

EMPHASIS: Mechatronics
DEGREE: Associate in Applied Science

Purpose: The Mechatronics 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, Control Systems and Welding to expose students to the multiple skills necessary to repair, install, adjust, or maintain industrial production or processing machinery.

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

1. Safely operate equipment and demonstrate practices that promote work place safety.
2. Work as members of a team in an office or industrial setting and to recognize the need to pursue results which exceed the minimum standards whenever possible.
3. Understand and embrace the inevitability of change in technology and pursue opportunities to improve skills with an attitude of "Life Long Learning".
4. Diagnose, troubleshoot, maintain and repair electrical components and systems.
5. Design, implement and maintain automated systems including Programmable Logic Controllers and industrial sensors.
6. Develop skills as an industrial robotics operator. Plan and write robot programs. Optimize industrial robotic work cells and automated operations.
7. Understand, diagnose, troubleshoot and repair mechanical, hydraulic and pneumatic components and systems.
8. Think independently to analyze system errors and implement solutions.

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: Accuplacer	\$15
Resident Tuition (15 credits) and fixed fees*:	\$1399
US Citizen Nonresident Tuition (15 credits) and fixed fees*:	\$1536
Non US Citizen Nonresident Tuition (15 credits) and fixed fees*	\$3202
*Tuition is subject to change due to State Legislative actions	
Books and supplies (estimate):	\$398
Lab fees:	\$115

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