

Industrial Hygiene Applications (EPCT 2331)

CREDIT

3 Semester Credit Hours (lecture)



**LAMAR INSTITUTE
OF TECHNOLOGY**

MODE OF INSTRUCTION

Face to Face. Tuesday 5.30pm – 8.30pm

PREREQUISITE/CO-REQUISITE:

Prerequisite EPCT 1341 Principles of Industrial Hygiene

COURSE DESCRIPTION

A study of the industrial environment as it relates to worker's health. This course provides training in anticipation, recognition, evaluation, and controlling health hazards – particularly chemical, physical, biological, and ergonomic factors existing in the workplace and having injurious effects on workers. The course also introduces training in instrumentation used in monitoring and measuring health hazards in the workplace and covers current issues in industrial hygiene.

COURSE OBJECTIVES

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

1. Identify the impact of hazards on workers.
2. Interpret and apply regulations in a business environment.
3. Gather, manage, and analyze data.
4. Apply professional standards.
5. Prepare reports on various areas of industrial hygiene based on student investigations.

INSTRUCTOR CONTACT INFORMATION

Instructor: Rueben Reyes

Email: rreyes@lit.edu

Phone: 409 247 5283

Office Location: MPC 239

Office Hours: **Tuesday 5.00pm (Appointment Recommended).**

REQUIRED TEXTBOOK AND MATERIALS

1. 7th Edition of Fundamentals of Industrial Hygiene, by Jill Niland; Lucy A. Elam. ISBN: 978-0-87912-356-7
2. USB Flash drive

ATTENDANCE POLICY

This is an attendance based class. Attendance is required for all scheduled lectures and activities. Attendance and participation account for 10% of the overall class grade (as shown in course evaluation). 3% points will be deducted from your overall grade (up to a maximum of 10%) for each unexcused absence.

An excused absence will only be granted if the student provides a written justification (for example, by email) which is vetted and approved by the instructor (such as a sickness/injury, or job related requirement). If the student is applying for a job related excused absence documentation must be provided from their employer, including their supervisor's contact information. A sick note from a Doctor or hospital is required for long term sickness/injury.

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 January 20	Course Objectives, Syllabus, Policies and Expectations	Chapter 15	
Week 2 January 27	Air Sampling	Chapter 16	
Week 3 February 3	Direct Reading Instruments for Gases, Vapors, and Particulates	Chapter 17	
Week 4 February 10	Methods of Control	Chapter 18	
Week 5 February 17	EXAM 1		<u>Exam 1</u>
Week 6 February 24	Local Exhaust Ventilation	Chapter 19	
Week 7 March 3	Dilution Ventilation of Industrial Workplaces	Chapter 20	
Week 8 March 9-13	SPRING BREAK (NO CLASSES)		
Week 9 March 17	General Ventilation of Non-Industrial Occupancies	Chapter 21	
Week 10 March 24	Chapter 22 Respiratory Protection	Chapter 22	<u>Outline of Proposal for Class Presentation to be submitted in writing on 3/31/26</u>

Week 11 March 31	Personal Protective Equipment	Chapter 23	Class Presentation Proposal Due
Week 12 April 7	EXAM 2		<u>Exam 2</u>
Week 13 April 14	The Industrial Hygienist and The Safety Professional Managing Diversity, & Career Challenges	Chapter 24 Chapter 25	
Week 14 April 21	The Occupational Medical Physician and The Occupational Nurse	Chapter 26 Chapter 27	Class Presentations of Selected Topic commence
Week 15 April 28	Environmental Health and Safety, and IH Programs	Chapter 28 Chapter 29	Class Presentations of Selected Topic continue
Week 16 May 5	Government Regulations and International Developments	Chapter 30 Chapter 31	Class Presentations of Selected Topic continue to finish
Week 17 May 12	FINAL EXAM		<u>Comprehensive</u> <u>Final Exam</u>

** Assignments and dates are subject to change

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

1. Class Attendance and Participation = **10%**
2. Exam 1 = **25%**
3. Exam 2 = **25%**
4. Class Safety Presentation = **10%**
5. Final Exam = **30%**

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.

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.

Course Requirements and Policies

1. All exams are worth 100 points. All exam questions are included in lecture materials and discussed in class.
2. In the event of an emergency and you are absent on test night, it is your responsibility to contact the instructor and schedule a makeup test as soon as possible.
3. Final grades are non-negotiable. No extra credit will be awarded.
4. Cheating on an exam is a violation of LIT Policy and will result in an "F" on your test. Please review the "Code of Conduct & Disciplinary Policy" and "Academic Dishonesty" in the LIT Student Handbook.
5. It is your responsibility to sign the attendance roster. No one else may sign the roll on your behalf. Please notify your Occupational Health and Safety Advisor if you will be absent for an extended period due to a work-related circumstance, or a medical quarantine or emergency, that prevents you from attending class. Your Occupational Safety and Health Advisor will authorize excused absences.
6. You are expected to be in class at class time. If you do find yourself in the position of arriving late due to unavoidable circumstances, please remember to sign the attendance roster when you arrive. Some lectures are short in length and coming in late may result in an absence.
7. You are required to stay the entire length of each lecture class unless dismissed, as a class, by the instructor.
8. Drop/Add/Withdraw – *It is the student's responsibility to make sure you are officially enrolled or dropped from this course.* If at any point you decide to drop a class, it is your responsibility to officially drop (i.e., using proper administrative offices/paperwork.) Any student who stops attending class and does not officially drop the course will be given an "F" as the semester grade.
9. Cell phones, headphones and any other electronic communication devices *will always be turned off* in class .
10. Campus policy dictates there is to be no eating , drinking or tobacco products in the classroom.
11. Please do not bring children to class. LIT policy states they cannot be in the classrooms.
12. **CLASS MATERIALS NEEDED:**
 - Laptop (if you have one)
 - Pen/Pencil
 - Paper or Note Cards for note taking
 - Highlighter
13. MISSED EXAM: If you are absent on exam day you **MUST** let the instructor know **PRIOR** to class either by phone or email. The missed exam **MUST** be made up the **FOLLOWING DAY**. Failure to schedule a make up time with your instructor will forfeit your opportunity to take that exam. **IT IS THE STUDENTS RESPONSIBILITY TO REACH OUT TO THE INSTRUCTOR FOR THE ABSENCE AND MAKE UP TIME.** If the student fails to make up the exam in the appropriate time frame then they will receive a **(0) ZERO** for that exam.
14. **CLASS ATTENDANCE/PARTICIPATION:** Students are **REQUIRED** to participate in class discussions, work in groups, give verbal presentations and communicate in a professional manner. Failure to participate will result in points being deducted for that class day grade for attendance & participation.