



**Course Number and Section (PTAC-2438-212CL)**

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

**Course Semester (Summer 2022)**

**Room TVB 1150**

**Time and days of course  
T & TH - 5:00 PM - 9:50 PM**

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

**Student hours and location:**

Office Room 1583D

Office Hours: Monday	7:00 AM to 8:00 AM
T/TH	4:30 PM to 5:00 PM
Wednesday	7:00 AM to 8:00 AM

**Required Textbook and Supplies:**

Process Operations NAPTA ISBN-13: 978-0-13-641991-4  
Operations Lab Manual Exercises by COM PTEC  
Operations Course Handouts by COM PTEC  
Bring Your "A" Game to Work, Workbook  
Desert Survival Situation Booklet  
Flash or Thumb 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 5 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:**

550 - 500	= A
499 - 450	= B
449 - 400	= C
399 - 350	= D
Below 350	= F

Five Tests	345
Four Homework Assignments	65
Five Lab Exercises	90
BYAG	50
TOTAL	550

Test 1	115
Test 2	25
Test 3	35
Test 4	50
Test 5	120

Homework 1	10	Math
Homework 2	20	Procedure
Homework 3	20	LOTO
Homework 4	15	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

BYAG	10	Chapter 1
BYAG	10	Chapter 2
BYAG	10	Chapter 4
BYAG	10	Chapter 5
BYAG	10	Chapter 6

**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 make ups are 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. Making contact with 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)

Student Learner Outcome	Maps to Core Competencies	Assessed via this Assignment
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 the 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 the 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 only may 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 – Summer 2022 T/TH General Schedule

Week#	Day/Date	Topic	Reading Assignments & Homework Due Dates
1	1-T 6/07/22	1st Day of Class: Intro + Syllabus + Expectations + BYAG + Explain Grading %'s Bring your flash drive on Wednesday	Read Chapter 1 <b>Complete your CYK</b> Read Chapter 1 (BYAG) <b>(due 6/16/22)</b>

			Complete pages 1,10,14 and 15 in your (BYAG) workbook <b>(10 points)</b> <b>(due 6/16/22)</b>
	2-TH 6/9/22	Review of Chemistry & Physics HW 1 Math Problems Discuss Chapter 1 and CYK Complete Lab 6 in class.	Read Chapter 3 <b>Complete your CYK</b> HW 1 Math Problems <b>(12 points)</b> <b>(due 6/21/22)</b> Complete Lab 1 (Model 6) <b>(10 points)</b> <b>(due 6/9/22)</b>
2	3-T 6/14/22	Discuss Chapter 3 and CYK Discuss P&ID's I & 2	
	4-TH 6/16/22	Timtene Unit – Intro <b>Turn in BYAG pages 1,10,14, 15.</b>	Read Chapter 9 <b>Complete your CYK</b> Read Chapter 2 (BYAG) <b>(due 6/28/22)</b> Complete pages 4, 23, 27, 29 in your (BYAG) workbook <b>(10 points)</b> <b>(due 6/28/22)</b> <b>Pages 1,10,14 and 15 in your (BYAG) workbook</b>
3	5-T 6/21/22	Discuss Chapter 9 and CYK Timtene Unit – Utilities <b>Turn in HW 1 Math problems</b>	Read Chapter 13 <b>Complete your CYK</b> <b>HW 1 Math problems due</b>
	6-TH 6/23/22	Discuss Chapter 13 and CYK Sampling  Timtene Unit Lab 2 Questions	Complete Lab 2 (Model 8) <b>(20 points)</b> <b>(due 7/12/22)</b>
4	7-T 6/28/22	<b>Exam 1 – 118 points</b> <b>Turn in BYAG pages 4, 23, 27, 29.</b>	Read Chapters 6 & 8 <b>Complete your CYK</b> Read Chapter 4 (BYAG) <b>(due 7/7/22)</b> Complete pages 6, 40, 41, 44 in your (BYAG) workbook <b>(10 points)</b> <b>(due 7/7/22)</b> <b>Pages 4, 23, 27, and 29 in your (BYAG) workbook</b>
	8-TH 6/30/22	Discuss Chapters 6 & 8 and CYK Communications - Echo Shift Change	
5	9-T 7/5/22	<b>General Lab Day</b>	Read Chapter 7 <b>Complete your CYK</b>
	10-TH 7/7/22	Discuss Chapter 7 and CYK Procedures HW 2 – Procedures Labs 3 & 4 Hand out PSM Material <b>Turn in BYAG pages 6, 40, 41, 44.</b>	Read Chapters 4 & 5 <b>Complete your CYK</b> Read Chapter 5 (BYAG) <b>(due 7/19/22)</b> Complete pages 9, 61, 63, 66 in your (BYAG) workbook <b>(10 points)</b> <b>(due 7/19/22)</b>

			HW 2 Procedures <b>(20 points)</b> <b>(due 7/20/22)</b> Complete Labs 3 & 4 (Models 9 & 10) <b>(20 points each)</b> <b>(due 7/19/22)</b> <b>Turn in BYAG pages 6, 40, 41, 44</b>
6	11-T 7/12/22	Discuss Chapters 4 & 5 and CYK SHE LOTO HW 2 - LOTO <b>Lab 2 (Model 8) due</b>	Read Chapter 15 <b>Complete your CYK</b> HW 3 LOTO <b>(20 points)</b> <b>(due 7/18/22)</b> <b>Lab 2 (Model 8) due</b>
	12-TH 7/14/22	<b>Exam 2-PSM Test – 25 points</b> Discuss Chapter 15 and CYK Emergencies Film Diagnosis Lab 5 – Go Over Sims Test	Read Chapters 14 & 16 <b>Complete your CYK</b> Complete Lab 5 (Model 3) <b>(20 points)</b> <b>(due 7/26/22)</b>
7	13-T 7/19/22	Discuss Chapters 14 & 16 and CYK Distillation Maintenance Unit Shutdown <b>Labs 3 &amp; 4 (Models 9 &amp; 10) due</b> <b>HW 2 LOTO due</b> <b>Turn in BYAG pages 9, 61, 63, 66.</b>	Read Chapters 10 & 11 <b>Complete your CYK</b> Read Chapter 6 (BYAG) <b>(due 7/28/22)</b> Complete pages 7, 48, 51, 52 in your (BYAG) workbook <b>(10 points)</b> <b>(due 7/28/22)</b> <b>Labs 3 &amp; 4 (Models 9 &amp; 10) due</b> <b>HW 2 LOTO due</b> <b>Turn in BYAG pages 9, 61, 63, 66.</b>
	14-TH 7/21/22	Discuss Chapters 10 & 11 and CYK Unit Commissioning Unit Startup <b>HW 3 Procedure due</b>	Read Chapter 12 <b>Complete your CYK</b> <b>HW 3 Procedure due</b>
8	15-T 7/26/22	Discuss Chapter 12 and CYK <b>Lab 5 (Model 3) due</b>	<b>Lab 2 (Model 8) due</b>
	16-TH 7/28/22	<b>Exam 3 BYAG – 25 points</b> <b>Turn in BYAG pages 7, 48, 51, 52.</b>	<b>Turn in BYAG pages 7, 48, 51, 52.</b>
9	17-T 8/2/22	<b>Exam 4 – Envision Simulator Test - 50 points</b> Questions	
	18-TH 8/4/22	<b>Exam 5 – 120 points</b>	
10	19-T 8/9/22	<b>Project</b>	
	20-TH 8/11/22	General Lab	

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

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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 Holly Bankston at 409-933-8520 or [hbankston@com.edu](mailto: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](mailto:hbankston@com.edu). Counseling services are available on campus in the student center for free and students can also email [counseling@com.edu](mailto:counseling@com.edu) to set up their appointment. Appointments are strongly encouraged; however, some concerns may be addressed on a walk-in basis.

**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 for the 10-week session is August 1.

**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).