



**PTAC 1310-121CL**  
**Process Tech I - EQUIPMENT**  
**Fall 2022**  
**Monday/Wednesday 9am-11:20pm**  
**ICB Room 201**

**Instructor Information: Adrian Mejia**  
**amejia5@com.edu**  
**409-933-8140 my office number**

**Student hours and location: Office number**

- Monday & Wednesday 11:20am-1:20pm
- Tuesday & Thursday 7am-8am      Thursday 5:15pm-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.

<b>Student Learner Outcome</b>	<b>Maps to Core Objectives</b>	<b>Assessed via this Assignment</b>
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: You will receive an FN grade if you miss more than 6 days no exceptions.**

**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)

<b>Student Learner Outcome</b>	<b>Maps to Core Objective</b>	<b>Assessed via this Assignment</b>
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 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:

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### **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](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](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 Michelle Brezina at 409-933-8124 or [mvaldes1@com.edu](mailto:mvaldes1@com.edu). The Office of Services for Students with Disabilities is located in the 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 1<sup>st</sup> 8-week session is October 6. The last date to withdraw from the 16-week session is November 18. The last date to withdraw for the 2<sup>nd</sup> 8-week session is December 2.

**F<sub>N</sub> Grading:** The F<sub>N</sub> grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The F<sub>N</sub> 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<sub>N</sub> grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an F<sub>N</sub> 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](mailto:deanofstudents@com.edu) or [communityresources@com.edu](mailto:communityresources@com.edu).