

# Program map for Welding Certificate of Proficiency (COP)



2025-26

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

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

## See also

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

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- 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

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- 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

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ENGL 110 (5 credits)

## 8. Welding Theory and Fabrication

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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

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WELD 243 (6 credits)

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

## 10. Management of Human Relations: DIV

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BUS 144 (5 credits)

## 11. First Aid, CPR and Bloodborne Pathogens

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HLTH 105 (1 credit)

## 12. Industrial Safety

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MFG 105 (3 credits)