WELD 2210

Division: Career and Technical Education
Department: Welding Technology
Course: WELD 2210
Title: Blueprints for Welders
Catalog Description:

This course studies basic print interpretation and visualization for industrial applications. It includes weld symbols and covers layout techniques from shop drawings to fabrication of sheet metal, plate, pipe, and structural shapes. Lab experience is included.

General Education Requirements: N/A
Semesters Offered: TBA
Credit/Time Requirement: Credit: 6; Lecture: 5; Lab: 3
Clock/Hour Requirements: 120
Offered for Non-Credit: No
Prerequisites: DRFT 1010 or instructor approval

Corequisites: None

Justification:

Our program advisory committee approved this course, and it is comparable to UVSC WELD 1210 and SLCC WELD 1260.

Student Learning Outcomes:

Upon successful completion, students will be able to:

- read and interpret blueprints, including visualization of objects for industrial usage
- use accepted drafting techniques
- lay out shop drawings to show basic sheet metal construction, plate, pipe, and structural shapes
- use two-dimensional blueprints to properly show three-dimensional shapes accurately for fabrication
- develop patterns using parallel line, radial line, and triangulation.

Content:

Course objectives will be accomplished by providing students with learning experiences in the following subject areas:

- basic lines and views
- sketching
- notes and specifications
- dimensions
- bill of materials

- structural shapes
- other views
- sectional views
- detail and assembly prints
- welding symbols and abbreviations
- joints for weldment fabrications
- fillet welds
- groove welds
- back or backing and melt-thru welds
- plug and slot welds
- surface welds
- edge welds
- spot welds
- projection welds
- seam welds
- stud welds
- pipe welding symbols
- inspection and examination.

General Education Outcomes:

1) Read effectively, constructively, and critically.
Students will read the required text as well as other assigned readings. Students must be able to answer questions on exams and synthesize information into laboratory experiences.

6) Apply computational skills to a variety of contexts.
Students will perform measurement, design, and fabrication functions as they pertain to laboratory experiences and welding projects. Students must be familiar with basic computational functions.

Key Performance Indicators:

In class:

- The students' knowledge and skills are tested through assignments, tests and quizzes. Assignments are worth 40%-50%, written tests are 30%-40%, and quizzes are 10%-20% of the total grade.

Following class:

- Students will demonstrate competency by using skills learned in other course work and project construction.

Representative Text and/or Supplies:

- A. E. Bennett and Louis J. Siy, *Blueprint Reading for Welders,* current edition, Delmar Publishers.

Optimum Class Size: 10
Maximum Class Size: 20

Signatures:

I hereby submit this course syllabus:

_____

Alan Palmer, M. Ed., Associate Professor

I hereby find this course consistent with the goals and resources of the Welding Technology Department:

_____

Alan Palmer, M. Ed., Associate Professor, Chair

I hereby find this course consistent with the goals and resources of the Career and Technical Education Division:

_____

Michael P. Medley, MBA, Assistant Professor, Dean

I have discussed the need for library resources related to this class with the person submitting the syllabus:

_____

Lynn Anderson, MLIS, Technical Services Librarian (Main Campus)

_____

Michelle Olsen, MLS, Campus Librarian (Richfield Campus)