

Process Technology III PTAC 2438 3C1

CREDIT

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

MODE OF INSTRUCTION

Face to Face

PREREQUISITE/CO-REQUISITE:

PTAC 1302, PTAC 1332, PTAC 1410, MATH 1332 or 1314.

COURSE DESCRIPTION

This course emphasizes activities associated with the hands-on operations of process equipment.

COURSE OBJECTIVES

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

1. Operate various process systems;
2. Work in self-directed teams;
3. Write and follow safety and operational procedure Collect and use data for determination of process specifications

INSTRUCTOR CONTACT INFORMATION

Instructor: LG Williams

Email: lwilliams4@lit.edu

Office Phone: 409-247-5355

Office Location: Technology 5 Building, Office 108D

Office Hours: Tuesday and Thursday 7:30 - 9:30 AM

REQUIRED TEXTBOOK AND MATERIALS

1. *Process Technology Plant Operations*, 2nd Edition; Speegle. [ISBN: 1133950159](#)
2. *Simtronics Student Workbook* (Lamar University Bookstore only)
3. Equipment (FRC, hardhat, safety glasses available in the labs by LIT)
 - a. fire retardant clothing
 - b. hardhat
 - c. safety glasses
 - d. ear plugs



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- e. gloves
- f. shoes (no open toes/sandals)

ATTENDANCE POLICY

1. Missing more than 20% of classes will result in an automatic “F” for the course.
2. Absences are counted for 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)
Week 1	Course introduction and policies	Handouts Chapters 1&2	Spring Intro Spring 2023
2	Safety & Environmental	Chapters 3, 4 & 5	Centrifugal Pump Review
3	Quality as a tool, process economics	Chapters 6, 7 & 8	Online Test 1 Chaps. 1-6 & Centrifugal Pump Test & Assignment 1
4	Economics & Instrumentation	Chapters 9, 10 11 & 12	
5	Samples & Analytical Testing	Chapter 13, 14 & 15	Online Test 2 Chaps. 7-12
6	Material Handling, I &II	Chapters 16 &17	Online Test 3 Chaps. 13-15
7	Unit Shutdowns & Turnarounds	Chapters 18 & 19 Lockout/Tagout Procedure	Online Test 4 & Assignment 2 & LO/TO
8	Delta V Training	PowerPoint Presentation	
9	Spring Break	Spring Break	Spring Break
10	Learn Unit & Run Unit	Review P&IDs’ & PFDs’	
11	Run Unit	Startup/Shutdown Procedure	Assignment 3
12	Run Unit	Startup/Shutdown Procedure	
13	Run Unit	Startup/Shutdown Procedure	
14	Run Unit	Startup/Shutdown Procedure	

15	Run Unit	Startup/Shutdown Procedure	
16	Final Exam		

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

Homework	10%
Tests	40%
Lab	50%

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-minimumcomputer-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.

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 could change due to unforeseen circumstances (weather etc.)