

FLCC Course Syllabus

General Information

Date

04/26/2017

Department

Science & Technology

Course Prefix:

ESC

Course Number:

105

Course Title:

Engineering Graphics

Course Information

Credit Hours

3

Lecture Contact Hours

1

Laboratory Contact Hours

5

Catalog Description

This course includes technical sketching, visualization, design, and the use of computer aided design (CAD). Topics include geometric construction and modeling, lettering, freehand sketching, orthographic projection, isometric projection, oblique projection, sectional views, dimensioning, working drawings, and the use of CAD software. Emphasis is on developing both manual sketching and CAD skills to convey engineering designs in accordance with industry standards.

Grading Scheme

Letter Grade

FLCC Values

College Learning Outcomes Addressed by the Course

Inquiry
Interconnectedness
Perseverance

Course Learning Outcomes

Course Learning Outcomes

- 1 : Demonstrate proper set up of multiview orthographic drawings.
- 2 : Demonstrate proper use of standard drawing tools and techniques.
- 3 : Use CAD software to create solid models and engineering drawings.

Program Affiliation

This course is required as a core program course in the following program(s)

AS Engineering Science
AAS Instrumentation and Control Technologies
AAS Mechanical Technology

Outline of Topics Covered

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- I. Design and Graphic Communication
- II. Freehand Sketching
- III. Scales
- IV. Lettering
- V. Geometric Construction
- VI. Multiview Sketching and Projection
- VII. Pictorial Sketching
- VIII. Sectional Views
- IX. Dimensioning
- X. Working Drawings
- XI. Parametric Solid Modeling (CAD)
- XII. Design Project