



PTAC-2420-221CL
System
Fall 2021
T-TH 6pm-8:50pm
TVB 1559

Instructor Information:

Jeff Hartschuh
@com.edu
409-933-8536 – (Peggy England)

Student hours and location: TVB-1559

- Tuesday / Thursday 5:30-6:00 PM and 8:50 – 9:20 PM

Required Textbook/Materials:

Systems Textbook: Process Technology Systems by Speegle (ISBN: 978-1-4180-3999-8)

Pocket Reference by Thomas Glover (Black Book) (ISBN: 978-1-885071-62-0)

Course Description:

Process Technology II – Systems is one of the eight core courses in the Process Technology Curriculum, sponsored by the North American Process Technology Alliance. 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 a critical building block in preparation for PTAC Operations, Unit Operations and Troubleshooting. All prerequisites must be met.

Process Technology II – Systems introduces students to many process industry related Systems concepts including basic systems, the purpose and function of specific process systems, the methods of controlling process systems and abnormal process conditions. A strong emphasis in distillation basics and operation will be pursued.

Course requirements:

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

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. Points will be deducted (at instructor's discretion) for not complying.
- 2) For HW's, assignments, etc., **pages must be stapled** – (loose pages will not be accepted).
Homework is due at the beginning of class - on due date.
- 3) Students are required to take quizzes and exams with their own class, and during the allowed time only.
- 4) Students will turn in the same number of pages that are handed out during a quiz or an exam. If not, you will get a score of zero for the quiz or the exam. Also, students who do not turn in their quiz or exam (i.e. walk out with the quiz or the exam) will get an **"F"** for the course.
- 5) Students **will not** make copies or take pictures of quizzes and exams (including graded). This will result in an immediate **"F"** for the course.

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. 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.

Electronic devices (e.g. cell phones, pagers, cameras, I-pads, I-pods, tape recorders, etc.) **shall not be used in the classroom or during the exams/quizzes**. Only calculators will be allowed – (cell phones or any other electronic devices shall not be used as calculators).

If you need to use your cell phone, step out of the class.

- Students using such devices during the exams/quizzes will result in an immediate **"F"** for the course.

Determination of Course Grade/Detailed Grading Formula:

Grading is based on total percentage point system:

(Grading subject to change at the discretion of the instructor)

Homework & Quizzes (Combined Total)	10% (Weighted % Score)
4 Exams (17.5% Each)	70%
Final Exam (20%)	20%

TOTAL SCORE = 100%

Grading Scale:

- A = 90 - 100%
- B = 80 - 89%
- C = 70 - 79%
- D = 60 - 69%
- F = Below 60%

Late Work, Make-Up, and Extra-Credit Policy:

1. Make-up exams should be scheduled with your instructor ASAP (preferably prior to the exam), and should be taken by the next class period or within 5 working days of the original date, whichever comes first. Penalty for make-up exams will be a deduction of 10% of the score made, unless the make-up exam was scheduled prior to the original exam date. After 5 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. **There will be no make for the Final Exam.**
2. Make up exams will not be allowed after 5 working days past their original date. This will be strictly enforced. **Only 1 make-up exam will be allowed (with excused absence only).**
3. Students who walk out of an exam will be given a score of zero for it. There will not be a makeup of that exam.
4. Late or make up homework/assignments will not be allowed. This will be strictly enforced. A grade of zero will be given in those cases.
5. Make up exams, homework, class handouts and other works are the responsibility of the student and not that of the Instructor.

Attendance Policy:

It is encouraged that students attend classes. Student participation is essential to learning. Good note taking is important to be successful in this class.

Makeup work is the responsibility of the student and making contact with fellow classmates is highly encouraged.

Note: “Attendance Log” 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.

After 6 missed classes you can be dropped from class.

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. 1. Describe the purpose and function of common process systems	Critical Thinking Empirical and Quantitative skills Personal Responsibility - attendance	HW's, Quizzes, Exams, Class attendance & participation
2. Explain and demonstrate the operation of each process system	Critical Thinking Empirical and Quantitative skills	HW's, Quizzes, Exams

Academic Dishonesty:

Any incident of academic dishonesty will be dealt with in accordance with college policy and the Student Handbook. Academic dishonesty – such as cheating on assignments (copying someone else's assignments in part or in full) or exams is an extremely serious offense and will result in a **grade of zero** 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 the PTEC Department Chair (Mr. Derrick Lewis / (409) 933- 8607 / dlewis22@com.edu).

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 is 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.

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.

Course outline:

Fall 2021 Course Schedule*:

Week#	Day/Date	Topic (Read chapters prior to class)	Assignments, Quizzes & Due Dates (TBA)
1	T 8/24/21	Intro + Syllabus + Expectations + Explain Grading % + General Review	
	TH 8/26/21	L: GENERAL REVIEW	Equipment/Instrumentation quiz
2	T 8/31/21	L: CHP. 1,2, 3 > WATER SYSTEMS,	Chapter 1,2,3 Review Questions
	TH 9/02/21	L: CHP. 4, 5 > COOLING TOWER + COOLING WATER SYSTEM	Chapter 4 and 5 Review Questions
3	T 9/07/21	L: CHP. 6,10,12 > PLANT AIR, INSTR AIR, NITROGEN, ELECT, REFRIGERATION General Overall Review	Chapter 6, 10 and 12 Review Questions
	TH 9/09/21	EXAM # 1	Exam #1 (Timed & Beginning of Class)
4	T 9/14/21	L: CHP. 11 > RELIEF & FLARE + THERMAL OXIDIZER	Chapter 11 Review Questions
	TH 9/16/21	L: CHP. 8,> BOILERS, STEAM GENERATION AND BFW SYSTEMS	Chapter 8 Review Questions
5	T 9/21/21	L: CHP. 9 > STEAM DISTRIBUTION, CONDENSATE SYSTEMS	Chapter 9 Review Questions
	TH 9/23/21	L: CHP. 18 > REACTORS	Chapter 18 Review Questions
6	T 9/28/21	Misc. + Overall Review	
	TH 9/30/21	EXAM # 2	Exam #2 (Timed & Beginning of Class)
7	T 10/05/21	L: CHP. 21, 22 > FILTRATION, DRYING	Chapter 21 and 22 Review Questions
	TH 10/07/21	L: CHP. 23 > MATERIAL STORAGE	Chapter 23 Review Questions
8	T 10/12/21	L: CHP. 24 > ENVIRONMENTAL COMPLIANCE SYSTEMS	Chapter 24 Review Questions
	TH 10/14/21	L: CHP. 7,14 > NATURAL & FUEL GAS, FURNACES / COMBUSTION	
9	T 10/19/21	L: CHP. 7,14 > NATURAL & FUEL GAS, FURNACES / COMBUSTION Part 2 General Overall Review	Chapter 7 and 14 Review Questions
	TH 10/21/21	EXAM # 3	Exam #3 (Timed & Beginning of Class)
10	T 10/26/21	L: CHP. 15, 16, > EXTRACTION, ADSORPTION	Chapter 15 and 16 Review Questions
	TH 10/28/21	L: CHP. 17 > ABSORPTION and STRIPPING	Chapter 17 Review Questions
11	T 11/02/21	L: CHP. 19 > CENTRIFUGE SYSTEM	Chapter 19 Review Questions
	TH 11/04/21	L: CHP. 13 > DISTILLATION > PART-1	

12	T 11/09/21	L: CHP. 13 > DISTILLATION > PART-2	Chapter 13 Review Questions
	TH 11/11/21	LAB: UNIT DISTILLATION MODEL	LAB
13	T 11/16/21	GENERAL OVERALL REVIEW	
	TH 11/18/21	EXAM # 4	Exam #4 (Timed & Beginning of Class)
14	T 11/23/21	L: CHP. 13 > CRYSTALIZATION SYSTEMS	Chapter 13 Review Questions
	TH 11/25/21	THANKSGIVING NO CLASS	
15	T 11/30/21	MISC. / Q&A / Tour of GSU, Boiler, Chiller General Overall Review	
	TH 12/02/21	FINAL EXAM	Final Exam (Timed & Beginning of Class)
16	T 12/07/21	• Semester de-briefing + Unit Ops preview • Final Grades	
	TH 12/09/21	Last Day of class	

*Schedule is subject to change at the discretion of the instructor.

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