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Industrial Electrical Technology - CERT B

Semester-by-Semester Pathway

A Certificate is outlined coursework that is designed to prepare a student to head out into the workforce in a short timeframe or for career advancement. This certificate totals 33 credit hours. Consult with an advisor for more information. Not all courses are offered each semester.

(T) are Systemwide Transfer Courses

(★) are recommended for this degree pathway.

Semester 1 - Fall				
Complete	Course ID	Course Title	Credit Hours	Notes
Required Courses				
	AE100	AC/DC Circuits	4.00	Fall, Spring
	AE101	Digital Multimeter Principles	1.00	Fall, Spring
	EE117	Conduit Fabrication	1.00	Fall, Spring
	EE126	NEC Codeology	1.00	Fall, Spring
	ME106	Industrial Fluid Power	3.00	Fall, Spring
	TR120	Work Ethics	2.00	Fall, Spring, Summer
	TR121	General Industrial Safety/OSHA10	1.00	Fall, Summer
Electives				
	Industrial Electronics Technical Electives		2.00	
Semester Total:			15.00	

Semester 2 - Spring				
Complete	Course ID	Course Title	Credit Hours	Notes
Required Courses				
	AE150	Programmable Logic Controls (PLCs)	3.00	Fall, Spring Prereq: AE100 AC/DC Circuits.
	AE155	Electrical Maintenance	3.00	Fall, Spring Prereq: AE100 AC/DC Circuits.
	ME110	Fundamentals of Motor Controls	3.00	Fall, Spring Prereq: AE100 AC/DC Circuits.
	TR100	Technical Math	3.00	Fall, Spring
Electives				
	Industrial Electronics Technical Electives		3.00	
Semester Total:			15.00	

Semester 3 - Fall				
Complete	Course ID	Course Title	Credit Hours	Notes
Required Courses				

	AE200	Variable Frequency Drives and Electric Motors	3.00	Fall, Spring Prereq: ME110 Fundamentals of Motor Controls.
Electives				
Semester Total:			3.00	

Total Credits: 33.00

*Semester offerings reflect the current academic year.

Industrial Electronics Technical Electives			
Course ID	Course Title	Credit Hours	Notes
AE205	Intermediate Programmable Logic Controllers	3.00	Fall, Spring Prereq: AE150 Programmable Logic Controllers.
AE250	Distributed/Integrated Control Systems	3.00	Spring Prereq: AE200 Variable Frequency Drives & Electric Motors, or AE205 Industrial PLCs.
AE252	Control Systems Development	3.00	Fall Prereq: AE200 Variable Frequency Drives & Electric Motors, or AE205 Industrial PLCs.
AE255	Industrial Robotics	3.00	Fall, Spring Prereq: AE150 Programmable Logic Controllers.
ME112	Heating System Fundamentals	3.00	Fall, Spring
ME114	Renewable Energy Technology	3.00	
ME115	HVAC Fundamentals	4.00	Fall, Spring
ME116	Commercial Refrigeration	4.00	Spring
ME117	Commercial Heating and Air Conditioning	4.00	Spring Prereq: ME115 HVAC Fundamentals, and EE203 Instruments & Measurements, or ME116 Commercial Refrigeration.
ME118	Renewable Energy Technology Systems Analysis	4.00	Prereq: ME114 Renewable Energy Technology, and AE155 Electrical Maintenance, and ME115 HVAC Fundamentals.
ME124	Renewable Energy Technology Maintenance	4.00	Prereq: ME114 Renewable Energy Technology, and AE155 Electrical Maintenance, and ME115 HVAC Fundamentals.
ME125	Engineering Technology Internship	3.00	Spring
ME129	Mechanical Maintenance Skills	3.00	Fall, Spring
ME131	EPA 608	1.00	Fall
ME132	HVAC Load Calculations	1.00	Fall
ME133	HVAC Duct Sizing	1.00	Fall
ME134	HVAC Code Requirements	1.00	Fall
ME140	Low Pressure Boilers	3.00	Spring