

MACHINING LEVEL 1-CNC MILLING, SC

- PSL01: Students will program, set-up and operate a CNC milling machine to produce precision machine components.
- PSL02: Students will utilize CAD/CAM systems to generate a standard CNC milling program.

Program Description

This skills certificate will introduce students to computer numerical control (CNC) milling operations, program formats, and machine setups. G and M codes, control functions, the letter address system, and math issues related to CNC mills are included. Students will program, set-up and produce a variety of CNC milling projects.

This program is not eligible for financial aid. However, it may be eligible for scholarship funding if the student is awarded scholarships.

Machining Career Map (<https://sites.tmcc.edu/flipbook/career-maps/>)

Recommended Course Schedule

| 1st semester | | Units |
|--------------------------|--|-----------|
| MTT 101 or MTT 261 | Introduction to Machine Shop or Machine Projects | 3 |
| MTT 250 | Machine Shop III | 3 |
| MTT 232 | Computer Numerical Control II | 4 |
| MTT 292 | Computer-Aided Manufacturing I | 4 |
| Semester Total | | 14 |
| Total Units | | 14 |

Program Requirements

Skills Certificates can consist of a single course or a short set of courses that provide training for entry-level positions or career advancement.

These short-term certificates may also prepare students to take state, national and/or industry-recognized certifications or licensing exams.

Skills certificates are awarded upon completion of coursework and marked on a student's transcripts at the end of the semester. Students cannot declare a skills certificate as one's major. Skills Certificates are not eligible for Financial Aid.

To earn a skills certificate, students must:

1. Maintain a minimum cumulative GPA of 2.0.
2. Have no financial or library obligation to the college.

| Code | Title | Units |
|---------------------------------|--|-----------|
| Certificate Requirements | | |
| MTT 101 or MTT 261 | Introduction to Machine Shop Machine Projects | 3 |
| MTT 250 | Machine Shop III | 3 |
| MTT 232 | Computer Numerical Control II | 4 |
| MTT 292 | Computer-Aided Manufacturing I | 4 |
| Total Units | | 14 |

Program Outcomes

Students completing the certificate will: