Automation and Electrical Technology, A.A.S.

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Requirements

Prepares graduates to troubleshoot, wire, repair, adapt, maintain, integrate, install, analyze, and program industrial automated equipment and electrical systems found in automated manufacturing and other industries. Focuses heavily on troubleshooting, motor controls and drives, industrial electronics, sensors, programmable logic controllers (PLCs) and integration of industrial internet of things *(IIOT) from the plant floor to the human machine interface (HMI).

Teaches single and three phase electrical systems in conjunction with industrial automation and intelligent electronics devices found in both industrial automation and electrical power. Numerous career path options are available for graduates.

Total Program Credits: 65

General Education Requirements:			14 Credits
	ENGL 1010	Introduction to Academic Writing CC	3
or	ENGH 1005	Literacies and Composition Across Contexts CC (5.0)	
	Any approved Humanities or Fine Art		3
	Any approved Behavioral Science, Social, or Political Science Distribution Course		3
	Any approved Physical Education, Health, Safety, or Environment Course		2
	Any approved Biology or Physical Science		3
Discipline Core Requirements:			51 Credits
	AET 1050	Electrical Math I	3
	AET 1060	Electrical Math II	3
	AET 1130	Introduction to Automation	2
	AET 1135	Introduction to Automation Lab	1
	AET 1140	Applied AC Theory	1
	AET 1145	Applied AC Lab	2
	AET 1150	Industrial Logic	1
	AET 1155	Industrial Logic Lab	1
	AET 1250	Industrial Electrical Code	2
	AET 1280	Electric Motor Control	4
	AET 1285	Electric Motor Control Lab	4
	AET 2110	Industrial Electronics I	4
	AET 2115	Industrial Electronics I Lab	2
	AET 2250	Industrial Programmable Logic Controllers--PLCs	4
	AET 2255	Industrial Programmable Logic Controllers--PLCs Lab	2
	EGDT 1040	Fundamentals of Technical Engineering Drawing	3
or	EGDT 1071	3 Dimensional Modeling--Solidworks	
Choose 12 Credits from the Following Options:			12
	AET 2010	Manufacturing Technology (1)	
	AET 2015	Manufacturing Technology Lab (2)	
	AET 2150	Introduction to Fluid Power Systems (2)	
	AET 2155	Introduction to Fluid Power Systems Lab (1)	
	AET 2160	Introduction to Industrial Internet of Things (2)	
	AET 2165	Introduction to Industrial Internet of Things Lab (1)	
	AET 2270	Industrial Programmable Automation Controllers--PACs (2)	
	AET 2275	Industrial Programmable Automation Controllers--PACs Lab (1)	
	AET 2280	Process Control Instrumentation (2)	
	AET 2285	Process Control Instrumentation Lab (1)	
	AET 281R	Cooperative Work Experience (1)	
	AET 2900	Capstone Project (3)	
	AET 291R	Special Topics in Industrial Systems (3)	
	AET 285R	Cooperative Correlated Class (variable)	
	EGDT 1200	Mechanical Drafting and Design (3)	
	MECH 2300	Microcontroller Architecture and Programming (3)	
	MECH 2305	Microcontroller Architecture and Programming Lab (2)	

Graduation Requirements:

1. Completion of a minimum of 65 semester credits
2. Overall grade point average of 2.0 (C) or above, with no core course below a 'C-'.
3. Residency hours: minimum of 20 credit hours through course attendance at UVU
4. Completion of GE and specified departmental requirements

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Graduation Plan

This graduation plan is a sample plan and is intended to be a guide. Your specific plan may differ based on your Math and English placement and/or transfer credits applied. You are encouraged to meet with an advisor and set up an individualized graduation plan in Wolverine Track.

Semester 1	Course Title	Credit Hours
PE/HLTH		2
AET 1050	Electrical Math I	3
AET 1130	Introduction to Automation	2
AET 1135	Introduction to Automation Lab (first block course)	1
AET 1150	Industrial Logic (first block course)	1
AET 1155	Industrial Logic Lab (first block course)	1
AET 1140	Applied AC Theory (second block)	1
AET 1145	Applied AC Lab (second Block)	2
EGDT 1040 or 1071	Fundamentals of Technical Engineering Drawing or 3 Dimensional Modeling -- Solidworks	3
	Semester Total	16
Semester 2	Course Title	Credit Hours
ENGL 1010 or ENGH 1005	Introduction to Academic Writing CC or Literacies and Composition Across Contexts CC	3
AET 1060	Electrical Math II	3
AET 1250	Industrial Electrical Code (first block course)	2
AET 1280	Electric Motor Control	4
AET 1285	Electrica Motor Control Lab	4
	Semester Total	16
Semester 3	Course Title	Credit Hours
Biology or Physical Science Distribution		3
AET 2250	Intdustrial Programmable Logic Controllers--PLCs	4
AET 2255	Intdustrial Programmable Logic Controllers--PLCs Lab	2
AET 2110	Industrial Electronics I	4
AET 2115	Industrial Electronics I Lab	2
	Semester Total	15
Semester 4	Course Title	Credit Hours
Humanities or Fine Arts Distribution		3
Behavioral/Social Science Distribution		3
Electives: Complete 12 credits from the following courses		
AET 2010	Manufacturing Technology	1
AET 2015	Manufacturing Technology Lab	2
AET 2160	Introduction to Industrial Internet of Things	2
AET 2165	Introduction to Industrial Internet of Things Lab	1
AET 2270	Industrial Programmable Automation Controllers--PACs	2
AET 2275	Industrial Programmable Automation Controllers--PACs Lab	1
AET 2280	Process Control Instrumentation	2
AET 2285	Process Control Instrumentation Lab	1
AET 281R	Cooperative Work Experience	
AET 2900	Capstone Project	
AET 291R	Special Topics in Industrial Systems	3
AET 2150	Introduction to Fluid Power Systems	2
AET 2155	Introduction to Fluid Power Systems Lab	1
AET 285R	Cooperative Correlated Class	
MECH 2300	Microcontroller Architecture and Programming	3
MECH 2305	Microcontroller Architecture and Programming Lab	2
	Semester Total	18
	Degree total:	65