

Computer Engineering Technology

Degree Type

Associate in Science

The Computer Engineering Technology (CET) Program prepares the student to use basic engineering principles and theories of science, engineering, and mathematics to solve technical problems in research and development, install, service, and maintain computers, peripherals, networks, and microprocessor and computer-controlled equipment.

Using modern electronic laboratories, students become familiar with circuit analysis, analog and digital circuit design and analysis, high-level programming, microprocessor/microcontroller programming and interfacing, computer architecture, operating systems and networking basics.

The U.S. Department of Labor's Bureau of Statistics (BLS) reports that one of the top ten best paying jobs for individuals with an associate degree is the Engineering Technician, with positive job growth expected through 2026.

In addition to the general admission requirements, Computer Engineering Technology applicants should be aware of the following criteria:

Completion of high school Algebra I, Algebra II and Geometry are recommended as well as other high school courses such as physics, chemistry, electronics, and computer programming. Basic writing skills in English are required. Accepted students will be required to possess or purchase approximately \$100 of minor accessories.

The educational objectives of the Computer Engineering Technology Associate Degree Program are to provide graduates with the knowledge, techniques, skills, and use of modern tools in computer engineering technology. Graduates have strengths in the building, testing, operation, and maintenance of computer systems and their associated software systems.

The Computer Engineering Technology program prepares graduates to have competence in the following curricular areas:

1. application of electric circuits, computer programming, associated software applications, analog and digital electronics, microcontrollers, operating systems, local area networks, and engineering standards to the building, testing, operation, and maintenance of computer systems and associated software systems; and
2. application of natural sciences and mathematics at or above the level of algebra and trigonometry to the building, testing, operation, and maintenance of computer systems and associated software systems.

Technical Standards: Please refer to Technical Standards for details regarding this program.

At the completion of the degree in Computer Engineering Technology, graduates must demonstrate that they will be able to:

1. apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve well-defined engineering problems appropriate to the discipline;
2. design solutions for well-defined technical problems and assist with the engineering design of systems, components, or processes appropriate to the discipline;
3. apply written, oral, and graphical communication in well-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature
4. conduct standard tests, measurements, and experiments and to analyze and interpret the results; and
5. function effectively as a member of a technical team.

In addition, the graduate will be able to demonstrate competency in the general education outcomes.

First Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
ELET115N	Introduction to Programming Using C++	2	3	3
ELET121N	Digital Circuits I	2	3	3
ELET131N	Circuit Analysis I	3	3	4
ENGL101N	College Composition	4	0	4
MATH110N	Algebra & Trigonometry	4	0	4

First Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
CSCI170N	Linux Essentials	2	2	3
ELET132N	Circuit Analysis II	3	3	4
MATH120N	PreCalculus	4	0	4
PHYS130N	Physics I	3	3	4
	PSYC130N or Social Science General Education Core Requirement			3

Second Year - Fall Semester

Item #	Title	Class Hours	Lab Hours	Credits
CSCI230N	Object Oriented Programming Using: C++	2	2	3
CSCN116N	Networking Basics	2	2	3
ELET250N	Microcontrollers	3	3	4
MATH210N	Calculus I	4	0	4
PHYS131N	Physics II	3	3	4

Second Year - Spring Semester

Item #	Title	Class Hours	Lab Hours	Credits
ELET221N	Advanced Digital Circuits	3	3	4
	CSCI285N or ELET274N			2-3
ENGL122N	Technical Writing	3	0	3
HUMA230N	Ethics in the Workplace	3	0	3
	Total Credits			66-67