

Oklahoma State University Institute of Technology
Face to Face Common Syllabus
Summer 2018

ETDG 2223 – PIPING DRAFTING and DESIGN

This course covers the principles of piping systems function and design, preparation of pipe drawings from sketches and specifications, bills of material handling and preparation. It also includes introduction of heat exchangers, calculation of pipe and equipment for drawings and design requirements using industry standards.

Course Purpose:

The purpose of this class is to learn 2D and 3D Computer Aided Drafting (CAD) for piping using AutoCAD & CADWorx. This will be accomplished by creating Parts, Assemblies & Drawings and by using proven design techniques.

Type of course: Theory/Lab

Credit Hours: 3; Total hours of theory per semester: 30;

Total hours of lab for the semester: 45; Total hours of clinical per semester: N/A.

Class length: Full Semester

Class days and times: Tuesday & Thursday 1:00-3:25PM CST

Prerequisite: ETDG 1143

Instructor Name: Michael Freeman

Instructor Phone: (918) 293-5052

Office: DWRTC Room #115

Instructor email: michael.freeman@okstate.edu

Contact: My preferred method of contact is E-mail. Please allow 24-48 hours to return your correspondence during the normal work week.

Instructor's Office Hours: Classroom 150 MWF 11:25 – 11:45AM, TR 11:00 – 11:45AM CST

School Name: Engineering Technologies

School Main Phone: 918-293-5150

REQUIRED TEXT, REFERENCES, AND MATERIALS

Texts: Pipe Drafting and Design by Roy A. Parish and Robert A. Rhea, Gulf Publishing Company, ISBN #0123847003

References: The AutoCAD 2013 Tutor for Engineering Graphics, Lang, Thomson Learning, ISBN# 10-1133-96039-1

Materials: Notebook, writing utensil, & data storage device

Uniform/Tools: N/A

Estimated Cost for Materials: \$120.00

Estimated Cost for Uniform/Tools: N/A

Optional Resources: N/A

Upon completion of the course, students should:

COURSE OBJECTIVES	ASSESSMENT OF COMPETENCY
* Create a spreadsheet of steel pipe dimensions.	Page 7
*Draw pipe & pipe fittings to industry standards.	Test #1, Test #2 Exercise 6-2, Figure 10-17
* Draw horizontal tanks & vertical vessels	Figure 10-16
* Draw ladder & platform details.	P & ID Project, Test #3
* Draw a piping & instrumentation diagram.	Figure 13-16
* Generate isometric drawing.	

Aspects of the course objective assessments may be used in the university's assessment of student learning. If applicable, an asterisk (*) above indicates this course is used in the university assessment program.

COURSE ACTIVITIES

In this course students will:

- Participate in class discussions and activities.
- Take examinations.
- May be required to do quizzes.

EVALUATION - GRADES WILL BE BASED ON THE QUALITY AND COMPLETION OF THESE TASKS:

Projects/Assignments.....70%
 Chapters 2-5 & 13.....40%
 Chapters 6, 7 & 10.....30%
 Unit Exams (3).....30%
 *Test #1
 *Test #3

OSUIT Grading Scale
A = 90%-100%
B = 80%-89%
C = 70%-79%
D = 60%-69%
F = 59% & below

*The student's grade for this assignment will be used in the university's assessment of student learning. A 70% competency or higher receives a Pass rating. This Pass/Fail rating is independent of the student's course grade.

Remember! All technical classes require a 70% or better for graduation.

Daily and/or weekly quizzes, small weekly assignments and similar type projects: Normal return time to student by next class meeting or no later than one (1) week.

Extensive assignments, large lab projects, extensive quizzes, exams and similar type projects: Normal return time to students in one (1) to two (2) weeks.

RECOMMENDED STUDENT COMPETENCIES/SKILLS

A good working knowledge of file management i.e. save files, create folders & keep track of assignments.

AUTHORIZED TOOLS

N/A

LATE WORK

All assignments will have specific due dates and are expected to be completed by that date. However, I know life gets in the way and grace may be given with a 10% penalty applied to the graded work. The student must contact me ASAP and work out a time to turn in the late work. If a test is missed it is up to the student to work out a time when it can be made up. The penalty will be the same as late work if done in an orderly manner.

TESTING All quizzes and tests are to be completed independently; no collaboration with classmates is permitted and any instance of such will be considered academic dishonesty.

OTHER LAB AND CLASSROOM POLICIES

INSTRUCTOR'S POLICY ON ABSENCES

Class lectures will not be repeated. However, percentage point can be earned for perfect attendance i.e. 0 absences = 2%, 1 absence = 1%, 2 absences = 0.5% and 3 or more absences = 0%.

STUDENT CONDUCT

Students are expected to cooperate in maintaining a classroom environment conducive to learning. Courteous and respectful behavior will be expected from all students each day. All pagers, cellular phones, and CD and MP3 players should be turned off. The use of tobacco in any form in University buildings is prohibited.

INSTRUCTIONS FOR SPECIFIC TASKS AND ASSIGNMENTS

Drawing Projects:

- A. Drawings will be evaluated according to the following:
 1. Solution to problem
 2. Following of instructions and completeness
 3. Appearance, including neatness, spacing and uniformity
 4. Placement of dimensions
 5. Accuracy
- B. Class time will be allotted to work on drawing projects, but may not be enough to complete assignments. **The student will have to schedule time outside of class to work on assignments.**
- C. Work can be redone if a grade is not desirable but the markup has to be handed in with the corrections and the average of the two grades will be final grade.

ETD LAB RULES

- 1. Video Games:** The playing of video games on division computers **at any time is prohibited**. Students found playing video games on division computers will not only be asked to cease playing the game, but also remove any unauthorized software from the computer or network drive.
- 2. Music Files:** Downloading of music files from the Internet to **any media is prohibited**. In many cases, this is illegal and may result in liability for the university as well as the individual(s) involved. Listening to music in the computer labs is allowed only if **legal** copies of compact music discs are used. Students must use their own headphones when listening to music. Listening to music during class is at the discretion of the instructor and **at no time** will listening to music be allowed during class discussions or lectures.
- 3. Movies:** Downloading and/or playing of movie files from the internet (or any other source) are **prohibited**. In many cases, this is illegal and may result in liability for the university as well as the individual(s) involved.
- 4. Pornography:** Downloading and/or display of pornographic materials on division computers and equipment are **prohibited**. Any such material found by faculty or staff will be **immediately** deleted or removed. The use of vulgar or suggestive names for computer files or folders will not be tolerated. Any such material, if found by faculty or staff, will be immediately deleted.

Division computers and equipment are for **educational use only**. It is the intent of the faculty and staff of the ET division to display a positive and professional environment, including the atmosphere of the classroom. It reflects negatively on our division when guests see games, movies, or hear loud or offensive music permeating from our classrooms.

Note: An official copy of the syllabus will be posted on the Online Class Room site and any changes being made to the syllabus in the future will be on this official syllabus.

SYLLABUS ATTACHMENT

View the Syllabus Attachment, which contains other important information, by visiting http://osuit.edu/center/student_syllabus_information

It will also be in the Online Classroom (D2L/Brightspace) in the Content – Start Here.

COURSE SCHEDULE

DATE	Piping Drafting Topic
Thursday, May 3, 2018	Introductions, Syllabus & Chapters 1 & 2 - Pipe
Tuesday, May 8, 2018	<i>Finish Chapter 2 & Start Chapter 3 - Pipe Fittings</i>
Thursday, May 10, 2018	Chapter 3
Tuesday, May 15, 2018	Chapter 3
Thursday, May 17, 2018	Chapter 3
Tuesday, May 22, 2018	Chapter 3 / Review
Thursday, May 24, 2018	Test #1
Tuesday, May 29, 2018	Chapter 4 - Flange Basics
Thursday, May 31, 2018	Chapter 4 - I have to leave early for appt.
Tuesday, June 5, 2018	Chapter 4
Thursday, June 7, 2018	Chapter 4
Tuesday, June 12, 2018	Chapter 5 - Valves
Thursday, June 14, 2018	Chapter 5
Tuesday, June 19, 2018	Chapter 5
Thursday, June 21, 2018	Test #2
Tuesday, June 26, 2018	Summer Break
Thursday, June 28, 2018	Summer Break
Tuesday, July 3, 2018	Summer Break
Thursday, July 5, 2018	Summer Break
Tuesday, July 10, 2018	Chapter 6 - Mechanical Equipment
Thursday, July 12, 2018	Chapter 6
Tuesday, July 17, 2018	Chapter 6
Thursday, July 19, 2018	Chapter 10 - Mechanical Equipment

Tuesday, July 24, 2018	Chapter 10
Thursday, July 26, 2018	Chapter 10
Tuesday, July 31, 2018	<i>Finish Chapter 10 & Start Chapter 7 - P & ID</i>
Thursday, August 2, 2018	Chapter 7
Tuesday, August 7, 2018	Chapter 7
Thursday, August 9, 2018	Chapter 7
Tuesday, August 14, 2018	Chapter 8 - Codes & Specifications
Thursday, August 16, 2018	Chapter 13 - Piping Isometrics
Tuesday, August 21, 2018	Chapter 13
Thursday, August 23, 2018	Test #3

Schedule is subject to change at instructor discretion.