Central Lakes College, Staples Campus 2024-2025

Robotic Vision Advanced

Certificate (C243)

Total Credits 10

Required Courses

RAST 2123* Robotic Vision Programming ..... 2 cr
RAST 2124* Lenses, Lighting, and Vision Hardware ..... 2 cr
RAST 2153* Applied Robotic Certification Lab ..... 6 cr

**Denotes Prerequisites*

GRADUATION REQUIREMENT - 10 CREDITS

Description

The Robotic Vision Advanced Certificate is an add-on certificate for both the Robotics Automated Systems Technology A.A.S. Degree and Diploma programs. Robotic and machine vision systems are increasingly becoming more of an integral part of robotics and automation. Vision systems are used for quality control, product location and orientation, and identification purposes.

Outcomes

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

- Identify and apply appropriate safety procedures;
- Integrate machine vision systems into robotic and automated systems;
- Create machine vision system code; and
- Interpret machine vision system data.

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 vision systems for system integrators, original equipment manufacturers, and robot manufacturers. Career opportunities also include working with vision 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 the setup and programming of machine vision systems.

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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