Unit Operations (CTEC 2545 6B1)

INSTRUCTOR CONTACT INFORMATION

Instructor:	Brian Parrack
Email:	bsparrack@lit.edu
Office Phone:	409-247-5129
Office Location:	PATC building room 211
Office Hours:	Monday – Friday 10AM to 11:00AM

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

MODE OF INSTRUCTION
Face to Face

PREREQUISITE/CO-REQUISITE:
PTAC 2438, PTAC 2314

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
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.

REQUIRED TEXTBOOK AND MATERIALS
The Instructor will determine if this is required. Simtronics Student Workbook – SPM 700 (Lamar University bookstore).

Equipment used on the unit (purchased by the student)

A. **Long pants**
B. **Closed toe shoes with a defined heal (no sandals/crocks/filp flops)**
C. **Gloves**

D. Shirts with sleeve (no muscle shirts)

Equipment available in the lab for students to use (you can purchase your own)

A. Fire retardant clothing
B. Hardhat
C. Safety glasses

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

Absences are counted for unexcused, excused and coming to class late.

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 by the specified drop date as listed on the Academic Calendar. If you stop coming to class and fail to drop the course, you will earn an "F" in the course.

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

DATE	TOPIC	READINGS (Due on this Date)	ASSIGNMENTS (Due on this Date)
Week 1	Unit operations		
Week 2	Unit operations		
Week 3	Unit operations		
Week 4	Unit operations		All written testing due
Week 5	Unit operations		
Week 6	Unit operations		
Week 7	Unit operations		
Week 8	Unit operations		All unit drawings due
Week 9	Unit operations		

Week 10	Unit operations		
Week 11	Unit operations		All control board operations due
Week 12	Unit operations		
Week 13	Unit operations		
Week 14	Unit operations		All unit walkthroughs due
Week 15	Unit operations		
Week 16	Unit operations		All assignment due

COURSE EVALUATION

Final grades will be calculated according to the following criteria:
- 25% Written testing
- 25% Unit walkthrough
- 25% Unit drawing
- 15% Control board operations
- 10% Attendance and participation

GRADING SCALE

90 – 100   A
80 – 89   B
70 – 79   C
60 – 69   D
0 – 59   F

LIT does not use +/- grading scales

ACADEMIC DISHONESTY

Students found to be committing academic dishonesty (cheating, plagiarism, or collusion) may receive disciplinary action. Students need to familiarize themselves with the institution's Academic Dishonesty Policy available in the Student Catalog & Handbook at http://catalog.lit.edu/content.php?catoid=3&navoid=80#academic-dishonesty.

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 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
In the event the LIT campus goes to remote learning, the Instructor will provide information on course completion.