



**Purpose:** It is the intention of this Administrative-Master Syllabus to provide a general description of the course, outline the required elements of the course and to lay the foundation for course assessment for the improvement of student learning, as specified by the faculty of Wharton County Junior College, regardless of who teaches the course, the timeframe by which it is instructed, or the instructional method by which the course is delivered. It is not intended to restrict the manner by which an individual faculty member teaches the course but to be an administrative tool to aid in the improvement of instruction.

**Course Title –** Specialized Basic Computer Aided Drafting (CAD)

**Course Prefix and Number –** DFTG1410

**Department –** Engineering Design

**Division –** Technology And Business

**Course Type:** (check one)

Academic General Education Course (from ACGM – but not in WCJC Core)

Academic WCJC Core Course

WECM course (This course is a Special Topics or Unique Needs Course: Y or N)

**Semester Credit Hours # : Lecture hours# : Lab/other hours #**      **4:3:3**

**Equated Pay hours for course –**  $(3 + (3 \times .5)) = 4.5$

**Course Catalog Description -** Course Description: A supplemental course to Basic Computer Aided Drafting using an alternative computer-aided drafting (CAD) software to create detail and working drawings

List Lab/ Other Hours
Lab Hours 3
Clinical Hours
Practicum Hours
Other (list)

**Prerequisites/Co-requisites -** THEA reading requirement met or READ0307. DFTG1405 is recommended

**Approvals – the contents of this document have been reviewed and are found to be accurate.**

Prepared by Jo Ann Lurker	Signature 	Date 09-25-09
Department Head Jo Ann Lurker	Signature 	Date 09-25-09
Division Chair Stephanie Dees	Signature 	Date 10-5-2009
Dean of Vocational Instruction Leigh Ann Collins	Signature 	Date 10-20-09



**I. Topical Outline** – Each offering of this course must include the following topics (be sure to include information regarding lab, practicum, 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

**II. Course Learning Outcomes**

<b>Course Learning Outcome</b>	<b>Method of Assessment</b>
<p>Demonstrate proficiency in the use of MicroStation by being able to organize, draw, and dimension working drawings</p> <p>Demonstrate proficiency in the use of MicroStation by being able to import drawings from AutoCAD into a MicroStation document</p> <p>Demonstrate proficiency in the use of MicroStation by being able to export drawings from MicroStation into AutoCAD format.</p> <p>Demonstrate proficiency in the use of MicroStation by being able to import text from external sources, (i.e. text editors, spreadsheets, etc.), into MicroStation drawings.</p> <p>Demonstrate computer operating system management skills such as: basic navigation, data storage and security.</p>	<p>A semester project will be assessed using the rubric attached to this document.</p> <p>Eighty percent of the students will earn a minimum of 70% of the points defined by the rubric.</p>

**III. Required Text(s), Optional Text(s) and/or Materials to be Supplied by Student.**

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

Flash Drive for archiving data files

**IV. Suggested Course Maximum - 20**

**V. List any specific spatial or physical requirements beyond a typical classroom required to teach the course.**  
Computer Workstations, data projection system, plotters/printers and appropriate software

**VI. Course Requirements/Grading System – Describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course** A= 100 - 90, B=89-80, C= 79-70, D= 69=60, F= <60

The following components have equal value in the computation of the course average: Written Exams, Drawing Projects, Attendance Grade and Final Exam.

**VII. Curriculum Checklist**

- **Academic General Education Course** (from ACGM – but not in WCJC Core)  
No additional documentation needed

- **Academic WCJC Core Course**  
Attach the Core Curriculum Checklist, including the following:

- Basic Intellectual Competencies
- Perspectives
- Exemplary Educational Objectives

- **WECM Courses**  
Attach the following:

- Program SCANS Matrix
- Course SCANS Competencies Checklist

**\* See *Engineering Design Assessment Plan* for Program Goals (Student Learning Outcomes), Curriculum Map, SCANS Matrices and SCANS Assessments**

## Engineering Design Project Rubric

Item	3	2	1	0	N/A
Project Completion (Projects completed fully)					
Adherence to Project Deadlines					
Project Solution					
Appropriate View Selections					
Appropriate Specifications Annotated					
Mathematical Accuracy					
Geometric Accuracy					
Dimensioning: Applied necessary dimensions and notes in the proper views					
View Correctness (Views project correctly and adhere to drafting standards)					
Followed Written Instructions					
Followed Verbal Instructions					

Assessment Scale:

0 = Total noncompliance

1 = Minimal compliance (Acceptable)

2 = Average compliance

3 = Above average compliance