

**LANSING COMMUNITY COLLEGE**

**Computer, Engineering/Manufacturing Industrial Technologies**

**Curriculum Code: 1798**  
**(Effective Fall 2018 –**  
**Summer 2023)**

**CNC Machine Technology C.A. Pathway**

This certificate is designed for a person interested in developing or advancing his/her 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. All course work will apply to the Associate in Applied Science Degree in Manufacturing Engineering Technology.

**For More Information**

Contact the Trades Technology Program, West Campus Building, Room M103, telephone number (517) 483-5338, Student Services West Campus, West Campus Building, Room M106, telephone number (517) 267-5452.

<b>Semester I</b>	<b>Course Title</b>	<b>Prerequisites</b>	<b>Credit/Billing Hours</b>
<b>Program of Study Requirements</b>			
METD 100	Basic Mechanical Drafting	Reading Level 3 and Writing Level 2 and Math Level 3	3 / 4
METM 108	Machine Tool Operations	Reading Level 3 and Writing Level 4 and Math Level 4	4 / 6
METM 190	Metallurgy and Heat Treatment	Reading Level 5 and Writing Level 6 and Math Level 4	4 / 6
METS 102	Industrial/Construction Safety	Reading Level 3 and Writing Level 2	2 / 3
<b>Credits</b>			<b>13 / 19</b>
<b>Semester II</b>	<b>Course Title</b>	<b>Prerequisites</b>	<b>Credit Hours</b>
<b>Program of Study Requirements</b>			
METD 130	Geometric Dimension/Tolerance	Minimum 2.0 in (METD 100 or Drafting Placement Test 80%) and Reading Level 4 and Writing Level 4 and Math Level 4	4 / 6
METM 112	Introduction to CNC Machining	Minimum 2.0 in METM 108 and Reading Level 3 and Writing Level 4 and Math Level 4	4 / 6
METM 220	Basic Mastercam	Minimum 2.0 in (METM 108 or METM 110) and Reading Level 3 and Writing Level 4 and Math Level 4	4 / 6
<b>Credits</b>			<b>12 / 18</b>

Semester III	Course Title	Prerequisites	Credit Hours
<b>Program of Study Requirements</b>			
METM 150	Advanced CNC Machining	Minimum 2.0 in (METM 110 or METM 112) and Reading Level 4 and Writing Level 4 and Math Level 4	4 / 6
METM 195	Quality/Metrology/Inspection	Minimum 2.0 in (METD 130 and (METM 108 or METM 110)) and Reading Level 4 and Writing Level 4 and Math Level 4	2 / 3
METM 221	Advanced Mastercam	Minimum 2.0 in METM 220 and Reading Level 3 and Writing Level 4 and Math Level 4	4 / 6
<b>Credits</b>			<b>10 / 15</b>
<b>Total Credits</b>			<b>35 / 52</b>