

Robotic Manufacturing

Certificate (C239)

Technical Requirements 18

Total Credits18

Program Description

The Robotic Manufacturing Certificate is an entry-level certificate for students seeking employment in the manufacturing industry. Industrial robotics are increasingly becoming more common in the manufacturing environment and employers need employees who can operate and setup robotic and automated production systems. This certificate prepares students to work with industrial automation.

Program Outcomes

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

- Identify and apply appropriate safety procedures;
- Apply knowledge and skills in creating program code;
- Apply knowledge and skills of electrical systems;
- Apply effective communication and interpersonal skills as an individual and as a team member.

Career Opportunities

This certificate prepares students to work for the manufacturing industry, working for end-users of robotics and automated equipment. Career opportunities include working on manufacturing production and assembly lines working with and maintaining automated equipment. Career titles include Operator and Setup Operator.

Course Prerequisites

Some courses may require appropriate test scores or completion of basic math, basic English and/or reading courses with a "C" or better. CLC utilizes a multiple measure approach for placement which may include high school MCA, SAT, ACT scores in addition to high school GPAs. For insurance purposes, internships may require that students be 18 years old.

Program Course Requirements

MTTS 1264	Introduction to Machining Process	2 cr
RAST 1101	Industrial Electronics I	3 cr
RAST 1104	Introduction to Automation	2 cr
RAST 1109	Computers in Industry.....	2 cr
RAST 1110	Introduction to Manufacturing	2 cr
RAST 1111	Industrial Electronics Lab I	2 cr
RAST 1120	Introduction to Engineering Graphics	2 cr
MATH 1500	Applied Mathematics (or higher)	3 cr

GRADUATION REQUIREMENT - 18 CREDITS

**Denotes Prerequisites*

Semester Course Requirements

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

Transfer Opportunities

Courses from this certificate will transfer into the Robotics Automated Systems Technology A.A.S. Degree and Diploma at Central Lakes College.

Graduation Requirements

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

1. College Cumulative GPA Requirement: cumulative grade point average (GPA) of credits attempted and completed at CLC must be at least 2.0;
2. 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;
3. Residency Requirement: students must complete 25% of their credits at Central Lakes College.

