ENGINEERING TECHNOLOGIES - ELECTRICAL/ELECTRONICS OPTION

ASSOCIATE IN APPLIED SCIENCE (74 CREDIT HOURS)

Most industries rely on highly technical electronic, communication, and manufacturing equipment to create products and provide essential services. The Engineering Technologies program's Electrical/Electronics option at OSUIT prepares students for various careers in designing, evaluating, maintaining, and repairing these highly technical electrical and electronic systems. The program integrates engineering technology competencies and employability skills to produce highly skilled graduates in both technology and business concepts.

Faculty members facilitate learning using a hands-on approach where students learn by doing. Students work as individuals and in teams in realistic laboratory environments to solve challenging "real world" problems. This multi-disciplinary program produces graduates who become highly productive team members in their industry, often bridging the gap between engineers and the laypeople who implement their designs.

Students explore the design, implementation, and diagnosis of industrial and process automation and instrumentation through real-world projects using state-of-the-art equipment. Industry support of the program allows for current industry-standard equipment in the classroom, enabling graduates to enter the workplace prepared to be successful.

Program graduates find opportunities in the design, research, evaluation, testing, repair, and maintenance of electrical, mechanical, and automation systems that span most industrial and manufacturing disciplines. They are typically employed in a variety of sectors, including energy, petroleum, biomedical, chemical, cyber, electrical, industrial, and manufacturing disciplines, and often work for some of the world's largest corporations.

This program of study requires special program fees beyond OSUIT's current tuition and mandatory fees.

Students must complete all technical courses with a grade of C or better and maintain a 2.50 overall (retention/graduation) GPA.

For more detailed information – including the required tool list – please contact an Engineering Technologies program advisor at 918-293-5150 or visit osuit.edu/engineering.

PROGRAM REQUIREMENTS: 45 CREDIT HOURS

ENGINEERING TECHNOLOGIES CORE REQUIREMENTS (26 CREDIT HOURS)

ETD 1012 Safety Applications
ETDE 1283 AC/DC Circuits I [C]
ETDE 1293 AC/DC Circuits II [C],[P]
ETDE 1343 Motors & Controls [C],[P]
ETDE 1363 Electronic Devices & Standards [P]
ETDE 1373 Digital Systems & Microcontrollers [P]
ETDE 2113 Introduction to PLCs [P]
ETDE 2253 Hydraulics & Pneumatics [P]
ETDG 1143 Introduction to Design/Drafting [C]

ELECTRICAL/ELECTRONICS OPTION REQUIREMENTS (19 CREDIT HOURS)

ETD 2411 Employment Exploration
ETDE 1003 Introduction to Instrumentation Technology
ETDE 2223 Electrical Power Distribution [C],[P]
ETDE 2273 Electronic Control Devices [P]
ETDE 2809 Electrical/Electronics Internship [P]

GENERAL EDUCATION REQUIREMENTS: 28 CREDIT HOURS

AMERICAN HISTORY & GOVERNMENT (6 CREDIT HOURS)

HIST 1483 US History to 1865 *or*
HIST 1493 US History since 1865

POLS 1113 US Government

COMMUNICATIONS (6 CREDIT HOURS)

Select from courses listed below or others as approved by program advisor.

ENGL 1113 Freshman Composition I *or*
ENGL 1033 Technical Writing I

SPCH 1113 Introduction to Speech Communications *or*
SPCH 2313 Small Group Communications

COMPUTER LITERACY (3 CREDIT HOURS)

CS 1013 Computer Literacy & Applications

HUMANITIES (3 CREDIT HOURS)

Select from courses designated with an "H" as approved by program advisor, including, but not limited to, course(s) listed below.

PHIL 1213 Ethics (H, S)

MATHEMATICS (6 CREDIT HOURS)

MATH 1513 Pre-Calculus (A)
MATH 1613 Trigonometry [P] (A)

SCIENCE (4 CREDIT HOURS)

PHYS 1114 General Physics I [P] (L, N)

INTERDEPARTMENTAL REQUIREMENTS: 1 CREDIT HOUR

ORIENTATION (1 CREDIT HOUR)

ORIE 1011 College Strategies

[C],[P]: Course has [C]orequisite and/or [P]rerequisite requirement(s). See Course Description for details.