



Course Number and Section (PTAC-2346-211CL)
Name of Course (Process Troubleshooting)
Course Semester (Spring 2022)
Room TVB – 1552

Monday and Wednesday from 6:00 – 8:20 PM

Instructor: Dennis Link
dlink@com.edu

Mobile: 409-948-9538

Communicating with your instructor: All electronic communication with the instructor must be through your COM email. Due to Family Educational Rights and Privacy Act (FERPA) restrictions, faculty cannot share any information about performance in the class through other electronic means.

Student Hours and Location: Available from 5:00 – 6:00 PM and 8:20 to 9:00 PM on Monday and Wednesday throughout semester. Also available by email, text or phone call as requested throughout semester.

Required Textbook:

Troubleshooting for Process Technicians
Author: Kukuk
ISBN: 2818560049296

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.

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

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 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.

Student Learner Outcomes:

On successful completion of this course students will be able to:

1. Collect data and identify techniques for troubleshooting.
2. Utilize applicable troubleshooting methods to solve process problems.
3. Diagnose malfunction or abnormality associated with process problems.
4. Remedy equipment/process malfunction associated with plant problems.

General Education Core Objectives: Students successfully completing this course will demonstrate competency in the following Core Objectives:

1. Reading: Ability to analyze & interpret a variety of language based & media materials
2. Writing: Competency is the ability to produce clear, correct, & coherent prose adapted to purpose, occasion & audience
3. Speaking: Competency is the ability to communicate orally in clear, coherent & persuasive language adapted to purpose
4. Listening: At the college level is the ability to analyze & interpret various forms of auditory expression
5. Critical Thinking: Embraces methods for applying qualitative skills analytically to subject matter in order to evaluate arguments & to construct alternate strategies
Creativity: Means novel product, activity or interaction demonstrating originality &/or flexibility
6. Computer Literacy: is the ability to use & apply technology in communicating, problem solving, acquiring & processing information
7. Mathematical Literacy: Ability to apply mathematical tools including technology to develop, solve, & interpret mathematical models
8. Cultural Competence: Ability to develop & demonstrate awareness, knowledge, attitudes, & skills necessary to interact in a diverse & globally interdependent world

Student Learner Outcome	Maps to Core Competencies	Assessed via this Assignment
Collect data and identify techniques for troubleshooting	Communication	Reading comprehension assessed via testing
Utilize applicable troubleshooting methods to solve process problems	Critical Thinking	Word Problems during class, on homework and on tests
Work in self-directed teams	Teamwork	Interacting with classmates during online meetings to troubleshoot and solve process problems

Attendance Policy:

It is difficult to learn all the concepts simply by reading the course textbook. Class participation during class discussions is strongly encouraged to help ensure your overall success with this course. Makeup work is the responsibility of the student and making contact with fellow classmates is highly encouraged to get details on missed assignments and class discussions.

Withdrawal Policy:

Students may withdraw from this course for any reason prior to the last day for a “W” grade. Before withdrawing students should speak with the instructor and consult an advisor. Students are only permitted to withdraw six times during their college career by State law. The last day to withdraw for this class is April 25, 2022.

Early Alert Program: The Student Success Center at College of the Mainland has implemented an Early Warning 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 Warning 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.

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 quizzes or exams is an extremely serious offense and will result in a **grade of zero** on that quiz or exam and the student will be referred to the Office of Student Conduct for the appropriate disciplinary action.

Student Concerns: If you have any questions or concerns about any aspect of this course or if extenuating circumstances arise causing you to miss class, please contact instructor using the contact information previously provided. If, after discussing your concern with instructor, you continue to have questions, please contact Process Technology Department Chair, Derrick Lewis, at dlewis22@com.edu or 409-933-8607.

Course 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 online Student Handbook <http://www.com.edu/student-services/student-handbook.php>. 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 and may result in dismissal from this class.

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. 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 career. 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. For Spring 2021, disability services may be offered virtually. <http://www.com.edu/student-services/counseling.php>

Counseling Statement: Any student that is needing counseling services is requested to please contact Kelly Waters in the student success center at 409-933-8618 or kwaters@com.edu. Counseling services are available on campus in the student center for free and students can also email counseling@com.edu to setup their appointment. Appointments are strongly encouraged; however, some concerns may be addressed on a virtual basis.

Occupational License Eligibility; IMPORTANT: Eligibility for an occupational license may be impacted by one's criminal history. Students with a criminal history should confer with faculty or the department chairperson. Students have a right to request a criminal history evaluation letter from the applicable licensing agency.

Course information available through content section of Blackboard throughout semester:

1. Course syllabus and support documents
2. Chapter slide packs
3. All quizzes and exams for designated timeframes based on due dates.
4. Current grades

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

1. Each student will be assigned to lead one Safety-related discussion at beginning of the class.
2. A short quiz will be available in Blackboard at the beginning of each chapter covering first one or two sections of the chapter.
3. All quizzes will be completed online through Blackboard and in classroom.
4. Exams will be completed in Blackboard and in classroom.
5. Each of the five exams will include a required drawing covering the applicable Chapter.

Make-Up Policy: No make-up quizzes or exams are allowed. A grade of zero will be given for any quiz or test not completed by the deadline unless special arrangements are made with instructor **BEFORE** scheduled due date of quiz or test.

Determination of Course Grade/Detailed Grading Formula (methods of evaluation to be employed to include a variety of means to evaluate student performance):

Grading Scale:

90-100%	= A
80-89%	= B
70-79%	= C
60-69%	= D
0-59%	= F

Grading Components:

Six Quizzes:	15% or 150 points
Five Exams:	60% or 600 points
Five Chapter Drawings:	15% or 150 points
Fifteen Homework Assignments:	10% or 100 points
Total:	100% or 1000 points

Homework Grade: Homework is the key part of student's success in this course with each student starting the semester with 100 points. Students will **lose 10 points** of their homework grade each time they do not turn in a completed homework assignment by due date. Preferred methods to send in homework assignments are face to face in class or through my com email at dlink@com.edu.

Bonus Points Added to Homework Grade:

Completing all 15 Homework Assignments by due date and attending all class meetings throughout semester: **30 Bonus Points added at end of semester**

Success Tips for Students:

1. Active, regular participation in classes strongly encouraged.
2. Completion of all homework assignments, quizzes and exams prior to due date.
3. Practice Chapter drawings prior to exams.
4. Utilize simulator and lab activities to enhance troubleshooting skills.
5. Thorough review of applicable objectives, notes, slides, lessons and exercises prior to quizzes and exams.

Course outline 16 Week Calendar January 19 – May 9, 2021*

Week #	Dates	Topic	Assignments	Due Date
1	Week of January 17	Review course objectives, expectations and syllabus; Chapter 1 Basic Process Troubleshooting	Review Syllabus Read Chapter 1 Review Chapter 1 Slide Pack Chapter 1 Quiz	1/19
2	Week of January 24	Complete Chapter 1	Lesson 1.2 Homework #1 Simulator Tank Activity Chapter 1 Quiz	1/24
3	Week of January 31	Chapter 2 Decanter System	Read Chapter 2 and Review Slide Pack Lesson 2.2 Homework #2 Chapter 2 Quiz	1/31
4	Week of February 7	Complete Chapter 2	Exercise 2.2 & 2.3 Homework #3 & 4 Chapter 1 & 2 Exam	2/9
5	Week of February 14	Chapter 3 Reactor System	Read Chapter 3 and Review Slide Pack Lesson 3.2 Homework #5 Chapter 3 Quiz	2/14
6	Week of February 21	Complete Chapter 3	Exercise 3.2 Homework #6 Reactor Simulator Activity Chapter 3 Exam	2/23
7	Week of February 28	Chapter 4 Steam Generation System	Read Chapter 4 and Review Slide Pack Lesson 4.2 Homework #7 Chapter 4 Quiz	2/28
8	Week of March 7	Complete Chapter 4	Exercise 4.2 Homework #8 Steam Generator Simulator Chapter 4 Exam	3/9
	March 14 and 16	Spring Break		
9	Week of March 21	Chapter 5 Distillation	Read Chapter 5 and Review Slide Pack Lesson 5.2 Homework #9 Distillation Worksheet HW #10 Chapter 5 Quiz	3/21
10	Week of March 28	Continue Chapter 5	Exercise 5.1 Homework #11 Glass Distillation Column Activity	3/30
11	Week of April 4	Complete Chapter 5	Exercise 5.2 Homework #12 Distillation Simulator Activity Chapter 5 Exam	4/6
12	Week of April 11	Chapter 6 Absorption and Stripping System	Read Chapter 6 and Review Slide Pack Lesson 6.2 Homework #13 Chapter 6 Quiz	4/11
13	Week of April 18	Continue Chapter 6	Exercise 6.2 Homework #14	4/20
14	Week of April 25	Continue Chapter 6	Exercise 6.3 Homework #15	4/27
15	Week of May 2	Continue Chapter 6	Absorption and Stripping Simulator	5/4
16	Week of May 9	Complete Chapter 6	Chapter 6 Exam	5/9

*Schedule is subject to change at discretion of instructor.