

Computer Engineering Technology

Computer Engineering

www.dtcc.edu • Delaware Technical & Community College

The Computer Engineering Technology can prepare you for an interesting and exciting career in working with computer hardware and software.

You will learn basic electronic theory and uses; to install new computer equipment; how to operate a computer; to program computers; to repair computer electronic hardware; and to install, maintain, and repair data communication networks.

What You'll Learn...

- Electricity/Electronics subjects
- Digital and computer electronics
- PC Telecommunications concepts
- Installing, maintaining, and troubleshooting computer systems
- Installing, maintaining, and troubleshooting data communications networks such as LANs and WANs
- Programming in C Language
- Operating and maintaining computer software

What You'll Earn...

- A competitive salary with good opportunities for advancement
- Employment opportunities in computer installation and troubleshooting, network installation management at numerous organizations, both large and small
- The credentials to advance in a position in this field
- Strong status in the job market - Computer Engineering graduates are in demand

Why You'll Succeed...

- More than half of all new jobs created require education beyond high school
- Employees with degrees tend to be more eligible for promotion*
- Associate degree holders generally earn more than high school graduates*
- College credit or advanced placement may be given for relevant work experience
- Many credits from an Associate Degree can be applied toward a Bachelor Degree

**Statistics from U.S. Department of Commerce, Bureau of Census*

Computer Engineering

You can enroll in the Computer Engineering Technology on either a full-time or part-time basis. The length of time required to complete an Associate Degree depends on the number of courses you take each semester. Some students may need refresher courses at the basic or pre-tech level; others may receive transfer credit or credit for work experience. Delaware Tech operates on a semester system with new terms beginning in late August and mid-January, plus summer terms beginning at the end of May and in mid-June. You can start taking courses any semester or summer term; however, all technical courses may not be offered every term. Diploma and Certificate programs are also available in this technology.

Required Technical Courses

Introduction to Circuit Analysis covers the basics of current, voltage, and power in series, parallel and series-parallel DC circuits.

Network Analysis covers the basics of alternating circuits with emphasis on applied use of fundamental theorems.

Digital Electronics I covers the areas of digital concepts including logic levels and waveforms, number systems, logic gates, adders, comparators, encoder/decoders, multiplexers/demultiplexers and parity circuits.

Digital Electronics II discusses advanced digital electronic topics including memory elements, flip-flops, counters, shift registers, memories, digital-to-analog and analog-to-digital conversion, and introductory microprocessor topics.

Intro to Microprocessors provides an overview and use

of the microcontroller in today's computer equipment.

PC Telecommunications Basics is an overview of basic telecommunications principles as applied to personal computer communications.

Computer Assembly and Maintenance provides an overview of the personal computer and its components and includes an introduction to non-component troubleshooting.

Digital Communications with Network provides a study of computer interface and networking through simulations and observation as well as hands-on installations.

Troubleshooting Computer Systems provides a study of software and hardware problems, identification of bad components, mechanical problems, and other operational failures of microcomputer equipment and peripherals.

Related Courses

Algebra & Trigonometry I & II

Composition

Technical Writing & Communication

Critical Reading & Thinking

Oral Communication

Physics

Introduction to Computers & Technology

Social Science Elective

Introduction to Microprocessors

Analog Electronics II

Technical Elective

Getting Started

1. Obtain an application by calling (302) 857-1020. Complete and return to Terry Campus with a \$10 application fee.
2. Take the College Placement Test (CPT) *unless college-level math, reading, and English courses have been completed with a "C" grade or better*. The CPT will determine appropriate placement and is scheduled by the Admissions Office.
3. Request that high school and/or college transcripts be sent to the Admissions Office.
4. Meet with a Delaware Tech counselor to discuss CPT results.
5. Meet with advisor to plan schedule.
6. Apply and register early for the best selection of courses.

Standards of Excellence

- ❖ Employment placement rate is over 90%