College of the Mainland

Course Number and Section (PTAC-1332-221CL)
Process Instrumentation
Summer 2025
Tues/Thur 6:00PM to 9:00 PM

Instructor Information: Angela Magee, amagee1@com.edu, 281-636-4332

Student hours and location: Monday/Wednesday 5:30PM ICB Room 204 and by appointment

Required Textbook/Materials: Instrumentation ISBN: 9780137004133

Course Description: This course is the study of instruments and instrument systems used in chemical processing industry, including terminology, primary variables, symbology, control loops, and basic troubleshooting. Students will identify and explain the function of instruments used in the chemical processing industry; explain the relationship of process control elements in a control loop; and define and apply terms and symbols used in instrumentation. Prerequisite: PTAC 1302, MATH 0310.

Course requirements:

Determination of Course Grade/Detailed Grading Formula:

90-100	A
80-89	B
70-79	C
69-0	F

Grading Policy

The student will be evaluated using the criteria listed below. All tests will be given during normal class time. You will not be allowed to collaborate with your classmates on the tests.

Chapter Assignments	30%
Chapter Exams (4-6)	40%
Final Exam—2 parts Written Part 70% P&ID Work 30%	30%

Throughout the semester there may be options for extra credit. Extra Credit is given only as a class option. Individual extra credit in an attempt to raise your grade is not given. The best way to ensure success in this class is to do your homework!

Late Work, Make-Up, and Extra-Credit Policy:
Make-up Exams are NOT given. In the event a student misses a scheduled exam, the written portion of the final exam will be used in lieu of the missing test grade.   For example, if a student misses test 2, the test will not be given as a makeup. When the student takes the final exam written portion, that grade will be factored in for test 2 makeup exam. If the student makes an 85 on the final written portion of the class, he will also make an 85 on test 2.

There is NO make-up of quizzes, labs, reports or homework after the designated Homework close date. Those that are missed will receive a 0.00 grade.

D2L BrightSpace

This class utilizes D2L BrightSpace for all assignment submissions unless otherwise instructed. All assignments are submitted and graded through D2L BrightSpace. All assignments have a designated due date in D2L BrightSpace. You may submit any assignment as long as the D2L BrightSpace submission window is available. Once the D2L BrightSpace submission window is removed, *NO ADDITIONAL HOMEWORK WILL BE ACCEPTED!*

Manual homework submissions will NOT be accepted. If they don't go through D2L BrightSpace, they don't get graded. Don't wait until the last minute to try and submit your homework! D2L BrightSpace does have technical issues and scheduled maintenance work from time to time!

All homework submissions must be attached as a file in D2L BrightSpace for grading. No picture submissions are allowed unless specifically noted by the instructor. COM has computer labs that you can use to prepare and submit your work in D2L BrightSpace.

All written assignments will be submitted through Safe Assign in D2L BrightSpace to check for plagiarism. If the Safe Assign check is higher than 50% without documented resources, the assignment will be given a zero with no option to resubmit.

Your student grade to date is always visible in D2L BrightSpace. This grade is a running total and is usually up to date after each test is posted. In addition, the number of absences you have missed is also available for your viewing.

Lectures and test reviews are posted in D2L BrightSpace directly following each class. It is the responsibility of the student to review D2L BrightSpace in a timely fashion to print out study materials as needed.

In addition, D2L BrightSpace is used as a tool to convey messages to students throughout the semester. Please check it as frequently as possible.

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.

Absence Chart

16 Week Classes		
Sections who meet:	1 Class Day per Week	2 class Days per Week
Early warning	Second class day missed	Third class day missed
PTEC warning	Third class day missed	Fifth class day missed
Instructor Drop Eligible	Forth class day missed	Sixth class day missed

10 Week Classes		
Sections who meet:	1 Class Day per Week	2 class Days per Week
Early warning	First class day missed	Second class day missed
PTEC warning	Second class day missed	Third class day missed
Instructor Drop Eligible	Third class day missed	Fourth class day missed

Attendance data will be provided to future employers at their request.

If you decide to drop the class, DO NOT RELY ON THE INSTRUCTOR TO DROP YOU AT THE 6TH CLASS DAY MISSED

If you know you are no longer going to come to class, it is the responsibility of the student to drop the class. Failure to do so may result in you receiving a grade of "F" in the class.

If you find that you are going to miss a scheduled class for any reason, please notify your professor, or leave a voice message/text or e-mail, as soon as possible. Makeup work is the responsibility of the student and making contact with fellow classmates is highly encouraged to get details on missed assignments. Leaving the class early (before being released by the Instructor) may result in an absence.

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.

Student Learner Outcome	Maps to Core Objective	Assessed via this Assignment
1. Explain the function of the various instruments used in the process industry	Reading, Critical Thinking, Computer literacy	Lab exercises, presentation
2. Diagram the process control elements in a control loop	Reading, Critical Thinking, Computer literacy, creativity	Lab exercises, presentation
Utilize terms and symbols in instrumentation; and interpret process flow diagram and piping and instrumentation drawing	Reading, Critical Thinking, Computer literacy, creativity	Lab exercises, presentation

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.

Classroom 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 on-line 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.

No student has the right to disrupt the learning process of other students. Students found to be disruptive by the instructor will be expelled from class. **Multiple disruptions may result in expulsion from the course, with the grade of an "F" for the class.**

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.

All written assignments will be submitted through Safe Assign in D2L BrightSpace to check for plagiarism. If the Safe Assign check is higher than 50% without documented resources, the assignment will be given a zero with no option to resubmit.

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 Process Technology Department Head

Course outline:

Refer to initial class presentation for exact outline. We will cover all chapters in the Instrumentation Textbook. Tests and semester guidelines are covered in that document. This preliminary outline is subject to change.

Week	Text Covered
1	Chapter 1 & 2 Homework CH 2—3 assignments
2	Chapter 3 & 4 Homework CH 3—4 assignments Homework CH 4 –2 assignments
3	Test 1 & Chapter 5 Homework CH 5 –2 assignments
4	Chapter 6 & Chapter 7 Homework CH 7 –1 assignment
5	Test 2 & Chapters 8-9 Homework CH 8-9—3 assignments
6	Chapter 8-10 and Chapter 11 Homework CH8-10—3 assignments Homework CH 11—3 assignments
7	Test 3 and Chapter 12

	Homework CH 12—P&ID Project
8	Spring Break
9	Chapter 16-17
10	Chapter 18 and 15
11	Chapter 14 and Test 4
12	Chapter 19-21
13	Project Work Week Swiss Cheese Model P&ID Work
14	Chapter 22,24 & 13
15	Test 5 & Chapter 23
16	Final Exam Review and Final Exam

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.

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 5-week session is July 1. The last date to withdraw from the 10-week session is July 30. The last date to withdraw for the 2nd 5-week session is August 2.

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.

Nondiscrimination Statement:
The College District prohibits discrimination, including harassment, against any individual on the basis of race, color, religion, national origin, age, veteran status, disability, sex, sexual orientation, gender (including gender identity and gender expression), or any other basis prohibited by law. Retaliation against anyone involved in the complaint process is a violation of College District policy.