

Program map for Welding Certificate of Proficiency (COP)

2024-25



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

The welding certificate program helps prepare the student for employment in manufacturing or maintenance.

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

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

- COLL 101: College Success 101 (2 credits)
- MATH 106: Industrial Mathematics (5 credits)
 - *MATH 079 or TECH 079 with a C or better or instructor permission**
- WELD 141: SMAW - Stick Welding with E7018 (10 credits)

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

Second Quarter

- BLPT 160: Blueprint Reading for Welders (5 credits)
 - *MATH 106 or higher or instructor permission**
- CS 110: Introduction to Microcomputer Applications (3 credits)
 - *Ability to use keyboard**
- WELD 241: FCAW-G- Dual Shield Wire Feed Welding with E71T-1 (10 credits)

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

Third Quarter

- ENGL 110: Industrial Communication (5 credits)
- WELD 158: Welding Theory and Fabrication (5 credits)
 - *WELD 125 and 131 or instructor permission**
- WELD 243: GMAW-G - Solid Wire Feed Welding with ER70S-6 and ER5356 (6 credits)
 - *WELD 241 or instructor permission**

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

Fourth Quarter

- BUS 144: Management of Human Relations: DIV (5 credits)
- HLTH 105: First Aid, CPR and Bloodborne Pathogens (1 credit)
- MFG 105: Industrial Safety (3 credits)

Detailed Class Sequence

1. College Success 101

COLL 101 (2 credits)

2. 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

3. SMAW - Stick Welding with E7018

WELD 141 (10 credits)

4. Blueprint Reading for Welders

BLPT 160 (5 credits)

Pre- and/or co-requisite(s): MATH 106 or higher or instructor permission

5. Introduction to Microcomputer Applications

CS 110 (3 credits)

Pre- and/or co-requisite(s): Ability to use keyboard

6. FCAW-G- Dual Shield Wire Feed Welding with E71T-1

WELD 241 (10 credits)

7. Industrial Communication

ENGL 110 (5 credits)

8. Welding Theory and Fabrication

WELD 158 (5 credits)

Pre- and/or co-requisite(s): WELD 125 AND 131 or instructor permission

9. GMAW – Solid Wire Feed Welding with ER70S-6 and ER5356

WELD 243 (6 credits)

*Pre- and/or co-requisite(s): WELD 241 or instructor permission**

10. Management of Human Relations: DIV

BUS 144 (5 credits)

11. First Aid, CPR and Bloodborne Pathogens

HLTH 105 (1 credit)

12. Industrial Safety

MFG 105 (3 credits)