



**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 –** Advanced Computer-Aided Drafting

**Course Prefix and Number –** DFTG2432

**Department –** Engineering Design

**Division –** Technology & 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 –**  $(3 + (3 * .5)) = 4.5$

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

**Course Catalog Description –** Study of advanced techniques, including the use of a customized system. Presentation of advanced drawing applications, such as solids modeling and linking graphic entities to external non-graphic data.

**Prerequisites -** DFTG1410 & DFTG2419

**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):

Data management concepts & techniques

Introduction to a DBMS

Introduction to SQL

Create a database connection to AutoCAD and: link data to graphic objects, querying linked data, modify existing linked data

Setting up the MicroStation database interface

introduction to the MSCatalog

creating the data dictionary

Creation of a database connection to MicroStation and: link data to graphic objects, querying linked data, modify existing linked data

**II. Course Learning Outcomes**

<b>Course Learning Outcome</b>	<b>Method of Assessment</b>
<p>Demonstrate a basic knowledge of database terms and concepts by successfully completing assigned projects</p>	<p>A semester project will be assessed using the rubric attached to this document.</p>
<p>Demonstrate a basic knowledge of database concepts by being able to create a simple relational database that will maximize data input integrity by creating field pictures, field default values and create lookup tables</p>	<p>Eighty percent of the students will earn a minimum of 70% of the points defined by the rubric.</p>
<p>Demonstrate the ability to create and export AutoCAD attribute data and MicroStation Tag data</p>	
<p>Configure AutoCAD and MicroStation for database connections</p>	
<p>Demonstrate a basic knowledge of SQL by be able to create simple SQL statements from within Microsoft Access, AutoCAD and MicroStation</p>	
<p>Demonstrate the ability to make database queries from within AutoCAD and MicroStation</p>	
<p>Demonstrate the ability to add, and modify external data in a connected database from within AutoCAD and MicroStation</p>	

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

No text is required.

A flash drive is required 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, plotters/printers, data projection system 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**

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

The grade is based on the average of : written examinations, drawing projects and an attendance grade. Each of these components are weighted equally.

**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