

# MFG 272 : GMAW I

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## Transcript title

GMAW I

## Credits

3

## Grade mode

Standard letter grades

## Contact hours total

60

## Other hours

60

## Prerequisites

MFG 107.

## Description

Includes GMAW butt welding of mild steel plate in all positions with and without backing as well as various configurations and progressions.

## Learning outcomes

1. Demonstrate safe practices in the MATC Welding Lab using GMAW processes at an intermediate level.
2. Demonstrate appropriate set up, maintenance, and use of GMAW equipment for intermediate weldments.
3. Weld common (intermediate) butt joint assemblies using GMAW processes 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.

## Content outline

GMAW Reading/Terminology

GMAW

Butt weld with backing

1F, 2F, 3F, 4F

Various configurations

Different progressions as needed

Multiple weld types

x2

GMAW

Butt weld without backing

1F, 2F, 3F, 4F

Various configurations

Different progressions as needed

Multiple weld types

x2

Weldments

Joints

Design

Inspection

Industry Drawings

Interpretation of symbols

Fabrication requirements

General industry requirements

Material handling and callouts

## Required materials

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

## Grading methods

Assessment for this course may include, either online or in person, written assignments, homework, timed tests, take home tests, oral presentations, and demonstrations of manual skills acquisition as needed to confirm achievement of the course outcomes.