**Course Outline of Record**

**Number:** DRAF G105 **Title:** Basic Engineering Drafting I, Computer Aided Drafting

**Originator:** Instructor Placeholder AAA **Eff Term:** Summer 2010

**Formerly Known As:**

**Date of Outline/Review:** 05-01-2005

**Cross Listed Course:**

**Top NO:** 0953.00

**Semester Units:** 3.0

**Hrs Lec:** 36.0 **Hrs Lab:** 36.0 **Hrs Other:** 0.0

**Contact Hrs Total:** 72.0

**Study Non-Contact Hrs Recommended:** 72.0

**Catalog Description:**

The course will cover the study of correct letter styles for drafting, geometric construction, multi-view projection, basic dimensioning, threads & fasteners, isometric drawing and single auxiliary projection. All drafting problems will be drawn using computer aided drafting, (CAD), with AutoCAD software.

**Justification for Course:**

**Prerequisites:**

**Corequisites:**

**Advisories:**

**Assigned Disciplines:**

Drafting CADD (computer -aided drafting/ design), CAD (computer- aided design), CAD (computer-aided drafting)

**Material Fee:** Yes [ ] No [X] Amount: $0.00

**Credit Status:** Noncredit [ ] Credit - Degree Applicable [X] Credit - Not Degree Applicable [ ]

**Grading Policy:** Pass/No Pass [ ] Standard Letter [X] Not Graded [ ] Satisfactory Progress [ ]

**Open Entry/Open Exit:** Yes [ ] No [X]

**Transfer Status:** CSU Transferable[X] UC/CSU Transferable[ ] Not Transferable[ ]

**Basic Skills Status:** Yes [ ] No [X] **Levels Below Transfer:** Not Applicable

**California Classification Codes:** Y - Not Applicable

**Non Credit Course Category:** Y - Not applicable, Credit Course

**Occupational (SAM) Code:** C

**Repeatable According to State Guidelines:** No [X] Yes [ ] Number Repeats:

**Required for Degree or Certificate:** No [ ] Yes [X]

Associate of Arts: Liberal Arts: Emphasis in Business and Technology(Associate in Arts)

Computer Aided Design and Drafting (two-year)(Certificate of Achievement)

Drafting Technology: Computer Aided Design and Drafting (CADD)(Associate in Arts)

Energy Auditor(Certificate of Achievement)

Energy Efficiency and Renewable Energy Degree( Associate in Arts)

Technical Drafting Option (one-year)(Certificate of Specialization)

**GE and Transfer Requirements Met:**

**Course Level Student Learning Outcome(S) Supported by this course:**

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1. explain the concepts of drafting as a graphic language.

2. demonstrate the ability to think in three dimensions.

3. demonstrate the technical knowledge, attitudes, and habits necessary for advancement to the field of drafting and the attainment of successful employment.

4. identify and use basic industry and military drawing standards.

COURSE OBJECTIVES:
1. Be introduced to and learn the concepts of drafting as a graphic language.
2. Develop the ability to think in three dimensions.
3. Accrue the technical knowledge, attitudes and habits necessary for advancement to the field of drafting and the attainment of successful employment.
4. Be introduced to and learn to use basic industry and military drawing standards.
5. Be introduced to and learn how to solve all problems using and transferring of basic sketches to computer aided drawing hardware and software.

COURSE CONTENT:

LECTURE CONTENT:
1. Lettering styles used in engineering drawing
2. Technical sketching
3. Use of computer aided drawing hardware and software
4. Geometry of drafting
5. Isometric
6. Multi view projection
7. Sectioning
8. Basic dimensioning

LABORATORY CONTENT:
1. Lettering styles used in engineering drawing
2. Technical sketching
3. Use of computer aided drawing hardware and software
4. Geometry of drafting
5. Isometric
6. Multi view projection
7. Sectioning
8. Basic dimensioning

METHODS OF INSTRUCTION:

A. Lecture:
B. Lab:
C. Other simultaneous interactive:
D. Independent Study:

INSTRUCTIONAL TECHNIQUES:
COURSE ASSIGNMENTS:

Reading Assignments

A. Required Reading such as:
   Technical Drafting, Giesecke; Prentice Hall, latest edition.

Out-of-class Assignments

Library Media Center

Writing Assignments

Analyze and solve drawing problems requiring knowledge, skills and techniques covered in class lectures/demonstrations, lab activities and textbook reading assignments.

METHODS OF STUDENT EVALUATION:

Midterm Exam
Final Exam
Short Quizzes
Objective Examinations
Projects (ind/group)
Problem Solving Exercises

Demonstration of Critical Thinking:

1. Analyze the assigned drawing problem
2. Identify the proper technique
3. Demonstrate the required technique

Required Writing, Problem Solving, Skills Demonstration:

Analyze and solve drawing problems requiring knowledge, skills and techniques covered in class lectures/demonstrations, lab activities and textbook reading assignments.

TEXTS, READINGS, AND RESOURCES:

Other:

LIBRARY:

Adequate library resources include:

Comments:

Attachments:

Attached Files