



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

Prerequisites/Co requisites - DFTG 2419

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

Prepared by Jo Ann Lurker

Date 10-20-11

Reviewed by department head Jo Ann Lurker

Date 10-20-11

Accuracy verified by Division Chair David Kucera

Date 10-28-11

Approved by Dean of Vocational Instruction or Vice President of Instruction Lac

Date 11-9-12



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):

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

II. Course Learning Outcomes

Course Learning Outcome	Method of Assessment
Utilize the steps used in the design process, terminology, mechanical processes to produce drawings.	A semester project will be assessed using the departmental rubric.. Eighty percent of the students will earn a minimum of 70% of the points defined by the rubric.

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

Optional text suggested similar to Technical Drawing by Frederick Giesecke et al and AutoCAD 2011/2012 Tutor for Engineering Graphics; by Alan J. Kalameja:
A 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, 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 daily work as specified in the course syllabus.

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.