

## Administrative Master Syllabus

### Course Information

<b>Course Title</b>	Final Project – Advanced Drafting
<b>Course Prefix, Num. and Title</b>	DFTG 2338: Final Project – Advanced Drafting
<b>Division</b>	Technology and Business
<b>Department</b>	Engineering Design
<b>Course Type</b>	WECM Course
<b>Course Catalog Description</b>	(Capstone Course) An advanced course in which students produce a comprehensive project from conception to conclusion. The course is focused on learning experiences based on actual industry projects in selected fields, completed independently or with teams, and in consultation with the instructor. This is the capstone course for the Associate of Applied Science Degree in Engineering Design.
<b>Pre-Requisites</b>	DFTG 2319 and Division Chair approval
<b>Co-Requisites</b>	None

### Semester Credit Hours

<b>Total Semester Credit Hours (SCH): Lecture Hours:</b>	3:2:4
<b>Lab/Other Hours</b>	
<b>Equated Pay Hours</b>	4
<b>Lab/Other Hours Breakdown: Lab Hours</b>	4
<b>Lab/Other Hours Breakdown: Clinical Hours</b>	0
<b>Lab/Other Hours Breakdown: Practicum Hours</b>	0
<b>Other Hours Breakdown</b>	0

### Approval Signatures

Title	Signature	Date
<b>Division Chair:</b>	David Kucera, Technology & Business Division Chair	03-30-2023



## **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).

The purpose of this course is to provide in-depth opportunities for students to work with each other and the instructor allowing students the opportunity to complete real-world drafting projects that includes a wide range of experience in the selected drafting field.

Initial focus will be on:

- Development of job search techniques
- Resume' writing
- Creation of a professional portfolio

Additional career related areas of study will integrate problem solving and related drafting technologies to provide students with specialized learning experiences. Group dynamics will also be explored.

- Possible topics covered but not limited to:
  - Advanced areas of study in:
    - Civil Design
      - GIS
      - Mapping
      - Sewage/water system
      - Soil Analysis
      - Surveying
    - Architectural Concepts
      - 3D Architectural projects
      - Landscape design including pool layout
      - Piping Design
    - Petroleum production Process
      - Instrumentation
    - Manufacturing applications
      - Measuring
      - GDT
      - Design concept to submit for patent
    - Technical writing
      - Bidding Documents
      - Contract Writing
      - Ordering supplies and material
    - Project Management
      - Group/Teamwork Tactics
    - Structural Design
      - Revit
      - Environmental effects on design and materials

The goal of the course is to simulate the work environment so lab for DFTG2338 will be self or group paced. The instructor will provide new material and tools with students required to complete assignments per instructor deadlines. This setting will provide opportunities for students to work with each other in a cooperative manner.



**Course Learning Outcomes:**

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

Conceptualize, design and present a complete project in a prescribed discipline. Integrate problem solving and related technologies to identify solutions; use discipline specific industry standards, and produce documentation.

**Methods of Assessment:**

Three or Six Drawing/Research Type Projects in a minimum of 4 drafting disciplines

One Major Research Project

Class Discussion/Participation

(All drawings evaluated in terms of accuracy of drawing views, use of line types, line quality, dimensioning accuracy and placement and drawing organization.)

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

Recommended/Optional: text books used in previous drafting classes as references.

A flash drive is required for archiving data files

Note book to store notes and drawings.

**Suggested Course Maximum:**

20

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

Computer workstations, plotters/printers (to print large 36" by 24" drawings), data projection system and appropriate software.

Group participation will be required on Brightspace or in-person.

**Course Requirements/Grading System:** Describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course.

All projects weighted equally.....90%

Class Discussion/Participation ...10%

- One (1) multi-page written research paper.  
Research into varied topics generated by class discussions.
- Multiple drawing/research/investigation projects that include documentation done independently and/or with team participation.
- Individual Projects: Emphasis will be on quality and completeness of work and meeting submission deadlines.
- Team Projects: Emphasis will be on quality and completeness of work and meeting submission deadlines, as well as ability to work within a group to produce drawings and data.

Field trips may be required as part of the investigation projects. Students enrolled in the class must participate.

Group participation will be required on Brightspace or in-person.



## **Wharton County Junior College**

Based on the above breakdown, grades will be 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