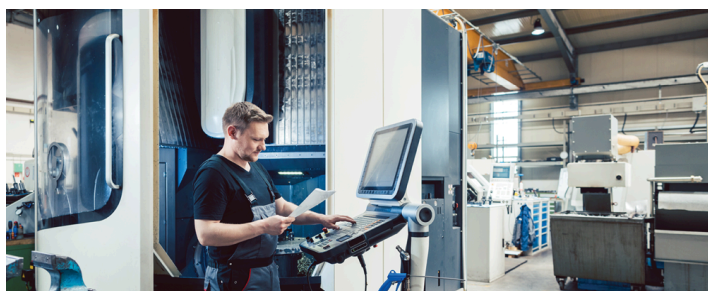


# CNC MACHINING AND COMPOSITES MANUFACTURING, SHORT- TERM CERTIFICATE (PRE- APPRENTICESHIP)



The CNC Machining and Composites Manufacturing Program is a Fast-Track Training Program for students looking to gain entry into the areas of Composite Manufacturing and Precision Machining. The program is divided equally between classroom and hands-on training. Students learn the fundamentals of becoming a Skilled Machinist on both manual and CNC machine tools. The CNC Machining and Composites Manufacturing Technology Program provides the theoretical and hands-on experience to enable the student to enter the industry at the pre-apprenticeship level.

**Program contact:** Learn more

**This certificate will be automatically awarded when the certificate requirements are completed. If you do not want to receive the certificate, please notify the Office of the Registrar at [RegistrarOffice@tri-c.edu](mailto:RegistrarOffice@tri-c.edu).**

Learn more about how certificate credits apply to the related degree.

## Program Learning Outcomes

This program is designed to prepare students to demonstrate the following learning outcomes:

1. Listen, ask questions and collaborate with co-workers and supervisor during the manufacturing process to produce a high quality product.
2. Be reliable, conscientious, respectful and committed to the organization's mission.
3. Apply principles and practice of safety while performing daily tasks.
4. Recognize, analyze and apply knowledge, resources and creativity to resolve problems as they arise.
5. Apply advanced concepts of shop math, blueprint reading, inspection and knowledge of machining and manufacturing principles to produce a quality product that meets customer specification in a safe and efficient manner.

## Suggested Semester Sequence

First Semester		Credit Hours
ATMT-1000	Mechanical & Spatial Relations	4
ATMT-1100	Manufacturing Skills I	3

ATMT-1120	Machine Operations I	6
<b>Credit Hours</b>		<b>13</b>
<b>Second Semester</b>		
ATMT-1110	Manufacturing Skills II	2
ATMT-1200	Machine Tool Theory	4
ATMT-1300	Manufacturing Procedures	2
ATMT-2120	Machine Operations II	6
<b>Credit Hours</b>		<b>14</b>
<b>Total Credit Hours</b>		<b>27</b>

MATH-1140, MATH-1141, MATH-1200, MATH-1270, and MATH-1280 can no longer count towards fulfilling the college-level mathematics requirement. These courses were re-classified as developmental mathematics by the state of Ohio in 2016. Tri-C established a 5-year transitioning window for students who had completed these courses prior to 2016 to apply them towards meeting graduation requirements, which expired in Summer 2021. It is highly recommended to see a counselor to determine the appropriate math required for your current major.