Wharton County Junior College

Administrative - Master Syllabus
COVER SHEET

***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 - Electrical Drafting
Course Prefix and Number - DFTG2407
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 area lighting, control systems and power layouts, electrical and safety codes, load factors and distribution requirements.

Prerequisites/Co requisites - DFTG1410 & DFTG2419

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):

Drawing Conventions
Basic Electricity and Magnetism Concepts (AC & DC)
Common Electrical Equipment
Simple Connection Diagrams
One Line Diagrams
Introduction to the NEC
Basic Motor Controls
Sizing Conductors and Conduits
Riser Diagrams
Equipment Grounding and Lightening Protection
Circuit Protection Devices
Study of Classified Hazardous Areas

II. Course Learning Outcomes

Course Learning Outcome	Method of Assessment
Create electrical details and diagrams; and utilize current standards to size conductors, conduit, controllers and calculate load factors and distribution requirements. Create fundamental electrical drawings, using standardized symbology: One-Line Diagrams Riser Diagrams Ladder Diagrams Raceway Layouts Demonstrates the aability to use the National Electrical Code to properly select or calculate appropriate electrical specifications for working 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.

A text covering the technical material for the course. An example would be Electrical Drafting & Design, by Snow
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 a s specified in the course syllabys.

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.