Electromechanical Technology

Associate of Applied Science
Electrical/Electronic Engineering Technology
Electromechanical Technology

The field of electromechanical technology has revolutionized the way we live. Our entire economy and culture depend on such systems as electromagnetic induction for power generation; transformers for the delivery of electricity to homes, businesses and industry; motors, drives and programmable logic controllers for industrial process control, hydraulics and pneumatics for the transmission and control of forces and velocities. These systems can be found in virtually every kind of technology we use, from automotive, aircraft and spacecraft to agricultural and offshore-technology industries.

Career Opportunities
Students who are interested in electromechanical technology can pursue a four-year bachelor’s degree or a two-year associate’s degree. The demand for technologists with the bachelor’s degree who can make informed decisions based on technical knowledge and experience is increasing. A student with a two-year associate’s degree will enter industry and work with engineers, technologists, and other engineering technicians. Technicians are often involved in the manufacture, testing, trouble-shooting, sales, and field service of electrical, electronic, and computer systems, and are expected to keep up with the latest technological advancements. Typical job titles include: industrial electronic systems technician, electrical technician, electronic technician, installation technician, automation specialist, field-service representative, technical representative, and engineering technician.

Employment Outlook
The U.S. Dept. of Labor expects the number of jobs related to electromechanical technology to grow roughly 4% 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 coursework from the following sections, with no more than one from each section:
   Social and Behavioral Sciences
   Arts and Humanities
   Cultural Diversity
   Natural Sciences

Mathematics and Science (5 hours minimum)
   College Algebra & Trigonometry,
   Pre-calculus
   [Based on placement tests, additional
    MATH courses may be required, but
    may not count toward graduation.]
   Pre-calculus

Electromechanical Technology Major (48 hours minimum)
   [The following eight courses are required.]
   Energy, Power, Instrumentation & Control
   Electric Circuits
   Electronic Circuits
   Digital Electronic Components and Systems
   Programmable Logic Controllers
   Human Machine Interface (HMI)
   Basic Computer-aided Design
   Solid Modeling
   [Another eight courses must be chosen from the following elective courses.]
   Introduction to Lean Processes/Systems
   Applied Statistics
   Six Sigma Systems
   Electric Machinery and Controls
   Metallic Materials and Processes
   Fluid Power Transmission
   Technology Systems in Society

Technical Writing
Introduction to Programming (Visual Basic)
Introduction to Object-oriented Programming (C++)
Computer Organization
Network and Internet Principles
Microcomputer Systems

For Further Information
Philip Weinsier, Ed.D.
Associate Professor and Program Director
319 George Mylander Hall
BGSU Firelands
One University Drive
Huron, Ohio 44839
419-433-5560 ext. 2-0628
email: philipw@bgsu.edu

Debralee Divers, Director
Enrollment Management & Student Retention Services
419-433-5560 ext. 2-0629
email: divers@bgsu.edu

Cheryl L. Chafee, Asst. Director
Admissions and Financial Aid
419-433-5560 ext. 2-0683
email: cchafee@bgsu.edu

Web site: www.firelands.bgsu.edu

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.

BGSU Firelands offers students a wireless environment campus wide. Kiosks and public-access computers located in most campus buildings provide easy Internet

(OVER)
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 Electromechanical Technology, please check the undergraduate catalog online at [www.bgsu.edu/catalog.html](http://www.bgsu.edu/catalog.html)