

# Machinist - COP



**2023-24**

## Program map for 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.

See also: ( [lowercolumbia.edu/programs/trades](https://lowercolumbia.edu/programs/trades) )

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

*Please note that many course sequences only begin in fall quarter. Please check with your program advisor for more information.*

*Please review both the "By Quarter Overview" and "Detailed Class Sequence" tabs below.*

## 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)



## Program Maps for Manufacturing, Trades and Transportation ( [lowercolumbia.edu/program-maps/trades](http://lowercolumbia.edu/program-maps/trades) )

- **Advanced Manufacturing Technology - AAS (Engineering Technician and Multicraft Trades Option) ( [lowercolumbia.edu/program-maps/trades/AAS-Advanced-Manufacturing-Technology-Engineering-Tech-Multicraft-Trades](http://lowercolumbia.edu/program-maps/trades/AAS-Advanced-Manufacturing-Technology-Engineering-Tech-Multicraft-Trades) )**
- **Advanced Manufacturing Technology - AAS (Multicraft Trades and Production Technician Option) ( [lowercolumbia.edu/program-maps/trades/AAS-Advanced-Manufacturing-Technology-Multicraft-Trades-Production-Tech](http://lowercolumbia.edu/program-maps/trades/AAS-Advanced-Manufacturing-Technology-Multicraft-Trades-Production-Tech) )**
- **Advanced Manufacturing Technology - AAS (Production Technician and Engineering Technician Option) ( [lowercolumbia.edu/program-maps/trades/AAS-Advanced-Manufacturing-Technology-Production-Tech-Engineering-Tech](http://lowercolumbia.edu/program-maps/trades/AAS-Advanced-Manufacturing-Technology-Production-Tech-Engineering-Tech) )**
- **Advanced Manufacturing for BAS-OLTM - AAS-T (Transfer Option) ( [lowercolumbia.edu/program-maps/trades/AAS-T-Advanced-Manufacturing-for-BAS-OLTM](http://lowercolumbia.edu/program-maps/trades/AAS-T-Advanced-Manufacturing-for-BAS-OLTM) )**
- **Automotive Technology - AAS ( [lowercolumbia.edu/program-maps/trades/AAS-Automotive-Technology](http://lowercolumbia.edu/program-maps/trades/AAS-Automotive-Technology) )**
- **Automotive Technology - AAS-T (BAS-OLTM Option) ( [lowercolumbia.edu/program-maps/trades/AAS-T-Automotive-Technology-to-BAS-OLTM](http://lowercolumbia.edu/program-maps/trades/AAS-T-Automotive-Technology-to-BAS-OLTM) )**
- **Automotive Technology - COP ( [lowercolumbia.edu/program-maps/trades/COP-Automotive-Technology-Maintenance-Light-Repair](http://lowercolumbia.edu/program-maps/trades/COP-Automotive-Technology-Maintenance-Light-Repair) )**
- **Commercial Truck Driving - COC ( [lowercolumbia.edu/program-maps/trades/COC-Commercial-Truck-Driving](http://lowercolumbia.edu/program-maps/trades/COC-Commercial-Truck-Driving) )**
- **Computer Numerical Control - COP ( [lowercolumbia.edu/program-maps/trades/COP-Computer-Numerical-Control](http://lowercolumbia.edu/program-maps/trades/COP-Computer-Numerical-Control) )**
- **Diesel/Heavy Equipment Preventative Maintenance - COP ( [lowercolumbia.edu/program-maps/trades/COP-Diesel-Heavy-Equipment-Preventative-Maintenance](http://lowercolumbia.edu/program-maps/trades/COP-Diesel-Heavy-Equipment-Preventative-Maintenance) )**
- **Diesel/Heavy Equipment Technology - AAS ( [lowercolumbia.edu/program-maps/trades/AAS-Diesel-Heavy-Equipment](http://lowercolumbia.edu/program-maps/trades/AAS-Diesel-Heavy-Equipment) )**
- **Diesel/Heavy Equipment Technology - AAS-T (BAS-OLTM Option) ( [lowercolumbia.edu/program-maps/trades/AAS-T-Diesel-Heavy-Equipment-to-BAS-OLTM](http://lowercolumbia.edu/program-maps/trades/AAS-T-Diesel-Heavy-Equipment-to-BAS-OLTM) )**
- **Engineering Technician - COP ( [lowercolumbia.edu/program-maps/trades/COP-Engineering-Technician](http://lowercolumbia.edu/program-maps/trades/COP-Engineering-Technician) )**
- **Machine Trades - AAS ( [lowercolumbia.edu/program-maps/trades/AAS-Machine-Trades](http://lowercolumbia.edu/program-maps/trades/AAS-Machine-Trades) )**
- **Machine Trades - AAS-T (BAS-OLTM Option) ( [lowercolumbia.edu/program-maps/trades/AAS-T-Machine-Trades-to-BAS-OLTM](http://lowercolumbia.edu/program-maps/trades/AAS-T-Machine-Trades-to-BAS-OLTM) )**
- **Machinist - COP ( [lowercolumbia.edu/program-maps/trades/COP-Machinist](http://lowercolumbia.edu/program-maps/trades/COP-Machinist) )**
- **Multicraft Trades - COP ( [lowercolumbia.edu/program-maps/trades/COP-Multicraft-Trades](http://lowercolumbia.edu/program-maps/trades/COP-Multicraft-Trades) )**
- **Production Technician - COP ( [lowercolumbia.edu/program-maps/trades/COP-Production-Technician](http://lowercolumbia.edu/program-maps/trades/COP-Production-Technician) )**
- **Welding - AAS ( [lowercolumbia.edu/program-maps/trades/AAS-Welding](http://lowercolumbia.edu/program-maps/trades/AAS-Welding) )**
- **Welding - COP ( [lowercolumbia.edu/program-maps/trades/COP-Welding](http://lowercolumbia.edu/program-maps/trades/COP-Welding) )**
- **Welding for BAS-OLTM - AAS-T (Transfer Option) ( [lowercolumbia.edu/program-maps/trades/AAS-T-Welding-for-BAS-OLTM](http://lowercolumbia.edu/program-maps/trades/AAS-T-Welding-for-BAS-OLTM) )**