

Electrical Engineering Technology

Careers

Engineering technicians use the principles and theories of science, engineering, and mathematics to solve technical problems in research and development, manufacturing, sales, construction, inspection, and maintenance. Their work is more limited in scope and more practically oriented than that of scientists and engineers. Many engineering technicians assist engineers and scientists, especially in research and development. Others work in quality control—inspecting products and processes, conducting tests, or collecting data. In manufacturing, they may assist in product design, development, or production.

Engineering technicians who work in research and development build or set up equipment, prepare and conduct experiments, collect data, calculate or record the results, and help engineers or scientists in other ways, such as making prototype versions of newly designed equipment. They also assist in design work, often using computer-aided design equipment.

Most engineering technicians specialize in certain areas, learning skills and working in the same disciplines as engineers. Occupational titles, therefore, tend to follow the same structure as those of engineers.

Job Outlook

Opportunities will be best for individuals with an associate degree or extensive job training in engineering technology. As technology becomes more sophisticated, employers continue to look for technicians who are skilled in new technology and require a minimum of additional job training. Overall employment of engineering technicians is expected to increase about as fast as the average for all occupations through 2010. Increasing demand for more sophisticated electrical and electronic products, as well as the expansion of these products and systems into all areas of industry and manufacturing processes, will contribute to growth in electrical and electronics engineering technicians.

Earning Potential

Median annual earnings of electrical and electronics engineering technicians were \$40,020 in 2000. The middle 50 percent earned between \$31,570 and \$49,680.

Related Careers

Manufacturing Engineering Technology
Computer Maintenance and Networking
Automation Engineering Technology

Electrical Engineering Technology Careers

Educational Opportunities in Electrical Engineering Technology at LCCC

Associate of Applied Science in Electronic Engineering Technology – Applied Electronics

This program is structured to provide students with an application-oriented, electronic/electrical background, extensive hands-on laboratory experience and the use of standard and specialized test equipment. The relevant knowledge, the skills that industry needs today, and the competencies that are integrated into the curriculum are intended to prepare the graduate to be job-ready in the high-tech workplace and enter into a rewarding career in one of the electronic fields. This program can be completed in two years if completed on a full-time basis. Many LCCC students choose to study on a part-time basis. Students in the associate of applied science in electronic engineering – applied electronics program complete courses in: electronics, English, math, technology, automation engineering technology, physics, computer aided design, computer maintenance and networking.

Associate of Applied Science in Electronic Engineering Technology – Computer Maintenance and Networking

This program provides a solid foundation in the principles of electronics, with an emphasis on the installation, maintenance and repair of computer systems, networks and associated equipment. Along with broad, general electronics background, students are given comprehensive information and training in computer system structure, peripheral device operation, installation procedures and troubleshooting practices through this extensive hands-on-oriented curriculum. This program can be completed in two years if completed on a full-time basis. Many LCCC students choose to study on a part-time basis. Students in the associate of applied science in electronic engineering technology – computer maintenance and networking program complete courses in: electronics, English, math, technology, computer aided design, physics, computer maintenance and networking.

Certificate of Proficiency in Electronic Engineering Technology – Computer Maintenance and Networking

This program is designed to provide students with the knowledge and practical skills to install, upgrade and maintain personal computer systems and networks. This program can be completed in less than one year, if taken on a full-time basis. Many LCCC students choose to study on a part-time basis. Students in this program complete courses in computer maintenance and networking, electronics, math and English.

A+ Certification Preparation Available at LCCC

A+ Certification is the industry standard for computer maintenance and networking professionals and it can help get you a great — and great paying — job! Two courses at LCCC specifically prepare you for the A+ certification exam. The courses not only prepare you for the exam (which is offered by an independent testing agency) but also teach you to communicate in technical terms, diagnose and troubleshoot problems with computers, repair printers and upgrade computers and computer memory management. It ensures the expertise of computer maintenance and networking professionals. If this sounds like something you would like to achieve, give us a call at LCCC. We'll be happy to tell you more about it.

Other Educational Opportunities in Engineering Technology at LCCC

- Certificate of proficiency in manufacturing engineering technology – computer aided design operator
- Certificate of proficiency in manufacturing engineering technology – computer aided machining operator
- Certificate of proficiency in manufacturing engineering technology – quality control
- Associate of applied science in automated engineering technology – maintenance/repair
- Associate of applied science in automated engineering technology – systems specialist
- Associate of applied science in manufacturing engineering technology – computer aided machining
- Associate of applied science in manufacturing engineering technology – mechanical design
- Associate of applied science in manufacturing engineering technology – quality assurance

About Lorain County Community College

Lorain County Community College is one of Ohio's leading colleges delivering distance learning education via the Internet. The College has expanded its delivery of its programs and services through the opening of the Learning Center at St. Joseph Community Center in Lorain and the Wellington Center in 2007. Partnerships with Lorain County's K-12 school districts have also led to important developments for the community. More than 1300 high school students participate in the Post Secondary Enrollment Options Program by enrolling in LCCC classes, making LCCC the state's largest community college provider of PSEO. More than 30 percent of Lorain County's top high school graduates choose to attend LCCC.

LCCC is one of Ohio's fastest growing colleges because of the variety of learning opportunities it provides. Students can choose from more than 80 educational programs. Students can complete the first half — and sometimes more — of a bachelor's degree. The University Partnership brings eight universities to the LCCC campus offering 40 bachelor's and master's degree programs. With the University Partnership at LCCC, the College partners with the state's finest universities to bring the best in bachelor's and master's degree programs right to the LCCC campus. Students can earn degrees that get them jobs immediately. Students can upgrade, retrain and improve current life skills. Students can learn in the classroom, at home and over the Internet.

LCCC offers a complete college experience. We understand that there's more to college life than attending classes. We offer many of the programs, sports, and activities available at large four-year universities and colleges. But, students will not have to stand in line behind juniors and seniors in the classroom, on the playing field, or in leadership positions. Students can immediately act in a play, sing in a musical group, serve as editor for the college newspaper, plan social activities, compete on the playing field, or set policy as a student government member.

In addition to providing a great education for those who enter college with aspirations of a degree, LCCC helps those who have changed their career goals, who want to broaden their horizons, and who want to return to work. LCCC provides learning and training for those who want to move up but find they need new or improved skills for the kind of professional opportunities they seek.

LCCC faculty is recognized locally and nationally for their work as professors and in other areas. They all have advanced degrees and real-world experience and understand their primary responsibility at LCCC is to teach classes. Classes are small. Individual attention is plentiful.

An LCCC education, prepares students for real jobs and real futures. To find out more, call (800) 995-LCCC or visit LCCC's Connections Center, Learning Center at St. Joseph Community Center in Lorain or the LCCC Learning Center in Wellington for all of your enrollment service needs, including admissions, registration, advising and counseling.



**Lorain County
Community College**



**The University
Partnership**

of Lorain County Community College

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