

# Electro-Mechanical Systems Technologist

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## Associate of Applied Science Degree

(Code: MVELM)

This program is designed to train students to troubleshoot, repair and maintain electrical and mechanical equipment and instruments through data analysis. Students will obtain a background in OSHA, process control, electrical circuits, print reading, machining, hydraulics/pneumatics, and other areas tended by field service technicians. Students will get hands on training in inspecting, installing, calibrating, and servicing various instruments that measure and record changes in industrial environments.

<b>General Education</b>		<b>Credit Hours</b>
CSC118	Computer Systems and Applications	3
ENG105	Composition I	3
ENG111	Technical Writing	3
MAT156	Statistics	3
MAT790	Shop Mathematics	3
MAT791	Shop Mathematics II	1
Social/Behavioral Science (courses approved for AA) (recommend PSY212)		3
<b>Total</b>		<b>19</b>
<b>Program Requirements</b>		
EGT141	Fluid Power	3
ELT111	Introduction to Electronics	3
ELT170	Introduction to PLCs	3
ELT220	AC-DC Motors and Controls	5
ELT241	PLCs II	3
ELT395	Advanced Electrical Circuits	5
IND115	Occupational Safety, Health & Environmental Concerns	1
IND125	Introduction to Process Control	3
MFG121	Machine Trade Printreading I	2
MFG209	Machine Shop Practices	3
MFG506	Quality Assurance	1
MKT181	Customer Service Strategies	2
WEL116	General Welding	1
<b>Total</b>		<b>35</b>
<b>Electives (must select 10 credit hours)</b>		
ELE151	National Electrical Code I	3
HCR101	Basic Heat/Air Conditioning/Refrig	4
IND153	Industrial Mechanics	3
IND169	Basic Plumbing and Pipework	2
IND189	Introduction to Mechatronics	5
IND193	Introduction to Pumps	4
IND250	Fundamentals/Maintenance Management	3
IND911	On-the-job Training	1-2
MAT158	Statistics II	3
MFG262	Mill Operations Theory	3
MFG280	Drill Presses	1.5
PHY121	Elements of Physics	4
WEL186	GMAW	4
<b>Total</b>		<b>10</b>
<b>Total Required Hours</b>		<b>64</b>