

University of Arkansas - Fort Smith
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General Syllabus

WELD 22842 SMAW Certification Assessment

Credit Hours: 2

Lecture Hours: 1

Laboratory Hours: 2

Prerequisite: WELD 22844 ARC Welding – Advanced

Effective Catalog: 2018-2019

I. Course Information

A. Catalog Description

Assesses the student's ability to pass certification tests in Shielded Metal Arc Welding by studying the procedures and standards established by the American Welding Society and used in the certification examination.

B. Additional Information

This course is an assessment of the student's ability to pass certification test in Shielded Metal Arc Welding process. The assessment will be evaluated on national welding standards and procedures.

II. Student Learning Outcomes

A. Subject Matter

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

1. Describe the use of welding codes.
2. Discuss WPS (Welding Procedure Specification)/PQR (Procedure Qualification Record)
3. Explain and evaluate methods of weld inspection
4. Explain weld joint geometry
5. Complete certification tests

B. University Learning Outcomes

This course enhances student abilities in the following areas:

Analytical Skills

Critical Thinking Skills: Students must analyze situations and make decisions in materials and techniques and make judgments in accordance with American Welding Society standards.

Quantitative Reasoning: Students must make precision measurements and figure acceptable tolerances within American Welding Society guidelines.

Ethical Decision Making

Students will evaluate work to meet American Welding Society standards and guidelines as well as evaluate how stakeholders are affected by the quality and safety of the finished welds.

III. Major Course Topics

- A. 2G test with backing
- B. 3G test with backing
- C. 4G test with backing
- D. 2G test without backing
- E. 3G test without backing
- F. 4G test without backing