

# Systems Maintenance, Automation, and Robotic Technology (SMART), CAS

Academic Year 2026-2027

## Program Description:

The SMART program provides students the opportunity to prepare for entry-level to intermediate-level careers as systems maintenance specialist that work in modern manufacturing environment on manufacturing, automation, and robotic equipment and systems. The program provides a flexible approach that allows schedule to adjust to current industry demands while providing students with a thorough background in areas of electrical, fluid power, maintenance operations, and troubleshooting techniques.

The graduate will have completed fundamentals required for all manufacturing careers – Introduction to manufacturing systems, safety, maintenance operations, precision measurements blueprint reading for manufacturing drawings, electrical theory and fluid power. Students will have skills in at least one other area such as mechanical, power systems, motors, PLC control, robots, and automated systems. Not all topics are available every semester and will vary based on interest and industry demand.

Entry-level positions for which graduates will complete include: general maintenance worker, skilled trades worker, or multi-craft.

## Career Outlook and Salary Forecast

For the most current salary information, please refer to the Bureau of Labor Statistics “Occupational Outlook Handbook” found at [www.bls.gov/ooh/](http://www.bls.gov/ooh/).

## Program Outcomes:

- Perform lock-out/tag-out for all types of devices
- Use measuring tools and calculate necessary responses
- Troubleshoot and repair electrical devices
- Troubleshoot and repair pneumatic and hydraulic devices
- Read and interpret technical Drawings

## Program Admission Requirements

The program has admission and candidacy requirements in addition to the Mountwest admission guidelines. Students must also apply with Marshall Advanced Manufacturing Center.

## Contact Information:

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*Mountwest empowers students to learn and lead in the community and in the workforce.*

**SMART – Systems Maintenance, Automation, and Robotic Technology, CAS – CS50**

Name:					ID Number 942-
Educational Counselor:					
Faculty Advisor:					
COURSE	REQUIREMENTS	SEM	HRS	GR	SUBSTITUTE/REPEAT CRS
MFG 105	Intro to Manufacturing Systems & Safety		3		
MFG 110	Intro to Maintenance Operations		3		
MFG 115	Precision Measurement		3		
MFG 117	Blueprints for Manufacturing		3		
MFG 132	Electrical/Electronics Theory for Maintenance		4		
			16		
MFG 130	Industrial Maintenance Electrical Principles		3		
MFG 148	Fluid Power		3		
Restricted Elective	Any MFG or ELT Restricted Electives <sup>1</sup>		8		
			14		
<b>HOURS REQUIRED FOR GRADUATION: 30</b>					

<sup>1</sup> Restricted Elective – Any MFG course or ELT 150, ELT 180, or ELT 250.