

# CAREER AND TECHNICAL CERTIFICATE - WELDING TECHNOLOGY

**Previous Degree Required:** HS Diploma

**Eligible for Financial Aid:** Yes

**Delivery Method(s):** On-Campus

**Location(s):** Cocoa

**Additional Limited Access Application Process Required:** Yes

**Program Testing Requirements:** TABE - Test of Adult Basic Education

**Academic Community:** INMC Industry/Manufacturing and Construction

**Program Code:** WEL2

**Classification of Instructional Programs (CIP) Code:** 48.0508

**Florida Department of Education CIP Code:** 0648050805

- **Leads to State or Organizational License or Certification:** American Welding Society certifications
- **Cost Associated with taking the exam:** \$600
- **Where to take the exam:** Exams can be taken in the EFSC Welding shop

This certificate program provides the theory and practical experience necessary in developing a basic foundation in the skill of welding. The successful completion of this program enables the student to enter the welding trade at the entry level.

Job opportunities are unlimited for persons willing to apply themselves and learn the welding trade.

Welding is a highly skilled and high paying trade that requires training and determination. The Eastern Florida welding program is designed to train students to become certified welders.

Refer to the [Career and Technical Certificates](#) overview page to find information about admission, graduation, testing, and other requirements.

Visit the [program page](#) for more information.

## Certificate Requirements

Code	Title	Clock Hours
<b>Completion Group 1</b>		
PMT 0101	Welding Symbols and Blueprint Reading	90
PMT 0104	Fundamentals of Metallurgy	90
PMT 0121	Shielded Metal Arc Welding Principles	60
PMTC 0111	Oxygen/Fuel Gas Processes	45
PMTC 0134	Gas Metal Arc Welding Principles	90
PMTC 0153	Plasma Arc Cutting	30
PMTC 0164	Welding Fabrication Fundamentals and Machine Elements	30
PMTL 0121	Shielded Metal Arc Welding 1 Laboratory	90
<b>Completion Group 2</b>		
PMT 0131	Gas Tungsten Arc Welding Principles	60
PMTL 0131	Gas Tungsten Arc Welding 1 Laboratory	90
PMTL 0104	Fundamentals of Metallurgy Laboratory	30
PMTL 0138	Gas Tungsten Arc Welding 2 Laboratory	90

PMTL 0161	Pipe Welding - Basics	90
PMTL 0165	Pipe Welding - Advanced	90
PMTL 0168	Pipe Welding Certification	75
<b>Total Clock Hours</b>		<b>1050</b>

## Learning Outcomes

1. Interpret Weld Symbol Language
  - *Supports Core Ability: Communicate Effectively*
2. Identify material properties, loads, forces and stress/strain diagrams
  - *Supports Core Ability: Process Information*
3. Demonstrate proper GTAW equipment set-up and component identification
  - *Supports Core Ability: Process Information*
4. Demonstrate basic walk-the-cup TIG weld technique for grooved, open root, carbon steel
  - *Supports Core Ability: Think Critically and Solve Problems*
5. Demonstrate proper weld set-up for 6 inch SCH80 SMAW process
  - *Supports Core Ability: Think Critically and Solve Problems*
6. Demonstrate advanced fundamental pipe welding skills
  - *Supports Core Ability: Think Critically and Solve Problems*