## **COURSE SYLLABUS**

Computer Aided Drafting & Design Industrial Technology Department Technical Education Division South Plains College Levelland Campus



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# **COURSE INFORMATION**

COURSE NUMBER DFTG-2323-001
COURSE TITLE Pipe Drafting
PREREQUISITE(S) DFTG 1305
LOCATION TA 207

### TEXTBOOK None

#### DESCRIPTION

This course is a study of ASME standards, pipe and fitting symbols and specifications and their application to a process piping system. The course includes drawing plan views, elevations and isometrics of process piping systems, including flow diagrams, vessels, heat exchangers, pumps, instruments, compressors and other mechanical equipment using symbols, piping standards and engineering graphics practices and procedures.

## **SCOPE**

The scope of <u>Pipe Drafting</u> will be for sixteen weeks, which will include two (2) hours of lecture per week and four (4) hours of laboratory experience per week, for a total of ninety-six (96) contact hours per semester.

#### **COURSE OUTCOMES**

Create drawings of process equipment; symbology and research specifications; recognize and generate a bill of material list and use charts and standards; visualize views in three-dimensions; follow specifications; and calculate measurements for pipe fittings.

# **COURSE TOPICS**

- 1) Orientation
- 2) Alphabet of lines
- 3) Pipe process and equipment
- 4) Pipe standards, data, terms, and abbreviations
- 5) Pipe fittings & symbols
- 6) Methods of joining pipe and symbols
- 7) Pipe drawing bill of materials
- 8) Pumps, tanks & misc. equipment
- 9) Flow diagrams & instrumentation
- 10) Isometric piping drawings
- 11) Piping design practices

GRADING					
WEIGHTS	Daily Assignments	40%	SCALE	Α	90 – 100%
	Mid-Term	20%		В	80 – 89%
	Final Exam	20%		С	70 – 79%
	Attendance	20%		D	60 – 69%
				F	59% or Below

#### DAILY ASSIGNMENTS

Each practical drawing assignment will be calculated with 100 points as the highest possible grade. Practical drawing assignments will be graded according to the following criteria:

- 1) Neatness
- 2) Line Criteria
- 3) Text Criteria
- 4) Dimensioning Criteria
- 5) Choice & Location of Views
- 6) Correctness & Accuracy of Views (shape description)
- 7) Nomenclature

# **REVIEW QUESTIONS**

Review questions may be assigned for lecture content and will be returned to student as a study guide for subsequent assessments.

#### QUIZ/EXAM

Quizzes and Exams may be given periodically for the purpose of assessment. This may include practical drawing assessments, written assessments and or project-based assessments.

## MID-TERM / FINAL PROJECT

The mid-term and final projects will be comprehensive in nature, comprised of information from the previous lessons throughout the semester.

#### **ASSIGNMENT CORRECTIONS**

All required work must be turned in on time in order for the student to benefit from the <u>corrections</u> and to prepare for future assignments.

Assignments with a grade below 85, unless otherwise specified, can be corrected and resubmitted for an amended grade. You will have 1 additional week to complete corrections for an assignment. An amended grade will have a maximum value of 85. This is a one-time correction process and does not apply to late or missing work.

Any assignments that are not turned in at the specified time and date will immediately receive a grade of Zero (0) – Late work will still be graded, but with a maximum grade of 85 – this will count as the students' correction.

All electronic classwork must be saved to your folder on the CAD server. Any assignment not on the server at the time of grading may receive a grade of Zero (0) – Improperly filed work will still be graded, after it is filed correctly, but with a maximum grade of 85 – this will count as the student's correction.

# **CLASSROOM POLICIES**

# **DISCLAIMER**

The instructor reserves the right to amend any class policies or syllabus content as deemed necessary by South Plains College and will announce such changes ahead of time to the class. If a student has any questions about a change in policy, they have the right to discuss said change with the instructor.

## **ATTENDANCE**

**Four absences**, for any reason, are allowed per semester. Tardies, defined as not being present in class within 5 five minutes of the start of lecture, or leaving lab early by an hour or more, will count against your attendance grade. Your grade will drop one letter grade per each absence over the allowable limit. Six absences could result in the student being dropped from the course.

Whenever absences become excessive, an *Excessive Absence Report* may be sent to the Dean of Students and, if in the instructor's opinion, minimum course objectives cannot be met due to absences, the student may be withdrawn from the course with the appropriate letter grade X, W, or F.

#### WITHDRAWAL

Any student wishing to drop this class should go through the proper procedure of initiating the withdrawal by obtaining a *drop form* from the Registrar's Office. This form must be signed by the instructor.

#### **OTHER POLICIES**

Food and drink will be allowed at a student's work station as long as computers are not affected in a negative way. Drinks must be covered and stored away from computers so as not to damage any component. All workstations must be thoroughly cleaned before a student leaves class.

Music is allowed in the classroom during lab time only - as long as it is played through headphones.

Phones should be muted during the lecture phase of class. Phones are permitted during lab time when used directly for research or class initiatives. If a call is necessary, please excuse yourself from the class to address the call.

Students should adhere to all other standards established in the SPC Catalog found under *Student Conduct*.

The computers within the CAD Lab have been optimally set to enhance learning for students. The configurations are set to establish a base of reference for all students, and so the instructor can optimize aid to each student. Please do not alter the configurations of any workstation or computer at any time. Lab computers are monitored remotely

#### **ACCOMMODATIONS**

Accommodations such as the Diversity Statement, Disabilities Statement, Non-Discrimination Statement, Title IX Pregnancy Accommodations Statement and Campus Concealed Carry Statement can be found here: <a href="https://www.southplainscollege.edu/syllabusstatements/">https://www.southplainscollege.edu/syllabusstatements/</a>