

MFG 105 : WELDING TECHNOLOGY II

Transcript title

Welding Technology II

Credits

4

Grading mode

Standard letter grades

Total contact hours

80

Other hours

80

Prerequisites

MFG 103.

Recommended preparation

MFG 100.

Course Description

Second course in a three-course sequence focused on introductory level skills used in structural plate welding in accordance to AWS D1.1 Structural Steel Welding code. Introduces intermediate welding processes, safety, nomenclature, and equipment operation for the advancement of more difficult weldments in the 3F and 4F position using shielded metal arc welding (SMAW) and gas metal arc welding (GMAW) on mild steel.

Course learning outcomes

1. Recognize safe work practices while performing groove plate weldments in the 1G and 2G positions using angle grinders, oxy-fuel, and plasma cutting processes.
2. Demonstrate appropriate set up, maintenance, and use of SMAW equipment for basic weldments.
3. Demonstrate appropriate set up, maintenance, and use of GMAW equipment for basic weldments.
4. Weld common (basic) joint assemblies with SMAW and GMAW processes to AWS D1-1 Structural Steel Welding Code.
5. Apply visual and destructive examination principles and practices in accordance with AWS D1-1.

Required materials

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