

# Welding Principles and Procedures

This welding training seminar helps participants understand the complete range of welding practices and procedures, while increasing your proficiency and broadening your capabilities.

Learn about applied metallurgy, welding process applications, safety, principles of weld inspection, and troubleshooting. Training can be either Lecture or Hands-on using client supplied equipment and materials. The course material is in accordance with the American Welding Society.



Lecture

Hands-on



Duration

Up to 5 Days



**LIVE ONLINE TRAINING**  
4 days (32 hours)



**ONSITE - IN CLASS TRAINING**  
5 days (40 hours)

## WHAT THIS COURSE COVERS

- Understanding Metals
- Safety for Processes and Documentation
- Introduction to Arc Welding / Arc Welding Basics
- Shielding Metal Arc Welding (Stick)
- Gas Metal Arc Welding (MIG)
- Flux Cored Arc Welding (FCAW)
- Metal Cored Arc Welding (MCAW)
- Gas Tungsten Arc Welding (TIG)
- Welding and Cutting Safety
- Metal Cutting Process
- Principles of Weld Inspection
- Understanding Weld Prints

## WHO SHOULD TAKE THIS

- Welding Technicians
- Mechanics \ Electricians
- Plant & Facility Maintenance Technicians
- Building Engineers
- Building Managers & Superintendents
- Plant & Facility Managers
- Stationary Engineers
- Owners & Managers

## COURSE OUTCOMES

- Understand the basics for Arc, Stick, MIG, FCAW, and other welding techniques.
  - When hands-on, Participants will perform the basics for a welding technique (example: Arc, Stick, MIG, FCAW, and other welding techniques).
- Apply welding safety, and the principles of weld inspection, into your welding process.

## COURSE AGENDA

- Gas Tungsten ARC Welding (TIG)
- Plasma Arc Cutting & Gouging
- Welding and Cutting Safety Electric Arc Welding Equipment
- Repair Welding Principles
- Repair Welding Procedures
- Hands-On Labs

