

# MACHINING & MANUFACTURING TECHNOLOGY

MANUFACTURING TECHNOLOGY



## Course Overview:

**Program Location:** Lansing Community College (LCC) West Campus

**Sessions Offered:** AM/PM

**Average Lecture Days/Week:** 0-2 Days

**Average Lab Days/Week:** 3-5 Days

**Academic Rigor:** 4 out of 5

**Homework:** Occasionally

**Required Expectations:** Notetaking and organization, time management, physically demanding

## Course Description

The manufacturing industry has a high demand for skilled professionals with the foundation skills in machining metrology operations. Our program provides students with hands-on laboratory projects, career-based education, and industrial skill sets needed to succeed in these fields in the future.

Students enrolled in the program will work on project-based assignments graded on the skills they learn. Success in the class is proportionate to the effort of the students as they complete their tasks and assignments.

Working in a physically and mentally demanding environment, students will set up and operate manual machines while making tools that will last a lifetime.

## Student Leadership Opportunities

Students have the opportunity for leadership, competition and community service through membership in SkillsUSA and MITES.

## Success Indicators

- Creative
- Detail-oriented
- Organized
- Able to multitask
- Strong math skills
- Practical, hands-on problem solving

## Learning outcomes include, but are not limited to:

- Learn project planning/processing
- Learn machining methods
- Learn workholding principals
- Learn inspection tools and uses
- Learn to interpret complex prints and produce parts to the tolerances on them
- Participate in Skills USA, Ferris Machinist Competition, and MITES

## College Credits (10)

- METM 108 - Machine Tool Operations (4)
- METM 195 - Quality/Metrology/Inspection (4)
- TECH 100 - Safety OSHA 10 (2)

## Available Certifications:

- CPR/AED
- First Aid
- OSHA 10
- NC3 Meteorology

Updated 12/2025

FOR MORE INFO:  
CONTACT YOUR COUNSELOR,  
CALL 517.483.1596, OR  
VISIT [EATONRESA.ORG/CPC](http://EATONRESA.ORG/CPC)



# MACHINING & MANUFACTURING TECHNOLOGY



## PROFESSIONAL CAREERS

- Advanced Programmer
- Aerospace Engineer
- Applications Specialist
- CNC\* Applications Engineer
- CNC\* Machinist
- CNC\* Manufacturing Engineer
- CNC\* Programmer
- CNC\* Prototype Engineer

\* CNC (Computer Numerical Control)

## TECHNICAL CAREERS

- Automotive Machinist
- CNC\* Maintenance Technician
- CNC\* Operator
- Machine Tool Builder
- Machinist/Welder
- Metallurgist
- Quality Control Technician
- Tool & Die Maker

\* CNC (Computer Numerical Control)

## ENTRY-LEVEL CAREERS

- Assembly Technician
- CNC\* Operator
- CNC\* Setup Handler/Technician
- Entry-Level Programmer
- Lathe Operator
- Manual Machine Technician
- Manual Machinist
- Tool & Die Apprentice

\* CNC (Computer Numerical Control)

ACADEMICS

PROFESSIONAL SKILLS

EXPERIENCES

PASSION

Education with Purpose.  
**CAREER TREE**

## Explore Your Future with Career Trees

Career Trees shows how what you learn today can grow into a future career. Each branch represents real jobs and opportunities connected to a specific field, from entry-level roles to advanced professions.

Use the Career Tree to explore your interests, learn what education or training is needed, and plan your next steps after high school. The more you explore, the more you'll see how skills learned now can lead to a strong, rewarding future.

**Scan the QR code below to learn more and watch the program video.**

**SCAN ME!**



## Capital Region Technical Early College (CRTEC)

Students enrolled in this program may choose to participate in the Capital Region Technical Early College (CRTEC) program. This is a high school-to-college program where students start in grade 11 and end their 13th year with a degree or certification. This program gives students relevant career related experiences.



**EXPLORE THE POSSIBILITIES.  
FAST TRACK YOUR FUTURE.**