

EASTERN ARIZONA COLLEGE

Technical Drafting

Course Design

2018-2019

Course Information

Division Industrial Technology Education
Course Number DRF 108
Title Technical Drafting
Credits 2
Developed by Doug Griffin
Lecture/Lab Ratio 1 Lecture/2 Lab

Transfer Status

ASU	NAU	UA
MET Dept. Elective	Elective Credit	Non Transferable

Activity Course No
CIP Code 15.1300
Assessment Mode Pre/Post Test (35 Questions/35 Points)
Semester Taught Upon Request
GE Category None
Separate Lab No
Awareness Course No
Intensive Writing Course No
Diversity and Inclusion Course No

Prerequisites

None

Educational Value

This course is designed as an introduction to mechanical drafting for the student who plans to enter the drafting field or continue with a pre-engineering program. This course introduces the universal language of graphic communication and lends itself to everyday application.

Description

Course is designed for students with little or no drafting background. Course content includes use of drafting equipment, drafting techniques, lettering, geometric construction, multi-view, isometric, section view, and auxiliary view drawings. All drawings will meet the ASME Y14.5M standard for dimensioning and drawing layout.

Supplies

Two .5mm Mechanical Pencils
One .7 mm Mechanical Pencil

Competencies and Performance Standards

- 1. Produce drawings that display proper line work, symbology, lettering, and techniques acceptable to industrial standards (ASME Y14.5M).**

Learning objectives

What you will learn as you master the competency:

- Utilize proper drafting techniques in all assigned drawings.
- Use basic dimensioning correctly in all assigned drawings.

Performance Standards

You will demonstrate your competence:

- by successfully completing all assignments related to this competency

Your performance will be successful when:

- learner completes assigned activities

- 2. Produce multi-view working drawings, section and auxiliary drawings, isometrics, using proper scaling and dimensions acceptable to industrial requirements.**

Learning objectives

What you will learn as you master the competency:

- Review multi-view drawings, section and auxiliary drawings, and isometric and oblique drawings.
- Use correct technique in production of multi-view, section, auxiliary, isometric and oblique drawings.
- Derive proper scaling and dimensions acceptable to industrial requirements on each assigned drawing.

Performance Standards

You will demonstrate your competence:

- by successfully completing all assignments related to this competency

Your performance will be successful when:

- learner completes assigned activities

- 3. Identify basic drafting tools, explain the various grades of lead hardness, and list standard paper sizes.**

Learning objectives

What you will learn as you master the competency:

- Identify basic drafting tools.
- Identify standard paper sizes.
- Explain the various grades of lead hardness in pencils used in manual drafting.

Performance Standards

You will demonstrate your competence:

- by successfully completing all assignments related to this competency

Your performance will be successful when:

- learner completes assigned activities

4. Make single-view drawings using basic drafting equipment and apply correct layout and drawing techniques.

Learning objectives

What you will learn as you master the competency:

- a. Develop correct lettering techniques.
- b. Apply correct layout and drawing techniques in single-view drawings.
- c. Comply with correct drafting procedures and techniques.

Performance Standards

You will demonstrate your competence:

- o by successfully completing all assignments related to this competency

Your performance will be successful when:

- o learner completes assigned activities

5. Construct geometric problems and relate these principles to engineering drawings.

Learning objectives

What you will learn as you master the competency:

- a. Construct assigned geometric problems.
- b. Apply knowledge of geometry to engineering drawings.

Performance Standards

You will demonstrate your competence:

- o by successfully completing all assignments related to this competency

Your performance will be successful when:

- o learner completes assigned activities

Types of Instruction

Classroom Presentation

Lab

Grading Information

Grading Rationale

Each instructor has the flexibility to develop evaluative procedures within the following parameters.

1. The Post Test will represent 10% of the course grade.
2. Course learning activities shall represent 90% of the course grade.

Grading Scale

A	90% - 100%
B	80% - 89%
C	70% - 79%
D	60% - 69%
F	59% and below