

PTAC 2446ProcessTroubleshooting PTAC2446-6B1

CREDIT

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



**LAMAR INSTITUTE
OF TECHNOLOGY**

MODE OF INSTRUCTION

Face to Face

PREREQUISITE/CO-REQUISITE:

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

COURSE DESCRIPTION

Instruction in the different types of troubleshooting techniques, procedures, and methods used to solve process problems.

COURSE OBJECTIVES

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

1. Collect data and identify techniques for troubleshooting.
2. Utilize applicable troubleshooting methods to solve process problems.

INSTRUCTOR CONTACT INFORMATION

Instructor:	Marty Day
Email:	tday@lit.edu
Office Phone:	409-289-0580
Office Location:	ExxonMobil PATC Building room 212
Office Hours:	Monday/Wednesday 1:00 to 5:00

REQUIRED TEXTBOOK AND MATERIALS

Instructor will provide handouts and troubleshooting exercises.

ATTENDANCE POLICY

1. Missing more than 3 classes will result in an automatic reduction of one letter grade. Every absence thereafter results in a letter grade reduction.
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

Modules	TOPIC	READINGS (Due on this Date)	ASSIGNMENTS (Due on this Date)
January 22	Introduction	Syllabus and intro to Troubleshooting	Read Syllabus and Introduction
January 27	Process instrumentation	Unit 1	Read Unit 1 handout
January 29	Process controllers	Unit 2	Read and answer questions on unit 2
Feb 3	Process Troubleshooting	Unit 3 &4	Read and answer questions on units 3 & 4
Feb 5	Process Troubleshooting	Units 5 & 6	Read units 5 &6
Feb 10	Distillation System	Unit 14	Read unit 14 and answer questions
Feb12	Distillation System	Unit 14	Troubleshoot Unit 14
Feb 17	Distillation System	Unit 14	Simtronics SPM 700 Exercise 3
Feb 19	Distillation System	Unit 14	Simtronics SPM700-Ex 5
Feb 24	Furnace System	Unit 13	Read unit 13 handout
Feb 26	Furnace System	Unit 13	Troubleshoot Unit 13
March 3	Exam #1	Exam covering Distillation and Furnace	None
March 5	Cooling Tower System	Unit 11	Read Unit 11 handout
March 17	Cooling Tower System	Unit 11	Simtronics Cooling Tower
March 19	Boiler System	Unit 12	Read Unit 12

April 2	Exam #2	Cooling Tower & Boiler	none
April 7	Compressor System	Unit 9	Read Unit 9
April 9	Compressor System	Unit 9	Troubleshoot Compressor
April 14	Pump System	Unit 8	Read unit 8
April 16	Exam #3	Compressor and Pumps	None
April 21	Hands on training	Distillation Unit	Work in teams to solve unit
April 23	Hands on training	Distillation Unit	Work in teams to solve problem
April 28	Hands on training	Distillation Unit	Work in teams to solve problem
April 30	Hands on training	Distillation Unit	Work in teams to solve problem
April 5	Final Exam		

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

Lab assignments	20%
Exercises	20%
Exams	40%
Final Exam	60%

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.

Starfish

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails 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

Course weekly schedule subject to change based on LIT or Instructor conflicts.

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

