

COURSE OUTLINE

(1) GENERAL

SCHOOL	ENGINEERING SCHOOL		
ACADEMIC UNIT	CIVIL STRUCTURES DEPARTMENT		
LEVEL OF STUDIES	UNDER GRADUATE		
COURSE CODE	3533	SEMESTER	3 ⁰
COURSE TITLE	Building Installations		
INDEPENDENT TEACHING ACTIVITIES <i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i>	WEEKLY TEACHING HOURS	CREDITS	
Lectures	4		
		5 (total)	
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
COURSE TYPE <i>general background, special background, specialised general knowledge, skills development</i>	Skills development		
PREREQUISITE COURSES:			
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek (official)		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	NO		
COURSE WEBSITE (URL)	http://civil.teipir.gr		

(2) LEARNING OUTCOMES

Learning outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.

Consult Appendix A

- Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area
- Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B
- Guidelines for writing Learning Outcomes

The objective of the course is to help the student :

- to obtain a profound and complete knowledge of modern technology applied to building installations. Specifically, to get familiar with the main types of building installations and the relative regulations applied.
- to be able to recognize the components of a building installation.
- to understand the calculations which have to be made and the selection criteria which have to be applied in order to have the optimum selection, construction and synthesis of the above components.
- to be able to design building installations

Upon successful completion of this course the student will be able to:

- Understand the basics and individual characteristics of Building installations.
- Study and management of buildings installations.
- Evaluate comparing different systems applicable to building installations.
- Analyzes and calculates the basics and components of a building installation.

Specifically, students will be able to:

- To describe and identify the parts, to choose the functions and operations of a building installation.
- To explain the operation of a building installation, to assess performance and to calculate the operating parameters.

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology

Adapting to new situations

Decision-making

Working independently

Team work

Working in an international environment

Working in an interdisciplinary environment

Production of new research ideas

Project planning and management

Respect for difference and multiculturalism

Respect for the natural environment

Showing social, professional and ethical responsibility and

sensitivity to gender issues

Criticism and self-criticism

Production of free, creative and inductive thinking

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Others...

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The course aims at the following :

- *Search for, analysis and synthesis of data and information, with the use of the necessary technology*
- *Decision-making*
- *Working independently*
- *Team work*
- *Working in an international environment*
- *Working in an interdisciplinary environment*
- *Project planning and management*

- *Respect for the natural environment*
- *Production of free, creative and inductive thinking*

(3) SYLLABUS

<p>PART A: Mechanical Installations</p> <ul style="list-style-type: none"> • Interior Water Supply and Sewerage installations of buildings. • Natural Gas Applications in Buildings.Basics. • Standards and regulations. Definitions. • Basic components. Basic Calculations – Understanding of Mechanical Installations Designs <p>PART B: Electrical Installations</p> <ul style="list-style-type: none"> • Introduction to electrical installations. Basics. Standards and regulations. Regulation ELOT HD 384. • Classification of electrical installations. Definitions. Basic components. • Safety. Dangers and safety from electrocution. • Conductors and wires. Pipes and components. • Control, safety and outage devices. Voltage and current diversion switches. • Boards of low voltage electrical installations. • Ground of residences and business premises. • Basics on study, design and construction of low voltage electrical installations. • Basic Lighting Circuits. Connections of fluorescent lamps.
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(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY <i>Face-to-face, Distance learning, etc.</i>	Face- to- face.	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i>	Teaching using ICT, Communication and Electronic Submission	
TEACHING METHODS <i>The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc. The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS</i>	Activity	Semester workload
	Lectures	156
	Course total	156
STUDENT PERFORMANCE EVALUATION <i>Description of the evaluation procedure Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other Specifically-defined evaluation criteria are given, and if and where they are accessible to</i>	Written examination: 100%	

students.

(5) ATTACHED BIBLIOGRAPHY

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2. Χαρώνης Παν. / Μηχανολογικές εγκαταστάσεις κτιρίων, τόμος Β' / έκδοση σύγχρονη εκδοτική / 2003 / ISBN 9608165-53.
3. Παπανίκας Δ. Γ., Τεχνολογία φυσικού αερίου, Εκδ. Vortex, 1997.
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14. Bruenner H., Ο εγκαταστάτης δικτύων αερίων καυσίμων & νερού, Τεχνοεκδοτική, 1997.
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16. Β. Μπιτζιώνη, (2008), ΣΥΓΧΡΟΝΕΣ ΗΛΕΚΤΡΙΚΕΣ ΕΓΚΑΤΑΣΤΑΣΕΙΣ, Τζιόλα
17. Ν. Κιμουλάκης, (2006), ΚΤΙΡΙΑΚΕΣ ΗΛΕΚΤΡΙΚΕΣ ΕΓΚΑΤΑΣΤΑΣΕΙΣ, Παπασωτηρίου
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19. Απ. Μαχιά, ΜΕΛΕΤΗ και ΣΧΕΔΙΑΣΗ ΗΛΕΚΤΡΙΚΩΝ ΕΓΚΑΤΑΣΤΑΣΕΩΝ, Εκδόσεις:ΣΥΜΕΩΝ
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21. Σημειώσεις διδασκόντων.