Automation Engineer Technology Program Alignment – CIP: 15.0406

Effective: Fall 2026 Issued 10/31/24



Certificate A 16-29 Credit Hours	 AC/DC Circuits Industrial Fluid Power OSHA 10 Math Employability Skills/Interpersonal Communication
Certificate B 30-44 Credit Hours	 Certificate A Requirements Programmable Logic Controllers (PLC) Fundamentals of Motor Control/Electrical Control Systems I
Certificate C 45-59 Credit Hours	 Certificate B Requirements Industrial Robotics Actuator & Sensor Systems/Industrial Process Control
A.A.S. 60-68 Credit Hours	 Certificate C Requirements Minimum of 15 Credit Hours of General Education

Required Courses within Program

Common Courses	13 credits:
AC/DC Circuits	4 credits
Industrial Fluid Power	3 credits
Programmable Logic Controllers (PLC)	3 credits
Industrial Robotics	3 credits
Support Courses*	11-15 credits:
OSHA 10 or 30	1-3 credits
Math	3 credits
Employability Skills/	2-3 credits
Interpersonal Communication	
Fundamentals of Motor Control/	2-3 credits
Electrical Control Systems I	
Actuator & Sensor Systems/	3 credits
Industrial Process Control	

Notes

Specifics pertaining to Automation Engineer Technology programs:

- 1. Educational Competencies align with ISA requirements.
- 2. While not a requirement for employment, A.A.S. graduates will be prepared to take and pass the Control Systems Technician (CST) exam through the International Society of Automation (ISA).
- 3. Level C certificates that do not include any general education courses and lead to the A.A.S. degree cannot be greater than 53 credit hours to maintain the 68 credit hour maximum for the A.A.S. degree.

Course list sequence has no implication on course scheduling by colleges.

Institutions may add additional competencies based on local demand.

Competencies identified within the Common Courses and/or Support Courses represent opportunities for articulation with K-12.

*Institutions may utilize existing like course titles for Support Courses that adhere to the agreed upon course lengths.