

## **Industrial Hygiene Applications (EPCT 2331)**

### **CREDIT**

3 Semester Credit Hours (lecture)

### **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: **Dr. Greg Klaus**

Email: klausgreg@hotmail.com

Phone: 409 853 1505

Office Location: MPC 109

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

### **REQUIRED TEXTBOOK AND MATERIALS**

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

Approved: [GSK/1/16/25](#)



**LAMAR INSTITUTE  
OF TECHNOLOGY**

## 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 21	Course Objectives, Syllabus, Policies and Expectations	Chapter 15	
Week 2 – January 28	Air Sampling	Chapter 16	
Week 3 – February 4	Direct Reading Instruments for Gases, Vapors, and Particulates	Chapter 17	
Week 4 - February 11	Methods of Control	Chapter 18	
Week 5 - February 18	EXAM 1		<u>Exam 1</u>
Week 6 – February 25	Local Exhaust Ventilation	Chapter 19	
Week 7 – March 4	Dilution Ventilation of Industrial Workplaces	Chapter 20	
Week 8 – March 11	SPRING BREAK (NO CLASSES)		
Week 9 – March 18	General Ventilation of Non- Industrial Occupancies	Chapter 21	
Week 10 – March 25	Chapter 22 Respiratory Protection	Chapter 22	<u>Outline of Proposal for Class Presentation to be submitted in writing on 4/1/25</u>

Week 11 – April 1	Personal Protective Equipment	Chapter 23	Class Presentation Proposal Due
Week 12 – April 8	EXAM 2		<u>Exam 2</u>
Week 13 – April 15	The Industrial Hygienist and The Safety Professional Managing Diversity, & Career Challenges	Chapter 24 Chapter 25	
Week 14 – April 22	The Occupational Medical Physician and The Occupational Nurse	Chapter 26 Chapter 27	Class Presentations of Selected Topic commence
Week 15 – April 29	Class Presentations of Selected Topic. Environmental Health and Safety, and IH Programs	Chapter 28 Chapter 29	Class Presentations of Selected Topic continue
Week 16 – May 6	Government Regulations and International Developments	Chapter 30 Chapter 31	Class Presentations of Selected Topic continue to finish
Week 17 – May 13	FINAL EXAM		<u>Comprehensive Final Exam</u>

### 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](mailto:specialpopulations@lit.edu). You may also visit the online resource at [Special Populations - Lamar Institute of Technology \(lit.edu\)](https://www.lit.edu/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](http://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.