Electromechanical Technology

Electromechanical technology is a diverse area of study that combines electrical and mechanical systems used in all areas of industry. Mechanical systems include power transmission, fluid power systems (hydraulics and pneumatics), and material handling. Electrical systems include power generation and distribution, machinery controls, and process industries. Process industries include chemical and petroleum refining and production. Also included in this area of study is the specialty of HVAC. Contractors employ heating, ventilation, and air conditioning technicians to install and maintain essential environmental controls in business and residential settings. Employment opportunities for all graduates are diverse and are available locally and nationwide. Projected growth trends across the State show increasing demand for graduates with these job skills.

Program Learning Outcomes (PLO)

After completing the AAS in Electromechanical Technology-Electrical Technician Specialty degree, students will be able to:

PLO 1: Apply analytical skills to calculate and measure operating parameters in a given electrical circuit.

PLO 2: Analyze a workplace setting and develop a job safety analysis.

PLO 3: Analyze a typical residential setting and install a lighting branch circuit that meets all wiring code requirements.

PLO 4: Analyze a typical commercial setting and install a commercial branch circuit that meets all wiring code requirements.

PLO 5: Analyze a control circuit, sketch a circuit diagram, and properly connect the components.

PLO 6: Utilize common statistical process control techniques to optimize manufacturing processes.

Courses Measuring the Achievement of Program Learning Outcomes

Course	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6
ELPT 1411	X					
ELPT 1321		X				
ELPT 1429			X			
ELPT 1445				X		
ELPT 1441					X	
ELPT 2449						X

ELECTROMECHANICAL TECHNOLOGY RECOMMENDED ACADEMIC PLAN

1ST YEAR, 1ST SEMESTER			Credit Hours	✓
Term 1				
ELPT	1321	Introduction to Electrical Safety and Tools	3	☐
ELPT	1411	Basic Electrical Theory	4	☐
STSU	0300	Student Success	0	☐
Term 2				
ELPT	1441	Motor Control	4	☐
TECM	1301	Industrial Mathematics*	3	☐
SOCI	1301	Introduction to Sociology	3	☐
			17	
1ST YEAR, 2ND SEMESTER				
Term 1				
ELPT	1429	Residential Writing	4	☐
ELPT	1445	Commercial Writing	4	☐
Term 2				
DFTG	1325	Blueprint Reading and Sketching	3	☐
ELPT	2319	Programmable Logic Controllers I	3	☐
✹ ***Earned:***		***Level 1 Certificate in Electromechanical Technology***	**14**	
2ND YEAR, 1ST SEMESTER				
Term 1				
SPCH	1318	Interpersonal Communication	3	☐
ENGL	1301	Composition	3	☐
ELPT	2355	Programmable Logic Controllers II	3	
Term 2				
ELPT	2331	AC/DC Drives	3	☐
PHYS	1305	Elementary Physics	3	☐
☞ ***Apply for Graduation***			**15**	
2ND YEAR, 2ND SEMESTER				
Term 1				
HYDR	1409	Basic Fluid Power (Hydraulics)	4	☐
ELPT	2449	Industrial Automation	4	☐
Term 2				
ELMT	2381	Cooperative Education	3	☐
ARTS	1301	Art Appreciation	3	☐
✹ ***Earned:***		***Associate of Applied Science in Electromechanical Technology***	**Total Hours**	**60**

**Technical Math courses (TECM) do not satisfy the core general education Natural Science/Mathematics requirement.*