

COURSE OUTLINE

(1) GENERAL

SCHOOL	ENGINEERING SCHOOL		
ACADEMIC UNIT	CIVIL ENGINEERING DEPARTMENT		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	2305578	SEMESTER	5
COURSE TITLE	CONSTRUCTION HISTORY		
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	2	2	
<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>	Special background, specialized general knowledge		
PREREQUISITE COURSES:			
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS			
COURSE WEBSITE (URL)	www.opencourses.gr , http://moodle.teipir.gr , http://vplace.teipir.gr/2305578		

(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

Upon completion of the course, students will be able to:

1. Recall the structural systems and their development in history.
2. Explain the terms *STRUCTURE*, *FORM*, *STRUCTURAL FORM*, *STRUCTURAL SYSTEM*.
3. Recognize the structural and architectural features in historic buildings, with emphasis on the buildings in Greek urban centres during 19th century and early 20th.
4. Perform the organization of a complete description after the investigation of case studies which belong to the previous category of historic buildings.
5. Analyze the construction and architectural features of exiting historic buildings and predict their structural system.
6. Interpret and compare the structural principles in history and their relation to the recent systems.

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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Search, analysis and synthesis of data and information.

Adapting to new situation: complete description and analysis of a case study.

Work in a multidisciplinary environment.

Work autonomously.

(3) COURSE CONTENT

1: The aims of Construction History; definition of the axes of the contents; the terms "structure" and "form"; general presentation of the structural systems.

2-3: The structural system "post-and-beam"; the Greek temple.

4-5: Arches, domes and vaults; development, evolution and dissemination; the Byzantine church; the Gothic cathedral.

6-7-8-9: The dissemination of the Classical Architecture principles until early 20th century; the use of the Classical Architecture parts in the buildings of Romantic Classicism in Greece; urban buildings in Modern Greece during 19th and early 20th century; terminology and construction details; Greek traditional architecture.

10: Wooden and iron structures.
 11: Monolithic structures (underground structures; reinforced concrete structures).
 12: Comparative remarks.

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY <i>Face-to-face, Distance learning, etc.</i>	Lectures, face-to-face.	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i>	Presentations .ppt, open courses (www.opencourses.gr , http://moodle.teipir.gr)	
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	26
	Laboratory exercises	0
	Homework and study	15
	Small scale research project	5
	visit	4
	Course total	50
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 students.</i>	<p><u>Evaluation in Greek language.</u></p> <p><u>Evaluation procedure</u> -written examination (80%), -small scale research project (20%).</p> <p>The criteria are accessible to students through the opencourses.</p>	

(5) ATTACHED BIBLIOGRAPHY

Suggestive Bibliography in foreign languages

Becchi A. – Corradi F. – Foce F. – Pedemonte O. eds. (2004), *Construction History. Research Perspectives in Europe*, Kim Williams Books: Firenze.

Becchi A. – Corradi F. – Foce F. – Pedemonte O. eds. (2003), *Essays on the History of Mechanics*, Birkhäuser: Basel.

Becchi A. – Corradi F. – Foce F. – Pedemonte O. eds. (2002), *Towards a History of Construction*, dedicated to Edoardo Benvenuto, series *Between Mechanics and Architecture*, Birkhäuser: Basel.

Frampton K. (1992), *Modern Architecture – A critical history*, 3rd edition, Thames and

Hudson: London.

Furneau – Jordan Robert (1969), *A Concise History of Western Architecture*, London: Thames and Hudson.

Proceedings of the Construction History International Congresses.

Radelet de Grave P. – Benvenuto E. eds. (1995), *Entre Mécanique et Architecture - Between Mechanics and Architecture*, Birkhäuser: Basel.

Salvadori Mario – Heller Robert (1975), *Structure in Architecture*, 2nd edition, Prentice Hall.

Wells M. (2008), *A History of Engineering and Structural Design*, London: Taylor and Francis Ltd.