Principles of Industrial Measurement (INTC 1301) 1A4

CREDIT

3 Semester Credit Hours (3 hours lecture)

MODE OF INSTRUCTION

Hybrid

PREREQUISITE/CO-REQUISITE:

None

COURSE DESCRIPTION

Principles of measurement. Includes operation of devices used to measure process variables and basic control functions.

COURSE OBJECTIVES

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

- 1. Apply selected principles of process measurement
- 2. Describe the control loop as applied to selected process variables
- 3. Demonstrate safety procedures.

INSTRUCTOR CONTACT INFORMATION

Instructor: Chelsea Hoke
Email: <u>clhoke@lit.edu</u>
Office Phone: 409-247-4936
Office Location: PATC 207

Office Hours: Tuesday/Thursday 8:30am-9:00am

Appointments available by request.

REQUIRED TEXTBOOK AND MATERIALS

- 1. Process Technology-Equipment and systems Fourth Edition by Charles E. Thomas
 - a. ISBN number is 9781285444581

ATTENDANCE POLICY

Online attendance is based on the class Discussion Board. LATE Discussion posts will not be graded. Missing 20%, or more of the class discussions will result in an automatic "F" for the course.

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.

Approved: CH 01/05/2024



COURSE CALENDAR (subject to change)

| DATE | TOPIC | READINGS (Due on this Date) | ASSIGNMENTS (Due on this Date) |
|---------|---|--------------------------------|-----------------------------------|
| Week 1 | Course introduction, policies, and practice | | Practice Assignments |
| Week 2 | Compressors | Chapter 5 | Blackboard exercises |
| Week 2 | Heat Exchangers | Chapters 7 | Blackboard exercises |
| Week 3 | Unit 1 Review | Chapters 5 & 7 | Quiz 1 & EXAM 1 |
| Week 4 | Cooling Towers | Chapter 8 | Blackboard exercises |
| Week 4 | Boilers | Chapter 9 | Blackboard exercises |
| Week 5 | Unit 2 Review | Chapters 8 & 9 | Quiz 2 & EXAM 2 |
| Week 6 | Furnaces | Chapter 10 | Blackboard exercises |
| Week 6 | Utility Systems | Chapter 13 | Blackboard exercises |
| Week 7 | Unit 3 Review | Chapters 10 & 13 | Quiz 3 & EXAM 3 |
| Week 8 | Reactor Systems | Chapter 14 | Blackboard exercises |
| Week 8 | Distillation Systems | Chapter 15 | Blackboard exercises |
| Week 9 | Unit 4 Review | Chapters 14 & 15 | Quiz 4 & EXAM 4 |
| Week 11 | Final Exam Review | Final Exam Review | Final Exam |

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

EXAMS*- 60%

Discussions- 20%

Quizzes/Assignments- 20%

*There will be 4 major EXAMS and a FINAL EXAM. If you choose to *not* take the FINAL, your Exam Avg will be used as your FINAL EXAM grade.

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 Specialpopulations@lit.edu. You may also visit the online resource at Specialpopulations.

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

- 1. No Cheating of any kind will be tolerated. Students caught cheating or helping someone to cheat can and will be removed from the class for the semester. Cheating can result from expulsion from LIT.
- 2. If you wish to drop a course, the student is responsible for initiating and completing the drop process. If you stop accessing the Blackboard class and fail to drop the course, you will earn an 'F' in the course.
- 3. Students must have access to, and knowledge of basic computer functions (including Blackboard)
- 4. Students should check Blackboard daily.

- 5. Internet Usage Students are expected to use proper net etiquette while participating in course emails, assignment submissions, and online discussions.
- 6. Technical Requirements- The latest technical requirements, including hardware, compatible browsers, operating systems, software, Java, etc. can be found online at: https://help.blackboard.com/Learn/Student/Getting_Started/Browser_Support/Browser_C hecker A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of the online technology and resources.
- 7. There will be a 20 point penalty deducted for each day from late work. Late DISCUSSION POSTS will NOT be graded- This is your attendance for the week.
- 8. There will be NO make-up Exams. All Exams are open and due dates are posted at the beginning of the semester. NO Exams will be re-opened after the due date has passed. If you miss an Exam for any reason, you automatically forfeit your possible exemption from the Final.