

# MFG 281 : GTAW I

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## Transcript title

GTAW I

## Credits

3

## Grading mode

Standard letter grades

## Total contact hours

60

## Other hours

60

## Prerequisites

MFG 107.

## Course Description

Includes GTAW butt joint weldments with mild steel and stainless steel sheet along with mild steel and aluminum plate in various positions.

## Course learning outcomes

1. Demonstrate safe practices in the MATC Welding Lab using GTAW processes at an intermediate level.
2. Weld common (intermediate) butt joint assemblies on mild steel and stainless steel sheet in all positions with GTAW process to AWS D1.1, API 1104, and multiple ASME Codes/Standards. Weldments will be done in multiple edge configurations, progression and weld types.
3. Weld common (intermediate) butt joint assemblies on aluminum and 1/4" mild steel plate in all positions with GTAW process to AWS D1.1, API 1104, and multiple ASME Codes/Standards. Weldments will be done in multiple edge configurations, progression and weld types.
4. Apply visual and destructive examination principles and practices in accordance with AWS D1.1, API 1104, and applicable ASME Code/Standards.

## Content outline

GTAW Mild steel sheet grooved butt welds 1G, 2G, 3G, 4G Test x2 Practice x20  
stainless sheet grooved butt welds 1G, 2G, 3G, 4G Test x2 Practice x20  
Aluminum plate grooved butt welds 1G, 2G, 3G, 4G Test x2 Practice x20  
1/4" mild carbon plate grooved butt welds 1G, 2G, 3G, 4G Test x2 Practice x20

## Required materials

This class requires the purchase of safety equipment, reference books, measurement equipment, and tools.