Central Lakes College, Staples Campus 2024-2025

Robotic Welding Advanced

Advanced Certificate (C382)

Total Credits 12

Required Courses

RAST 2120* Offline Programming and Simulation ..... 3 cr
RAST 2134* Robotic ARC Welding ..... 3 cr
RAST 2153* Applied Robotic Certification Lab ..... 6 cr

**Denotes Prerequisites*

GRADUATION REQUIREMENT - 12 CREDITS

Description

The Robotic Welding Advanced Certificate is an add-on certificate for both the Robotics Automated Systems Technology A.A.S. Degree and Diploma programs. Robotic welding is a widely used process for fabrication in the manufacturing industry. This certificate prepares students to use robotics for the welding process.

Outcomes

By completing this program, students will achieve the following learning outcomes:

- Identify and configure multiple weld procedures, weld schedules, and weave schedules;
- Create welding programs and use techniques found in the industrial robotic welding industry;
- Configure and utilize advanced welding programming options;
- Create virtual robotic systems using proprietary software packages commonly used in the robotics industry;
- Create and develop robot programs in the virtual environment; and
- Deploy virtual simulation programs to physical robotic systems.

Pre-Program Requirements

Students must be currently enrolled in either the Robotics Automated Systems Technology A.A.S. or Diploma program to be accepted into this certificate program.

Some courses may require students to meet College Placement Levels in reading, writing, and/or math. See an advisor for more information.

For insurance purposes, internships may require that students be 18 years old.

Graduation Requirements

In addition to the program requirements, students must meet the following conditions in order to graduate:

- College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
- College Technical Core GPA Requirement: cumulative GPA of credits attempted and completed towards the technical core of the diploma or degree must be at least 2.0;
- Residency Requirement: students must complete 25% of their credits at Central Lakes College.

Career & Transfer

This certificate prepares students for career opportunities working with robotic welding systems for system integrators, original equipment manufacturers, and robot manufacturers. Career opportunities also include robotic welding systems in the automotive, aerospace, medical, machine tool, packaging, welding, and nuclear power industries. Career titles include Robotic Automated Systems Technician, Field Servicing Technician, and Electrical Controls Technician with specific responsibilities in robotic welding and programming.

Academic Plan

Individual semester plans are determined between instructor/advisor and student to best meet the needs of the student.

Website: http://www.clcmn.edu **Email:** askclc@clcmn.edu **Phone:** 800-933-0346

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