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# Machine Trades - AAS

## 2022-23

### Program map for Machine Trades Associate in Applied Science (AAS)

Prepare for a job as a machinist, millwright, and tool and die maker, or another occupation related to manufacturing through LCC's Machine Trades program. Graduates may work as advanced apprentice machinists, machine operators, or programmers.

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

- Degree Requirements for Manufacturing, Trades and Transportation programs ( [lowercolumbia.edu/programs/trades](http://lowercolumbia.edu/programs/trades) )
- Course descriptions in LCC Catalog ( [lowercolumbia.edu/publications/catalog/courses](http://lowercolumbia.edu/publications/catalog/courses) )
- Distribution lists in LCC Catalog ( [lowercolumbia.edu/publications/catalog/distribution-lists](http://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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- MASP 111: Machine Shop I (2-10 credits)
- COLL 101: College Success 101 (2 credits)
- MFG 115: Manufacturing Process (5 credits)

### Second Quarter

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- MASP 112: Machine Shop II (2-10 credits)
  - 10 credits of MASP 107 and/or MASP 111\*
- BLPT 150: Machinist Blueprint Reading (5 credits)
- ENGL 110: Industrial Communication (5 credits)

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

### Third Quarter

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- MASP 113: Machine Shop III (2-10 credits)
  - 10 credits of MASP 112\*
- MASP 204: CNC Machining Center Fundamentals (3 credits)
- MATH 106: Industrial Mathematics (5 credits)
  - MATH 079 or TECH 079 with a C or better or instructor permission\*

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

## **Fourth Quarter**

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- MASP 221: CNC Milling (2-10 credits)
  - *MASP 204\**
- MASP 205: CNC Turning Center Fundamentals (3 credits)
- MFG 105: Industrial Safety (3 credits)

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

## **Fifth Quarter**

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- MASP 222: CNC Turning (2-10 credits)
  - *MASP 205\**
- MFG 130: Material Science (5 credits)
- HLTH 105: First Aid, CPR and Bloodborne Pathogens (1 credit)
- COLL 289: Employment Portfolio Seminar (1 credit)

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

## **Sixth Quarter**

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- MASP 223: Advanced CNC Processing (2-10 credits)
  - *MASP 221 or MASP 222\**
- MFG 230: Computer Integrated Manufacturing (4 credits)
  - *MASP 221 or MASP 222\**
- BUS 144: Management of Human Relations: DIV (5 credits)
- MASP 288: Cooperative Work Experience (2 credits)

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

## **Detailed Class Sequence**

### **1. Machine Shop I**

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MASP 111 (2-10 credits)

### **2. College Success 101**

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COLL 101 (2 credits)

### **3. Manufacturing Process**

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MFG 115 (5 credits)

### **4. Machine Shop II**

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MASP 112 (2-10 credits)

*Pre- and/or co-requisite(s): 10 credits of MASP 107 and/or MASP 111*

## **5. Machinist Blueprint Reading**

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BLPT 150 (5 credits)

## **6. Industrial Communication**

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ENGL 110 (5 credits)

## **7. Machine Shop III**

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MASP 113 (2-10 credits)

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

## **8. CNC Machining Center Fundamentals**

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MASP 204 (3 credits)

## **9. 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*

## **10. CNC Milling**

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MASP 221 (2-10 credits)

*Pre- and co-requisite(s): MASP 204*

## **11. CNC Turning Center Fundamentals**

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MASP 205 (3 credits)

## **12. Industrial Safety**

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MFG 105 (3 credits)

## **13. CNC Turning**

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MASP 222 (2-10 credits)

*Pre- and co-requisite(s): MASP 205*

**14. Material Science**

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MFG 130 (5 credits)

**15. First Aid, CPR and Bloodborne Pathogens**

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HLTH 105 (1 credit)

**16. Employment Portfolio Seminar**

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COLL 289 (1 credit)

**17. Advanced CNC Processing**

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MASP 223 (2-10 credits)

*Pre- and/or co-requisite(s): MASP 221 or MASP 222*

**18. Computer Integrated Manufacturing**

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MFG 230 (4 credits)

*Pre- and/or co-requisite(s): MASP 221 or MASP 222*

**19. Management of Human Relations: DIV**

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BUS 144 (5 credits)

**20. Cooperative Work Experience**

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MASP 288 (2 credits)

( [lowercolumbia.edu/program-maps/trades](http://lowercolumbia.edu/program-maps/trades) )

**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) )
- 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-Automotive-Technology-to-BAS-OLTM](http://lowercolumbia.edu/program-maps/trades/AAS-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 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) )
- 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) )
- 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) )