

# MFG 273 : SMAW II

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## Transcript title

SMAW II

## Credits

3

## Grade mode

Standard letter grades

## Contact hours total

60

## Other hours

60

## Prerequisites

MFG 271.

## Description

Includes SMAW welding complete joint penetration welds on 2" and 6" pipe in 2G and 5G positions.

## Learning outcomes

1. Demonstrate safe practices in the MATC Welding Lab using SMAW processes at an advanced level for pipe weldments.
2. Weld 2" pipe in 2G and 5G (advanced) positions with SMAW processes 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 6" pipe in 2G and 5G (advanced) positions with SMAW 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

SMAW

2" pipe Sched 40

2G

Destructive test

x2

SMAW

2" pipe Sched 40

5G

Progression

Destructive test

x2

SMAW

6" pipe Sched 40

2G

Destructive test

x2

SMAW

6" pipe Sched 40

5G

Progression

Destructive test

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.