



**EASTERN MEDITERRANEAN UNIVERSITY**  
**Faculty of Engineering**  
**Department of Industrial Engineering**  
**IENG409 Occupational Safety and Health Management**  
**COURSE OUTLINE**



<b>Course code</b>	IENG409	<b>Course level</b>	Undergraduate (senior year)	
<b>Course title</b>	Occupational Safety and Health Management	<b>Course type</b>	Department Area Elective	
<b>Credit value</b>	(3, 0) 3	<b>Ects value</b>	6	
<b>Prerequisites</b>	Consent of instructor	<b>Corequisites</b>	-	
<b>Prepared by</b>	Asst. Prof. Dr. Emine Atasoylu	<b>Semester and year</b>	<b>Spring</b>	<b>2024-2025</b>

<b>Course web link</b>	staff.emu.edu.tr and course LMS site			
<b>Course Schedule:</b>	Lecture hours Monday: 13:30-14:20 and Tuesday: 10:30-12:20			
	<b>Name (group)</b>	<b>e-mail</b>	<b>Office</b>	<b>Telephone</b>
<b>Instructor</b>	Emine Atasoylu, Assist.Prof.Dr.	<a href="mailto:emine.atasoylu@emu.edu.tr">emine.atasoylu@emu.edu.tr</a>	C103	
<b>Assistant(s)</b>	Jean F. R. Mahoro		C209	

**COURSE DESCRIPTION**

This course is designed to introduce the engineering student with the basic principles of occupational safety and health management in industry. Development of safety and health function, concepts of hazard avoidance, impact of regulations, toxic substances, environmental control, noise, explosive materials, fire protection, personal protection and first aid will be introduced.

**COURSE OBJECTIVES**

The aims and objectives of this course is to

1. familiarize with safety and health concepts, workplace hazards, laws and regulations.
2. apply record keeping, accident reporting, accident cause analysis.
3. understand the development of the safety and health function.
4. apply risk assessment and preventive approaches to real life problems.

**COURSE LEARNING OUTCOMES**

On successful completion of this course, all students will have developed **knowledge** and **understanding** of:

- Safety and health concepts
- Safety and health laws and regulations
- Different types of hazards in industrial environments
- Theories of accident causation
- Risk assessment
- The importance of accident prevention and safety and health training

On successful completion of this course, all students will have developed **their skills in**:

- Development of accident prevention programs and safety organizations
- Applying risk assessment
- Hazard prevention and control
- Record keeping, accident reporting and investigation.

On successful completion of this course, all students will have developed their **appreciation** of, and respect for **values and attitudes** to:

- Promoting safety and safety management in a quality management setting
- Professional and ethical responsibility.

**TEXTBOOKS and REFERENCES**

C. Ray Asfahl, David W. Rieske “Industrial Safety and Health Management”6<sup>th</sup> edition, Pearson education, 2010  
 David L. GOETSCH “Occupational Safety and Health for Technologists Engineers, and Managers” 6<sup>th</sup> edition, Pearson education, 2008  
 Willie Hammer, Dennis Price “Occupational Safety Management and Engineering” 5<sup>th</sup> edition, prentice hall, 2001  
 Charles D. Reese “Occupational Health and Safety Management” Lewis Publishers, 2003 (and 2<sup>nd</sup> edition, 2009)  
 Jeremy Stranks “The Handbook of Health and Safety Practice” 6<sup>th</sup> Edition, Pearson Education,2003.

**Method of Instruction and assessment**

The course is designed to provide active-interactive, and team based collaborative learning. Students will conduct pre-work such as watching short videos, required reading, optional reading and answering questions through forms. Students will be active during the lecture hours completing class work and conducting team work as instructed by the lecturer.

**Make-up and re-sit exams:** Make-up examinations will only be offered to students who provided adequate documentation for the reason for their absence within four working days at the latest after the examination date. University regulations apply for graduation make-up and re-sit exams. (There will be no makeup for pre-work, classwork, short quizzes, and group exercises)

**Any objection to the grade or mark should be made latest within a week following its announcement.**

**Grading Policy:**

Term Project	15%
Classwork/short quizzes/group exercises	20%
Midterm exam	30%
Final Exam	35%

**Note that the instructor reserves the right to modify these percentages in case she finds it necessary.**

Week	Topics Covered
1	Course outline. Learning objectives. Useful references. Weekly schedule. Exams and other assessments, norms and expectations.
2	Introduction to “occupational safety and health management”, and safety concepts.
3	Accidents and their effects
4	Laws and regulations
5	Categories of Safety and health hazards in industrial environments
6	Industrial Hygiene and workplace hazards
7	Safety and health hazards in industrial environments continued
8-9	Midterm exam week
10	Risk assessment and hazard avoidance (hazard control-prevention hierarchy) techniques
11-12	Personal protection and personal protective equipment
13	Record keeping, Accident investigation
14	Final Exam

**Note that the course weekly plan can change throughout the semester.**

**Attendance/ Participation and NG Criteria**

A student is expected to attend all lecture sessions, complete pre-work and class group exercises. Students who do not complete sufficient pre-class/in-class work will fail from the course and get NG grade.

**CONTRIBUTION OF COURSE TO MEETING THE REQUIREMENTS OF ABET CRITERION 5**

Mathematics and Basic Sciences	: 1
Engineering Topics	: 2 (with design content)
Other	: -

**RELATIONSHIP OF COURSE TO STUDENT OUTCOMES**

Student Outcomes	Level of Contribution		
	No	Moderate	High
(1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(2) an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(3) an ability to communicate effectively with a range of audiences	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(4) an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(5) an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(6) an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(7) an ability to acquire and apply new knowledge as needed, using appropriate learning strategies	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**ACADEMIC HONESTY - PLAGIARISM**

Cheating is copying from others or providing information, written or oral, to others. Plagiarism is copying without acknowledgement from other people’s work. According to university by laws cheating and plagiarism are serious offences punishable with disciplinary action ranging from simple failure from the exam or project to more serious action (letter of official warning suspension from the university for up to one semester). Disciplinary action is written in student records and may appear in student transcripts.

**PLEASE KEEP THIS COURSE OUTLINE FOR FUTURE REFERENCE AS IT CONTAINS IMPORTANT INFORMATION**

**I read the IENG409 course outline, am aware of the course requirements and accept to follow the course norms and expectations. I am aware that if I do not complete sufficient pre-lecture/in-lecture work I will fail from this course.**

**Student Number:**

**Date:**

**Signature:**

**Name-Surname:**