Wharton County Junior College

Administrative Master Syllabus

Course Information

Course Title	Civil Drafting I
Course Prefix, Num. and Title	DFTG1430: Civil Drafting I
Division	Technology & Business
Department	Engineering Design
Course Type	WECM Course
Course Catalog Description	Preparation of civil drawings including drafting methods and principles used in civil engineering.
Pre-Requisites	DFTG1405 and DFTG1409
Co-Requisites	None

Semester Credit Hours

Total Semester Credit Hours (SCH): Lecture Hours: Lab/Other Hours	4:3:3
Equated Pay Hours	4.5
Lab/Other Hours Breakdown: Lab Hours	3
Lab/Other Hours Breakdown: Clinical Hours	0
Lab/Other Hours Breakdown: Practicum Hours	0
Other Hours Breakdown	0

Approval Signatures

Title	Signature	Date
Department Head:	Haydee Ruiz, Engineering Design Program Director	11-16-2023
Division Chair:	David Kucera, Technology & Business Division Chair	11-16-2023
VPI:	Leigh Ann Collins Digitally signed by Leigh Ann Collins Date: 2024.06.28 08:35:52 -05'00'	

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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).

Map Symbols - Identify map symbology
Map Scales - Convert R/F scales to Graphic scales and vice versa
Contours - Layout existing and grade-line contours
Plan and Profile - Layout contours, create plan and profile drawings
Plats - Layout traverses using bearings, deflection angles, distances and coordinates
Drainage - Create drawings for drainage systems
Azimuths and Bearings - Layout traverses using bearings, deflection angles, distances and coordinates
Range and Townships - Identify and use legal land descriptions
Curve Data - Calculate curve data
Land Development - use property deed (written description) to draw a plat using CAD techniques
Survey Basics/Easements - Identify and use legal land descriptions and survey data to create plat drawing
Civil Terminology - Identify terms used in civil work

Course Learning Outcomes:

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

Interpret field notes;
Develop documents for a civil project related to drainage and utilities infrastructure, to include a comprehension of related calculations.

Methods of Assessment:

Given survey data in chart form, students produce a plat
Use court legal description to draw parcel of land by interpreting metes and bounds;
Create a legend, boundary markers, etc. and use this parcel of land to create a subdivision
Combine contours, plan and profile & 3D civil design
Curve Data
The above assignments are evaluated using the ED Program Rubric.

Required text(s), optional text(s) and/or materials to be supplied by the student:

A text covering the technical material covered in this course. An example would be Civil Drafting Technology by Madsen, Shumaker, Madsen.
A flash drive is required for archiving data files.
Notebook to store notes and drawings.

Suggested Course Maximum:

20

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

Computers with CAD 2D and 3D software.
Plotters capable of printing 34" x 44" drawings.

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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 to ensure comprehension of drafting skills..... =40%
Three to Four Major Exams or Drawings covering individual topics ..... =30%
Civil Design Project..... =30%

Based on the above breakdown, grades 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