CTEC 2545 – UNIT OPERATIONS (CTEC 2545 6B1)

CRN 11576

CREDIT
5 Semester Credit Hours (4 hours lecture, 4 hours lab)

MODE OF INSTRUCTION
Face to Face

PREREQUISITE/CO-REQUISITE:
PTAC 2314 and PTAC 2438

COURSE DESCRIPTION
Course Description: Instruction in the principles of chemical engineering and process equipment with emphasis on scale-up from laboratory bench to pilot plant.

COURSE OBJECTIVES
Upon completion of this course, the student will be able to
Upon completion of this course, the student will be able to Student will successfully operate glycol distillation unit (GDU) during startups and shutdowns. Students will operate the GDU as an "outside operator" as well as a "board operator". Students will successfully complete a written test covering the GDU. Students will successfully complete a GDU drawing showing flow paths, instrumentation, vessels, pumps, and other related equipment. Students will successfully complete a unit walkthrough with the Instructor describing flow paths, instrumentation, and all related equipment.

INSTRUCTOR CONTACT INFORMATION

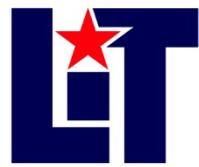|	
Instructor:	Brian Parrack
Email:	bsparrack@lit.edu
Office Phone:	409-247-5129
Office Location:	ExxonMobil PATC building, room 211
Office Hours:	Tuesday/Thursday 11AM to 1:30PM. Friday 11AM to 12:00PM

REQUIRED TEXTBOOK AND MATERIALS
Personal Protective Equipment for glycol unit operations. Hard hat, FRC shirts, and safety glasses furnished by LIT. Long pants and closed toe shoes are the students responsibility.

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

Absences are counted for unexcused, excused.

Approved: Initials/date

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 (Due on this Date)
Jan 21	Orientation to CTEC		
Jan 26	Unit operations		
Jan 28	Unit operations		
Feb 2	Unit operations		
Feb 4	Unit operations		
Feb 9	Unit operations		
Feb 11	Unit operations		
Feb 16	Testing		Glycol unit written test
Feb 18	Unit operations		
Feb 23	Unit operations		
Feb 25	Unit operations		
Mar 2	Unit operations		
Mar 4	Unit operations		
Mar 16	Unit operations		
Mar 18	Unit operations		
Mar 23	Unit operations		
Mar 25	Testing		Glycol unit drawing
Mar 30	Unit operations		
Apr 1	Unit operations		
Apr 6	Unit operations		
Apr 8	Unit operations		
Apr 13	Unit operations		
Apr 15	Unit operations		
Apr 20	Testing		Unit Walkthroughs
Apr 22	Testing		Unit Walkthroughs
Apr 27	Testing		Unit Walkthroughs
Apr 29	Testing		Unit Walkthroughs
May 4	Advising		Resume work

May 6	Advising		Resume work

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

- 25% Unit test
- 25% Unit drawing
- 25% Unit Walkthrough
- 25% Operations skills (attendance, team work, participation, communication)

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

. 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.

ADDITIONAL COURSE POLICIES/INFORMATION
Course calendar can change due to unpredictable events.
Unit safety is a priority, any injuries or accidents must be reported to the Instructor immediately.