

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

2024-25



[Return to Manufacturing, Trades and Transportation Program Maps \(lowercolumbia.edu/program-maps/trades\)](https://lowercolumbia.edu/program-maps/trades)

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.

[View this program in the LCC Catalog \(lowercolumbia.edu/publications/catalog/programs/Trades-AAS-Machine-Trades\)](https://lowercolumbia.edu/publications/catalog/programs/Trades-AAS-Machine-Trades)

See also

- [Degree Requirements for Manufacturing, Trades and Transportation programs \(lowercolumbia.edu/programs/trades\)](https://lowercolumbia.edu/programs/trades)
- [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

- 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) or WELD 105: Related Welding (3 credits)

**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) or WELD 105: Related Welding (3 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 or Related Welding

COLL 289 (1 credit) or WELD 150 (3 credits)

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 or Related Welding

MASP 288 (2 credits) or WELD 150 (3 credits)