

Program map for Machinist Certificate of Proficiency (COP)



2025-26

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.

[View this program in the LCC Catalog \(lowercolumbia.edu/publications/catalog/programs/Trades-CO-P-Machinist\)](http://lowercolumbia.edu/publications/catalog/programs/Trades-CO-P-Machinist)

See also

- [Degree Requirements for Manufacturing, Trades and Transportation programs \(lowercolumbia.edu/programs/trades\)](http://lowercolumbia.edu/programs/trades)
- [Course descriptions in the LCC Catalog \(lowercolumbia.edu/publications/catalog/courses\)](http://lowercolumbia.edu/publications/catalog/courses)
- [Distribution lists in the LCC Catalog \(lowercolumbia.edu/publications/catalog/distribution-lists\)](http://lowercolumbia.edu/publications/catalog/distribution-lists)

Important: Many course sequences only begin in fall quarter. Check with your program advisor.

By Quarter Overview

First Quarter

- COLL 101: College Success 101 (2 credits)
- MASP 107: Machining for Related Occupations (2-6 credits) AND/OR MASP 111: Machine Shop I (2-10 credits)
- MFG 115: Manufacturing Process (5 credits)
- ENGL 110: Industrial Communication (5 credits)

Second Quarter

- BLPT 150: Machinist Blueprint Reading (5 credits)
- MASP 111: Machine Shop I (2-10 credits)
 - MASP 107*

- MATH 106: Industrial Mathematics (5 credits)
 - *MATH 079 or TECH 079 with a C or better or instructor permission**
- MFG 105: Industrial Safety (3 credits)

*Pre- and/or co-requisite(s)

Third Quarter

- BUS 144: Management of Human Relations: DIV (5 credits)
- MASP 112: Machine Shop II (2-10 credits)
 - *10 credits of MASP 107 and/or MASP 111**

*Pre- and/or co-requisite(s)

Fourth Quarter

- MASP 113: Machine Shop III (2-10 credits)
 - *10 credits of MASP 112**
- HLTH 105: First Aid, CPR and Bloodborne Pathogens (1 credit)
- WELD 142: SMAW - Stick Welding with E6010 (6 credits)

*Pre- and/or co-requisite(s)

Detailed Class Sequence

1. College Success 101

COLL 101 (2 credits)

2. Machining for Related Occupations AND/OR Machine Shop I

MASP 107 (2-6 credits) AND/OR MASP 111 (2-10 credits)

3. Manufacturing Process

MFG 115 (5 credits)

4. Industrial Communication

ENGL 110 (5 credits)

5. Machinist Blueprint Reading

BLPT 150 (5 credits)

6. Machine Shop I

MASP 111 (2-10 credits)

Pre- and/or co-requisite(s): MASP 107

7. Industrial Mathematics

MATH 106 (5 credits)

Pre- and/or co-requisite(s): MATH 079 or TECH 079 with a C or better or instructor permission

8. Industrial Safety

MFG 105 (3 credits)

9. Management of Human Relations: DIV

BUS 144 (5 credits)

10. Machine Shop II

MASP 112 (2-10 credits)

Pre- and/or co-requisite(s): MASP 107 and/or MASP 111

11. Machine Shop III

MASP 113 (2-10 credits)

Pre- and/or co-requisite(s): 10 credits of MASP 112

12. First Aid, CPR and Bloodborne Pathogens

HLTH 105 (1 credit)

13. SMAW - Stick Welding with E6010

WELD 142 (6 credits)