



PTAC 1308-101CL
Safety, Health, and Environment 1
Summer 2022
Mondays 8:00am to 11:15am
Wednesdays 8:00am to 11:15am

Instructor Information: Jimm B. Cooper, CSP, BSc, LP (ret.)

Student hours and location: Mondays & Wednesdays, 8:00am to 11:15am, Technical-Vocation Building #5 Rm 1567A

Required Textbook/Materials: **Safety, Health, and Environment – 2nd Edition**
Prentice Hall (Publisher)
Center for the Advancement of Process Technology (CAPT)

Course Description: This course covers the development of knowledge and skills to reinforce the attitudes and behaviors required for safe and environmentally sound work habits. Emphasis is placed on safety, health, and environmental issues in the performance of all job tasks and regulatory compliance issues. Students will list components of a typical plant safety and environmental program; describe the role of a process technician in relation to safety, health, and environment; and identify and describe safety, health, and environmental equipment uses. Prerequisite: TSI Math 342 or equivalent developmental course with a grade of "C" or better.

Course requirements: Determination of Course Grade/Detailed Grading Formula:

Chapter quizzes will be given for each chapter. These are open book, number of questions vary, and will be counted as part of the grade. You will have up to three (3) attempts for each chapter quiz. There are 24 quizzes, consisting of 370 total questions, for a total possible score of 480 points.

Section Examinations: These exams are given after every four (4) chapters of the text. There are six (6) section exams worth 100 points each. The section examinations will be taken in class, closed book.

Safety Data Sheet Analysis: A SDS Analysis of a topic selected by the student from list of topics provided in Blackboard under assignments. An example of a report is listed under this assignment's tab. The report is to be done in a business report format. **A cut and paste version of the SDS will not be accepted.**

Permitting Procedures Report: A Permitting Procedures Report will be an assessment of an incident of the student's choice. The PPR will explain how the incident could have been avoided or have reduced consequences if the permitting process had been followed.

Midterm Examination will cover chapters 1 through 12.

Final Exam will cover chapters 1 through 24 with emphasis on chapters 13 through 24.

Discussion Board: A discussion board will be available for students to earn extra points to make up for low Section Examination scores. The discussion board consists of five (5) questions that must be answered. This part is worth 25 points (5 points per answer). After completing the first part, a student must reply to other students' replies of the questions asked. Five (5) replies gain another 25 points.

Determination of Course Grade/Detailed Grading Formula:

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| Chapter Quiz / HW (24): | 370 @ 1.3 points each | 480 points |
| Section Examinations | 6 @ 100 points each | 600 points |
| Midterm Examination | 1 @ 125 points | 125 points |
| Safety Data Sheet Report | 1 @ 100 points | 100 points |
| Permitting Procedures Report | 1 @ 100 points | 100 points |
| Final Examination | 1 @ 200 points | <u>200 points</u> |
| TOTAL Points (exclusive of bonus points) | | 1490 points |
| Discussion Board (extra credit) | | 50 points |
| Lab Exercises / Attendance | | TBD |

Grading criteria:

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| 1490 to 1341 = A |
| 1340 to 1192 = B |
| 1191 to 1043 = C |
| 1041 to 894 = D |
| 893 to 000 = F |

Late Work, Make-Up, and Extra-Credit Policy:

Quizzes/Homework is expected to be completed by the due date which will be the day before the next class. Quizzes and Homework will not be accepted after the due date or the Section Examination for those Quizzes has been given.

Section Examinations are expected to be made up at the next class meeting date. The make-up will be given after the day's class has ended, NOT before class or during break.

Discussion Board: The Discussion Board is available and designed to provide extra credit to students. The DB is completely optional and is the only extra credit avenue offered.

Attendance Policy: Each student will be required to register his/her attendance in the class by signing the class roster. This class includes lab time and the attendance sheets will be used to record lab points based on the day's activities.

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 Objective | Assessed via this Assignment |
|-------------------------|------------------------------|------------------------------|
| 1. SLO #1 | Textbook, outside reading | Discussion by peers |
| 2. SLO #2 | Photos, Videos | Review by class |
| 3. SLO #3 | Scenarios, Investigations | Projects, Tabletop exercises |
| 4. SLO #4 | Scenarios, practice sessions | Projects, Tabletop Exercises |
| 5. SLO #5 | Review of OSHA Standards | Projects, Tabletop Exercises |

Academic Dishonesty: The Section Examinations, Midterm Examination, Final Examination and Reports are designed to be completed by each student individually. Proven collaboration will result in disciplinary actions that could include dismissal from the program.

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 [insert name and title of direct supervisor] at [phone number/email address].

Course outline:

| Week# | Dates | Reading Assignments | Quiz & Exam Due Dates |
|-------|--------------------------------|---|---|
| 1 | Monday June 6 | Chapter 1 Introduction to Safety, Health, & Environment Chapter 2 Types of Hazards and Their Effects | Quiz 1 due 6/12 Quiz 2 due 6/12 |
| | Wednesday June 8 Lab Day | Discussion Board (PSM) opens Chapter 3 Recognizing Chemical Hazards Chapter 4 Recognizing Biological Hazards | Quiz 3 due 6/12 Quiz 4 due 6/12 <u>Prepare for SE1</u> |
| 2 | Monday June 13 | Section Examination One Chapter 5 Equipment and Energy Hazards Chapter 6 Fire and Explosion Hazards | Quiz 5 due 6/19 Quiz 6 due 6/19 |

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| | Wednesday June 15 Lab Day | Chapter 7 Pressure, Radiation & Temperature Hazards Chapter 8 Hazardous Atmospheres and Respiratory Hazards | Quiz 7 due 6/19 Quiz 8 due 6/19 <u>Prepare for SE2</u> |
| 3 | Monday June 20 | <i>Section Examination Two</i> Chapter 9 Working Area and Height Hazards Chapter 10 Hearing and Noise Hazards | Quiz 9 due 6/26 Quiz 10 due 6/26 |
| | Wednesday June 22 Lab day | Chapter 11 Construction, Maintenance, and Tool Hazards Chapter 12 Vehicle and Transportation Hazards | Quiz 11 due 6/26 Quiz 12 due 6/26 <u>Prepare for SE3</u> |
| 4 | Monday June 27 | <i>Section Examination Three</i> Safety Data Sheet Report | Safety Data Sheet Report due 29 |
| | Wednesday June 29 Lab day | Safety Data Sheet report Due Review for midterm Make up day | Review for Midterm |
| 5 | Monday July 4 | School Holiday | Study for Midterm |
| | Wednesday July 5 NO Lab | Midterm Examination Chapters 1 – 12 | Relax |
| 6 | Monday July 11 | Review Midterm Exam Chapter 13 Natural Disasters and Inclement Weather Chapter 14 Physical Security and Cyber Security | Quiz 13 due 7/17 Quiz 14 due 7/17 |
| | Wednesday July 13 Lab day | Chapter 15 Recognizing Ergonomic Hazards Chapter 16 Recognizing Environmental Hazards | Quiz 15 due 7/17 Quiz 16 due 7/17 <u>Prepare for SE4</u> |
| 7 | Monday July 18 | <i>Section Examination Four</i> Chapter 17 Introduction to Hazard Controls Chapter 18 Engineering Controls: Alarms and Indicator Systems | Quiz 17 due 7/24 Quiz 18 due 7/24 |
| | Wednesday July 20 Lab day | Chapter 19 Engineering Controls: Process Containment and Process Upset Controls Chapter 20 Administrative Controls: Programs and Practices | Quiz 19 due 7/24 Quiz 20 due 7/24 <u>Prepare for SE5</u> |
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| 8 | Monday July 25 | Section Examination Five Chapter 21 Permitting Systems Chapter 22 Personal Protective Equipment and First Aid | Quiz 21 due 7/31 Quiz 22 due 7/31 |
| | Wednesday July 27 Lab Day | Chapter 23 Monitoring Equipment Chapter 24 Fire, Rescue, & Emergency Response Equipment | Quiz 23 due 7/31 Quiz 24 due 7/31 |
| 9 | Monday August 1 | Section Examination Six Permitting Procedures Report | Permitting Procedures Report Due 8/3 |
| | Wednesday August 3 Lab Day | Permitting Procedure Report DUE Make up day Ch. 13 -24 | Study for Final Exam |
| 10 | Monday August 8 | Final Examination Review | Study For Final exam |
| | Wednesday August 10 | Final Examination Ch. 1 - 24 | Enjoy the rest of your summer |

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. *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

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. 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. Counseling services are available on campus in the student center for free and students can also email 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 from the 1st 8-week session is October 5. The last date to withdraw from the 16-week session is November 18. The last date to withdraw for the 2nd 8-week session is December 1.

F_N Grading: The F_N grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The F_N 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_N grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an F_N 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.