



DRFT 2974

Division: Career and Technical Education

Department: Drafting Technology

Course: DRFT 2974

Title: Special CAD Projects

Catalog Description:

This is a specialized course in the advanced use of AutoCAD or related CAD applications. Students, with approval, use advanced CAD applications to complete solid model projects involving the integration of programs from other software applications.

General Education Requirements: N/A

Semesters Offered: TBA

Credit/Time Requirement: Credit: .5; Lecture: 1; Lab: 2

Clock/Hour Requirements: 45

Offered for Non-Credit: No

Credit/Clock Comments: This is a variable credit course (0.5-2:0-1:2-6).

Prerequisites: DRFT 2310

Corequisites: None

Justification:

This course is approved by the program advisory committee.

Student Learning Outcomes:

Upon successful completion of this course, students will be able to:

- learn some of the advanced techniques used in CAD solid modeling
- import and export files from different CAD programs
- apply advanced techniques to design advanced models with approved programs
- customize AutoCAD programs for individualized use.

Content:

Course objectives will be achieved by providing students with instructional and hands-on experiences in the following areas:

- advanced CAD procedures and applications

- application of CAD program import/export procedures
- designing objects using advanced techniques (solids, regions, etc.)
- program customization for individualized use
- applying imported objects in specialized AutoCAD programs.

General Education Outcomes:

- 4) Retrieve, evaluate, interpret, and deliver information through a variety of traditional and electronic media.

Students will research information (i.e. styles, layouts, mechanical parts, connectors, fasters, etc.) through the Internet, written manuals, journals, and other publications. This information is used to complete projects and assignments throughout the program.

- 6) Apply computational skills to a variety of contexts.

The field of drafting requires the combination of basic math, geometry, and algebra skills. Students will utilize these skills when producing drawings, cost estimates, and material lists.

- 8) Apply ethical reasoning to a variety of contexts.

The client-designer relationship requires an understanding of ethical behaviors in design and consultation. Draftsmen often work in teams where the individuals are each required to fulfill responsibilities under the direction of a team leader. This experience is modeled throughout the program.

- 9) Respond with informed sensitivity to an artistic work or experience.

In both mechanical and architectural drafting, the final product must be presented to the client. At this point in the process, students must recognize quality artistic efforts in order to be able to produce their own final presentation drawings.

Key Performance Indicators:

In class:

- Students will demonstrate mastery of course competencies by completing assignments/projects, tests, and quizzes. Assignments/projects are worth 75%, tests are worth 15%, and quizzes are worth 10% of the final grade.

Following class:

- The knowledge and skills acquired in this course will be demonstrated by successful application in positions in the CAD and graphics industry.

Representative Text and/or Supplies:

- Instructional materials as directed by instructor

Optimum Class Size: 12

Maximum Class Size: 20

Signatures:

I hereby submit this course syllabus:

Craig Conder, ,

I hereby find this course consistent with the goals and resources of the Drafting Technology Department:

Craig Conder, , , Chair

I hereby find this course consistent with the goals and resources of the Career and Technical Education Division:

Michael P. Medley, MBA, Assistant Professor, Dean

I have discussed the need for library resources related to this class with the person submitting the syllabus:

Lynn Anderson, MLIS, Technical Services Librarian (Main Campus)

Michelle Olsen, MLS, Campus Librarian (Richfield Campus)