



PTAC 1310-121 CL
Process Tech I - EQUIPMENT
Fall 2021
Mon/Wed 9am-11:20am
TVB-1559

Instructor Information: Adrian Mejia
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409-933-8140 my office number

Student hours and location: TVB 1583

- Monday & Wednesday 11:20-1pm
Tuesday&Thursday 4:30pm-6pm

Required Textbook/Materials: Process Technology Equipment

Course Description: (catalog description is acceptable) Process Technology I – Equipment is one of the eight core courses in the Process Technology Alliance curriculum, sponsored by the North American Process Technology Alliance (NAPTA, formerly GCPTA). The two-year program has been created to train students for careers as process technicians in the chemical and refining process industries.

This course is designed to give the class member an introductory review of the equipment necessary in the process industries. It will cover the how and why basics of equipment, such as piping, valves, pumps, heat exchangers, turbines, compressors and instruments. This course provides the background necessary for both the Systems and Unit Operations courses.

Upon completion of this course, students should be able to continue with the core courses for the PTEC program with the basic foundation required to understand why and how a plant works. The student will learn these techniques by class discussions of equipment details, their many types, their theory of operations, in-class demonstrations of the equipment and systems such as the PTEC Glycol Separation Unit (GSU), by assigned homework, and other assignments as required.

TEXAS SKILLS STANDARDS: Key activities developed by the North American Process Technology Alliance

2.1 Monitor and regulate fired heaters/furnace system

2.2 Monitor and regulate boiler systems

2.3 Monitor and regulate cooling water system

2.5 Monitor and regulate heat exchanger system

5.2 Monitor and regulate flare system

Upon successful completion of this course students will be able to:

1. Define and use terminology
2. Identify and describe components, basic functions and scientific principles associated with process equipment.

Core Objectives: Students successfully completing this course will demonstrate competency in the following Core Objectives:

1. **Critical Thinking Skills:** Students will demonstrate creative thinking, innovation, and the ability to analyze, evaluate and synthesize information.
2. **Communication Skills:** Students will develop, interpret, and express ideas through written, oral and visual communication.
3. **Personal Responsibility:** Students will demonstrate the ability to connect choices, actions and consequences to decision making.

Student Learner Outcome	Maps to Core Objectives	Assessed via this Assignment
Define and use terminology	* Critical Thinking	HW's, Exams
Identify and describe components, basic functions and scientific principles associated with process equipment.	* Critical Thinking * Communication – writing * Personal Responsibility - attendance	HW's, Quizzes, Exams, Projects, Class attendance & participation

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

Determination of Course Grade/Detailed Grading Formula: There will be 4 exams each worth 25% .

Exam 1=25%

Exam 2=25%

Exam 3=25%

Exam 4=25%

You will always have to read chapters and may have surprise quizzes .

Late Work, Make-Up, and Extra-Credit Policy: There will be NO late work excepted and quizzes cannot be made up or Test unless you have a Doctor’s note.

Attendance Policy: 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

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 statement requiring monitoring and communication expectations via Blackboard or other LMS)

Student Learner Outcome	Maps to Core Objective	Assessed via this Assignment
1. Define and use terminology	Critical Thinking	Homework and Exams
2. Identify and describe components	Critical Thinking	Homework, Quizzes and Exams
3. Basic function and scientific principles	Critical Thinking	Homework, Quizzes and Exams, projects, class attendance and participation.
4. Understanding the function of process equipment.	Critical Thinking	Homework, Quizzes and Exams projects, class attendance and participation
5. Writing permits and understanding the relationship between equipment and permits	Critical Thinking, personal responsibility.	Homework, Quizzes and Exams projects, class attendance and participation.

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. **IN OTHER WORDS, “If the student is caught cheating on any classwork of any kind they get an immediate 0% for that grade. If they get caught cheating on number two, they are dropped from the class. NO EXCEPTIONS. If two students copy each other’s work, both get zeros**

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 : If you have any questions or

concerns about any aspect of this course, please contact your assigned instructor using the contact information previously provided. If, after discussing your concern with your instructor, you continue to have questions, please contact Mr. Derrick Lewis / (409) 933- 8607 / dlewis22@com.edu).

Course Schedule Name of Course (EQUIPMENT) Course Semester : Fall 2021

I. Week 1-4: Lecture/Reading Assignments: Ch. 1,2,3,4,5 Test 1:

II. Week 5-8: Lecture/Reading Assignments: Ch. 6,7,8,9,10 Test 2: We will also be going over writing permits and the importance of writing permits.

III. Week 9-12: Lecture/Reading Assignments: Ch. 11,12,13,14,15 Test 3: We will also be going over LO/TO and the importance of LO/TO.

IV. Week 13-16: Lecture/Reading Assignments: 16-20 Test 4:

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://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.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.* https://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.pdf

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 accommodations is requested to contact Holly Bankston at 409-933-8520 or hbankston@com.edu. The Office of Services for Students with Disabilities is located in the Student Success Center.

Counseling Statement: Any student needing counseling services is requested to please contact Holly Bankston in the student success center at 409-933-8520 or hbankston@com.edu. Counseling services are available on campus in the student center for free and students can also email counseling@com.edu to set up their appointment. Appointments are strongly encouraged; however, some concerns may be addressed on a walk-in basis.

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 6. The last date to withdraw from the 16-week session is November 19. The last date to withdraw for the 2nd 8-week session is December 2.

F_N Grading: The F_N grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The F_N 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 F_N grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an F_N 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.

COVID-19 Statement: All students, faculty, and staff are expected to familiarize themselves with materials and information contained on the College of the Mainland’s Coronavirus Information site at www.com.edu/coronavirus. In compliance with Governor Abbott's May 18 Executive Order, face coverings/masks will no longer be required on COM campus. Protocols and college signage are being updated. We will no longer enforce any COM protocol that requires face coverings. We continue to encourage all members of the COM community to distance when possible, use hygiene measures, and get vaccinated to protect against COVID-19. Please visit com.edu/coronavirus for future updates.

