



**PTAC-1354-221C3/121C3
INDUSTRIAL PROCESS
FALL 2025
TTH 9am – 11:50; MW 6pm – 8:50pm
ICB RM 106**

Instructor Information: Jonathon Cooper, jcooper15@com.edu 409.933.8499

Student hours and location: Monday & Wednesday 1PM-3PM

Tuesday & Thursday 11:30am-1:30pm; ICB Room 207-14

Required Textbook/Materials: Safety Glasses, Work Gloves, Proper Shoes - Required
No Textbook Required

Course Description: The study of the basic types of industrial processes. Types of commercial processes will be explored and demonstrated. Students will demonstrate knowledge of basic types of industrial processes and their operation; explain chemical, physical and thermodynamic principles of industrial processes; perform calculations on industrial processes; and plot and graph process data. Prerequisites: PTAC 1302, PTAC 1308, PTAC 1310, PTAC 1332, CHEM 1405, and PHYS 1410 or PHYS 1401 with a grade of "C" or better.

Course requirements: This is a “hands-on” project-based course that teaches students the basics and understanding of tracing lines and drawing P&IDs, reading operating procedures, operating systems (Tank Farm and Glass Distillation Unit), and Teamwork.

Determination of Course Grade/Detailed Grading Formula: You will be graded on drawings, after reports, oral presentations, assignments, and distillation/tank farm system operation.

Cover Letter Assignment

Tank Farm: Drawing
Transfer Sheet
Live Exam

GDU: Label Exam & Drawing (Memory)
Quiz

Permit/LOTO Assignment/Hand Tools
Sterling Engine Project / Quiz
Material Project
Final GDU Drawing and Exam

Drawings/Assignments are worth 40% of your grade

Tank Farm LIVE, GDU Walk-Thru, Sterling Engine, and Final Exam are worth 60% of your grade

Grading Scale:

90-100 = A

80-89 = B

70-79 = C

60-69 = D

Below 60 = F

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.**

NOTE: If you give Instructor at least 2hrs notice of non-attendance for a scheduled class in which work is due, you will have 48 business hours from the original due date to turn in your assignment/take exam. If you DO NOT give at least 2hrs notice/inform Instructor of non-attendance, you will not be allowed to turn in missed assignment or take missed exam. NO EXCEPTIONS. There is no extension for the Final Exam.

Attendance Policy: Due to the “hands-on” nature of this class, it is advisable to attend every scheduled class session. If you should miss, please note that after 6 absences the instructor will drop you from the course.

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. Describe Process/Operation	Reading, Writing and Speaking	Teamwork
2. Explain chemical, physical and thermodynamic principles	Listening	Project Assignments
3. Perform calculations on industrial process	Critical Thinking	Discussion Board
4. Plot and graph process data	Computer Literacy	After Report
	Cultural Competence	

Academic Dishonesty: Any incident of academic policy will be dealt with in accordance with college policy and 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.

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-Dept Chair] at [(409) 933-8306 or dlewis22@com.edu].

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

Week#	Day/Date	Topic	Reading Assignments & Homework Due Dates
1	Tues 8/19	Introduction, Syllabus, Material Projects, Cover Letter Assignment, Safety Topics, Fittings	
	Thur 8/21	Hand Tools LOTO Lecture Notes Inventory	
2	Tues 8/26	LOTO Activity	
	Thur 8/28	Material Project Due Present Safe	
3	Tues 9/2	Labor Day – Campus Closed	
	Thur 9/4	Fittings/LOTO Test Day	Census Day
4	Tues 9/9	Tank Farm Introduction Notes / Transfer Sheet	
	Thur 9/11	Tank Farm Draw / Practice Transfers	
5	Tues 9/16	Tank Farm Draw / Practice Transfers	
	Thur 9/18	Tank Farm Draw / Practice Transfer	
6	Tues 9/23	Tank Farm Draw / Practice Transfers	
	Thur 9/25	Tank Farm Draw / Practice Transfers	
7	Tues 9/30	Tank Farm Draw / Practice Transfers	
	Thur 10/2	Drawings Due - Live Tank Farm Exam	
8	Tues 10/7	Introduction of Sterling Engine / Notes	
	Thur 10/9	Sterling Engine	

Week 9	Tues 10/14 Thurs 10/16	Sterling Engine Quiz Sterling Engine	
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Week#	Day/Date	Topic	Reading Assignments & Homework Due Dates
10	Tues 10/21	Sterling Engine	
	Thurs 10/23	Sterling Engine Live Run	
11	Tues 10/28	Thanksgiving - Closed	
	Thurs 10/30	Introduction to GDU	
12	Tues 11/4	Label and Drawing	
	Thurs 11/6	Label/Draw	Census Day
13	Tues 11/11	Run GDU	
	Thurs 11/13	Label/Draw	
14	Tues 11/18	Tank Farm	
	Thurs 11/20	Tank Farm Drawing Due – Live Exams	
15	Tues 11/25	GDU Quiz	“W” Day 11/25
	Thurs 11/27	Drawing Due	
16	Tues 12/2	GDU Final	
	Thurs 12/4	Last Day 2025 Fall	

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/docs/Student_Handbook_2024-2025_v2.pdf. *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 16-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.