



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 – Pipe Drafting

Course Prefix and Number – DFTG2423

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 - A study of pipefittings, symbols, specifications and their applications to a piping process system. Creation of symbols and their usage in flow diagrams, plans, elevations, and isometrics.

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

Prerequisites - DFTG2419

Approvals – the contents of this document have been reviewed and are found to be accurate.

Prepared by Jo Ann Lurker	Signature <i>Jo Ann Lurker</i>	Date 09-25-09
Department Head Jo Ann Lurker	Signature <i>Jo Ann Lurker</i>	Date 09-25-09
Division Chair Stephanie Dees	Signature <i>Stephanie Dees</i>	Date 10-5-2009
Dean of Vocational Instruction: Leigh Ann Collins	Signature <i>LAC</i>	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):

Type of pipe

Fittings

Pipe Connections

Valves

Flow Diagrams

Pipe Drawings

Isometrics

Orthographic -

II. Course Learning Outcomes

Course Learning Outcome	Method of Assessment
<p>The student will demonstrate a knowledge of intermediate math skills; foundations, structural steel supports, and process equipment; Instrument Society of America (I.S.A.) symbology; and researching specifications. The student will complete a bill of material list and use charts and standards; visualize views in three-dimension; solve intermediate math problems; draw manually or by computer; follow specifications and calculate measurements for screwed, socketweld, and buttweld piping using trigonometric applications.</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.

Pipe Drafting and Design , 2nd edition by Roy A. Parish & Robert A. Rhea A flash drive is required to archive data files

IV. Suggested Course Maximum - 20

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

Manual drafting tables, Mechanical drafting arm or Tee square. Manual drafting equipment, 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

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