

Electromechanical Technology

ONETonline.org SOC Code: 49-9071.00

Certificate in Applied Science

30 Semester Hours[^]

The Electromechanical Technology (ELM) Certificate in Applied Science provides a technical education at the certificate level. It is a broad-based curriculum that provides instruction and practical application of a variety of technical concepts and practices. The courses include electricity, pneumatics, hydraulics, and industrial controls.

Successful completion of the ELM program will allow graduates to enter the workforce at the technician level. They will be prepared to assemble, install, calibrate, troubleshoot, service and repair equipment and system components used in industry and business. Employment opportunities for graduates include areas of plant maintenance, computer systems, programmable logic control, technical service and sales, instrumentation, and research and development.

Corequisite courses may be required in English and mathematics. Requirements will be determined by placement test scores.

Upon successful completion of the program, the graduate will be able to:

- Apply accepted safety and health practices in the workplace
- Demonstrate a working knowledge of the construction, operation and function of components and devices used in mechanical, electrical and fluid power systems
- Apply principles, knowledge and analysis skills in troubleshooting, repairing and maintaining mechanical, electrical and fluid power systems
- Use tools and instrumentation to troubleshoot and/or repair industrial equipment and systems
- Read, interpret, and design schematics and writing diagrams for mechanical, electric and fluid power systems
- Apply effective written communication and computation skills
- Demonstrate computational skills to solve problems involving parameters contained in mechanical, electrical, electronic, and fluid power systems
- Demonstrate computer literacy

Special Certificate: Students successfully completing WTT 110, Wind Safety and OSHA, will receive an OSHA Certificate of Completion for General Industry Safety (30-hour)

Program implementation: Full-time day (students attending part-time should contact an advisor for recommended course sequencing)

Recommended Course Sequence – Electromechanical Technology, Certificate in Applied Science

First Year–Fall Semester				First Year–Spring Semester			
Dept.		Course Title	Sem. Hrs.	Dept.		Course Title	Sem. Hrs.
ELM	121	Fundamentals of Hydraulics and Pneumatics	4	ENL	101	English Composition I OR	3
ELM	210	PLC Fundamentals	3	ENL	115	Technical Communications	(3)
WTT	110	Wind Safety and OSHA	4	MTH	117	Math for Technicians	4
WTT	120	DC/AC Circuits	4	WTT	150	Industrial Motor Controls	4
				WTT	160	Power Generation and Transmission	4
Total Semester Hours			15	Total Semester Hours			15

Students enrolled in this program may be eligible for related Skill Set Certifications. Students should contact their academic program advisor or refer to the Skill Sets section in Eastern's 2019-2020 Catalog (page 101) for additional information.

At the end of select courses, students may take a PMMI (The Association for Packaging and Processing Technologies) Certification Exam. The certification exam is not included in the grade for the course.

Median loan debt upon completion: N/A

[^]Cost of attendance is available at:

Financial Aid is available for those who qualify

www.easternwv.edu/documents/financial-aid/cost-attendance

*Students enrolling in Electromechanical (ELM) and

Wind Technology (WTT) courses are assessed a laboratory fee for classes having a laboratory component. This fee is used to replace expendable materials, and to maintain an upgrade laboratory equipment. See an advisor for details.