

Process Technology I – Equipment (PTAC 1410 6D1 202690)

CREDIT

4 Semester Credit Hours (3 hours lecture, 3 hours lab)

MODE OF INSTRUCTION

Face to Face

PREREQUISITE/CO-REQUISITE:

None

COURSE DESCRIPTION

Instruction in the use of common processing equipment.

COURSE OBJECTIVES

Upon completion of this course, the student will be able to

1. Define and use terminology.
2. Identify and describe components, basic functions, and scientific principles associated with process equipment.

INSTRUCTOR CONTACT INFORMATION

Instructor:	Mark Ellison
Email:	mellison@lit.edu
Office Phone:	409-673 8302
Office Location:	ExxonMobil PATC building room 202
Office Hours:	See before class or after class

REQUIRED TEXTBOOK AND MATERIALS

1. *Process Technology Equipment*, CAPT
ISBN: 978-0137004126
Simtronics Student Workbook (Optional per Instructor, Lamar University Bookstore)
2. Equipment – Lab PPE is closed-toe shoes (no sandals, crocs, flip-flops), shirts with sleeves (no muscle shirts), long pants.

Approved: **Initials/date**



ATTENDANCE POLICY

1. Missing more than 20% of classes will result in an automatic "F" for the course.
2. Absences are counted as unexcused, excused, and coming to class late.
3. Missing more than 20% of a class period will count as an absence.
4. Being tardy 2 times equals 1 absence.

DROP POLICY

If you wish to drop a course, you are responsible for initiating and completing the drop process. If you stop coming to class and fail to drop the course, you will earn an "F" in the course.

COURSE CALENDAR

DATE	TOPIC	READINGS (Due on this Date)	ASSIGNMENTS (Due on this Date)
08/25/26 08/27/25	Introduction to process tech, syllabus, policies.	Chapter 1	
09/03/26 09/08/26	Drawings and tools	Chapter 2 Chapter 3	
09/10/26 09/15/26	Piping, tubing, hoses Test #1	Chapter 4 Chapter 5	HW #1 Test #1
09/17/26 09/22/26	Valves, pumps, compressors	Chapter 6 Chapter 7	HW #2
09/24/26 09/29/26	Turbines, motors, engines	Chapter 8 Chapter 9	Test #2
10/01/26 10/06/26	Power transmission, lubrication, heat exchangers, cooling towers	Chapter 10, Chapter 11	HW #3
10/08/26 10/13/26	Furnaces	Chapter 13	Test #3
10/15/26 10/20/26	Boilers, tanks, vessels	Chapter 14 Chapter 15	
10/22/26 10/27/26	Reactors	Chapter 16	Test #4
10/29/26 11/03/26	Filters, dryers, solids handling equipment	Chapter 17 Chapter 18	
11/05/26 11/10/26	Environmental, auxiliary equipment	Chapter 19	
11/12/26		Chapter 20	Test #5

11/17/26			
11/19/26 11/24/26	Class reviews, lab testing		Lab signoffs
12/1/26	Class reviews, lab testing		Lab signoffs
12/03/26 12/08/26	Class reviews, lab testing		
12/10/26			Final Exam(s)

Calendar subject to change due to unforeseen circumstances.

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

1. Unit tests 30%
2. Final exam 30%
3. Homework/quizzes 20%
4. Participation/lab 20%

GRADE SCALE

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

TECHNICAL REQUIREMENTS

The latest technical requirements, including hardware, compatible browsers, operating systems, etc., can be found online at <https://lit.edu/online-learning/online-learning-minimum-computer-requirements>. A functional broadband internet connection, such as DSL, cable, or WiFi, is necessary to maximize the use of online technology and resources.

DISABILITIES STATEMENT

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504, and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)-951-5708 or email

specialpopulations@lit.edu. You may also visit the online resource at [Special Populations - Lamar Institute of Technology \(lit.edu\)](#).

STUDENT CODE OF CONDUCT STATEMENT

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand, and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at www.lit.edu. Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

AI STATEMENT

Lamar Institute of Technology (LIT) recognizes that recent advances in Artificial Intelligence (AI), such as ChatGPT, have changed the landscape of many career disciplines and will impact many students in and out of the classroom. To prepare students for their selected careers, LIT desires to guide students in the ethical use of these technologies and incorporate AI into classroom instruction and assignments appropriately. Appropriate use of these technologies is at the discretion of the instructor. Students are reminded that all submitted work must be their own original work unless otherwise specified. Students should contact their instructor with any questions as to the acceptable use of AI / ChatGPT in their courses.

STARFISH

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also log in to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

ADDITIONAL COURSE POLICIES/INFORMATION

Schedule subject to change due to unforeseen events.