

TECH PREP/MTAG CURRICULUM

Interpreting Technical Drawing

Lesson Plan

Time Allotment: 16 hours
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MODULE DESCRIPTION

This module provides a review and experiential exercises in interpreting technical drawings since they function as an important language in the manufacturing world.

MODULE OBJECTIVE

This module introduces students to the various sources of information found within technical drawings and provides practice interpreting various projections. After completing this module, students should be able to identify orthographic, isometric, and sectional views and interpret key information on technical drawings.

COMPETENCIES INTRODUCED (MTAG)

- E1.1 Explain basic blueprint terminology.
- E2.1 Identify and explain basic items in detailed drawings: Identify types of lines within a drawing.
- E3.1 Identify basic types of drawings and list the purpose of each: Identify orthographic views.
- E3.5 Identify basic types of drawings and list the purpose of each: Visualize one or more views from a given view

MANUFACTURING SKILL STANDARDS INTRODUCED (MSSC)

- P1. Produce product to meet customer needs: Skill Category: Reading and interpreting drawings: A. Skill in interpreting technical drawings so that customer needs are met.

PERFORMANCE CRITERIA

- Given a technical drawing, the student will be able to identify, correctly label, and give reasons for each basic element and line type within the drawing.
- Given a technical drawing, the student will be able to identify and label the basic orthographic projections with 100% accuracy.
- Given drawing paper and an isometric drawing of an object, the student will be able to sketch the top, front, and side views.

SEQUENCING

- Introduction
- Interpreting Title Blocks
- Interpreting Lines
- Creating cutouts
- Orthographic views
- Orthographic view exercise
- Skill check 1
- Pictorial views
- Isometric drawings
- Sectional views
- Sectional view exercises
- Skill Check 2
- Module Evaluation

SUPPLIES NEEDED

Classroom or laboratory with sufficient lighting for work with fine print.
For each student: Pencils, #2 with eraser, colored pencils (red, green, orange, blue, purple), scissors, glue stick and ruler.

INDEX OF INSTRUCTIONAL MATERIALS

Lesson Plan	p.2
Class Curriculum	p.4
Student Assessment Rubric	p.10
Module Evaluations	p.11
Class Handouts	p.14

RECOMMENDED STUDENT PREREQUISITES

Students should have completed the following module: Introduction to Manufacturing.