Las Positas College
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Course Outline for WLDT 55

PRINT READING FOR INDUSTRY

Effective: Spring 2018

I. CATALOG DESCRIPTION:
WLDT 55 — PRINT READING FOR INDUSTRY — 2.00 units

Interpreting and visualizing drawings and prints used in industrial settings. The role of prints in the digital age, geometric dimensioning and tolerancing to current standards. Foundational skills needed for print reading success, including basic mathematics, geometry principles, measurement tools, and the design process. Welding symbols and their use in manufacturing.

2.00 Units Lecture

Grading Methods:
Letter Grade

Discipline:
- Welding

	MIN
Lecture Hours:	36.00
Total Hours:	36.00

II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

IV. MEASURABLE OBJECTIVES:

Upon completion of this course, the student should be able to:

A. Describe line conventions and lettering used on prints
B. Interpret multiview drawings and prints
C. Demonstrate the fundamentals of size description and common drawing annotations
D. Use detail,and assembly drawings
E. Interpret and sketch welding symbols

V. CONTENT:
A. Introduction to Drafting, Print Reading Procedures and Lines
    1. Prints: The Language of Industry
    2. Line Conventions and Lettering
    3. Title Blocks and Part Lists
B. Fundamentals of Shape Description in Multivew Drawings
    1. Geometric Terms and Construction
    2. Multiview Drawings
    3. Section Views
    4. Auxiliary Views
    5. Screw Thread Representation
C. Fundamentals of Size Description and Annotation
    1. Dimensioning
    2. Tolerancing
    3. Machining Specifications and Drawing Notes
    4. Surface Texture Symbols
    5. Geometric Dimensioning and Tolerancing
    6. Drawing Revision Systems
D. Industrial Drawing Types
    1. Detail Drawings
    2. Assembly Drawings
E. Specialized Parts and Prints in Manufacturing
    1. Spring and Fasteners in Industrial Prints
    2. Gears, Splines, and Serrations
    3. Cam Diagrams and Prints
    4. Plastic Parts
    5. Precision Sheet Metal Parts
    6. Welding Symbols and Prints

VI. METHODS OF INSTRUCTION:

A. **Projects** -
B. **Classroom Activity** - Print reading from large format drawings, sketching
C. **Discussion** -
D. **Lecture** - Uses and applications of prints in industry, common practices and standards.

VII. TYPICAL ASSIGNMENTS:

A. Read the chapter in the text covering Welding Symbols
B. Participate in print reading discussions in class
C. Develop a sketch of the part shown, including important dimensions
D. Review the print for missing information with a group of other students
E. Using the Bill of Materials, determine the quantity of material required to manufacture the part.

VIII. EVALUATION:

A. **Methods**

1. Exams/Tests
2. Quizzes
3. Class Participation
4. Home Work

B. **Frequency**

1. Exams and Tests
    a. As assigned
2. Quizzes
    a. Weekly
3. Class Participation
    a. Daily
4. Homework
    a. As assigned

IX. TYPICAL TEXTS:

1. Wilson, B. (2016). *GD&T Application and Interpretation* (6th ed.). Tinley Park, IL: Goodheart - Willcox.
2. Brown, W.C., & Brown, R.K. (2016). *Print Reading for Industry* (10th ed.). Tinley Park, IL: Goodheart - Willcox.
3. Walker, J.R. (2017). *Exploring Drafting* (12th ed.). Tinley Park, IL: Goodheart Willcox.

X. OTHER MATERIALS REQUIRED OF STUDENTS:

A. Calculator