

# *Computer Network Engineering Technology*

# **Computer Network Engineering**

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*The Computer Network Engineering Technology can prepare you for a career working with computer local and wide area networks. You will learn basic computer electronic theory; 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...**

- Installing and maintaining fiber optic networks
- Digital and computer electronics
- Installing and maintaining computer systems
- Installing, maintaining, and troubleshooting data communications networks such as LANs, WANs, and related equipment
- Programming in C++ Language
- Operating and maintaining basic computer network software

## **What You'll Earn...**

- A competitive salary with good opportunities for advancement
- Employment opportunities in computer network installation, troubleshooting, and 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 Network 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 Network Engineering

You can enroll in the Computer Network 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.

## Required Technical Courses

**UNIX Operating Systems** covers the basic operation of UNIX and its use in networking.

**Intro to Computers & Technology** provides an overview of the computer and its uses in Engineering Technology.

**Computer Assembly & Maintenance** provides an overview of the PC and its components including non-component troubleshooting.

**Data Structures in C** covers the C++ computer language from basics through data structures.

**PC Telecommunications Basics** is an overview of basic telecommunications principles as applied to PCs with an introduction to LANs.

**Windows Network Operating Systems** provides an exposure in the installation and management of LANs as used in Windows. Windows NT is a major part of the course.

**Digital Data Communications with Networks** provides an advanced study of data communications and networking. An introduction to Banyan Vines is also covered.

**Network Installation/Maintenance** covers the installation and maintenance of computer local area networks such as Novell.

**Fiber Optics with Networks** is an introduction to fiber optics communications with its uses in LANs and WANs

**Introduction to Circuit Analysis** covers the basics of current, voltage, and power in DC circuits and introductory AC concepts.

**Digital Electronics I** covers digital concepts from basic logic circuits through multiplexers/demultiplexers and parity circuits.

**Digital Electronics II** covers advanced digital electronics beginning with flip-flops and progressing through an introduction to microprocessors.

**Intro to Microprocessors** provides an overview and use of the microcontroller in today's computer equipment.

## Related Courses

Algebra & Trigonometry I & II

Composition

Technical Writing & Communication

Critical Reading & Thinking

Physics

Social Science Electives

## Getting Started

1. Obtain an application by calling (302)857-1020. Complete and return to the 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

- ❖ This job field has grown so that virtually all graduates have gained employment soon after graduation