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

General Syllabus

WELD 2994V Welding Special Projects

Credit Hours: 1 to 3 Variable Lecture Hours: 0 to 3 Variable Laboratory Hours: 0 to 6

Prerequisite: Consent of instructor

Effective Catalog: 2018-2019

I. Course Information

A. Catalog Description

Designed for the advanced welding student who has completed or is enrolled in all other appropriate welding courses offered at UAFS. A learning contract must be prepared and agreed upon by the student, the faculty advisor, and the dean. May be repeated when topics differ for a total of six hours.

B. Additional Information

The student will design and construct a complete project agreed upon by the student and the course instructor. The project includes appropriate research, analysis, design calculations and consideration of manufacturing standards used in producing products in this industry. This course is intended to expose the student to an industry environment as well as giving him/her experience in working independently to complete a project.

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 manufacturing welding problems developed in consultation with the instructor. Work is to be completed in accordance with defined standards, in the semester assigned, using available resources of the welding lab.
- 2. Prepare complete documentation of the materials and processes required to complete the project.
- 3. Develop a plan and schedule completion of tasks.

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.

III. Major Course Topics

- A. Introduction/definition of project
- B. Develop and write objectives of project
- C. Develop and write specification and schedule of projects
- D. Weekly status report meetings and lab work
- E. Midterm status report and review
- F. Final report and project review