Intro to Process Technology (PTAC 1302 3C1)

CRN 11496

CREDIT
3 Semester Credit Hours

MODE OF INSTRUCTION
Face to Face

PREREQUISITE/CO-REQUISITE:
N/A

COURSE DESCRIPTION
An introduction overview of the processing industries.

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

- Describe the roles, responsibilities, safety, environmental, and quality concepts associated with the work environment of process technician.
- Identify basic processes, equipment, and systems.
- Define and apply terms and symbols needed in the processing industry.

INSTRUCTOR CONTACT INFORMATION

Instructor: Dr. Liam Sheppard

Email: lsheppard1@lit.edu

Office Phone: (409) 245-8758

Office Location: ExxonMobil PATC building, room 207

Office Hours: Monday/Wednesday 4:00-5:30 PM; Tuesday/Thursday 2:00-3:00 PM; Friday 8:00 AM to 10:30 AM

REQUIRED TEXTBOOK AND MATERIALS
Introduction to Process Technology, Pearson, Second Edition ISBN number: 0-13-480824-X

ATTENDANCE POLICY
Missing more than 20% of classes will result in an automatic "F" for the course.

Absences are counted for unexcused, excused.

Missing more than 20% of a class period will count as an absence.

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/EXAMS
1/20	Orientation		
1/22	Course Overview		
1/27	Process Technology, Minerals, & Chemicals	Chapters 1-3	
1/29	Power Generation	Chapter 4	
2/3	Food & Beverage	Chapter 5	
2/5	Water & Wastewater Pulp & Paper	Chapter 6 Chapter 7	
2/10	Working as Teams	Chapter 8	Chapters 1-7 Test
2/12	Safety, Health, Environmental, & Security	Chapter 9	
2/17	Quality	Chapter 10	
2/19	Quality (continued)		
2/24	Basic Physics	Chapter 11	
2/26	Basic Chemistry	Chapter 12	
3/3	Process Drawings	Chapter 13	
3/5	Piping & Valves	Chapter 14	
3/10	Spring Break		
3/12	Spring Break		
3/17	Vessels & Pumps	Chapter 15	
3/19	Pumps	Chapter 16	
3/24	Compressors	Chapter 17	
3/26	Turbines	Chapter 18	
3/31	Electricity & Motors	Chapter 19	Chapters 8-18 Test
4/2	Heat Exchangers	Chapter 20	
4/7	Cooling Towers	Chapter 21	
4/9	Furnaces	Chapter 22	
4/14	Boilers	Chapter 23	Chapters 19-22 Test
4/16	Distillation	Chapter 24	
4/21	Distillation		
4/23	Process Service Utilities	Chapter 25	

4/28	Process Auxiliaries	Chapter 26	
4/30	Instrumentation	Chapter 27	Chapters 23-26 Test
5/5	Review		
5/7-5/13	Finals Week		

Course calendar can change due to unpredictable events.

COURSE GRADES

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

Late work will be reduced by 10 points per calendar day late.

TECHNICAL REQUIREMENTS

The latest technical requirements, including hardware, compatible browsers, operating systems, etc. can be 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.

ARTIFICIAL INTELLIGENCE STATEMENT

Lamar Institute of Technology (LIT) recognizes the 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 login 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.