DRFT 2610

Division: Career and Technical Education
Department: Drafting Technology
Course: DRFT 2610
Title: CAD - MicroStation
Catalog Description:

This course is an introductory course to the application of MicroStation in creating drawing files. This course provides a basic background to the commands, procedures, and practical application of MicroStation operations in creating objects for working drawings.

General Education Requirements: N/A
Semesters Offered: TBA
Credit/Time Requirement: Credit: 2; Lecture: 1; Lab: 2
Clock/Hour Requirements: 45
Offered for Non-Credit: Yes
Prerequisites: DRFT 1310 or DRFT 1312

Corequisites: None

Justification:

This course is approved by the program advisory committee and corresponds to UVSC course DT 1060 and SLCC course EDDT 1420.

Student Learning Outcomes:

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

- learn the basic concepts of the MicroStation operating system
- know the basic MicroStation commands and how to use them in setting up and creating drawings
- apply print and plot files from a drawing
- know how to edit and change drawings created with MicroStation
- know how to create and insert different objects into drawings using MicroStation
- understand the principles of formatting objects
- learn how to customize the drawing desktop for personal use
- understand and apply the principle of geometric editing to objects drawn
- work with multiple windows in MicroStation.

Content:

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

- getting started - understanding the basic principles of MicroStation

- learning the basic drawing features
- learning about file management and printing and plotting drawings
- editing objects
- understanding the drawing environment
- learning to manage the workplace
- creating and inserting objects in drawings
- using different formats in creating objects
- customizing the desktop and data management
- option menus and dialog boxes
- working with multiple windows.

General Education Outcomes:

2) Write clearly, informatively, and persuasively.
Students are required to complete descriptive term-sheets which provide information about the vocabulary and terminology used in this specific area. The descriptions are reviewed, graded, and returned to students for improvement.

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.

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.
- Percentages are approximate.

Following class:

- Students will be able to demonstrate the ability to quickly adapt to MicroStation software applications used in industry.

Representative Text and/or Supplies:

- *Harnessing MicroStation,* current edition, Delmar Publishers.

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)