

# PRECISION MACHINING TECHNOLOGY: CS

Certificate of Specialization | 17 credit hours minimum

**Area of Interest: Advanced Manufacturing, Industrial Occupations, and Transportation**

**Program Website** (<https://stlcc.edu/programs-academics/pathways/a-m-i-o-t/precision-machining-technology/>)

**Academic Advising** (<https://stlcc.edu/admissions/advising/>)

## Program Description:

The Precision Machining Technology Certificate of Specialization prepares students for entry level jobs in the machine tool trade. Students will learn to safely set up and operate milling machines, lathes, grinders and drill presses. They will also learn the basics of CNC machine set up and operation. The program is designed around the National Institute for Metalworking Skills (NIMS) credentials and prepares students for testing in seven of the level one credentials.

**Location.** This program is offered in its entirety at Florissant Valley.

**Related Program.** The Engineering Technology and Manufacturing Department offers an associate in the following area:

**Computer Integrated Manufacturing, Associate in Applied Science** (<http://catalog.stlcc.edu/programs/computer-integrated-manufacturing-aas/>)

**Cost of Attendance.** For more information on cost of attendance visit **MoSCORES** (<https://scorecard.mo.gov/Search/>).

**Program Career and Salary Information.** Pursuant to Missouri HB 1606 (2018), information regarding the number of credit hours, program length, employment rate, wage data, and graduates employed in careers related to their program of study at St. Louis Community College can be found at the following URL: <https://scorecard.mo.gov/scorecard/> ([https://www.google.com/url?q=https://scorecard.mo.gov/scorecard/&sa=D&ust=1555536894857000&usg=AFQjCNG1xf3E\\_j2lO96zEytILO-s5xaJCQ](https://www.google.com/url?q=https://scorecard.mo.gov/scorecard/&sa=D&ust=1555536894857000&usg=AFQjCNG1xf3E_j2lO96zEytILO-s5xaJCQ)). Search using School / Program "St. Louis Community College" and choose the degree or credential type of interest.

The following limitations to the data apply: Information provided is based on the most recent cohorts available. Typically, most recent cohorts for wage and completion data are six years prior to the current academic year. Time to complete a program of study varies depending on the number of credit hours students earn per semester.

**Interested in this program?** Start the enrollment process by visiting the **Apply to STLCC** (<https://www.stlcc.edu/admissions/apply-to-stlcc/>) page.

## At the completion of the program, students are expected to:

1. use technical drawings to determine what equipment and manufacturing approach will be necessary to create a component compliant with specifications in all respects.
2. demonstrate the safe setup and operation of standard, manual and CNC machine tools.
3. evaluate part compliance with specifications by selecting and accurately using appropriate precision measuring tools.
4. demonstrate understanding of nomenclature relating to the machine tool trade, industry work expectations and the role of quality conscious trades people towards the success of the enterprise.

Code	Title	Credit Hours
<b>Program Requirements</b>		
ME 100	Measurement, Materials and Safety	3
ME 111	Job Planning, Benchwork & Layout	3
ME 120	Manual Machining I	3
ME 200	Manual Machining II	3
ME 212	Introduction to Computer Numerical Control (CNC) Machining	3
ME 154	Mechanical Blueprint Reading	2
<b>Total Credit Hours</b>		<b>17</b>

## Full-Time Academic Plan

**PLEASE NOTE:** If you originally enrolled at STLCC prior to Fall 2024, you may need to view an **archived catalog** (<http://catalog.stlcc.edu/archived-catalogs/>) for your correct program requirements. Please speak with an advisor or the program coordinator for more information.

Code	Title	Hours	Prerequisites	Milestones/Notes
<b>First Year</b>				
<b>Fall</b>				
ME 154	Mechanical Blueprint Reading	2	Reading Proficiency	Apply for graduation.
ME 100	Measurement, Materials and Safety	3	Departmental approval or Work Keys Applied Mathematics Level 4, or, Reading Proficiency or Work Keys Reading for Information Level 4	
ME 111	Job Planning, Benchwork & Layout	3	Reading Proficiency or departmental approval	
ME 120	Manual Machining I	3	ME 111 with a minimum grade of "C" or departmental approval, and Reading Proficiency	

ME 200	Manual Machining II	3	Reading Proficiency or departmental approval	
ME 212	Introduction to Computer Numerical Control (CNC) Machining	3	Reading Proficiency or departmental approval	
	<b>Credit Hours</b>	<b>17</b>		
	<b>Total Credit Hours</b>	<b>17</b>		

\*Click on the hyperlinked course number to view additional information about the course.

\*\*Students completing a course that has been assigned a MOTR number may transfer that course to any public institution in Missouri. Those who complete CORE 42 requirements will have that verification on their transcript.

\*\*\* It is your responsibility to verify that the courses listed above will transfer to the four-year institution of your choice. Maximize your transfer credits/classes by meeting with an academic advisor.