GAVILAN COLLEGE
5055 Santa Teresa Blvd
Gilroy, CA 95023

Course Outline

COURSE: WELD 703 DIVISION: 90 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
0	6	Lecture:	18	Lecture:	108
		Lab:	0	Lab:	0
		Other:	0	Other:	0
		Total:	18	Total:	108

COURSE DESCRIPTION:

This class covers reading mechanical drawings, including learning how 3-D objects are represented on a 2-D space. ADVISORY: WELD 702.

PREREQUISITES:

COREQUISITES:

CREDIT STATUS: N - Non Credit

GRADING MODES
N - Non Credit

REPEATABILITY: N - Course may not be repeated

SCHEDULE TYPES:
02 - Lecture and/or discussion

STUDENT LEARNING OUTCOMES:

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:

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:
No textbook required. Handouts will be provided as needed.

ARTICULATION and CERTIFICATE INFORMATION

Associate Degree:
CSU GE:
IGETC:
CSU TRANSFER:
Not Transferable
UC TRANSFER:
Not Transferable

SUPPLEMENTAL DATA:
Basic Skills: N
Classification: J
Noncredit Category: I
Cooperative Education: N
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: Y
Funding Agency Code: A
In-Service: N
Occupational Course: C
Maximum Hours:
Minimum Hours:
Course Control Number:
Sports/Physical Education Course: N
Taxonomy of Program: 095650