

Course Outline

COURSE: WELD 203 **DIVISION:** 50 **ALSO LISTED AS:**

TERM EFFECTIVE: Fall 2019 **CURRICULUM APPROVAL DATE:** 11/13/2018

SHORT TITLE: BASIC BLUEPRINTS

LONG TITLE: Basic Blueprints

Units	Number of Weeks		Contact Hours/Week		Total Contact Hours
1	6	Lecture:	18	Lecture:	108
		Lab:	0	Lab:	0
		Other:	0	Other:	0
		Total:	18	Total:	108

COURSE DESCRIPTION:

This class was first offered through Community and Contract Education, where the opportunity to explore new classes and programs based on community outreach and employer assessments was provided. The next step is to offer this course through the noncredit program and/or as a joint venture with the credit program as a mirror class. The possibility for this class to be added to our new CTE programs, such as HVAC, as an elective is being considered. This course is being supported by the AEBG grant and is in response to local manufacturing businesses' need for entry level employees with welding and blue print reading skills.

PREREQUISITES:

COREQUISITES:

CREDIT STATUS: C - Credit - Degree Non Applicable

GRADING MODES

- L - Standard Letter Grade
- P - Pass/No Pass

REPEATABILITY: N - Course may not be repeated

SCHEDULE TYPES:

- 02 - Lecture and/or discussion

STUDENT LEARNING OUTCOMES:

1. Explain and demonstrate how to read a mechanical drawing.

Measure of assessment: exam, discussion, homework

Year assessed, or planned year of assessment: 2019

Semester: Fall

Institution Outcome Map

1. Communication:

1.1 Students will communicate effectively in many different situations, involving diverse people and viewpoints.

1.2 Speaking: Students will speak in an understandable and organized fashion to explain their ideas, express their feelings, or support a conclusion.

1.3 Listening: Students will listen actively and respectfully to analyze the substance of others' comments.

1.4 Reading: Students will read effectively and analytically and will comprehend at the college level.

1.5 Writing: Students will write in an understandable and organized fashion to explain their ideas, express their feelings, or support a conclusion.

2. Cognition:

2.1 Students will think logically and critically in solving problems; explaining their conclusions; and evaluating, supporting, or critiquing the thinking of others.

2.2 Analysis and Synthesis: Students will understand and build upon complex issues and discover the connections and correlations among ideas to advance toward a valid independent conclusion.

2.3 Problem Solving: Students will identify and analyze real or potential problems and develop, evaluate, and test possible solutions, using the scientific method where appropriate.

2.4 Creative Thinking: Students will formulate ideas and concepts in addition to using those of others.

2.5 Quantitative Reasoning: Students will use college-level mathematical concepts and methods to understand, analyze, and explain issues in quantitative terms.

2.6 Transfer of Knowledge and Skills to a New Context: Students will apply their knowledge and skills to new and varied situations.

7. Content Specific:

Demonstrate how 3-D objects are represented on a 2-D space.

Measure of assessment: exam, homework, discussion

Year assessed, or planned year of assessment: 2019

Semester: Fall

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CONTENT, STUDENT PERFORMANCE OBJECTIVES, OUT-OF-CLASS ASSIGNMENTS

Curriculum Approval Date: 11/13/2018

3 Hours

Content: Introduction, Drawing Language

Student Performance Objectives: Identify the terms used on mechanical drawings. Explain how to convert 2-D drawing views back into 3-D dimensional parts.

3 Hours

Content: Projections, Orthographic Projection and 3rd Angle Rotation

Student Performance Objectives: Define orthographic projection. Describe how models represent a 3-D object on 2-D drawing paper.

4 Hours

Content: Drawing Format, Mono-Detail System, Standards

Student Performance Objectives: Explain how to read the requirements and interpret the drawings on a blueprint. Discuss what is meant by the mono-detail system. Discuss the drawing standards that appear on a blueprint.

2 Hours

Content: Weld Symbols, Safety

Student Performance Objectives: Identify the various welding symbols. List safety requirements as it relates to welding.

2 Hours

Content: Introduction to Geometric Dimension and Tolerance (GD&T)

Student Performance Objectives: Define Geometric Dimension and Tolerance (GD&T). State the objective of GD&T.

2 Hours

Content: 3rd Angle Compared to 1st Angle Projection

Student Performance Objectives: Explain the difference between the 3rd angle projection and the 1st angle projection. Discuss what the 3rd angle projection means. Show the symbol for the 1st angle projection.

2 Hours

METHODS OF INSTRUCTION:

Lecture, discussion

OUT OF CLASS ASSIGNMENTS:

Required Outside Hours: 36

Assignment Description: Out of Class Assignments: Such as - Terms/Symbols/Safety worksheet. Read handouts provided on how to read basic blueprints. Problem-solving assignments.

METHODS OF EVALUATION:

Problem-solving assignments

Percent of total grade: 30.00 %

Reading basic blueprints.

Objective examinations

Percent of total grade: 30.00 %

Terms, Symbols, Problem-Solving

Other methods of evaluation

Percent of total grade: 40.00 %

REPRESENTATIVE TEXTBOOKS:

ARTICULATION and CERTIFICATE INFORMATION

Associate Degree:

CSU GE:

IGETC:

CSU TRANSFER:

Not Transferable

UC TRANSFER:

Not Transferable

SUPPLEMENTAL DATA:

Basic Skills: N

Classification: Y

Noncredit Category: Y

Cooperative Education:

Program Status: 1 Program Applicable

Special Class Status: N

CAN:

CAN Sequence:

CSU Crosswalk Course Department:

CSU Crosswalk Course Number:

Prior to College Level: Y

Non Credit Enhanced Funding: N

Funding Agency Code: Y

In-Service: N

Occupational Course: C

Maximum Hours:

Minimum Hours:

Course Control Number:

Sports/Physical Education Course: N

Taxonomy of Program: 095650