Intro to Process Technology (PTAC 1302 3A1) Spring 2026

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

MODE OF INSTRUCTION
Face to Face

PREREQUISITE/CO-REQUISITE:
None

COURSE DESCRIPTION
An introduction overview of the processing industries.

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

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

INSTRUCTOR CONTACT INFORMATION

Instructor:	Joseph Morrell
Email:	jwmorrell@lit.edu
Office Phone:	409-245-8758
Office Location:	ExxonMobil PATC Building room 202
Office Hours:	One hour before class and one hour after class

REQUIRED TEXTBOOK AND MATERIALS

1. *Introduction to Process Technology*, Pearson, Second Edition
   a. ISBN number is **0-13-480824-X**

Approved: Initials/date

ATTENDANCE POLICY

You are required to log on weekly to Blackboard and review the week's course material. Additionally, you are required to check your LIT emails weekly.

According to campus policy, students must be in attendance for 80% of class days. The following is the policy for absences in all 16-week process technology classes and labs.

Miss 3 classes or less receive calculated grade

Miss 4 classes 10 points dropped from calculated grade

Miss 5 classes 20 points dropped from calculated grade

Miss 6 classes 30 points dropped from calculated grade

Miss 7 or more classes student receives an 'F'

A student is absent if they are not physically in the classroom. An excused absence simply means that the student can make up any missed work.

Three student tardies will be considered one absence. A student is considered to be tardy once the instructor has completed taking roll.

Class attendance and participation is an individual student responsibility. Students taking traditional face-to-face courses are expected to attend class and complete all assignments by stated due dates. Excessive absences and tardies will be dealt with on a case-by-case basis.

DROP POLICY

If you wish to drop a course, you are responsible for initiating and completing the drop process by the specified drop date as listed on the Academic Calendar available on the LIT website otherwise the grade you receive in the course will impact your GPA.

STUDENT EXPECTED TIME REQUIREMENT

For every hour in class (or unit of credit), students should expect to spend at least two to three hours per week studying and completing assignments. For a 3-credit-hour class, students should prepare to allocate approximately six to nine hours per week outside of class in a 16-week session OR approximately twelve to eighteen hours in an 8-week session. Online/Hybrid students should expect to spend at least as much time in this course as in the traditional, face-to-face class.

COURSE CALENDAR

MODULE	TOPIC	READINGS (Due on this Date)	ASSIGNMENTS (Due on this Date)
1/20	PTAC1302 Orientation Course introduction and policies.		
1/22	Chapter 1 Process Technology Overview		
1/27	Chapter 2 Oil & Gas & Mining		
1/29	Chapter 3 Chemical & Pharmaceutical Industries		
2/3	Chapter 4 Power Generation		
2/5	Chapter 5 Food & Beverage		
2/10	Chapter 6 Water & Wastewater		
2/12	Chapter 7 Pulp & Paper		
2/17	Chapter 8 Working as Teams		
2/19	Chapter 9 SHES		
2/24	Chapter 10 Quality		Homework Due
2/26	**Test 1**		Test 1 in class
3/3	Chapter 11 Basic Physics		
3/5	Chapter 12 Basic Chemistry		
3/17	Chapter 13 Process Drawings		
3/19	Chapter 14 Piping & Valves		
3/24	Chapter 15 Vessels		
3/26	Chapter 16 Pumps		

	Chapter 17 Compressors		
3/31	Chapter 18 Turbines		
4/2	Chapter 19 Electricity & Motors		
4/7	**Test 2**		Test 2 in class
4/9	Chapter 20 Heat Exchangers Chapter 21 Cooling Towers		
4/14	Chapter 22 Furnaces		
4/16	Chapter 23 Boilers		
4/21	**Test 3**		Test 3 in class
4/23	Chapter 24 Distillation		
4/28	Chapter 25 Process Service Utilities Process Auxiliaries		
4/30	Chapter 26 Process Auxiliaries		
5/5	Chapter 27 Instrumentation		
5/7	**Test 4**		Test 4 in class
5/7	**Test Final Exam**		Test Final Exam in class

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

Homework 10%

Tests 50%

Final 40%

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 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 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.

ADDITIONAL COURSE POLICIES/INFORMATION

Weekly schedule is subject to change due to unforeseen circumstances.