Electronics and Computer Technology

Associate of Applied Science
Electrical/Electronic Engineering Technology

The field of electrical engineering technology touches our everyday lives in ways that most of us rarely think about: everything from turning on a lamp to computer control of microwaves, TVs, smart technologies (cell phones and the likes), telecommunications, video games, automobiles, biomedical equipment, industrial automation, and space exploration. Given the widespread use of electronic devices and the control of these devices by embedded controllers and computers, there will virtually always be a demand for the repair of today’s devices and the design and development of future applications.

Career Opportunities
More than ever, there is a demand for a prepared workforce with the scientific and technical training necessary to help American industry to maintain a competitive edge in the world market. Students who are interested in electronics and computer technology can pursue a two-year associate’s degree or four-year bachelor’s degree. Graduates with the bachelor’s degree may work creating scientific and engineering advances or producing high-quality products and are more likely than the technician to take on a project-leadership role after a year or two of experience.

Graduates with an associate’s degree can enter industry as a member of an engineering team working with other engineers, technologists, and other engineering technicians. Technicians are often involved in the maintenance, repair, installation, industrial application, testing, trouble-shooting, sales, and field service of electrical and computer systems, and are expected to keep up with the latest technological advancements.

Typical job titles include: electrical or electronic engineer or technician, field service engineer, or field service technician.

Employment Outlook
The U.S. Dept. of Labor expects the number of jobs related to electronics and computer engineering technology to reflect slow to modest growth into 2022, but above average growth in electronics-based specialty areas such as biomedical technology. But, as our industrial footprint is so expansive and our need for consumer devices so broad, successful graduates can expect to find employment in one or more of the many fields related to this degree.

Curriculum Program Requirements
Communications (6 hours minimum)
English
Speech Communications

BG Perspective Courses (6 hours minimum)
Choose courses from the following sections, with no more than one course from each section:
Social and Behavioral Sciences
Arts and Humanities
Cultural Diversity

Mathematics and Science (14 hours minimum)
College Algebra, Trigonometry, and Pre-calculus
[Based on placement tests, additional MATH courses may be required, but may not count toward graduation.]
Pre-calculus
Physics I
Physics II or Chemistry
Electronics and Computer Technology

Major (41 hours minimum)
Energy, Power, Instrumentation & Control
Electric Circuits
Electronic Circuits
Digital Electronic Components and Systems
Real-Time Microcomputer Systems for Digital Computer Analysis
Programmable Logic Controllers

Human Machine Interface (HMI)
Basic Computer-aided Design
Solid Modeling
Networking Fundamentals
Introduction to Programming (Visual Basic)
Introduction to Object-oriented Programming (C++)
Microcomputer Systems

For Further Information
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Your University Opportunity
BGSU Firelands, located in Huron, Ohio, is a regional campus and one of the seven undergraduate colleges of Bowling Green State University. We offer many of the advantages and resources of a major university, but in a smaller, more personal environment.

Generally, students are able to complete at least two years of coursework toward most of the 200-degree programs at BGSU before transferring to the main campus, or to another college or university.

(OVER)
BGSU Firelands offers students a wireless environment campus wide. Kiosks and public-access computers located in most campus buildings provide easy Internet access. In addition, there are several on-campus computer labs with a variety of computers and software programs.

The library, containing more than 30,000 volumes, is computer-linked to the more than 4 million items available through BGSU’s libraries to provide excellent research opportunities.

Academic advisors work individually with students to plan their degree programs and small class sizes allow students to have close, personal contact with their professors. Free tutoring is readily available through the Teaching and Learning Center. Scholarships, grants and loans are available to assist students with tuition.

**NOTE:** Information in this guide is subject to change without notice. To learn more about the official program of study for Electronics and Computer Technology, please check the undergraduate catalog online at [www.bgsu.edu/catalog.html](http://www.bgsu.edu/catalog.html)