



PTAC 1310-111 CL
Process Tech I - EQUIPMENT
Summer 2021
Mon/Wed 8am-12pm
TVB-1551

Instructor: Adrian Mejia
amejia05@com.edu
OFFICE: (409) 933-8140

Students may also contact the COM PTEC Administrative Office to leave a message for the instructor by contacting:

Patricia England, Administrative Assistant
Phone: 409-933-8536
E-Mail: pengland@com.edu

Office hours and location: TVB 1551

Monday 12pm-3pm via Teams if you would like to schedule an in person meeting please email me to schedule an appointment.

Required Textbook:

Process Technology Equipment

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.

Course Description:

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.
3. You will be able to understand the principles how equipment works and its function in our industry.

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	* Critical Thinking * Communication – writing * Personal Responsibility - attendance	HW's, Quizzes, Exams, Projects, Class attendance & participation

equipment.	* We will be reviewing and writing permits and going over the importance of equipment in the industry	
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Attendance Policy:

Much of the learning occurs in the classroom setting through lectures and labs. It is difficult to learn all the concepts simply by reading the course textbook. Class participation is essential to learning. Many of the class sessions cover topics that have no handouts. Good note taking is important to be successful in this class. Attendance is taken each class period and excessive missed classes can result in the instructor dropping you from the course. Attendance data will be provided to future employers at their request.

If you find that you are going to miss a scheduled class for any reason, please notify your professor via E-Mail (with cc to Patricia England) as soon as possible. Makeup work is the responsibility of the student and making contact with fellow classmates is highly encouraged to get details on missed assignments. **Coming to class late (more than 30 minutes) will be counted as an absence. Also, leaving the class early (before being released by the Instructor) may result in an absence.**

Note: “Attendance Sheet” sign-in is the responsibility of the student. If not signed in, you will be recorded as being absent for that class. After the fact sign-in will not be allowed.

Attendance and Tardiness will be reflected in your final grade (there will be a grade given for attendance). Absences are excused only for emergencies or if prior arrangements are made in writing to your instructor via E-Mail.

Absence Chart

16 Week Classes		
Sections who meet:	1 Class Day per Week	2 class Days per Week
Early warning	Second class day missed	Third class day missed
PTEC warning	Third class day missed	Fifth class day missed
Dropped by instructor	Forth class day missed	Sixth class day missed

10 Week Classes		
Sections who meet:	1 Class Day per Week	2 class Days per Week
Early warning	First class day missed	Second class day missed
PTEC warning	Second class day missed	Third class day missed
Dropped by instructor	Third class day missed	Fourth class day missed

Tardiness Policy:

Attends class and is punctual – The student attends every class period, arrives on time for class activities or informs the instructor in a timely manner of unavoidable situations that cause the student to be late or miss class. Students that are more than 20 minutes late will be counted absent at the discretion of the instructor.

Withdrawal Policy:

You must withdraw from class no later than the designated drop date in order to receive a letter grade of “W”. If you withdraw after that date, you will receive the grade of “F”. W day is Aug.2th for 10 week session .

ADA Statement: Any student with a documented disability needing academic accommodations is requested to contact Holly Bankston at 409-933-8520. The Office of Services for Students with Disabilities is located in the Student Success Center.

<http://www.com.edu/student-services/counseling.php>

Student concerns: If you have any questions or concerns about any aspect of this course, please contact please contact me using the contact info previously provided. After discussing your concerns with me and you still have questions please contact Kelley Waters at kwaters@com.edu (409)933-8618.

Early Warning Program: The Counseling Center at College of the Mainland has implemented an Early Warning Program. 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 Warning Program you will be contacted by someone in the Counseling Department. As student success and retention is very important to us, someone from the Counseling Department will schedule a meeting with you to see what assistance they can offer in order for you to meet your academic goals. The Speaking, Reading and Writing Center provides free tutoring services to students, staff and faculty seeking assistance for writing, reading and oral presentations for academic and non-academic assignments/projects. Located in the Technical Vocational Building, Room 1306, the center provides face-to-face and online tutoring sessions in a welcoming environment. Appointments can be made in person, or on the center scheduler at com.mywconline.com, or by clicking the SRWC icon on the COM website.

Students are encouraged to meet with the instructor on a routine basis to see where they stand and/or identify their needs in the class. This would be beneficial for early warning “recognition”.

Classroom Conduct Policy: College of the Mainland requires that students enrolled at COM be familiar with the Standards of Student Conduct, which can be found in the on-line Student Handbook. <http://www.com.edu/student-services/student-handbook.php> . Students should act in a professional manner at all times. Disruptive students will be held accountable according to college policy. Any violations of the Code of Conduct will result in a referral to the Office for student Conduct and may result in dismissal from this class.

No student has the right to disrupt the learning process of other students. Students found to be disruptive by the instructor will be expelled from class. **Multiple disruptions may result in expulsion from the course, with the grade of an "F" for the class.**

Electronic devices (e.g. cell phones, pagers, cameras, I-pads, I-pods, tape recorders, lap top computers, etc.) will only be allowed for class work only (notes / research), there will be absolutely no electronics allowed on test dates

- Students using such devices for other than stated during the class will be expelled from the class.
- Students using such devices during the exams/quizzes will result in an immediate F for the course.
- Penalty for using electronic devices during normal classes will be:
 - 1st incident in class: student using electronic device will be penalized 5 points per incident from their next exam.
 - 2nd incident in class: same as above.
 - 3rd incident in class and thereafter: 10 pts. will be subtracted from next exam.

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.”**

Plagiarism: Plagiarism is using someone else’s words or ideas and claiming them as your own. Plagiarism is a very serious offense. Plagiarism includes paraphrasing someone else’s words without giving proper citation, copying directly from a website and pasting it into your paper, using someone else’s words without quotation marks. Any assignment containing any plagiarized material will receive a **grade of zero** and the student will be referred to the Office of Student Conduct for the appropriate discipline action. This includes copying someone else’s homework.

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

This is based on completion of all HW's, Assignments, Projects, Quizzes and Exams.

Other info regarding HW's, Assignments, Quizzes and Exams:

- 1) Students are required to put **Name and Date** on their HW's, assignments, quizzes and exams.
-5 pts if not
- 2) **Do not turn in a half attempted work. Homework is due at the beginning of class.**
- 3) Students are required to take quizzes and exams with their own class, and during the allowed time only.
- 4) If a student must leave the classroom for any reason during an exam, their exam will be turned in at that time and considered complete.

Make-Up Policy:

1. Make-up exams should be scheduled with your instructor ASAP, and should be taken within 2 working days of the original date. Make-up exams may score no higher than 90% on the make-up exam but must be scheduled prior to the original exam date (**ONE TIME ONLY all others after will start at 75%**). If not scheduled prior to exam date, 75% is the maximum that can be given as a grade. Students must make up the exam within 1 working days. After 1 working days, a grade of 0 (zero) will be entered for that exam. At the instructor's discretion, make up exams may be in a different format from the scheduled exam.

1. Make up quizzes will not be allowed. This will be strictly enforced.
2. Make up homework will not be allowed after the next class day.
3. Make up exams, graded quizzes, homework, class handouts and other works are the responsibility of the student and not that of the instructor.

Grading Scale:

A = 90 - 100%
B = 80 - 89%
C = 70 - 79%

F = Below 70%

There will be 4 exams each one worth 25% so these 4 equal 100%

Core Objectives Assessment:

Critical thinking: Students will have to do multiple HW's, quizzes and exams.

Communication: Students will have to do multiple HW's (which includes equipment drawings), a P&ID quiz, and present an equipment project.

Personal Responsibility: Students are expected to attend and participate in all classes.

Syllabus Changes:

The instructor reserves the right to make changes to this syllabus during the semester as needed to facilitate instruction and/or course needs.

Concerns/Questions Statement: 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, contact Derrick Lewis @ dlewis@com.edu

Course outline:

Course Schedule Name of Course (EQUIPMENT) Course Semester

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

II. Week 3-4: Lecture/Reading Assignments: Ch. 6,7,8,9,10 Test 2:

III. Week 5-6: Lecture/Reading Assignments: Ch. 11,12,13,14,15 Test 3:

IV. Week 8-10: Lecture/Reading Assignments: 16-20 Test 4:

****SCHEDULE IS SUBJECT TO CHANGE****

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.

