



# Wayne County Community College District

## COURSE SYLLABUS

### WLT105 MIG/Flux-Core/Plasma Welding

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**CREDIT HOURS:** 5.00

**CONTACT HOURS:** 75.00

**COURSE DESCRIPTION:**

This course involves MIG welding/flux-core welding with plasma torch cutting and manual programming. Technical theory directly related to MIG welding, including the composition and properties of metals is included; MIG and Flux-core welding for production or fabrication intent are also covered.

**PREREQUISITES:** *WLT 101*

**EXPECTED COMPETENCIES:**

Upon completion of this course, the student will be able to:

- Know and follow all safety procedures for MIG/flux-core/plasma welding
- Perform plasma cutting 1/8 mild steel/aluminum freehand, straight and curved assignments with 85% accuracy
- Set up and write a basic program to plasma cut 1/8 cold rolled with 100% accuracy
- MIG weld five basic joints in the flat 1/8 mild steel with 80% accuracy
- MIG weld five basic joints vertical – up 1/8 stock with 80% to 100% accuracy
- MIG weld five basic joints horizontal 1/8 stock with 80% to 100 accuracy
- MIG weld five basic joints overhead 1/8 stock with 80% accuracy
- Perform to puddle welding (plug weld) a simulated spot weld on sheet metal with 100% accuracy
- Flux-core weld five basic joints in the flat 3/8 stock with 75% accuracy
- Flux-core weld five basic joints in the vertical – up position 3/8 stock with 75% accuracy
- Flux-core weld five basic joints in the horizontal position 3/8 stock with 75% accuracy
- Fabricate a four inch ring 1/8 mild steel and MIG weld it to a plate using the weld turntable with 85% accuracy

**ASSESSMENT METHODS:**

Student performance may be assessed by examination, quizzes, case studies, oral conversation, group discussion, oral presentations. The instructor reserves the option to employ one or more of these assessment methods during the course.

**GRADING SCALE:**

90%-100% = A  
80%-89.9%= B  
70%-79.9%= C  
60%-69.9%= D  
<60% = E