



**Course Information**

<b>Course Title</b>	Advanced Computer-Aided Drafting
<b>Course Prefix, Num. and Title</b>	DFTG2432: Advanced Computer-Aided Drafting
<b>Division</b>	Technology & Business
<b>Department</b>	Engineering Design
<b>Course Type</b>	WECM Course
<b>Course Catalog Description</b>	Application of advanced CAD techniques. This will include database management, advanced skills in Viewports and reference files, sheet sets, customized linetypes and hatch patterns, AutoLisp, writing skills and AutoDesk Inventor.
<b>Pre-Requisites</b>	DFTG2319
<b>Co-Requisites</b>	None

**Semester Credit Hours**

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

**Approval Signatures**

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

## 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).

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  
Technical writing skills

### Course Learning Outcomes:

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

Use a customized CAD system to create documents and/or solid models;  
Use OLE with external software.  
Demonstrate use of AutoCAD sheets sets in multi-page set of drawings

**Methods of Assessment:**

Daily Drawings/Lab Work/Daily Quizzes  
Four to Five Major Exams or Drawings  
Class Discussion/Participation  
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: Using Advanced AutoCAD (select author)  
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, 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 –	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 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