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Automation Engineer Technology - CERT C

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 56 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	Spring 2026, Fall 2026
	AE101	Digital Multimeter Principles	1.00	Spring 2026, Fall 2026
	EE117	Conduit Fabrication	1.00	Spring 2026, Fall 2026
	EE126	NEC Codeology	1.00	Spring 2026, Fall 2026
	ME106	Industrial Fluid Power	3.00	Spring 2026, Fall 2026
Electives				
	AET Math Options		3.00	
Semester Total:			13.00	

Semester 2 - Spring				
Complete	Course ID	Course Title	Credit Hours	Notes
Required Courses				
	AE150	Programmable Logic Controls (PLCs)	3.00	Spring 2026, Fall 2026 Prereq: AE100 AC/DC Circuits.
	AE155	Electrical Maintenance	3.00	Spring 2026, Fall 2026 Prereq: AE100 AC/DC Circuits.
	ME110	Fundamentals of Motor Controls	3.00	Spring 2026, Fall 2026 Prereq: AE100 AC/DC Circuits.
	ME129	Mechanical Maintenance Skills	3.00	Spring 2026, Fall 2026
	TR121	General Industrial Safety/OSHA10	1.00	Spring 2026, Summer 2026, Fall 2026
Electives				
	SH101 Public Speaking or SH210 Interpersonal Communication		3.00	
Semester Total:			16.00	

Semester 3 - Fall				
Complete	Course ID	Course Title	Credit Hours	Notes
Required Courses				
	AE200	Variable Frequency Drives and Electric Motors	3.00	Spring 2026, Fall 2026

				Prereq: ME110 Fundamentals of Motor Controls.
	AE202	Actuator/Sensor Systems	3.00	Spring 2026, Fall 2026 Prereq: AE155 Electrical Maintenance.
	AE205	Intermediate Programmable Logic Controllers	3.00	Spring 2026, Fall 2026 Prereq: AE150 Programmable Logic Controllers.
	AE210	Industrial HMI Design & Integration	3.00	Fall 2026 Prereq: AE150 Programmable Logic Controllers.
	IS182	Cisco CCNA I/Networking I	3.00	Spring 2026, Summer 2026, Fall 2026
Electives				
Semester Total:			15.00	

Semester 4 - Spring				
Complete	Course ID	Course Title	Credit Hours	Notes
Required Courses				
	AE250	Distributed/Integrated Control Systems	3.00	Spring 2026 Prereq: AE200 Variable Frequency Drives & Electric Motors, or AE205 Industrial PLCs.
	AE252	Control Systems Development	3.00	Spring 2026, Fall 2026 Prereq: AE200 Variable Frequency Drives & Electric Motors, or AE205 Industrial PLCs.
	AE255	Industrial Robotics	3.00	Spring 2026 Prereq: AE150 Programmable Logic Controllers.
	AE256	Servo Motion Control	3.00	Spring 2026 Prereq: AE200 Variable Frequency Drives & Electric Motors, and AE205 Industrial PLCs.
Electives				
Semester Total:			12.00	

Total Credits: 56.00

*Semester offerings reflect the current academic year.

AET Math Options

Course ID	Course Title	Credit Hours	Notes
MA106	College Algebra ▶	3.00	Spring 2026, Summer 2026, Fall 2026 Prereq: HS GPA over 3.25, or Accuplacer NextGen QuantReason, Alg,Stats Score 263 or Above, or ACT Math Score of 22 or Higher.
MA117	Contemporary Math ▶	3.00	Spring 2026, Summer 2026, Fall 2026
TR100	Technical Math	3.00	Spring 2026, Fall 2026

SH101 Public Speaking or SH210 Interpersonal Communication

Course ID	Course Title	Credit Hours	Notes
SH101	Public Speaking ▶	3.00	Spring 2026, Summer 2026, Fall 2026
SH210	Interpersonal Communication ▶	3.00	Spring 2026, Summer 2026, Fall 2026