University of Arkansas - Fort Smith 5210 Grand Avenue P. O. Box 3649 Fort Smith, AR 72913-3649 479-788-7000

General Syllabus

WELD 2904V Welding Special Topics

Credit Hours: 1 to 5 Variable Lecture Hours: 0 to 5 Variable

Laboratory Hours: 0 to 10 Variable

Prerequisite: Consent of instructor

Effective Catalog: 2018-2019

I. Course Information

A. Catalog Description

This course is designed to give special instruction for new and emerging topics in welding that are not otherwise covered in the curriculum. Topics in these emerging technologies will be offered periodically based on the recognized needs of the field and the availability of instructors.

B. Additional Information

Students in this class will be given an opportunity to study advanced or specialized applications of welding through lecture/demonstration and laboratory activities when appropriate. This course is intended for the student with a specialized interest in the emerging topic being presented.

II. Student Learning Outcomes

A. Subject Matter

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

- 1. Research, develop and provide solutions to design and troubleshoot problems that are assigned by the instructor. Work is to be completed in accordance with defined standards, in the semester assigned, using available resources of the welding labs.
- 2. Prepare and present a portfolio of class assignments and accomplishments including a description of special activities or projects included in the study of the specialized topic.

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.

Communication Skills (written and oral)

Students will prepare and present a portfolio of class assignments and accomplishments.

III. Major Course Topics

- A. Introduction to emerging topic
- B. History of evolution to current technology
- C. Specific components of new technology
- D. Application so technology to current field
- E. Forecasting future applications and breadth of impact
- F. Summary of topic and final exam