



Course Number and Section (PTAC 2346-201CL)
Name of Course (Process Troubleshooting)
Course Semester (Spring 2024)
Mon/Wednesday 1800-2100
Room ICB 221

Instructor Information: Tom Forester, Instructor
tforester2@com.edu
409-933-8159 Office # 207-9 in ICB

Student hours and location: Monday/ Wednesday 4-6 pm, Tuesday/Thursday 7am – 8am pm +
by appointment

Required Textbook/Materials Troubleshooting for Process Technicians
Author: Kukuk
ISBN: 2818560049296

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: This course provides instruction in the different types of troubleshooting techniques, procedures, and methods used to solve process problems. Topics include application of data collection and analysis, cause-effect relationships, and reasoning. Students will explain steps in troubleshooting models; demonstrate use of troubleshooting tools; and apply troubleshooting techniques to process problems using combination of in class group assignments, homework and hands-on simulator and lab activities. Prerequisite: PTAC 2420

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

Determination of Course Grade/Detailed Grading Formula:

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

Six Quizzes	20%	A = 90-100%
Two Exams	50 %	B = 80 – 89 %
Homework Assignments	10%	C = 70 – 79 %
Attendance	10%	D= 60 – 69 %
Unit Drawing	10 %	F = less than 60 %
*Total	100%	

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. The expectation is that the student will attend and participate in normal class related activities and extra credit will be unnecessary.

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. No show/no call will receive zero credit for that class session attendance

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)

Student Learner Outcome			Maps to Core Objective	Assessed via this Assignment
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		

Academic Dishonesty: Students are required to do their own work. If an instance of academic dishonesty or “cheating” is observed on tests, the test will be confiscated and a zero will be the grade entered for that student. No exceptions.

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** at dlewis22@com.edu

Course outline:

Week #	Dates	Topic	Assignment	Due Date
Week # 1	Jan 15 <i>MLK holiday</i>	Syllabus and expectations	Review Syllabus	1/17
Week # 2	Jan 22	Review course objectives, expectations and syllabus; Chapter 1 Basic Process Troubleshooting Tank Simulator activity	Review Syllabus Read Chapter 1 Review Chapter 1 Slide Pack Lesson 1.2 Homework #1 Chapter 1 Quiz	1/22 Quiz
Week # 3	Jan 29	Chapter 2 Decanter System	Read Chapter 2 and Review Slide Pack Lesson 2.2 Homework #2 Chapter 2 Quiz Exercise 2.2 & 2.3 Homework #3 & #4	1/29 Quiz 1/31 Homework
Week # 4	Feb 5	Complete Chapter 3 Reactor System	Read Chapter 3 and Review Slide Pack Lesson 3.2 Homework #5 Chapter 3 Quiz Exercise 3.2 and 3.3 Homework #6	2/5 Quiz 2/7 Homework
Week # 5	Feb 12	Chapter 3 Reactor System and Simulator Activities	Reactor Simulator Drawing & Activity #2 Exchanger Simulator Drawing & Activity #3 Furnace Simulator Drawing & Activity #4 Compressor Simulator Drawing & Activity #5	2/12 + 14

Week # 6	Feb 19	Chapter 4 Steam Generation System	Read Chapter 4 and Review Slide Pack Lesson 4.2 Homework #7 Chapter 4 Quiz Exercise 4.2 Homework #8	2/19 Quiz 2/21 Homework
Week # 7	Feb 26	Review Chapters 1 – 4	Steam Generation Simulator Drawing & Activity #6 Chapters 1 – 4 Mid Term Exam	2/28 Mid term exam
Week # 8	Mar 4	Chapter 5 Distillation	Read Chapter 5 and Review Slide Pack Lesson 5.2 Homework #9 Chapter 5 Quiz Distillation Worksheet HW #10 Distillation Simulator Drawing and Activity #7	3/6 Quiz 3/6 Homework
Week # 9	Mar 11	Spring break		
Week # 10	Mar 18	Continue Chapter 5	Exercise 5.1 Homework #11 Lab Activity	3/18 Homework
Week # 11	Mar 25	Continue Chapter 5	Advanced Distillation Simulator Drawing and Activity #8	
Week # 12	Apr 1	Complete Chapter 5	Exercise 5.2 Homework #12 Atmospheric Crude Distillation Simulator Drawing and Activity #9	4/1 Homework
Week # 13	Apr 8	Simulator Models Troubleshooting Scenarios	TBD	
Week # 14	Apr 15	Chapter 6 Absorption and Stripping System	Read Chapter 6 and Review Slide Pack	4/15 Quiz 4/17 homework

			Lesson 6.2 Homework #13 Chapter 6 Quiz Exercise 6.2 Homework #14	
Week # 15	Apr 22	Various Simulator Activities , review for final exam	Simulator models	
Week # 16	Apr 29	Final Exam chap 5 + 6 , Capstone drawing		4/29 Exam 5/1 Capstone drawing from memory

Schedule can be changed per Instructors discretion

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. *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. 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 1st 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 2nd 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 or communityresources@com.edu.