ENGINEERING TECHNOLOGIES - INSTRUMENTATION & AUTOMATION OPTION

ASSOCIATE IN APPLIED SCIENCE (74 CREDIT HOURS)

The Engineering Technologies program's Instrumentation & Automation option teaches students problem-solving and technical skills in an application-focused, team-based environment using industry-approved curriculum and laboratories. OSUIT has designed the program to facilitate a seamless path to the Bachelor of Technology degree in Instrumentation & Automation Engineering Technology.

The industries that hire our graduates require technologists who possess knowledge of automation and control and strive to maintain their production facilities and processes productively and efficiently. Automation Control Technologists install, operate, repair, and maintain industrial equipment and processes to produce products. These technologists are called upon to work on various systems, including measurement instruments, programmable controls, hydraulic systems, pneumatic systems, robotics, and similar technology. The International Society of Automation (ISA) notes positions in automation and control offer above-average pay and benefits because of the skill level and responsibility involved.

OSUIT's experienced instructors work closely with industry leaders to incorporate the latest business practices and emerging technologies into the program. Faculty provide students with one-on-one instruction, theory, hands-on technical skills, and general education classes that position graduates to quickly move to the top of their field.

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]

INSTRUMENTATION & AUTOMATION OPTION REQUIREMENTS (19 CREDIT HOURS)

ETDE	1003	Introduction to Instrumentation Technology
ETDE	2133	Instrumentation [P]
ETDE	2223	Electrical Power Distribution [C],[P]
ETDE	2273	Electronic Control Devices [P]
MATH	2144	Calculus I [P] (A)

Approved Lower-Division Technical Elective (3 credit hours)
Selected from technical courses not utilized to meet other program requirements, as approved by the program advisor.

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

ISA — *Setting the Standard for Automation™*

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