

# 2020-2021 TTC Catalog - Welding (WLD)

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## **WLD 001 - Welding Non Equivalent**

**Lec: 0 Lab: 0 Credit: \***

Indicates credit given for welding course work transferred from another college for which there is no equivalent course at TTC. \*Hours vary depending on external course.

**Division:** Manufacturing and Maintenance

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## **WLD 110 - Welding Safety and Health**

**Lec: 1.0 Lab: 0 Credit: 1.0**

### **Course Offered**

Fall  
Spring  
Summer

This course introduces safety and health hazards associated with welding and related processes.

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **WLD 111 - Arc Welding I**

**Lec: 1.0 Lab: 9.0 Credit: 4.0**

### **Course Offered**

Fall  
Spring  
Summer

This course covers the safety, equipment and skills used in the shielded metal arc welding process. Fillet welds are made to visual criteria in several positions.

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **WLD 114 - Advanced Arc Welding**

**Lec:** 0 **Lab:** 3.0 **Credit:** 1.0

### **Course Offered**

Fall  
Spring  
Summer

This course is a continued study of out-of-position shielded metal arc welding.

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **WLD 118 - Gas Metal Arc Welding Ferrous I**

**Lec:** 1.0 **Lab:** 9.0 **Credit:** 4.0

### **Course Offered**

Fall  
Spring  
Summer

This course covers the equipment setup and fundamental techniques for gas metal arc welding on ferrous metals.

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **WLD 119 - Gas Metal Arc Welding Ferrous II**

**Lec:** 0 **Lab:** 3.0 **Credit:** 1.0

### **Course Offered**

Fall  
Spring  
Summer

This course covers the techniques used in preparation for gas metal arc welder qualification on ferrous metals.

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **WLD 120 - Flux Cored Arc Welding I**

**Lec:** 1.0 **Lab:** 9.0 **Credit:** 4.0

### **Course Offered**

Fall  
Spring  
Summer

This course covers the equipment setup and fundamental techniques for flux cored arc welding.

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **WLD 123 - Gas Metal Arc Welding Non-Ferrous II**

**Lec:** 0 **Lab:** 3.0 **Credit:** 1.0

### **Course Offered**

Fall  
Spring  
Summer

This course covers the techniques used in preparation for gas metal arc welder qualification on nonferrous metals.

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **WLD 132 - Inert Gas Welding Ferrous**

**Lec:** 1.0 **Lab:** 9.0 **Credit:** 4.0

### **Course Offered**

Fall  
Spring  
Summer

This course covers setup and adjustment of equipment and fundamental techniques for welding ferrous metals.

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **WLD 133 - Inert Gas Welding Ferrous Tubing**

**Lec: 0 Lab: 3.0 Credit: 1.0**

### **Course Offered**

Fall  
Spring  
Summer

This course covers the techniques used in gas tungsten arc welding of ferrous tubing.

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **WLD 137 - Inert Gas Welding Aluminum Tubing**

**Lec: 0 Lab: 3.0 Credit: 1.0**

### **Course Offered**

Fall  
Spring  
Summer

This course covers the techniques used in gas tungsten arc welding of aluminum tubing.

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **WLD 141 - Weld Quality**

**Lec: 2.0 Lab: 0 Credit: 2.0**

### **Course Offered**

Fall

This course introduces weld quality assurance.

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **WLD 145 - Field Welding**

**Lec: 1.5 Lab: 1.5 Credit: 2.0**

### **Course Offered**

Fall  
Spring  
Summer

This course covers welding with portable welding machines in field use.

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **WLD 150 - Specialized Welding**

**Lec:** 1.0 **Lab:** 9.0 **Credit:** 4.0

### **Course Offered**

Summer

This course covers flux cored and gas metal arc welding.

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **WLD 152 - Tungsten Arc Welding**

**Lec:** 1.0 **Lab:** 9.0 **Credit:** 4.0

### **Course Offered**

Fall  
Spring  
Summer

This course covers gas tungsten arc welding of carbon steel or stainless steel with stainless steel filler metal..

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **WLD 170 - Qualification Welding**

**Lec:** 1.0 **Lab:** 9.0 **Credit:** 4.0

### **Course Offered**

Fall  
Spring  
Summer

This course covers the procedures and practices used in taking welder qualification tests.

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **WLD 201 - Welding Metallurgy**

**Lec:** 2.0 **Lab:** 0 **Credit:** 2.0

### **Course Offered**

Spring

This course covers the weldability of metals, weld failure, and the effects of heat on chemical, physical and mechanical properties.

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **WLD 222 - Advanced Fabrication Welding**

**Lec:** 1.0 **Lab:** 9.0 **Credit:** 4.0

### **Course Offered**

Spring

Summer

This course covers the layout, construction, and assembly of metal projects using metal working and welding equipment.

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **WLD 225 - Arc Welding Pipe I**

**Lec:** 1.0 **Lab:** 9.0 **Credit:** 4.0

### **Course Offered**

Summer

This course covers the techniques used in shielded metal arc welding of groove welds on pipe.

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **WLD 226 - Arc Welding Pipe II**

**Lec:** 0 **Lab:** 3.0 **Credit:** 1.0

### **Course Offered**

Summer

This course covers the techniques used in shielded metal arc welding of fillet welds on pipe.

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **WLD 228 - Inert Gas Welding Pipe I**

**Lec:** 1.0 **Lab:** 9.0 **Credit:** 4.0

### **Course Offered**

Fall

Spring

Summer

This course covers the techniques used in gas tungsten arc welding of groove welds on ferrous pipe.

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **WLD 229 - Inert Gas Welding Pipe II**

**Lec:** 1.5 **Lab:** 1.5 **Credit:** 2.0

This course covers the techniques used in gas tungsten arc welding of groove welds on alloyed steel and nonferrous pipe.

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **WLD 231 - Gas Metal Arc and Flux Cored Arc Welding Pipe I**

**Lec:** 1.0 **Lab:** 9.0 **Credit:** 4.0

### **Course Offered**

Spring

Summer

This course covers the techniques used in gas metal arc and/or flux cored arc welding of groove welds on pipe.

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **WLD 232 - Gas Metal Arc-Flux Cored Arc Welding Pipe II**

**Lec:** 1.5 **Lab:** 1.5 **Credit:** 2.0

This course covers the techniques used in gas metal arc and/or flux cored arc welding of fillet welds on pipe.

**Grade Type:** Letter Grade

**Division:** Manufacturing and Maintenance

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## **WLD 240 - Robotic Welding and Manufacturing**

**Lec:** 3.5 **Lab:** 1.5 **Credit:** 4.0

**Course Offered**

Spring

This course covers robotic welding systems, safety, operations and applications.

**Grade Type:** Letter Grade

**Restrictions:** Restricted to Welding and Production Technology Majors

**Division:** Manufacturing and Maintenance

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