

Machine Trades - AAS



2023-24

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)

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

- MASP 111: Machine Shop I (2-10 credits)
- COLL 101: College Success 101 (2 credits)
- MFG 115: Manufacturing Process (5 credits)

Second Quarter

- 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

- 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

- 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

- 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

- 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

MASP 111 (2-10 credits)

2. College Success 101

COLL 101 (2 credits)

3. Manufacturing Process

MFG 115 (5 credits)

4. Machine Shop II

MASP 112 (2-10 credits)

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

5. Machinist Blueprint Reading

BLPT 150 (5 credits)

6. Industrial Communication

ENGL 110 (5 credits)

7. Machine Shop III

MASP 113 (2-10 credits)

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

8. CNC Machining Center Fundamentals

MASP 204 (3 credits)

9. 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

10. CNC Milling

MASP 221 (2-10 credits)

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

11. CNC Turning Center Fundamentals

MASP 205 (3 credits)

12. Industrial Safety

MFG 105 (3 credits)

13. CNC Turning

MASP 222 (2-10 credits)

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

14. Material Science

MFG 130 (5 credits)

15. First Aid, CPR and Bloodborne Pathogens

HLTH 105 (1 credit)

16. Employment Portfolio Seminar

COLL 289 (1 credit)

17. Advanced CNC Processing

MASP 223 (2-10 credits)

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

18. Computer Integrated Manufacturing

MFG 230 (4 credits)

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

19. Management of Human Relations: DIV

BUS 144 (5 credits)

20. Cooperative Work Experience

MASP 288 (2 credits)



Program Maps for Manufacturing, Trades and Transportation (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)
- Advanced Manufacturing Technology - AAS (Multicraft Trades and Production Technician Option) (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)
- Advanced Manufacturing for BAS-OLTM - AAS-T (Transfer Option) (lowercolumbia.edu/program-maps/trades/AAS-T-Advanced-Manufacturing-for-BAS-OLTM)
- Automotive Technology - AAS (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)
- Automotive Technology - COP (lowercolumbia.edu/program-maps/trades/COP-Automotive-Technology-Maintenance-Light-Repair)
- Commercial Truck Driving - COC (lowercolumbia.edu/program-maps/trades/COC-Commercial-Truck-Driving)
- Computer Numerical Control - COP (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)
- Diesel/Heavy Equipment Technology - AAS (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)
- Engineering Technician - COP (lowercolumbia.edu/program-maps/trades/COP-Engineering-Technician)
- Machine Trades - AAS (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)
- Machinist - COP (lowercolumbia.edu/program-maps/trades/COP-Machinist)
- Multicraft Trades - COP (lowercolumbia.edu/program-maps/trades/COP-Multicraft-Trades)
- Production Technician - COP (lowercolumbia.edu/program-maps/trades/COP-Production-Technician)
- Welding - AAS (lowercolumbia.edu/program-maps/trades/AAS-Welding)
- Welding - COP (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)