

Welding - AAS



2023-24

Program map for Welding Associate in Applied Science (AAS)

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

See also: (lowercolumbia.edu/programs/trades)

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

Please note that many course sequences only begin in fall quarter. Please check with your program advisor for more information.

Please review both the "By Quarter Overview" and "Detailed Class Sequence" tabs below.

By Quarter Overview

First Quarter

- COLL 101: College Success 101 (2 credits)
- MFG 105: Industrial Safety (3 credits)
- WELD 141: SMAW - Stick Welding with E7018 (10 credits)

Second Quarter

- MATH 106: Industrial Mathematics (5 credits)
 - *MATH 079 or TECH 079 with a C or better or instructor permission**
- WELD 142: Advanced SMAW - WABO (10 credits)
 - *WELD 141 or instructor permission**

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

Third Quarter

- CS 110: Introduction to Microcomputer Applications (3 credits)
 - *Ability to use a keyboard**
- ENGL 110: Industrial Communication (5 credits)
- WELD 143: SMAW - Stick Welding with E6010 (10 credits)
 - *WELD 142 or instructor permission**

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

Fourth Quarter

- BUS 144: Management of Human Relations: DIV (5 credits)
- WELD 241: FCAW-G - Dual Shield Wire Feed Welding with E71T-1 (10 credits)

Fifth Quarter

- MASP 107: Machining for Related Occupations (6 credits)
- TECH 100: Advanced Principles of Technology (5 credits)
 - *One year of high school principles of technology (certificate from instructor required), or TECH 090, or MATH 106 or higher.**
- WELD 242: Advanced FCAW-G - WABO (6 credits)
 - *WELD 241 or instructor permission**

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

Sixth Quarter

- BLPT 160: Blueprint for Welders (5 credits)
 - *MATH 106 or higher or instructor permission**
- COLL 289: Employment Portfolio Seminar (1 credit)
- WELD 243: GMAW – Solid Wire Feed Welding with ER70S-6 and ER5356 (6 credits)
 - *WELD 241 or instructor permission**

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

Seventh Quarter

- HLTH 105: First Aid, CPR and Bloodborne Pathogens (1 credit)
- WELD 158: Welding Theory and Fabrication (5 credits)
 - *WELD 125 and 131**
- WELD 255: GTAW-Tig Welding with ER70S-6 and ER5356 (6 credits)
- WELD 288: Cooperative Work Experience (2 credits)

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

Eighth Quarter

- WELD 75/70: Welding Certification-WABO Exam/re-test (0 credits)
 - *WELD 60 or instructor permission**

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

Detailed Class Sequence

1. College Success 101

COLL 101 (2 credits)

2. Industrial Safety

MFG 105 (3 credits)

3. SMAW - Stick Welding with E7018

WELD 141 (10 credits)

4. Industrial Mathematics

MATH 106 (5 credits)

Pre- and co-requisite: MATH 079 or TECH 079 with a C or better or instructor permission

5. Advanced SMAW - WABO

WELD 142 (10 credits)

Pre- and co-requisite(s): WELD 141 or instructor permission

6. Introduction to Microcomputer Applications

CS 110 (3 credits)

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

7. Industrial Communication

ENGL 110 (5 credits)

8. SMAW - Stick Welding with E6010

WELD 143 (10 credits)

Pre- and co-requisite(s): WELD 142 or instructor permission

9. Management of Human Relations: DIV

BUS 144 (5 credits)

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

WELD 241 (10 credits)

11. Machining for Related Occupations

MASP 107 (6 credits)

12. Advanced Principles of Technology

TECH 100 (5 credits)

Pre- and/or co-requisite(s): one year of high school principles of technology (certificate from instructor required), or TECH 090, or MATH 106 or higher

13. Advanced FCAW-G - WABO

WELD 242 (6 credits)

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

14. Blueprint for Welders

BLPT 160 (5 credits)

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

15. Employment Portfolio Seminar

COLL 289 (1 credit)

16. 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

17. First Aid, CPR and Bloodborne Pathogens

HLTH 105 (1 credit)

18. Welding Theory and Fabrication

WELD 158 (5 credits)

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

19. GTAW-Tig Welding with ER70S-6 and ER5356

WELD 255 (6 credits)

20. Cooperative Work Experience

WELD 288 (2 credits)

21. Welding Certification-WABO Exam/re-test

WELD 75/70 (0 credits)

Pre- and/or co-requisite(s): WELD 60 or instructor permission



Program Maps for Manufacturing, Trades and Transportation (lowercolumbia.edu/program-maps/trades)

- Advanced Manufacturing Technology - AAS (Engineering Technician and Multicraft Trades Option) (lowercolumbia.edu/program-maps/trades/AAS-Advanced-Manufacturing-Technology-Engineering-Tech-Multicraft-Trades)
- Advanced Manufacturing Technology - AAS (Multicraft Trades and Production Technician Option) (lowercolumbia.edu/program-maps/trades/AAS-Advanced-Manufacturing-Technology-Multicraft-Trades-Production-Tech)
- Advanced Manufacturing Technology - AAS (Production Technician and Engineering Technician Option) (lowercolumbia.edu/program-maps/trades/AAS-Advanced-Manufacturing-Technology-Production-Tech-Engineering-Tech)
- Advanced Manufacturing for BAS-OLTM - AAS-T (Transfer Option) (lowercolumbia.edu/program-maps/trades/AAS-T-Advanced-Manufacturing-for-BAS-OLTM)
- Automotive Technology - AAS (lowercolumbia.edu/program-maps/trades/AAS-Automotive-Technology)
- Automotive Technology - AAS-T (BAS-OLTM Option) (lowercolumbia.edu/program-maps/trades/AAS-T-Automotive-Technology-to-BAS-OLTM)
- Automotive Technology - COP (lowercolumbia.edu/program-maps/trades/COP-Automotive-Technology-Maintenance-Light-Repair)
- Commercial Truck Driving - COC (lowercolumbia.edu/program-maps/trades/COC-Commercial-Truck-Driving)

- **Computer Numerical Control - COP** (lowercolumbia.edu/program-maps/trades/COP-Computer-Numerical-Control)
- **Diesel/Heavy Equipment Preventative Maintenance - COP** (lowercolumbia.edu/program-maps/trades/COP-Diesel-Heavy-Equipment-Preventative-Maintenance)
- **Diesel/Heavy Equipment Technology - AAS** (lowercolumbia.edu/program-maps/trades/AAS-Diesel-Heavy-Equipment)
- **Diesel/Heavy Equipment Technology - AAS-T (BAS-OLTM Option)** (lowercolumbia.edu/program-maps/trades/AAS-Diesel-Heavy-Equipment-to-BAS-OLTM)
- **Engineering Technician - COP** (lowercolumbia.edu/program-maps/trades/COP-Engineering-Technician)
- **Machine Trades - AAS** (lowercolumbia.edu/program-maps/trades/AAS-Machine-Trades)
- **Machine Trades - AAS-T (BAS-OLTM Option)** (lowercolumbia.edu/program-maps/trades/AAS-Machine-Trades-to-BAS-OLTM)
- **Machinist - COP** (lowercolumbia.edu/program-maps/trades/COP-Machinist)
- **Multicraft Trades - COP** (lowercolumbia.edu/program-maps/trades/COP-Multicraft-Trades)
- **Production Technician - COP** (lowercolumbia.edu/program-maps/trades/COP-Production-Technician)
- **Welding - AAS** (lowercolumbia.edu/program-maps/trades/AAS-Welding)
- **Welding - COP** (lowercolumbia.edu/program-maps/trades/COP-Welding)
- **Welding for BAS-OLTM - AAS-T (Transfer Option)** (lowercolumbia.edu/program-maps/trades/AAS-T-Welding-for-BAS-OLTM)