Welding

Certificate of Proficiency (COP)

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

For a roadmap that identifies the preferred sequencing of courses and other specific recommendations from faculty, please see the corresponding program map(s):

- Welding Certificate of Proficiency (COP) (lowercolumbia.edu/program-maps/trades/COP-Welding)

Certificate Requirements

Total credits required to earn this certificate: 58

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See Diversity and Distribution Lists (lowercolumbia.edu/publications/catalog/distribution-lists/) for more information.

General Education Requirements

- **Communications:**

  5 credits – ENGL 110 Industrial Communications recommended.
- **Quantitative Skills:**

  5 credits – MATH 106 Industrial Mathematics recommended.
- **Human Relations / Social Sciences / Diversity:**

  5 credits – BUS 144 Management of Human Relations: DIV meets all three requirements and is recommended.

Program Requirements

Course Code	Course Title	Number of Credits
BLPT 160	Blueprint Reading for Welders	5
CS 110	Intro to Microcomputer Applications	3
HLTH 105	First Aid, CPR and Bloodborne Pathogens	1
MFG 105	Industrial Safety	3
WELD 141	SMAW - Stick Welding with E7018	10
WELD 158	Welding Theory and Fabrication	5
WELD 241	FCAW-G - Dual Shield Wire Feed Welding w/ E71T-1	10

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Course Code	Course Title	Number of Credits
WELD 243	GMAW - Solid Wire Feed Welding with ER70S-6 and ER5356	6

Program Outcomes

Students completing this program should acquire the following skills and abilities:

- Communicate professionally in writing and speaking as appropriate to an industrial technology work environment. (GS Communication)
- Apply objective, valid methods of inquiry and problem solving to draw rational, ethical, and coherent conclusions. (GS Critical Thinking)
- Apply mathematical information to perform tasks in industrial technology. (GS Quantitative Literacy)
- Interact effectively with individuals and groups. (GS Teamwork)
- Display work appropriate behavior including positive attitude, timeliness, and teamwork.
- Apply industry standard safety and hazardous material handling guidelines.
- Apply knowledge of computer programs to create professional, academic, or business documents following current industry standards.
- Safely operate equipment and tools used in welding, cutting, and fabricating.
- Demonstrate competency in entry level welding and cutting processes.
- Perform welding activities following written and verbal instructions.
- Demonstrate competency in interpreting prints, drawings, and symbols for welding and fabricating.
- Communicate work performed using trade specific language.
- Complete tasks accurately, safely, and within a given timeframe.

Notes

Revised December 2021 (effective Summer 2022)

Program planning is based on information available at the time of preparation. It is the student's responsibility to meet with their LCC advisor. Consult the LCC catalog for LCC graduation requirements.