares students for applications across a wide range of computer systems for use in Geomatics and GIS courses as well as basic system management in field situations for Geomatics/GIS applications.

CSE A205 Introduction to C Programming for Engineers 3 Credits
Introduction to C programming for engineers. Students will learn a programming language that can be used in many aspects of the engineering field, specifically with applications interfacing with hardware devices. Students will gain basic programming skills, including variables, functions, structures, control structures, and conditional statements with applied reinforcement in engineering applications. Projects will focus on engineering applications in different fields.

Prerequisites: (MATH A151 and MATH A152) or MATH A155.

CSE A225 Assembly Language Programming for Engineers using Xilinx 3 Credits
Organization and operation of a computer's processor, including registers, I/O and control. Assembly language programming with emphasis placed on engineering applications and design using Xilinx architecture.

Prerequisites: CSE A205.

CSE A438 Design of Computer Engineering Systems 3 Credits
Capstone course in which computer systems engineering students design a computer component or system starting with the initial design specification to the implementation and testing. Students apply knowledge and skills learned in their undergraduate curriculum.

Registration Restrictions: Student must be in senior year of BSE degree program or obtain faculty permission. Completion of GER Tier 1 (basic college-level skills) courses.