



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



1979

Course code	IENG409	Course level	Undergraduate (senior year)	
Course title	Occupational Safety and Health Management	Course type	Department elective	
Credit value	(3, 0) 3	Ects value	6	
Prerequisites	Consent of instructor	Corequisites	-	
Prepared by	Asst. Prof. Dr. Emine Atasoylu	Semester and year	FALL	2013-2014

Course web link www.ie.emu.edu.tr (go to lecturers web site)				
Course Schedule: Lecture hours Tuesday: 10:30-12:20 (IE-E201), Friday: 10:30-11:20 (IE-E201)				
	Name (group)	e-mail	Office	Telephone
Instructor	Emine Atasoylu, Assist.Prof.Dr.	emine.atasoylu@emu.edu.tr	C103	2815
Assistant(s)	Will be announced later!			

<p>COURSE DESCRIPTION</p> <p>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.</p> <p>COURSE OBJECTIVES</p> <p>The aims and objectives of this course is to</p> <ol style="list-style-type: none"> 1. familiarize with safety and health concepts, workplace hazards, laws and regulations (PO a, c, f & h), 2. apply record keeping, accident reporting, accident cause analysis and accident investigation (PO a, b, c, d, e, f, g & k), 3. understand the development of the safety and health function (PO c, d, f, g, h, i, j & k) 4. apply risk assessment and preventive approaches to real life problems (a, b, c, d, e, f, g, h, i, j & k). <p>COURSE LEARNING OUTCOMES</p> <p>On successful completion of this course, all students will have developed knowledge and understanding of:</p> <ul style="list-style-type: none"> • Safety and health concepts (CO 1) • Safety and health laws and regulations (CO1,2,3 & 4) • Different types of hazards in industrial environments (CO1,2,3 & 4) • Theories of accident causation (CO 2) • Risk assessment (CO 3 & 4) • The importance of accident prevention and safety and health training (CO 2, 3 & 4) <p>On successful completion of this course, all students will have developed their skills in:</p> <ul style="list-style-type: none"> • Development of accident prevention programs and safety organizations (CO 3 & 4) • Applying risk assessment and hazard avoidance techniques (CO 2, 3 & 4) • Hazard prevention and control (CO 2, 3 & 4) • Record keeping, accident reporting and investigation.(CO 2 & 4) <p>On successful completion of this course, all students will have developed their appreciation of, and respect for values and attitudes to:</p> <ul style="list-style-type: none"> • Promoting safety and safety management in a quality management setting (CO3) • Professional and ethical responsibility (CO 1, 2, 3 & 4)
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<p>TEXTBOOKS and REFERENCES</p> <p>C. Ray Asfahl, David W. Rieske “Industrial Safety and Health Management”6th edition, Pearson education, 2010 David L. GOETSCH “Occupational Safety and Health for Technologists Engineers, and Managers” 6th edition, Pearson education, 2008 Willie Hammer, Dennis Price “Occupational Safety Management and Engineering” 5th edition, prentice hall, 2001 Charles D. Reese “Occupational Health and Safety Management” Lewis Publishers, 2003 (and 2nd edition, 2009) Jeremy Stranks “The Handbook of Health and Safety Practice” 6th Edition, Pearson Education, 2003.</p>
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<p>METHOD OF ASSESSMENT</p> <p>Examinations will be based on lectures, discussions, textbook and assigned work. To enter a formal examination, a student has to present her/his EMU student Identification card to the invigilator.</p> <p>Make-up Exams: Make-up examinations will only be offered to students who provided adequate documentation for the reason of their absence within four working days at the latest after the examination date. One make-up examination will be given at the end of the semester after the final examination period.</p> <p>Any objection to the grade or mark should be made latest within a week following its announcement.</p> <p>Grading Policy:</p> <table> <tr> <td>Participation</td> <td>5%</td> </tr> <tr> <td>Quizzes</td> <td>15%</td> </tr> <tr> <td>Midterm</td> <td>25%</td> </tr> <tr> <td>Assignments</td> <td>20%</td> </tr> <tr> <td>Final Exam</td> <td>35%</td> </tr> </table> <p>Note that the instructor reserves the right to modify these percentages in case she finds it necessary.</p>	Participation	5%	Quizzes	15%	Midterm	25%	Assignments	20%	Final Exam	35%
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Week	Topics Covered
1	Course outline. Learning objectives. Useful references. Weekly schedule. Homework's, assignments, exams and expectations of instructor.
2	Introduction to "occupational health and safety management", safety concepts.
3	Accidents and their effects, Theories of accident causation
4	Laws and regulations
5-6-7	Safety and health hazards in industrial environments: Stress and safety, ergonomic hazards, mechanical hazards, falling, lifting, vision hazards, harmful physical agents – "noise and vibration," radiation. Chemical and biological hazards, material handling and storage hazards, temperature, pressure, electrical hazards, Toxic substances, inflammable and explosive materials, fire hazards, Dangerous Processes
8-9	Midterm exam week
10	Risk assessment and hazard avoidance (hazard control) techniques
11	Personal protection and personal protective equipment
12	Record keeping, Accident investigation
13	Cases and Student project discussions
14	Student project discussions
15	Final Exam

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

ASSIGNMENTS

Several assignments will be given throughout the semester to help students understand and apply topics covered in class. Late material will not be accepted. The assignments should be the individual's work unless they are group tasks.

ATTENDANCE

Attendance will be taken every lecture hour. Any student who has poor attendance (absenteeism more than 25%) and/or misses an examination without providing a valid excuse will be given **NG** grade.

CONTRIBUTION OF COURSE TO MEETING THE REQUIREMENTS OF CRITERION 5

Mathematics and Basic Sciences	: 0 %
Engineering Science	: 60 %
Engineering Design	: 20 %
General Education	: 20 %

Contribution of the Course to program outcomes:

Program Outcomes		①	②
(a) an ability to apply knowledge of mathematics, science and engineering	①	①	②
(b) an ability to design and conduct experiments, as well as to analyze and interpret data	①	①	②
(c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability	①	①	②
(d) an ability to function on multi-disciplinary teams	①	①	②
(e) an ability to identify, formulate, and solve engineering problems	①	①	②
(f) an understanding of professional and ethical responsibility	①	①	②
(g) an ability to communicate effectively	①	①	②
(h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context	①	①	②
(i) a recognition of the need for, and an ability to engage in life-long learning	①	①	②
(j) a knowledge of contemporary issues	①	①	②
(k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice	①	①	②

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