



Course Information

Course Title	Specialized Basic Computer-Aided Drafting (CAD)
Course Prefix, Num. and Title	DFTG1410: Specialized Basic Computer-Aided Drafting (CAD) (MicroStation)
Division	Technology & Business
Department	Engineering Design
Course Type	WECM Course
Course Catalog Description	A supplemental course to Basic Computer Aided Drafting using an alternative computer-aided drafting (CAD) software to create detail and working drawings.
Pre-Requisites	Must be TSI satisfied.
Co-Requisites	None

Semester Credit Hours

Total Semester Credit Hours (SCH): Lecture Hours:	4:3:3
Lab/Other Hours	
Equated Pay Hours	4.5
Lab/Other Hours Breakdown: Lab Hours	3
Lab/Other Hours Breakdown: Clinical Hours	Enter Clinical Hours Here.
Lab/Other Hours Breakdown: Practicum Hours	Enter Practicum Hours Here.
Other Hours Breakdown	List Total Lab/Other Hours Here.

Approval Signatures

Title	Signature	Date
Prepared by:		
Department Head:		
Division Chair:		
Dean/VPI:		
Approved by CIR:		

Additional Course Information

Topical Outline: Each offering of this course must include the following topics (be sure to include information regarding lab, practicum, and clinical or other non-lecture instruction).

Computer work station components
Operating System Basics: Data security, Disk and Folder Navigation, and Data management
Overview of the MicroStation interface
Creating New Drawing Files: Use of Seed Files and Working Units
Basic Drawing Tools
Basic Editing Tools
AccuDraw operations
Selection Tools: Select Element, PowerSelect, Select by Attributes and Fence
Fence Operations
Graphic Groups
Locks
Level Management
Model Management
Text Tools and Operations
Dimensioning Tools and Techniques
Cells and Patterning
Reference Files

Comprehensive Final Project will include creating a Title Block with levels, text styles and dimension styles in a specified seed file. Drawing creation will reinforce students' ability to use draw, edit and modify commands. Creation and insertion of cells and use of the hatch/pattern command will be included in the project. Drawings will be complete with dimensions placed per ASME standards. All Drawings will be plotted to a given scale. All project work will be submitted as specified by the instructor.

Course Learning Outcomes:

Learning Outcomes – Upon successful completion of this course, students will:

Create, organize, display, and plot working drawings using an alternative computer-aided CAD software;
Use file management techniques.

Methods of Assessment:

Daily Drawings/Lab Work

Four to Five Major Exams or Drawings

Comprehensive Final Project

(All drawings evaluated in terms of accuracy of drawing views, use of line types, line quality, dimensioning accuracy and placement and drawing organization.)

Required text(s), optional text(s) and/or materials to be supplied by the student:

Required: Text Covering MicroStation Fundamentals such as Harnessing MicroStation V8, by Krishnan & Taylor

A flash drive is required for archiving data files

Note book to store notes and drawings.

Suggested Course Maximum:

20

List any specific or physical requirements beyond a typical classroom required to teach the course.

Computer work stations, plotters/printers (to print large 36" by 24" drawings), data projection system and appropriate software

Course Requirements/Grading System: Describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course.

- Daily Drawings/Lab Work/Daily Quizzes to assure comprehension of drafting skills – 35%
- Four to Five Major Exams or Drawings covering individual topics – 35%
- Comprehensive Final Project – 30%

Based on the above breakdown, grades will be awarded as prescribed by Wharton County Junior College Standards.

- 90% to 100% = A
- 80% to 89% = B
- 70% to 79% = C
- 60% to 69% = D
- Below 60% = F

Note: A letter grade of "C" or above average must be achieved in all degree specific classes to attain graduation.

Curriculum Checklist:

- Administrative General Education Course** (from ACGM, but not in WCJC Core) – No additional documents needed.
- Administrative WCJC Core Course.** Attach the Core Curriculum Review Forms
 - Critical Thinking
 - Communication
 - Empirical & Quantitative Skills
 - Teamwork
 - Social Responsibility
 - Personal Responsibility
- WECM Course** -If needed, revise the Program SCANS Matrix and Competencies Checklist