



PTAC 1302-103(H)
Introduction to Process Technology
Fall 2025
9:00am-10:50am / Tuesday & Thursday

Instructor Information: Lenora Dawson, ldawson1@com.edu, 409-933-8305

Office hours and location: ICB RM# 207-12
Tues: 1:00p-5:00p
Thurs: 1:00p-4:30p

Required Textbook/Materials: Introduction to Process Technology
NAPTA-2ND Edition
ISBN-13: 978-0-13-480824-6

***Laptop or Computer (personal or college)**

Course Description: This is the introduction to chemical and refinery plant operations. Topics include process technician duties, responsibilities and expectations; plant organizations; plant process and utility systems; and the physical and mental requirements of the process technician. The student will relate an overview of a typical process plant; identify process equipment; state the purpose of equipment; describe safety, health, and environmental components; and describe the roles, responsibilities, and work environment. Prerequisite: TSIA2 945-990 ELAR/CRC test AND 5 or higher on Essay OR 910-944 on CRC with 5-6 on Diagnostic Test + 5 or higher on Essay, or IRW 0320 with a grade of "C" or better.

Course requirements: (including description of any special projects or assignments)

- **Attending/engaging classes remotely/online, during assigned course times.**
- **Discussion Forums**
- **Discussions using breakout rooms**
- **Ensure you are prepared digitally with tools & supplies (computers, etc...)**
- **Complete ALL assignments, which could include videos w/questions, fill-in-the-blanks, summarizing, infographic presentations, drag and drop, concept checks, self-checks, homework, etc.**
- **Completion and submission of safety topics.**
- **Complete digital LABS on time.**
- **Complete EXAMS (5) on time.**

Determination of Course Grade/Detailed Grading Formula:

Exams – 75%

Labs – 10%

Assignments – 10%

Safety Topic/Syllabus Quiz – 5%

A= 90% - 100%

B= 80% - 89%

C= 70% - 79%

D= 60% - 69%

F= Below 60%

Late Work, Make-Up, and Extra-Credit Policy: **No late work will be accepted after the due date has passed. There is no extra credit in this class course.**

Attendance Policy: Much of the learning occurs online/digitally on your computer through classroom notes, assignments, quizzes, and labs. It is difficult to learn all the concepts simply by reading the course textbook, although reading the textbook is essential to being successful in this course. Class participation is essential to learning. Your classroom participation will be measured by the time and effort you put in for the course material. I will be keeping up with attendance using the metric that indicates you have logged in and worked on course material on the assigned days of the class. Many of the class sessions cover topics that have no handouts. Attendance is taken each class period and excessive missed classes (6) can result in the instructor dropping you from the course. I will be online with the course during the assigned course time. Please contact me during this time if you have any questions or concerns. This is important during the course time because we can also chat or do a zoom/teams meeting.

Communicating with your instructor: ALL electronic communication with the instructor must be through your COM email. Due to FERPA restrictions, faculty cannot share any information about performance in the class through other electronic means. (Faculty may add additional statements requiring monitoring and communication expectations via D2L or other LMS)

Student Learner Outcome	Maps to Core Objective	Assessed via this Assignment
1. Define and use terminology	*Critical thinking	Assignments, Exams, Quizzes, Labs
2. Identify and describe components, basic functions and scientific principles associated with process equipment.	*Critical Thinking *Communication-writing *Personal Responsibility-attendance	Homework, Exams, Quizzes, Class Attendance, Safety Presentations, Team Activities and Labs
	*Communication with instructor	

Academic Dishonesty: Any incident of academic dishonesty will be dealt with in accordance with college policy via the Student Handbook. Academic dishonesty – such as cheating on exams is an extremely serious offense and will result in a **grade of zero** on that exam and the student will be referred to the Office of Student Conduct for the appropriate discipline action. **IN OTHER WORDS, If the student is caught cheating on any classwork of any kind, they get an immediate 0% for that grade. If two or more students copy each other's work, they will get zeros."** In the instance of the highlighted statement, if students must turn in a typed assignment and everything is exactly the same on assignments (appearance of same exact work), assignments will be given a zero.

Student Concerns: If you have any questions or concerns about any aspect of this course, please contact me using the contact information previously provided. If, after discussing your concern with me, you continue to have questions, please contact Derrick Lewis, Department Chair at 409-933-8607 office dlewis22@com.edu email.

Course outline:

TUES/THURS

9:00a-10:50a

Course outline: ****Schedule is subject to change at the discretion of the instructor based on instruction and/or course needs. ****

Week #	Topic	Reading Assignments & Homework Due Dates
1 8/19 Tues	Purchase books from bookstore or online. Introduction, Syllabus, Assignments, Lab, Safety Topics, Teams/ Chat/Ice Breaker Assignments	
Assignments:	1. Syllabus Quiz 2. Choose Safety Topic to submit 3. Discussion assignment #1	Read Chapters 1 & 2 Due: 8/21/25
8/21 Thurs	Chapter 1 -Process Technology-Overview Chapter 2 -Mineral Extraction Industries: Oil & Gas & Mining	Read Chapters 3 & 4 <u>CENSUS DAY-8/25</u>
Assignments:	1. Complete Homework 2. Practice Activities	
2 8/26 Tues	Chapter 3 -Chemical and Pharmaceutical Industries Chapter 4 -Power Generation Industry	Read Chapters 6 & 8
Assignments:	1. Complete Homework 2. Practice Activities	

8/28 Thurs	Chapter 6-Water and Wastewater Treatment Industry Chapter 8-Working as Teams	Study Exam 1
Assignments:	1. Complete Homework 2. Practice Activities	
3 9/2 Tues	Exam 1 (Ch. 1,2,3,4,6,8) (In-Person)	Read Chapters 13, 14, & 15
Assignments:		
9/4 Thurs	Chapter 13-Process Drawings Chapter 14-Piping and Valves Chapter 15-Vessels	Study Exam 2
Assignments:	1. Complete Homework 2. Practice Activities	
4 9/9 Tues	Exam 2 (Ch. 13,14,15) (In-Person)	Read Chapters 16 & 17
Assignments:		
9/11 Thurs	Chapter 16-Pumps Chapter 17-Compressors	Read Chapters 18 & 19
Assignments:	1. Complete Homework 2. Practice Activities	
5 9/16 Tues	Chapter 18-Turbines Chapter 19-Electricity and Motors	Study Exam 3
Assignments:	1. Complete Homework 2. Practice Activities	
9/18 Thurs	Exam 3 (Ch.16,17,18,19) (In-Person)	Read Chapters 20 & 21
Assignments:		
6 9/23 Tues	Chapter 20-Heat Exchangers Chapter 21-Cooling Towers	Read Chapters 22, & 23
Assignments:	1. Complete Homework 2. Practice Activities	
9/25 Thurs	Chapter 22-Furnaces Chapter 23-Boilers	Study Exam 4
Assignments:	1. Complete Homework 2. Practice Activities	
7 9/30	Exam 4 (Ch. 20,21,22,23) (In-Person)	Read Chapter 24 <u>W-DAY (DROP)- Oct. 1. 2025</u>

Tues		
Assignments:		
10/2 Thurs	Chapter 24-Distillation	Read Chapters 25 & 26
Assignments:	1. Complete Homework 2. Practice Activities	
8 10/7 Tues	Chapter 25-Process Service Utilities Chapter 26-Process Auxiliaries	Study Exam 5
Assignments:	1. Complete Homework 2. Practice Activities	
10/9 Thurs	Exam 5(Ch. 24,25,26) (In-Person)	<u>GRADES DUE BY 11:00am</u>

Institutional Policies and Guidelines

Grade Appeal Process: Concerns about the accuracy of grades should first be discussed with the instructor. A request for a change of grade is a formal request and must be made within six months of the grade assignment. Directions for filing an appeal can be found in the student handbook <https://www.com.edu/student-services/student-handbook.html>. *An appeal will not be considered because of general dissatisfaction with a grade, penalty, or outcome of a course. Disagreement with the instructor's professional judgment of the quality of the student's work and performance is also not an admissible basis for a grade appeal.*

Academic Success & Support Services: College of the Mainland is committed to providing students the necessary support and tools for success in their college careers. Support is offered through our Tutoring Services, Library, Counseling, and through Student Services. Please discuss any concerns with your faculty or an advisor.

ADA Statement: Any student with a documented disability needing academic accommodation is requested to contact:

Kimberly Lachney, Student Accessibility Services Coordinator

Phone: 409-933-8919

Email: AccessibilityServices@com.edu

Location: COM Doyle Family Administration Building, Student Success Center

Textbook Purchasing Statement: A student attending College of the Mainland is not under any obligation to purchase a textbook from the college-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

Withdrawal Policy: Students may withdraw from this course for any reason prior to the last eligible day for a “W” grade. Before withdrawing students should speak with the instructor and consult an advisor. Students are permitted to withdraw only six times during their college career by state law. The last date to withdraw from the 1st 8-week session is October 1. The last date to withdraw from the 16-week session is November 14. The last date to withdraw for the 2nd 8-week session is November 25.

FN Grading: The FN grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The FN grade may be issued for cases in which the student ceases or fails to attend class, submit assignments, or participate in required capacities, and for which the student has failed to withdraw. The issuing of the FN grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an FN grade.

Early Alert Program: The Student Success Center at College of the Mainland has implemented an Early Alert Program because student success and retention are very important to us. I have been asked to refer students to the program throughout the semester if they are having difficulty completing assignments or have poor attendance. If you are referred to the Early Alert Program you will be contacted by someone in the Student Success Center who will schedule a meeting with you to see what assistance they can offer in order for you to meet your academic goals.

Resources to Help with Stress:

If you are experiencing stress or anxiety about your daily living needs including food, housing or just feel you could benefit from free resources to help you through a difficult time, please click here <https://www.com.edu/community-resource-center/>. College of the Mainland has partnered with free community resources to help you stay on track with your schoolwork, by addressing life issues that get in the way of doing your best in school. All services are private and confidential. You may also contact the Dean of Students office at deanofstudents@com.edu or communityresources@com.edu.

Nondiscrimination Statement:

The College District prohibits discrimination, including harassment, against any individual on the basis of race, color, religion, national origin, age, veteran status, disability, sex, sexual orientation, gender (including gender identity and gender expression), or any other basis prohibited by law. Retaliation against anyone involved in the complaint process is a violation of College District policy.