Machinist

Certificate of Proficiency (COP)

The Machine Trades certificate program is another route to employment as a machinist, millwright, tool and die maker, or other occupation related to manufacturing. Graduates may work as advanced apprentice machinists, machine operators, or programmers.

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- Machinist Certificate of Proficiency (COP) (lowercolumbia.edu/program-maps/trades/COP-Machinist)

Certificate Requirements

Total credits required to earn this certificate: 65

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

  5 credits - ENGL 110 Industrial Communications is recommended.
- **Quantitative Skills:**

  5 credits – MATH 106 Industrial Mathematics.
- **Human Relations / Social Sciences:**

  5 credits – BUS 144 Management of Human Relations is recommended.

Program Requirements

Course Code	Course Title	Number of Credits
BLPT 150	Machinists Blueprint Reading	5
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
MASP 112	Machine Shop II	10
MASP 113	Machine Shop III	10
MFG 105	Industrial Safety	3
MFG 115	Manufacturing Processes	5
WELD 143	SMAW - Stick Welding with E6010	6
MASP 107 ***AND/OR*** MASP 111	Machining for Related Occupations ***AND/OR***	10

Course Code	Course Title	Number of Credits
	Machine Shop I *(2-10 cr variable) for a combined total of 10 credits*	

Program Outcomes

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to an industrial technology work environment (GS).
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions (GS).
- Apply mathematical information to perform tasks in industrial technology (GS).
- Interact effectively with individuals and groups (GS).
- Apply industry standard safety and hazardous material handling guidelines.
- Display work appropriate behavior including positive attitude, timeliness and teamwork.
- Apply knowledge of computer programs to create professional, academic, or business documents following current industry standards.
- Demonstrate competencies required for entry level machinist.
- Interpret industrial blueprints for inspection of machined parts.
- Demonstrate competency in set up and operation of manual machine tools to manufacture parts per specification.
- Demonstrate competency in documenting and communicating work performed using trade specific language.

Notes

Revised December 2021 (effective Summer 2022)

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.