

# DRAFTING (DRFT)

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## **DRFT100 Computer Assisted Drafting Survey** 3 credits (3 lec hrs/wk)

Introduction to computer assisted drafting (CAD) software and its typical uses in creating 2-D drawings. Instruction will include system requirements, menu structure, drawing setup, drawing aids, basic drawing, editing, display and dimensioning. Also using blocks, graphic patterns and printing commands. AutoCAD software is utilized to produce 2-D schematic and mechanical drawings.

This course may be taken 1 time for credit.

Course classification: CTE

## **DRFT105 Blueprint Reading** 3 credits (3 lec hrs/wk)

Presents instruction and skill development in blueprint reading and interpretation. Emphasis is placed on fundamentals of blueprint reading including understanding basic lines, views, dimensions, tolerances, symbols, machine call-outs, and notations. Emphasis is on blueprints as used in the welding trades with considerable time learning how to properly interpret American Welding Society (AWS) welding symbols.

This course may be taken 1 time for credit.

Course classification: CTE

## **DRFT110 Computer Assisted Drafting I** 3 credits (3 lec hrs/wk)

Introduction to computer aided drafting (CAD) using AutoCADD software and hardware components comprising a typical CAD workstation. Starting the computer and software, workstation adjustment, drawing beginning and set-up, basic drawing commands and organization, editing and display, dimensioning, printing and plotting, and using the template and display commands to create conceptual design and construction documents.

This course may be taken 1 time for credit.

Course classification: CTE

## **DRFT111 Computer Assisted Drafting II** 3 credits (3 lec hrs/wk)

Prerequisite(s): ( DRFT110 )

Continued study of computer aided drafting (CAD) using AutoCADD software and hardware components comprising a typical CAD workstation. Using advanced linework, assignment to layers, and advanced dimensioning. Becoming fluent with options, shortcuts, CUI, the Design Center and Express Tools. Developing Advanced Design concepts, and using File Management Tools to store and share documents. Importing and exporting files and drawings, and the utilization of External References (XREFs) in expanding the abilities for complex documents. Using the tools, templates and commands to create, edit and share computer aided drafting documents that are the standard of the design and construction document industry.

This course may be taken 1 time for credit.

Course classification: CTE

## **DRFT112 Computer Assisted Drafting III** 3 credits (3 lec hrs/wk)

This course demonstrates the use of the computer to create 3D Solid Models using the SolidWorks Computer Aided Drafting (CAD) system. Solid modeling software will be used to draw, dimension, define, and interface separate solid pieces that will be joined into a working machine model. The solid models will be used to generate 2D and 3D fabrication documents with exploded assemblies and presentation files that would be used in the forging and machining of machine parts. The computers at the CAD workstations with pre-loaded software will be utilized for this class.

This course may be taken 1 time for credit.

Course classification: CTE

## **DRFT180 Internship: Drafting** 1-12 credits (3 lab hrs/wk/cr)

Prerequisite(s): Instructor consent

Practical on-site experience that will allow students to test knowledge learned in the classroom and explore the variety of workplaces in which to apply that knowledge

This course may be taken 12 times for credit.

Course classification: LDC

## **DRFT280 CWE: Drafting** 1-12 credits (3 lab hrs/wk/cr)

Prerequisite(s): Instructor consent

Practical on-site experience that will allow students to test knowledge learned in the classroom and explore a variety of workplaces in which to apply that knowledge.

This course may be taken 12 times for credit.

Course classification: LDC