

COURSE OUTLINE

(1) GENERAL

SCHOOL	Engineering		
DEPARTMENT	Electrical and Computer Engineering		
LEVEL	Undergraduate		
COURSE CODE	8.008	SEMESTER	8 th
COURSE NAME	Safety at work and Introduction to Technical Legislation		
COURSEWORK BREAKDOWN		WEEKLY TEACHING HOURS	ECTS Credits
Lectures and exercises		3	3
Laboratory/Workshops		1	1
TOTAL		4	4
COURSE UNIT TYPE	Knowledge deepening / Special Background		
PREREQUISITES	-		
LANGUAGE OF INSTRUCTION/EXAMS	GREEK		
COURSE DELIVERED TO ERASMUS STUDENTS	NO		
WEB PAGE (URL)	https://eclass.hmu.gr/courses/ECE162/		

(2) LEARNING OUTCOMES

Learning outcomes
<p>Safety at work and understanding the working environment are essential tasks for an engineer's professional working activity.</p> <p>Upon successful completion of the course, the student will have deepened the necessary knowledge in issues such as:</p> <p>A) Hygiene and Safety at work under the standards, regulations, and Legislation defined by the Labor Inspectorate, ELINYAE, and international practices. Emphasis will be placed on the hygiene and Safety of both construction workers (Work Accidents) and facility users. The student will understand the necessary parameters for the design of Security Lighting and Fire Detection systems, which will be applied in relatively simple applications.</p> <p>B) The Technical Legislation that the student will be able to tackle with; legal issues related to the activities of an Electrical and Computer Engineering. In particular, the student will be able to distinguish the guidelines according to the Legislation related to the drafting of studies of Electromechanical Construction facilities, construction of public works, and several other special facilities (Industrial installations, elevators, fire safety, network interconnection). utility networks as well as etc.).</p> <p>C) The duties and rights of employees and employers regarding labor, insurance, and tax issues. At the end of the lectures, the student will be able to combine different situations in order to propose solutions and measures for the evaluation and treatment of risks or legal situations as a Case Study.</p>
General Skills
<p>The course aims to acquire, by the graduate, the following general skills:</p> <ul style="list-style-type: none"> • Search, analysis, and synthesis of data and information, using the necessary technologies • Adaptation to new situations • Working independently • Team work • Impose criticism and self-criticism

- Project planning and management
- Working in an interdisciplinary environment

(3) SYLLABUS

The aim is to acquire the basic knowledge necessary for dealing with safety issues in the work environment and information about the legal framework of the profession of Electrical Engineer and Computer Engineer. To achieve this goal, the structure of the course is as follows:

Theory

1. Legislative framework for the hygiene and Safety of employees - Competent bodies
2. Hygiene and Safety in technical projects with an emphasis on:
 - Electric shock protection
 - Fall protection
 - Fire prevention, detection, and control
 - Means of Personal Protection and relevant areas Safety signaling
3. Ergonomic principles of design of material machinery and workplaces that lead to safer, more efficient use and the prevention of accidents.
4. Professional rights of Electrical Engineer and Computer Engineers.
5. Basic principles of Procurement and Public Works procedures
6. Components of studies of EM Facilities of building and industrial projects.
7. Labor relations. Insurance and tax Regulations.

Laboratory/Workshops

- A) Demonstration of connections of Security Lighting and Fire Detection systems
- B) Lectures or visits to Institutions of Civil Protection and Safety at Work

(4) TEACHING AND LEARNING METHODS - ASSESSMENT

MODE OF DELIVERY	Face to face in the classroom	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGY	Use of ICT in teaching Use of ICT in laboratory training Use of ICT in communicating with students through the electronic platform e-class	
TEACHING ORGANIZATION	Activity	Semester Workload
	Lectures	38
	Workshops	13
	Laboratory demonstrations	17
	Study (project)	24
	Independent study	28
	Course sum	120
ASSESSMENT METHODS	Examination language: Greek Evaluation methods: 1. Written final exam (75%) <ul style="list-style-type: none"> • By solving problems • With targeted multiple-choice questions • Short Answer Questions 2. Public Presentation (20%) 3. Short Answers to the Workshop Part (5%) Evaluation criteria are announced to the students at the	

	semester onset and are posted on the course website in eClass.
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(5) RECOMMENDED BIBLIOGRAPHY

1. *Electrical Legislation*, M. M. Kapou, 1995, Papatotiriou,
2. *Regulations of Internal electrical installations and elements of technical Legislation*, Ed. Papatotiriou, 1979
3. *Hygiene-Safety and Environmental Protection*, Karakasidis N., Theodoratos P., ION Publications, 1999
4. *Hygiene and Safety of employees*, Iordanidis P., Beros P., Ed. Eugenidou Foundation, 1994
5. *Low Voltage Electrical Installations*, Koutroulis Charalambos
6. *Hygiene and Safety of employees*, Andreadis P., Papaioannou G.
7. *Systematic management of work hygiene and Safety in technical projects*, Moutsopoulou Amalia: Edition: 1st ed./2007, A. TZIOLA & SONS O., E PUBLICATIONS
8. *Scientific Journals*

Scientific Journals

Links

1. *Hellenic Institute of work hygiene and Safety* <http://www.elinyae.gr>
2. *Labor Inspection Body*-sepenet.gr
3. *Fire Service*-fireservice.gr
4. *Unified Social Security Institution (EFKA)* www.efka.gov.gr
5. *European Agency for Safety and Hygiene at Work* <https://osha.eu>