



CNC Machine Technology C.A.

Career Community: Electrical and Manufacturing

Curriculum Code: 1798

Effective: Fall 2025 – Summer 2030

Purpose of the Major

This certificate is designed for a person interested in developing or advancing their skill set in the machinist or tool & die trade. Students receive hands-on instruction in manual machining, advanced computer numerical control (CNC) machining/programming, advanced computer aided machining (CAM), basics of geometric dimensioning and tolerancing, blueprint reading, and manufacturing principles. Employment possibilities include entry-level positions in manufacturing companies. Technical math, blueprint reading, and metallurgy are just some of the skills and knowledge that are necessary for this type of work.

Milestone

Completion of METM 112 with a 2.0 or higher is a key component for success in completing this program. Knowledge obtained in this course is the foundation for learning in other required courses. Students are encouraged to contact their faculty if they need additional assistance with learning the concepts presented in this course.

Additional Information

A student must earn a minimum grade of 2.0 in all courses.

All course work will apply to the Associate in Applied Science Degree in Manufacturing Engineering Technology.

Contact Information

For further information, including career options, course substitutions and waivers, etc., contact the Trades Technology Program, West Campus Building, Room M103, telephone number 517-483-5338, email manufacturing@lcc.edu or Student Services West Campus, West Campus Building, Room M106, telephone number 517-267-5452.

Major Required Courses

Course Code	Course Title	Credit / Billing Hours
METD 100	Basic Mechanical Drafting	3 / 4
METD 130	Geometric Dimension/Tolerance	4 / 6
METM 108	Machine Tool Operations	4 / 6
METM 112	Introduction to CNC Machining	4 / 6
METM 150	Advanced CNC Machining	4 / 6
METM 190	Metallurgy and Heat Treatment	4 / 6
METM 195	Quality/Metrology/Inspection	4 / 6
METM 220	Basic Mastercam	4 / 6

Course Code	Course Title	Credit/ Billing Hours
METM 221	Advanced Mastercam	4 / 6
TECH 102	General Industry Safety	2 / 3

Additional Credits

After completing the course and credit requirements as noted on this pathway, students who fall short of the 30-credit minimum required for a Certificate of Achievement may select any course(s) needed to reach 30 credits, except those courses noted in number 7 in the [Institutional Requirements for Certificates of Achievement](#). Students are encouraged to use Degree Works and meet with an Advisor to ensure all requirements are met and for course recommendations.

Minimum Total Credit Hours

37 credits / 55 billing hours

Recommended Course Sequence

Semester I
METD 100
METM 108
METM 190
TECH 102

Semester II
METD 130
METM 112 – Milestone course
METM 220

Semester III
METM 150
METM 195
METM 221

LCC makes every effort to limit revisions to the pathways during their effective timeframe. However, the College reserves the right to update certificate and degree titles, and make course changes as needed, without prior notice. The College also reserves the right to discontinue programs when warranted.