

# Robotics and Automation Tech Prep



## Program Overview

The Robotics and Automation program will introduce you to the world of robots – from their design to their programming and maintenance. Robotic technicians work as part of a team that produces robots, which are machines designed to perform tasks in place of a living agent. Most robots are “manipulators” – machines that function in place of a human hand or arm. They may also function as “walking” machines or microprocessors, which are tiny computers that are installed in these machines. As part of this program you will have the opportunity to work with a team to design and create your own robot to compete in BOTS-IQ robot battles.

This program is affiliated with the Dayton Tooling and Manufacturing Association (DTMA), Society of Manufacturing Engineers (SME), and the American Welding Society (AWS). Successfully completing two years of this program may make you eligible for college credit and scholarship money to Sinclair Community College. You may also be eligible for college credit to University of Dayton or Edison Community College.

[www.mvctc.com/ra](http://www.mvctc.com/ra)

## What would I do in this class?

- Robots and Robotic Applications
- Robotic Programming
- Automated Material Handling
- Robotic Welding
- Computer Numerical Control (CNC)
- CNC Plasma Cutting
- Solid Modeling
- Automated Manufacturing Work Cells
- Data Acquisition and Analysis
- Electrical/Electronic Controls
- Battling Robot Design and Competition

## What can I do when I graduate?

- Robot Operator
- Robotic Technician
- Robot Installer

## What can I do with further training?

- Robotic Engineer
- Manufacturing Engineer

MIAMI VALLEY  
CAREER TECHNOLOGY CENTER

For more information contact your  
Guidance Counselor or:

Miami Valley Career Technology Center  
6800 Hoke Road, Clayton, OH 45315  
Toll Free 1.877.766.8282 or 937.854.8056  
or [www.mvctc.com](http://www.mvctc.com)

SkillsUSA®

## COLLEGE CONNECTION



Sinclair Community College – Credits to be determined  
University of Dayton – Credits to be determined  
Edison Community College – Credits to be determined

Follow us:



Just click the logos on our home page.

*“We have students enter our program for many different reasons, and we stress that they can use the training that they receive as a stepping stone for a wide variety of careers.”*

- Mr. Henderson, Instructor

# Robotics and Automation Tech Prep

## Did You Know?

- Recent MVCTC graduating classes have earned over \$2 million in college scholarships each year.
- Over 60% of MVCTC graduates continue their education at a college, university, or technical school.
- In the 2008 "one year later" follow-up survey, 95% of graduates were enrolled in college, serving in the military, or employed.
- On average, MVCTC serves over 2,900 high school students in the Miami Valley through the main campus, satellite, and Youth Connections programs.
- The average attendance rate for high school students at MVCTC is 95%.
- Every MVCTC student is issued a laptop computer through our Student Notebook Access Program (SN@P).
- Every career program at MVCTC has an Advisory Committee consisting of business and industry leaders in that career area. They meet annually to provide professional guidance and support.
- As part of their career programs, MVCTC students work with several local non-profit service agencies to give back to their communities and improve the quality of life for residents of the Miami Valley (Habitat for Humanity, Ronald McDonald House, Special Olympics, Autism Speaks, etc.).
- MVCTC continues to have students compete at the national level for career technical student organizations (SkillsUSA, BPA, HOSA, FCCLA, FFA, and FEA).
- 2011 marks the 40th year of MVCTC's commitment to helping high school and adult students learn the skills needed to reach their career goals!

## Career Passport

Students who successfully complete a career program with good grades, good attendance, and the ability to demonstrate competencies in their career program will receive a portfolio, which will display a profile of both professional and personal accomplishments. This student portfolio or Career Passport complements the high school diploma that is earned while at MVCTC. They receive their high school diplomas from their partner school district.

## Early College Connection

MVCTC prepares students for a seamless transition from high school to college by providing several opportunities to earn college credit and scholarship money towards a post-secondary education. Opportunities are offered to students meeting the established criteria for early college options. For more information and to review the eligibility requirements for each, please visit [www.mvctc.com/earlycollegeconnections](http://www.mvctc.com/earlycollegeconnections).

## Mission Statement

We are dedicated to providing premier educational choices and advanced employment preparation for youth, adults, and organizations of the Miami Valley.

## Admissions Timeline

**December** - Sophomore Visitation Days and Open House.

**Early February** - Applications are reviewed for students who attend one of MVCTC's 27 partner schools.

**Early May** - Applications are reviewed from qualified students who live in one of the partner school districts but do not attend one of the 27 partner schools.

**Mid-May** - If space is available, applications from qualified students who wish to be admitted under MVCTC's open enrollment policy are reviewed for admission.

For more information, visit [www.mvctc.com/admissionprocedures](http://www.mvctc.com/admissionprocedures).

Visit [www.mvctc.com/futurestudents](http://www.mvctc.com/futurestudents) for more information and videos of our programs.

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MVCTC is dedicated to providing equal admission opportunities, equal educational opportunities, and equal employment opportunities without regard to race, religion, color, national origin, ancestry, age, sex, sexual orientation, handicap, marital status, or veteran status.