

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 –Machine Design

Course Prefix and Number – DFTG2406

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

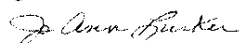
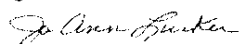
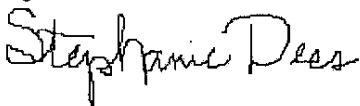

Equated Pay hours for course – $(3 + (3 * .5)) = 4.5$

Course Catalog Description - Theory and practice of design. Projects in problem-solving, including press fit, bolted and welded joints, and transmission components.

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

Prerequisites - DFTG 2419

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 –

- Pictorial Drawings**
- Tolerancing**
- Actual Object Drawing**
- Use of Measuring Devices**
- Data Calculations, manual & computer**
- Design Process**
- Bills of Material**
- Foundry Pattern Drawing**
- Drawing Reproduction**
- Weld Symbols**

II. Course Learning Outcomes

Course Learning Outcome	Method of Assessment
<p>The student will identify the steps used in the design process, including terminology and mechanical processes. The student will produce needed drawings of solutions to various basic design problems.</p>	<p>A semester project will be assessed using the rubric attached to this document. 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.

Optional text suggested similar to Graphics Technology by James H. Earle and AutoCAD 2009/2010 Tutor for Engineering Graphics; by Alan J. Kalameja:
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