

Welding

Associate in Applied Science (AAS)

Prepare for the state commercial welding examination or qualify for welding jobs in manufacturing, maintenance, or construction through LCC's welding program. Students must successfully complete the Washington Association of Building Officials (WABO) Qualification Test before earning a degree in Welding.

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

- [Welding Associate in Applied Science \(AAS\) \(lowercolumbia.edu/program-maps/trades/AAS-Welding\)](https://lowercolumbia.edu/program-maps/trades/AAS-Welding)

Degree Requirements

Total credits required to earn this degree: 104-108 with a cumulative grade point average (GPA) of at least 2.0 in the program requirements.

LCC students must meet distribution requirements for bachelor degrees, associate degrees, and specific certificates. See [Diversity and Distribution Lists \(lowercolumbia.edu/publications/catalog/distribution-lists/\)](https://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 Science / Diversity:**
5 credits – BUS 144 Management of Human Relations:DIV meets all three requirements and is recommended.
- **Humanities / Natural Sciences:**
5 credits – DHET 240 Fluid Power/Electrical Theory & Design **OR**
TECH 100 Advanced Principles of Technology **OR**
MFG 130 Materials Science **OR**
choose from the *Distribution List*.

Program Requirements

| Course Code | Course Title | Number of Credits |
|-------------|-------------------------------------|-------------------|
| BLPT 160 | Blueprint Reading for Welders | 5 |
| COLL 289 | Employment Portfolio Seminar | 1 |
| CS 110 | Intro to Microcomputer Applications | 3 |

| Course Code | Course Title | Number of Credits |
|-------------|--|-------------------|
| HLTH 105 | First Aid, CPR and Bloodborne Pathogens | 1 |
| MFG 105 | Industrial Safety | 3 |
| MASP 107 | Machining for Related Occupations | 6 |
| WELD 141 | SMAW - Stick Welding with E7018 | 10 |
| WELD 142 | Advanced SMAW - WABO | 10 |
| WELD 143 | SMAW - Stick Welding with E6010 | 10 |
| WELD 158 | Welding Theory and Fabrication | 5 |
| WELD 241 | FCAW-G - Dual Shield Wire Feed Welding with E71T-1 | 10 |
| WELD 242 | Advanced FCAW-G - WABO | 6 |
| WELD 243 | GMAW - Solid Wire Feed Welding with ER70S-6 and ER5356 | 6 |
| WELD 255 | GTAW - Tig Welding with ER70S-6 and ER5356 | 6-10 |
| WELD 288 | Cooperative Work Experience | 2 |
| WELD 70/75 | Welding Certification (WABO) | 0 |

WELD 288 may be substituted for 2 credits of WELD 299 Independent Study or any Elective with program advisor permission.

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 advanced level welding and cutting processes.
- Perform welding activities following written and verbal instructions.
- Demonstrate competency 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.