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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.

( ) 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 2026, Spring 2027
	AE101	Digital Multimeter Principles	1.00	Fall 2026, Spring 2027
	EE117	Conduit Fabrication	1.00	Fall 2026, Spring 2027
	EE126	NEC Codeology	1.00	Fall 2026, Spring 2027
	ME106	Industrial Fluid Power	3.00	Fall 2026, Spring 2027
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	Fall 2026, Spring 2027 Prereq: AE100 AC/DC Circuits.
	AE155	Electrical Maintenance	3.00	Fall 2026, Spring 2027 Prereq: AE100 AC/DC Circuits.
	ME110	Fundamentals of Motor Controls	3.00	Fall 2026, Spring 2027 Prereq: AE100 AC/DC Circuits.
	ME129	Mechanical Maintenance Skills	3.00	Fall 2026, Spring 2027
	TR121	General Industrial Safety/OSHA10	1.00	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	Fall 2026, Spring 2027

				Prereq: ME110 Fundamentals of Motor Controls.
	AE202	Actuator/Sensor Systems	3.00	Fall 2026, Spring 2027 Prereq: AE155 Electrical Maintenance.
	AE205	Intermediate Programmable Logic Controllers	3.00	Fall 2026, Spring 2027 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	Fall 2026, Spring 2027, Summer 2027
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 2027 Prereq: AE200 Variable Frequency Drives & Electric Motors, or AE205 Industrial PLCs.
	AE252	Control Systems Development	3.00	Fall 2026, Spring 2027 Prereq: AE200 Variable Frequency Drives & Electric Motors, or AE205 Industrial PLCs.
	AE255	Industrial Robotics	3.00	Spring 2027 Prereq: AE150 Programmable Logic Controllers.
	AE256	Servo Motion Control	3.00	Spring 2027 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	Fall 2026, Spring 2027, Summer 2027 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	Fall 2026, Spring 2027, Summer 2027 Prereq: HS GPA over 3.0, or Accuplacer NG QuantReason, Alg, Stats Score 255 or Above, or ACT Math Score of 19 or Higher.
TR100	Technical Math	3.00	Fall 2026, Spring 2027

SH101 Public Speaking or SH210 Interpersonal Communication			
Course ID	**Course Title**	**Credit Hours**	**Notes**
SH101	Public Speaking	3.00	Fall 2026, Spring 2027, Summer 2027
SH210	Interpersonal Communication	3.00	Fall 2026, Spring 2027, Summer 2027