



DRFT 2310

Division: Career and Technical Education

Department: Drafting Technology

Course: DRFT 2310

Title: AutoCAD AME

Catalog Description:

The student will be working in three-dimensional (3D) space with solid model primitives. This will include the creation of solid models by extrusion, Boolean operations, and region modeling. Included is the application of revolution, model analyzing, detailing, shading, and rendering.

General Education Requirements: N/A

Semesters Offered: TBA

Credit/Time Requirement: Credit: 3; Lecture: 2; Lab: 3

Clock/Hour Requirements: 75

Offered for Non-Credit: No

Prerequisites: DRFT 1310, DRFT 2020

Corequisites: None

Justification:

This course is approved by the program advisory committee and corresponds to UVSC course DT 1070 and SLCC course EDDT 2600.

Student Learning Outcomes:

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

- understand the three-dimensional coordinate system and the basics of three-dimensional construction of objects
- apply the user coordinate system in changing dimensional views
- understand and apply the use of model space viewports
- know three-dimensional surface modeling techniques
- understand how to edit three-dimensional objects
- know how to add three-dimensional text and dimensions
- apply proper shading and rendering techniques to three-dimensional objects
- know the principles of working with solid models
- use solid modeling in the construction of three-dimensional objects
- understand and apply analysis processes to solid models
- know the basis of presentation graphics as applied to solid models
- create presentation graphics with solid models through the process of rendering
- know how to customize the AutoCAD for Windows environment
- customize the toolbars, screen, and button menus

- apply customization to pull-down menus and image tiles
- understand some of the advanced AutoCAD for Windows features.

Content:

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

- three-dimensional coordinates and construction
- understanding the user coordinate system
- using model space viewports
- three-dimensional surface modeling techniques
- editing three-dimensional objects
- three-dimensional text and dimensioning
- introduction to shading and rendering
- introduction to solid modeling
- solid model construction features
- solid model display and analysis
- introduction to presentation graphics
- rendering with AutoCAD
- customizing the AutoCAD for Windows environment
- customizing toolbars, screen and button menus
- customizing pull-down menus and image tiles
- advanced AutoCAD for Windows features.

General Education Outcomes:

Key Performance Indicators:

In class:

- Student proficiency will be evaluated on completion of animation projects, completion of assigned review problems, and competency on unit examinations.

Following class:

- The knowledge and skills acquired in this course will be demonstrated in subsequent courses. Proficiency will also be demonstrated in enhanced technical skills in employment using CAD applications.

Representative Text and/or Supplies:

- *AutoCAD and Its Applications Advanced*, current edition, Goodheart-Wilcox Company, Inc.
- *AutoCAD AME Solid Modeling for Mechanical Design*, current edition, Goodheart-Wilcox Company, Inc.
- supplemental instructional material

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)