



**Course Number and Section (PTAC-2438-201CL)**

**Name of Course (Process Tech III-Operations)**

**Course Semester (Spring 2024)**

**Room ICB 221**

**Time and days of course**

**T & TH - 6:00 PM – 8:50 PM**

**Instructor:** Karen Kupsa  
**Email:** kskupsa@com.edu  
**Phone:** 409-933-8494

**Student hours and location:**

Office Room 207-12

Office Hours: MON/WED 7:00 AM to 9:00 AM

T/TH 7:00 AM to 8 AM

5:15 PM to 6:00 PM

**Required Textbook:**

Process Operations NAPTA ISBN-13: 978-0-13-641991-4

Operations Lab Manual Exercises by COM PTEC

Operations Course Handouts by COM PTEC

Desert Survival Situation Booklet

Thumb or Flash Drive

**Course Description:**

Process Technology III – Operations 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 typically taken in the 4th semester of the PTEC program.

The course uses existing knowledge presented the PTAC 1410 – Equipment, PTAC 2420 – Systems, and PTAC 1432 – Instrumentation courses to bring together and understand the operation of an entire processing unit. Students study concepts related to commissioning, normal startup, normal operations, normal shutdown, turnarounds, and abnormal situations, as well as

the process technician's role in performing the tasks associated with these concepts within an operating unit. The Envision Simulator will be utilized extensively.

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

All 4 tests will be done in the classroom.

All labs will be done on your computers.

The procedure homework assignment must be typed.

**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.

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

**Grading Scale:**

500 - 450	= A
449 - 400	= B
399 - 350	= C
349 - 300	= D
Below 300	= F

Four Tests	330
Four Homework Assignments	80
Five Lab Exercises	90
TOTAL	500

Test 1	115
Test 2	35
Test 3	60
Test 4	120

Homework 1	10	Math
Homework 2	20	Procedure
Homework 3	20	LOTO
Homework 4	30	CYK – Checking Your Knowledge

Lab 1	10	Model 6
Lab 2	20	Model 8
Lab 3	20	Model 9
Lab 4	20	Model 10
Lab 5	20	Model 3

**NOTE:** Failure to turn in assigned homework assignments and labs, or to make a credible attempt will have the homework and lab grade entered as negative twice the homework and value. (e.g., if the homework and are worth 10 points it will be entered as a -20). Homework and labs are due at the beginning of class. Late homework and labs will not be accepted.

**Make-Up Policy:** Tests not taken on the scheduled day (unless previously agreed to by the instructor) must be made up in 5 school days. **The test will receive no higher than 90% of the actual grade.**

**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. Many hands-on and group activities take place in the classroom. Attendance is taken each class period. **If you miss class and any activities that are graded, you will get a zero and no makeup is allowed.**

If you find that you are going to miss a scheduled class for any reason, please notify your professor by e-mail, as soon as possible. Contacting fellow classmates is highly encouraged to get details on missed assignments.

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. **Whatever we cover will not be repeated.**

**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 Competencies</b>	<b>Assessed via this Assignment</b>
1. Operate various process systems	Critical Thinking	Distillation Test
2. Write and follow safety and operational procedures	Communication - writing	LOTO assignment, procedure assignment
3. Collect and use data for determination of process specifications	Empirical and Quantitative skills	Lab exercises
4. Work in self-directed teams	Teamwork	Distillation Jeopardy, Survival, Egg Exercise

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**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 appropriate discipline action.

**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 appropriate discipline action.

**Electronic Devices:** All electronic devices (e.g., cell phones, pagers, cameras, ipads, ipods, tape recorders, laptop computers and other devices) shall not be used in the classroom. This policy takes effect immediately as the student enters the classroom and remains in effect until the class session has been concluded for the day. An initial violation of this policy by the student during the semester will result in five points being deducted from the student’s final semester grade. A second violation by the student will result in another five points being deducted from the student’s final grade. Subsequent violations will result in **all** students in the class losing 1% for each subsequent occurrence. Students using such devices during an exam will be expelled from the class and will receive an immediate “F” for the course. Hand-held calculators may only be used during an exam; no other electronic devices may be used.

**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 of Industrial Technology, Derrick Lewis at 409-933-8607 or email [dlewis22@com.edu](mailto:dlewis22@com.edu).

**Course outline:** Operations – Spring 2024 T/TH General Schedule

Week#	Day/Date	Topic	Reading Assignments & Homework Due Dates
1	1-T 1/16/24	Intro, Syllabus, Expectations, Explain Grading %'s, and Run, Hide, Fight	Read Chapter 1 <b>Complete your CYK.</b>

	2-TH 1/18/24	Review of basic chemistry and Physics Discuss Chapter 1 and CYK Discuss Math Problems	HW 1 Math Problems ( <b>10 points</b> ) <b>(Due 2/2/23)</b>
2	3-T 1/23/24	Simulators Complete Lab 1 (Model 6)	Complete Lab 1 (Model 6) ( <b>10 points</b> ) <b>(Due 1/23/24)</b>
	4-TH 1/25/24	P&ID's I	Complete Lab 2 (Model 8) ( <b>20 points</b> ) <b>(due 2/13/24)</b>
3	5-T 1/30/24	<b>General Lab</b>	Read Chapter 3 <b>Complete your CYK</b>
	6-TH 2/1/24	P&ID's 2 Discuss Chapter 3 and CYK <b>HW 1 Math Problems due</b>	<b>HW 1 Math Problems due</b>
4	7-T 2/6/24	Timtene Unit Intro	Read Chapter 9 <b>Complete your CYK</b>
	8-TH 2/8/24	Timtene Unit Utilities Discuss Chapter 9 and CYK	
5	9-T 2/13/24	Timtene Unit <b>Lab 2 (Model 8) due</b>	Read Chapter 13 <b>Complete your CYK.</b> <b>Lab 2 (Model 8) due</b>
	10-TH 2/15/24	Discuss Chapter 13 and CYK PSM Handout	Complete Labs 3 & 4 (Models 9 & 10) ( <b>20 &amp; 20 points</b> ) <b>(due 3/19/24)</b>
6	11-T 2/20/24	Survival Questions	
	12-TH 2/22/24	<b>General Lab</b>	
7	13-T 2/27/24	Exam 1 ( <b>115 points</b> )	Read Chapter 15 <b>Complete your CYK</b>
	14-TH 2/29/24	Emergencies Discuss Chapter 15 and CYK	Read Chapter 7 <b>Complete your CYK.</b>
8	15-T 3/5/24	Procedures Discuss Chapter 7 CYK	HW 2 Procedure ( <b>20 points</b> ) <b>(due 3/30/23)</b> Read Chapter 8 <b>Complete your CYK</b>
	16-TH 3/7/24	Shift Change and Relief Discuss Chapter 8 CYK	
	3/11/24- 3/15/24	<b>Spring Break – College Closed</b>	Read Chapter 6 <b>Complete your CYK</b>
9	17-T 3/19/24	Communications/Echo Communications Discuss Chapter 6 CYK <b>Labs 3 &amp; 4 (Models 9 &amp; 10) due</b>	Read Chapter 4 <b>Complete your CYK.</b> <b>Labs 3 &amp; 4 (Models 9 &amp; 10) due</b>
	18-TH 3/21/24	Exam 2 - PSM Test ( <b>25 points</b> ) SHE Discuss Chapter 4 and CYK <b>HW 2 Procedure due</b>	Read Chapter 5 <b>Complete your CYK.</b> Complete Lab 5 (Model 3) ( <b>20 points</b> ) <b>(due 4/11/24)</b> <b>HW 2 Procedure due</b>

10	19-T 3/26/24	LOTO Discuss Chapter 5 and CYK	HW 3 LOTO (20 points) (due 4/9/24)
	20-TH 3/28/24	Film Diagnosis	
11	21-T 4/2/24	Eggs	
	22-TH 4/4/24	General Lab	Read Chapter 14 Complete your CYK
12	23-T 4/9/24	Maintenance Discuss Chapter 14 and CYK HW 3 LOTO due	Read Chapters 16 Complete your CYK. HW 3 LOTO due
	24-TH 4/11/24	Unit Shutdown Discuss Chapter 16 and CYK SIMS Example	Read Chapters 10 & 11 Complete your CYK. Lab 5 (Model 3) due
13	25-T 4/16/24	Unit Commissioning Unit Startup Discuss Chapters 10 & 11 and CYK	Read Chapter 12 Complete your CYK
	26-TH 4/18/24	Distillation / Boiling Points Operations Discuss Chapter 12 and CYK	
14	27-T 4/23/24	Jeopardy	
	28-TH 4/25/24	Unit Status Questions	
15	29-T 4/30/24	Exam 3 - Envision Simulator test (50 points)	
	30-TH 5/2/24	Questions	
16	31-T 5/7/24	Exam 4 (120 points)	
	32-TH 5/9/24	General Lab	

\*Schedule is subject to change at the discretion of the instructor(s).

### **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 with 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 February 28. The last date to withdraw from the 16-week session is April 22. The last date to withdraw for the 2<sup>nd</sup> 8-week session is May 1. The last date to withdraw for spring mini session is May 29.

**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).

