



Electro-Mechanical Engineering Technology Associate of Applied Science (A.A.S.)

2018–2019

DESCRIPTION:

The Electro-Mechanical A.A.S. program is a marriage of Columbus State's Mechanical and Electronics Engineering Technology programs with additional coursework focused on automation and process control. Electro-Mechanical Technicians, sometimes called Multi-craft Technicians, are "jacks of many trades." They perform both preventative and corrective maintenance on mechanical systems, electro-mechanical systems, hydraulic and pneumatic systems, and automated production systems as well as assist in the design of new systems and the re-work of old systems. For more information, see csc.edu/academics/departments/engineering-technologies/electro-mechanical.

ADMISSION REQUIREMENTS:

This is a non-selective, open-admission program; students may begin the program in any semester.

ONGOING REQUIREMENTS:

Students must maintain minimum GPA required by the College.

OPPORTUNITIES FOR GRADUATES:

Career:

Electro-Mechanical Engineering Technicians work in areas as diverse as manufacturing, environmental control, food and pharmaceutical production, and power plants. Some graduates assist in the design of new systems as well as provide technical expertise in sales-related positions. Electro-Mechanical Engineering Technicians are in great demand. Demand for them consistently cannot be met by supply. Any industry that uses electrical components and/or has any level of automation and process control needs – and will always need – technicians with their skill set.

Some common job titles graduates have include automation technician, multi-craft technician, engineering liaison, PLC programmer, systems designer, process and control technician, maintenance technician, and technical sales and service.

Transfer:

Students who want to pursue a Bachelor's degree can do so through our partnership with Miami University. Upon completing our Associate's degree and the Ohio Transfer Module, students can enter Miami's Bachelor of Science in Electro-Mechanical Engineering Technology program as juniors. Miami's program is delivered via distance learning and online so the degree can be completed all on Columbus State's campus. Other Columbus State transfer options include Bachelor's degree, Technical and Applied Studies, Ohio University, and Bachelor's degree, Applied Management, Franklin University. Students have also had success applying this degree to a Bachelor's of Science in Engineering Technology at other four-year institutions.

DEGREE REQUIREMENTS (ELECTRO-MECHANICAL ENGINEERING TECHNOLOGY A.A.S.):

FIRST SEMESTER

Course	Term	Credits	Milestones/Progress Check
ENGL 1100 Composition I	AU/SP/SU	3	<ul style="list-style-type: none"> Students planning to continue into Miami University's bachelor's degree program (or other similar programs) should take MATH 1148 instead of MATH 1113. MATH 1148 satisfies both our A.A.S. degree requirement as well as the math pre-requisite for transferring into Miami's program.
MATH 1115 Math for Engineering Technologies	AU/SP/SU	4	
COLS 1100 First Year Experience Seminar	AU/SP/SU	1	
ITST 1101 Industrial Applications and Software	AU/SP/SU	2	
EMEC 1250 Motors & Control Logic	AU/SP/SU	4	
Semester Credits		14	

SECOND SEMESTER

Course	Term	Credits	Milestones/Progress Check
PHYS 1200 Algebra-Based Physics I	AU/SP/SU	5	
EMEC 1251 Control Logic & PLCs I	AU/SP/SU	4	
EET 1105 Basic DC Electronic Systems	AU/SP/SU	3	
EET 1115 Basic Digital Systems	AU/SP/SU	3	
ENGT 1115 Engineering Graphics	AU/SP/SU	3	
Semester Credits		18	

THIRD SEMESTER

Course	Term	Credits	Milestones/Progress Check
EET 1125 Basic AC Electronic Systems	AU/SP/SU	3	<ul style="list-style-type: none"> Once students complete the first and second semester courses (plus Robotics (MECH 2243) and Welding (SKTR 1180)) they are eligible for the Modern Manufacturing ("Honda") Work Study Program. Upon completing this semester and ESSH 1170 (OSHA 10 Hr. Safety and Health course), students meet the requirements for the Manufacturing Equipment Technician Certificate and should see the program coordinator to petition for it.
MECH 1145 CAD I	AU/SP/SU	3	
EET 2235 Data Acquisition Systems	AU/SP/SU	3	
EMEC 1252 Control Logic & PLC's II	AU/SP/SU	4	
MECH 1240 Machine Tools	AU/SP/SU	3	
MECH 2243 Robotics	SP/SU	2	
Semester Credits		18	

FOURTH SEMESTER

Course	Term	Credits	Milestones/Progress Check
COMM 2204 Technical Writing	AU/SP/SU	3	<ul style="list-style-type: none"> Students planning to continue into Miami University's bachelor's degree program (or other similar programs) should take ECON 2200 for their Social and Behavioral Science requirement. ECON 2200 satisfies both our SBS requirement as well as the SBS requirement at Miami and in the Ohio Transfer Module.
ITST 1102 Industrial Networking or SKTR 1180 Welding: Introduction	AU/SP/SU	2	
MECH 1150 Manufacturing Materials & Processes	AU/SU	3	
ENGT 2260 Basic Mechanisms & Drives	AU/SP/SU	4	
SBS elective (select from approved GE - SBS list)	AU/SP/SU	3	
Semester Credits		15	
Total		65	

AU: Autumn Semester/SP: Spring Semester/SU: Summer Semester
Requirements subject to change.