DEPARTMENT OF ENERGY SCIENCE AND TECHNOLOGIES
COURSE SYLLABUS

Course Details

Code	Academic Year			Semester
ISG001	4			7
Title	**T**	**A**	**L**	**ECTS**
Occupational Safety and Health I	2	0	0	2

Language	German					
Level	**Undergraduate**	**X**	**Graduate**		**Postgraduate**	
Department / Program	Energy Science and Technology					
Forms of Teaching and Learning	Face-to-face					
Course Type	**Compulsory**		**Elective**	**X**		
Objectives	Basic theoretical knowledge in the field of occupational health and safety (OHS) and fundamental obligations outlined in the legislation are taught. The aim is to provide information on the causes and consequences of workplace accidents and occupational diseases, as well as methods to prevent them.					
Content	The conceptual framework of occupational health and safety (OHS), national and international standards, and essential information about the causes, consequences, and prevention of workplace accidents and occupational diseases are covered. Fundamental regulations in OHS legislation, case studies, and Supreme Court rulings are also examined.					
Prerequisites	None					
Coordinator	Joachim Kuntze					
Lecturer(s)	Joachim Kuntze					
Assistant(s)						
Work Placement	None					

Recommended or Required Reading

Books / Lecture Notes	Yılmaz, F., “İş Sağlığı ve Güvenliği Ders Notları” Yelekçi, M., “İşçi Sağlığı-İş Güvenliği İş Emniyeti” Esin, A., ESİN "İş Sağlığı ve Güvenliği" Çelebi, U.B., “Tersanelerde İş Sağlığı ve Güvenliği Ders Notları”
Other Sources	Yılmaz, F., “İş Sağlığı ve Güvenliği Ders Notları” Yelekçi, M., “İşçi Sağlığı-İş Güvenliği İş Emniyeti” Esin, A., ESİN "İş Sağlığı ve Güvenliği" Çelebi, U.B., “Tersanelerde İş Sağlığı ve Güvenliği Ders Notları”

Additional Course Material

Documents	
Assignments	
Exams	1 Midterm + 1 Final

Course Composition

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Mathematics and Basic Sciences		%
Engineering		%
Engineering Design		%
Social Sciences		%
Educational Sciences		%
Natural Sciences		%
Health Sciences		%
Expert Knowledge	100	%

Assessment

Activity	Count	Percentage (%)
Midterm Exam	1	40
Quiz		
Assignments		
Attendance		
Recitations		
Projects		
Final Exam	1	60
	Total	**100**

ECTS Points and Work Load

Activity	Count	Duration	Work Load (Hours)
Lectures	14	2	28
Self-Study	12	2	24
Assignments			
Presentation / Seminar Preparation			
Midterm Exam	1	2	2
Recitations			
Laboratory			
Projects			
Final Exam	1	2	2
		Total Work Load	**56**
		ECTS Points (Total Work Load / Hour)	**2**

Learning Outcomes

1	Students will be able to define the fundamental concepts of occupational health and safety (OHS), interpret national and international regulations, and develop preventive measures by analyzing the causes of workplace accidents and occupational diseases.
2	Students will analyze the causes of workplace accidents and occupational diseases and identify the necessary measures to prevent them.

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3	Students will understand risk assessment, preventive measures, and the concept of safety culture, and they will gain the skills to apply this culture in the field of occupational health and safety.
4	Students will analyze the causes of workplace accidents in the shipbuilding industry and determine the necessary measures to prevent such accidents.
5	Students will understand the responsibilities of engineers in terms of occupational safety and acquire the knowledge and skills to effectively fulfill these responsibilities.
Weekly Content	
1	Conceptual framework, definition, and scope of Occupational Health and Safety (OHS).
2	The economic impact of workplace accidents and occupational diseases, and the importance of OHS for businesses
3	Analysis of problematic areas and sectors in terms of OHS in our country
4	Causes of workplace accidents and occupational diseases: physical, ergonomic, chemical, biological, personal, and psychosocial risks
5	Elements of the preventive OHS approach: Risk Assessment and Management, Ergonomic Measures, Organization of OHS Activities
6	Elements of the preventive OHS approach (continued): OHSAS 18001 Management System, Training, Regular Health Check-ups and Workplace Medical Services, OHS in Recruitment Processes
7	International standards and agreements in the field of OHS. Legislation related to OHS: OHS in laws
8	Midterm exam
9	Definitions, scope, and legal consequences of Worker, Employer, Employer Representative, Workplace, Subcontractor, Workplace Accident, and Occupational Disease
10	Regulations and directives related to OHS: Workplace Health and Safety Regulations
11	Regulations on Heavy and Dangerous Work, Training on OHS, and Workplace Health and Safety Units and Joint Health and Safety Units
12	Responsibilities of Employers and Employer Representatives (engineers and OHS specialists) in cases of workplace accidents and occupational diseases – Case studies
13	Analysis of statistics related to workplace accidents and occupational diseases, common accidents and diseases, and preventive measures
14	Examination of Supreme Court decisions related to workplace accidents
15	Examination of Supreme Court decisions related to workplace accidents
16	Final exam

Contribution of Learning Outcomes to Program Objectives (1-5)

	P1	P2	P3	P4	P5	P6	P7	P8	P9
1	5	5	5	5	5	5	5	5	5
2	5	5	5	5	5	5	5	5	5
3	5	5	5	5	5	5	5	5	5
4	5	5	5	5	5	5	5	5	5
5	5	5	5	5	5	5	5	5	5

Contribution Level 1: Low 2: Low-intermediate 3: Intermediate 4: High 5: Very High

https://obs.tau.edu.tr/oibs/bologna/progLearnOutcomes.aspx?lang=EN&curSunit=5706

Compiled by:	Res. Asst. Anıl Can Duman
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