

WELD A220: WELDING SPECIFICATIONS AND CODES

Item	Value
Top Code	095650 - Welding Technology
Units	2 Total Units
Hours	36 Total Hours (Lecture Hours 36)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Standard Letter (S)

Course Description

Codes and specifications used by governmental agencies and industry in control of products and production. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Write welding procedure specifications.
2. Prepare welder qualification reports.
3. Create welding procedure qualifications specifications.
4. Apply codes and specifications in preparing welding documents.

Course Objectives

- 1. Demonstrate the ability to use and apply codes.
- 2. Demonstrate an understanding of national codes and specifications as applied to welding and brazing.
- 3. Demonstrate the ability to explain the difference between codes, standards, and specifications.
- 4. Demonstrate the ability to prepare welding procedure specifications.
- 5. Demonstrate the ability to prepare welder qualification reports.
- 6. Demonstrate the ability to use code publications.
- 7. Demonstrate the ability to use standards publications.
- 8. Demonstrate the ability to use specifications publications.
- 9. Demonstrate the ability to create welding documents using codes.
- 10. Demonstrate the ability to create welding documents using standards and specifications.

Lecture Content

Reasons for Standards, Codes, and Specifications Aids manufacturers in producing safe and reliable products Defines product minimum level of quality Defines uniformity and interchangeability Types of Codes and Specifications Governmental Industrial – general, specific industry Divisions of Specifications Industrial Governmental Process specifications Products specifications Interpretation of Codes and Specifications How they apply Where they apply The legal aspects of codes and specifications Contract requirements of codes and specifications Codes and Specification Requirements as Applied to: Quality assurance programs Quality control programs Inspection Requirements of Codes and Specifications

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)

Instructional Techniques

Comparison of student ability with minimum standards

Reading Assignments

Broad general theory Facts and basic principles Vocabulary and meaning Create a research paper explaining codes and specification

Writing Assignments

Broad general theory Facts and basic principles Vocabulary and meaning Create a research paper explaining codes and specification

Out-of-class Assignments

Broad general theory Facts and basic principles Vocabulary and meaning Create a research paper explaining codes and specification

Demonstration of Critical Thinking

Testing the student comprehension of required reading and lectures; evaluation of required written reports; evaluation of documents created by the student; final exam will be the methods of evaluation

Required Writing, Problem Solving, Skills Demonstration

Broad general theory Facts and basic principles Vocabulary and meaning Create a research paper explaining codes and specification

Textbooks Resources

1. Required Galvery, William and Frank Marlow. Welding Essentials: Questions and Answers , 2nd ed. New York: Industrial Press, 2007

Other Resources

1. American National Standards Institute codes and specifications documents
2. Selected handout materials to be provided and distributed by instructor