

## Welding Technology Certificate - 30 credits

(Fall 2020)

\*\*\*REMEMBER TO REGISTER EARLY\*\*\*

### Program Description

The Welding Technology Certificate offers seven production technologies courses that provide core skills and six courses with advanced welding skill topics, including: Welding print reading & interpreting symbols, OxyFuel Welding, SMAW (shielded metal arc welding), GMAW (gas metal arc welding), FFAW (flux cored arc welding), GTAW (gas tungsten arc welding), Metallurgy, and hands-on experience through on-site labs.

### Program Outcomes

- Demonstrate proper welder use and safety
- Interpret welding blueprints and drawings
- Interpret weld symbols
- Demonstrate proper welding processes
- Demonstrate cutting process
- Demonstrate various weld transfers
- Select base metals with weld-ability
- Demonstrate weld and setup using GTAW
- Demonstrate weld and setup using GMAW
- Demonstrate proper GMAW wire selection
- Demonstrate proper fabrication layout
- Prepare student for welding certification

### Required Courses

| Number    | Name   | Credits | Term |
|-----------|--|---------|------|
| CMAE 1502 | Technical Math                               | 3       |      |
| CMAE 1506 | Introduction to Computers                    | 2       |      |
| CMAE 1510 | Print Reading                                | 2       |      |
| CMAE 1514 | Safety                                       | 2       |      |
| CMAE 1518 | Manufacturing Processes and Production       | 2       |      |
| CMAE 1522 | Quality Practices and Measurement            | 2       |      |
| CMAE 1526 | Maintenance Awareness                        | 2       |      |
| CMAE 1560 | Interpreting Symbols                         | 2       |      |
| CMAE 1562 | Oxyfuel Welding                              | 3       |      |
| CMAE 1564 | Shielded Metal Arc Welding                   | 3       |      |
| CMAE 1566 | Gas Metal Arc Welding/Flux Cored Arc Welding | 3       |      |
| CMAE 1568 | Gas Tungsten Arc Welding                     | 3       |      |
| CMAE 1570 | Metallurgy                                   | 1       |      |

**Total Credits**

**30**

### Pre-program Requirements

There are no specific program prerequisites for this certificate.

For more information about the MSSC Welding Technology Certificate see the program website [360 ETECH Program](https://360etech.org/app/custom/welding_technology) ([https://360etech.org/app/custom/welding\\_technology](https://360etech.org/app/custom/welding_technology))



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