



**PTAC-2420-211CL (7408)  
Process Tech II - Systems  
Fall Semester 2023- 16 Weeks  
Lecture and Labs Monday and Wednesday  
6:00 pm – 8:50 pm  
Industrial Careers, Bldg. #23, Room 206  
08/28/2023-12/15/2023**

**Instructor Information:** [tforester2@com.edu](mailto:tforester2@com.edu)  
409-933-8140 Office # 207-9 in ICB

**Student hours and location:** My office hours are:  
**Monday/Wednesday- 8-9am**  
**Tuesday/Thursday 5-6pm**  
Please correspond through email at [tforester2@com.edu](mailto:tforester2@com.edu)

**Required Textbook/Materials:** Systems by NAPTA Pearson *Process Systems*  
NAPTA ISBN-10: 0-13-692904-4 or ISBN-13: 978-0-13-692904-8. On-line options are best for this class, some are:  
<https://a.co/d/h1aVRA2> \$70  
<https://www.vitalsource.com/products/process-systems-napta-v9780136929079> \$43.33

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:** PTAC 2420. PROCESS TECHNOLOGY II - SYSTEMS (LECTURE 3, LAB 3). CREDIT 4. WECM.

This is the study of the interrelation of process equipment and process systems including related scientific principles. Students will arrange process equipment into basic systems; describe the purpose and function of specific process systems; explain how factors affecting process systems are controlled under normal conditions; and recognize abnormal process conditions.

Prerequisites: PTAC 1302, PTAC 1308, PTAC 1310 and PTAC 1332 with a grade of "C" or better. This is a benchmark course.

**Course requirements:** : Excel, Internet, PowerPoint, TEAMS, and Word (all Microsoft software)

All grades are entered in <https://com.brightspace.com>

**Determination of Course Grade/Detailed Grading Formula:**

Project	20%
Exams (5)	80%

**Grading Scale:**

**A= 90-100%**  
**B= 80-90%**  
**C= 70-80%**  
**D= 60-70%**  
**F =Below 60%**

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

- **Make-up exams will not be allowed.** Subsequent no other make ups exams are allowed unless there are extreme matters that are verifiable and deemed to be an emergency by the instructor, only. At the instructor's discretion, make up exams may be in a different format from the scheduled exam.

Extra Credit will be rare and at the discretion of the instructor

**Attendance Policy:** Students are required to participate in all discussions and assignments to be successful in this course. Students will be considered having an excused absence with 24hrs written notice to Instructor (Immediate family or work-related emergencies only) In the case of a life related "sudden" emergency, written notice will be accepted before the next scheduled 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 D2L or other LMS)

**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, quizzes, and 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 Derrick Lewis , Program Director , at 409-933-8607 or email at : [dlewis22@com.edu](mailto:dlewis22@com.edu)

**Course outline:**

Week 1	Aug 28	M Syllabus/outline	W Section 1 Systems	
		Tu Syllabus/outline	TH Section 1 Systems	
Week 2	Sept 4	M holiday	W Section 2 Water	
		Tu TBD	TH Section 2 Water	
Week 3	Sept 11	M Section 3 wastewater	W Exam 1 sections 1-3	
		Tu Section 3 wastewater	TH Exam 1 sections 1-3	
Week 4	Sept 18	M Section 4 Gasses	W Section 5 Electrical	
		Tu Section 4 Gasses	TH Section 5 Electrical	
Week 5	Sept 25	M Section 6 storage/blending	W Section 7 steam	
		Tu Section 6 storage/blending	TH Section 7 steam	
Week 6	Oct 2	M Exam 2 Sect 4-7	W Section 8 combustion	
		Tu Exam 2 Sect 4-7	TH Section 8 combustion	
Week 7	Oct 9	M Section 9 refrigeration	W Section 10 reactor systems	
		Tu Section 9 refrigeration	TH Section 10 reactor systems	
Week 8	Oct 16	M Section 11 Batch reactor	W Exam 3 sections 8-11	
		Tu Section 11 Batch reactor	TH W Exam 3 sections 8-11	
Week 9	Oct 23	M class project TBD	W class project TBD	
		Tu class project TBD	TH class project TBD	
Week 10	Oct 30	M Section 12 reactors	W Section 13 furnaces	
		Tu Section 12 reactors	TH Section 13 furnaces	
Week 11	Nov 6	M Section 14 filtration	W Section 15 adsorption	
		Tu Section 14 filtration	TH Section 15 adsorption	
Week 12	Nov 13	M Exam 4 Sect 12-15	W class project TBD	
		Tu Exam 4 Sect 12-15	TH class project TBD	
Week 13	Nov 20	M Integrated systems discussion	W Thanksgiving holiday	
		Tu Integrated systems discussion	TH Thanksgiving holiday	
Week 14	Nov 27	M Section 16 distill	W Section 17 extract	* 11/28 W day
		Tu Section 16 distill	TH Section 17 extract	
Week 15	Dec 4	M Section 18 ad/strip	W Exam 5 Sect 16-18	
		Tu Section 18 ad/strip	TH Exam 5 Sect 16-18	
Week 16	Dec 11	M systems discussion	W lab project	
		Tu systems discussion	TH lab project	

Schedule can be changed or adjusted at the instructors discretion

<b>Student Learner Outcome</b>	<b>Maps to Core Objective</b>	<b>Assessed via this Assignment</b>
1. Define and use terminology	*Critical Thinking	Exams
2. Collect data and identify techniques for explaining Systems.	*Critical Thinking	Reading assessed via testing
3. Utilize applicable troubleshooting methods to solve process system problems.	*Reading, Listening, and Speaking	Exams, Projects, attendance, and participation
4. Work in self-directed teams	*Communication-participation *Personal Responsibility-attendance *Cultural Competence:	Groups, Projects, attendance, and participation
5. Identify/describe terminology and principles associated within system and sub-systems	*Critical Thinking	Exams, Projects, attendance, and participation

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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://www.com.edu/student-services/docs/Student\\_Handbook\\_2023-2024\\_v2.pdf](https://www.com.edu/student-services/docs/Student_Handbook_2023-2024_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 accommodations is requested to contact Kimberly Lachney at 409-933-8919 or [klachney@com.edu](mailto:klachney@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 11. The last date to withdraw from the 16-week session is November 28. The last date to withdraw for the 2<sup>nd</sup> 8-week session is December 7.

**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](mailto:deanofstudents@com.edu) or [communityresources@com.edu](mailto:communityresources@com.edu).