

EMPHASIS: Industrial Automation

DEGREE: Associate in Applied Science

Purpose: The Industrial Automation AAS prepares students for entry level positions involving installation, repair and preventive maintenance as performed by Industrial Maintenance Mechanics or Millwrights. The program includes instruction in Electronics, Robotics, Mechatronics and Welding to expose students to the multiple skills necessary to repair, install, adjust, or maintain industrial production or processing machinery.

Note:

Students thinking of transferring into an applied bachelors program, such as the Bachelor of Applied Science in Applied Management program that Centralia College offers, may need to take additional course work required for entrance:

English Composition (5 credits) ** (note that English 102 and Public Speaking CMST& 202 are highly desirable, but not required)

- College-level math course (5 credits) **
- Social Science course (5 credits)
- Natural Science course (5 credits)
- One additional course in English, college-level math, social science, or natural science (5 credits)

** English Composition I and the college-level math class can replace the math and English course required in this degree program.

Program Outcomes: Students who successfully complete this program will have demonstrated the ability to

1. Work with equipment and others in a safe, logical and efficient manner
2. Use fabrication equipment required to make in-house repairs and create designs that meet or exceed specifications
3. Apply welding principles for various methods of metal assembly
4. Select and safely use proper equipment for measurement and testing
5. Examine faulty control circuits leading to effective repairs and replacements
6. Use Programmable Logic Controllers, connect field devices and configure networked devices
7. Operate and program industrial robots to work in an automated process
8. Incorporate the principles of effective project management in an industrial facility
9. Use data to drive decisions regarding process improvements

Learning Themes: General education outcomes at Centralia College help students, faculty, and the general public identify what learning is expected when a student has completed a degree or program. The administration, faculty, and staff have agreed upon the following five Learning Ability Themes which students can expect to encounter in most courses and by the completion of any degree or program.

Reasoning: The ability to extract information from data, develop ideas and solutions, establish logical progression in thinking, and problem solve using such procedures as literary analysis or the scientific methods.

Written, Oral and Visual Communication: The ability to make oneself understood in public, interpersonal, professional, artistic, and technical arenas.

Exploration-Self and Others: An awareness of the values, beliefs, customs, and contributions of persons from one's own and other traditions, ethnicities, classes, and genders.

Resourcefulness: The ability to adapt to change such as technological innovations or environmental conditions.

Responsibility: The ability to be accountable to self and society, and the natural world.

Estimated Quarterly Program Costs (subject to change without notice)

Tests: ASSET/COMPASS	\$15
Resident Tuition (15 credits) and fixed fees*:	\$1427
US Citizen Nonresident Tuition (15 credits) and fixed fees*:	\$1576
Non US Citizen Nonresident Tuition (15 credits) and fixed fees*	\$3381
*Tuition is subject to change due to State Legislative actions	
Books and supplies (estimate):	\$427
Lab fees:	Refer to quarterly class schedule.

Centralia College provides equal opportunity in education and does not discriminate on the basis of race, gender, color, religion, national origin, age, marital status, sexual orientation, or disability.