



**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** – DFTG 2432

**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** - 4.5

**Course Catalog Description** - Application of advanced CAD techniques. This will include database management, advanced skills in viewports and reference files, sheet sets, customized linetypes and hatch patterns and AutoDesk Inventor.

**Prerequisites/Co-requisites** – DFTG 1410 & DFTG 2319

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

**Prepared by** Jo Ann Shimek

**Date** 06/11/15

**Reviewed by Department Head** Jo Ann Shimek

**Date** 06/11/15

**Accuracy verified by Division Chair:** David Kucera

**Date:** 07/15/15

**Approved by Dean or Vice President of Instruction:** Leigh Ann Collins

**Date:** 3-3-16



**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):

- Customize Toolbars & Create Macros
- Advanced Skills in Viewports, Template Files and Reference Files
- Sheet Sets and Page Set-up
- Customized Linetypes and Hatch Patterns
- Database Design; dbConnect; SQL Basics
- MicroStation Tag Creation & Extraction
- Graphical Queries from within MicroStation

**II. Course Learning Outcomes**

Learning Outcomes	Methods of Assessment
<p><b>Upon successful completion of this course, students will:</b></p> <p>Use a customized CAD system to create documents and/or solid models;</p> <p>Use OLE with external software.</p> <p>Demonstrate use of AutoCAD sheets sets in multipage set of drawings</p> <p>Create tags in MicroStation and extract data.</p>	<p>Daily Drawings/Lab Work/Daily Quizzes Four to Five Major Exams or Drawings Class Discussion/Participation Final Project</p> <p>(All drawings evaluated in terms of accuracy of drawing views, use of line types, line quality, dimensioning accuracy and placement and drawing organization.)</p>

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

Required: Using Advanced AutoCAD 2011 (or latest edition) by Ralph Gabrowski

A flash drive is required for archiving data files

Note book to store notes and drawings.

**IV. Suggested Course Maximum - 20**

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

Computer work stations, 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**

Daily Drawings/Lab Work/Daily Quizzes - 25%

Four to Five Major Exams or Drawings - 35%

Class Discussion/Participation - 10%

Final Project - 30%

Final Project requires research into varied topics with team participation to produce drawings and documents on the individual team's topic. Emphasis is placed on individuals ability to work within a group.

Based on the above breakdown, grades will be awarded as perscribed 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

**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**  
If needed, revise the Program SCANS Matrix & Competencies Checklist.