Northwest Arkansas Community College

Business and Computer Information Systems Division

Discipline Code

DRFT

Course Number

1233

Course Title

Engineering Graphics

Catalog Description

This course introduces students to the fundamentals of technical drawings and the skills needed to communicate graphically in all fields. Emphasis is on basic techniques and principles used to produce engineering drawings. Topics include design thinking, drawing layouts and organization, text, orthographic projection and multi-view drawings, scales, sketching, section development, auxiliary view development, and dimensioning.

Prerequisites

None.

Credit Hours

3 credit hours

Contact hours

45 Contact Hours

Load hours

3 load hours

Semesters Offered

Fall, Spring, Summer on demand

ACTS Equivalent

None

Grade Mode

A-F

Learning Outcomes

Students will:

- Apply mechanical, architectural, and civil engineering scales to technical drawings correctly
- Draw isometric and orthographic sketches that accurately represent objects
- Create multi-view drawings and objects using industry standards
- Create primary auxiliary views and use auxiliary views for reverse construction
- Construct full, half, offset, removed, revolved and broken out sections using conventional practices
- Connect global cultural perspectives to CAD operations

General Education Outcomes Supported

- Students gain greater awareness of cultural perspectives.

Standard Practices

Topics list

- Graphic communication and the design process
- Technical drawing tools and equipment
- Scales and text on drawings
- Sketching in isometric, perspective, and multi-view
- Orthographic projection and multi-view drawings
- Line conventions, view selection, inclined & oblique planes
- Auxiliary views
- Section views
- Dimensioning basics and standard practices

Learning activities

Assessments

- Technical drawing assignments
- Projects

Grading guidelines

- A = 90-100%
- B = 80-89%
- C = 70-79%
- D = 60-69%
- F = 0-59%