

Robotics/Automated Systems Technology (ROB.AUT.AAS)

Associate in Applied Science

Engineering/Manufacturing and Industrial Technology

Auburn Hills Campus

This program is designed to prepare students for career opportunities in the robotics and automation fields and provides a background in many areas of technology:

- Robotic Programming Applications
- Computer Integrated Manufacturing
- Robotic Controllers
- Robotic Mechanical Drives
- Robotic Welding Systems
- Programmable Controllers
- Human Machine Interface
- Industrial Networks
- Vision Systems

Robotics/Automated Systems Technologies prepare students for employment in advance manufacturing and for emerging technologies.

A robotics technologist applies traditional electro-mechanical skills with knowledge of programming, controls, and networking to mechatronics concepts as related to robotic systems. Individuals in the field of robotics apply logic and reasoning to identify the strengths and weaknesses of approaches to problems, or to alternative solutions for innovations in technology leading to development of new applications and markets for robotics.

High school graduates who completed state-approved career and technical education (CTE) programs may be eligible to receive college credit for work completed while in high school. Detailed information can be obtained by contacting an OCC Counseling Office or by visiting www.oaklandcc.edu/articulation (<http://www.oaklandcc.edu/articulation/>).

Two certificates are offered for acquiring useful credentials in robotics, enhancing current skills, or building toward an associate degree:

- Robotics/Automated Systems certificate
- Programmable Controllers certificate of achievement

Robotics/Automated Systems Technology program webpage

Full Time - Robotics/Automated Systems Technology program plan example

Code	Title	Credit Hours
Major Requirements		
ROB 1500	Introduction to Robotics Technology	4
ROB 1520	Robotic Maintenance	4

ROB 1620	Industrial Robotic Applications	4
ROB 1640	Interpolated Welding Robotic Application	4
ROB 1650	Collaborative Robotics	2
ROB 1660	Robotic Communications and Machine Vision	4
ROB 2040	Programmable Controller Applications	4
ROB 2140	Advanced Programmable Controllers Applications	4
ROB 2400	Robotic Automated Systems Applications	4
ROB 2500	Robotic Controller Maintenance	4

Required Supportive Courses		
APP 2170	Applied Technology	4
CAD 1101	Introduction to CAD	4
ENG 1450 ^{1, 2}	Writing and Reading for Problem Solving	3
MAT 1150 ²	Intermediate Algebra (or higher)	4

Total Credit Hours for Program-Related Courses 53

General Education Requirements	
Communication / English (3-credits)	0 or 3
May be satisfied with ENG-1450 or ENG-1510. This course will apply toward the Communication/English requirement or the Written Communication requirement, but not both. (http://catalog.oaklandcc.edu/graduation-requirements/general-education-distribution/#communication-english)	
Fine Arts / Humanities (3-credits)	3
Complete 3 credits from Fine Arts/Humanities courses listed in the General Education Distribution List (http://catalog.oaklandcc.edu/graduation-requirements/general-education-distribution/#fine-arts-humanities)	
Mathematics / Science (3-credits)	
Satisfied	
Social Science (3-credits)	3
Complete 3 credits from Social Science courses listed in the General Education Distribution List (http://catalog.oaklandcc.edu/graduation-requirements/general-education-distribution/#social-science)	
Written Communication (3-credits)	0 or 3

May be satisfied with ENG-1450 or ENG-1510. This course will apply toward the Communication/English requirement or the Written Communication requirement, but not both. (<http://catalog.oaklandcc.edu/graduation-requirements/general-education-distribution/#written-communication>)

Total Credit Hours

62

1

Prospective transfer students should select ENG 1510 ENG 1510E or ENG 1510S.

2

Course may be used to meet General Education requirements.

A minimum cumulative 2.00 grade point average (GPA) overall is required for graduation.