

# 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 \(lowercolumbia.edu/publications/catalog/programs/Trades-COP-Machinist\)](https://lowercolumbia.edu/publications/catalog/programs/Trades-COP-Machinist)

## See also

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

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- 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

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- 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

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- 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

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- 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

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COLL 101 (2 credits)

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

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

### 3. Manufacturing Process

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MFG 115 (5 credits)

### 4. Industrial Communication

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ENGL 110 (5 credits)

### 5. Machinist Blueprint Reading

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BLPT 150 (5 credits)

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## 6. Machine Shop I

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MASP 111 (2-10 credits)

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

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## 7. Industrial Mathematics

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MATH 106 (5 credits)

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

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## 8. Industrial Safety

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MFG 105 (3 credits)

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## 9. Management of Human Relations: DIV

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BUS 144 (5 credits)

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## 10. Machine Shop II

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MASP 112 (2-10 credits)

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

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## 11. Machine Shop III

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MASP 113 (2-10 credits)

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

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## 12. First Aid, CPR and Bloodborne Pathogens

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HLTH 105 (1 credit)

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## 13. SMAW - Stick Welding with E6010

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WELD 142 (6 credits)