

**EASTERN MEDITERRANEAN UNIVERSITY
COURSE OUTLINE**

COURSE CODE	ARCH 244	COURSE LEVEL	Second Year
COURSE TITLE	ARCHITECTURAL CONSTRUCTION AND MATERIALS 11		
COURSE TYPE	<i>Faculty Core Course</i>		
LECTURER(S)	Assoc. Prof. Dr. Halil Zafer Alibaba Office-Architecture Bldg., Rm.023 Office Tel: 630-1142 e-mail: halil.alibaba@emu.edu.tr	e-mail: gaye.senyasa@emu.edu.tr e-mail:	

ASSISTANT

CREDIT VALUE	(2-2) 3	ECTS VALUE	3
PREREQUISITES	Arch 243		
COREQUISITES	None		
DURATION OF COURSE	4 HOURS		
WEB LINK	-		

CATALOGUE DESCRIPTION

Tectonics of buildings, which have complicated types of skeletal systems (with larger spans and shear walls; RC, steel, timber), trusses and some of the form resistant structures (cables, membranes, pneumatic str.), and their construction characteristics.

All possible construction methods of these structures; infill wall possibilities and their construction methods; construction of possible cladding systems, which are used with these systems; some examples of finishing which are used in these types of buildings.

AIMS & OBJECTIVES

Construction courses mainly are aimed to build up a sound knowledge of building material and detailing.

A none-applicable design or project will be condemned to stay on the paper as a drawing. Therefore to prevent project from being none-applicable at the design stage several principles for detailing must be considered. These principles will obviously show us the way to the realistic approach to construction. The students taking this course will be dealing with three most important components of construction. One of them is the Pent, Gable and Hip roofs, the other one is the vertical circulation elements mainly stairs and the other wall openings, mainly doors and windows.

Therefore the three main subjects of Construction II will be based on learning how to design and how to develop the right detail for the slope roof types, stairs and doors with windows. Student will be expected to have the right interest in the subject for a realistic detailing and a realistic design approach.

Sloped Roofs:

Roofs are the building elements to cover the building. In this course only Pent, Gable and Hip roof will be studied. Student will be expected to draw basic detailing of the them in class and as homework.

Vertical Circulation Elements-Stairs:

Stairs are the building elements to combine two levels. With other words two floors situated on different levels in a space has to be accessed with stairs, mostly carrying out the main circulation function of the building. A wide terminology will be consisting of forming and designing the stairs. Besides, lifts, escalators, ramps are to be lectured with material and other specifications.

Wall openings-Doors and Windows:

Doors and windows are the two main components of a construction. They separate the spaces and give access or any circulation possibility from one space to other or help to control circulation between two or more spaces. We sometimes call them wall openings. With a wide terminology doors and windows will be studied under separate chapters and will include lectures with studio work. Together with stairs a specific project covering both subjects will be given as a final study.

GENERAL LEARNING OUTCOMES (COMPETENCES)

On successful completion of this course, all students will have developed knowledge and understanding of :

- Information on Pent roof and its detailing.
- Information on Gable roof and its detailing,
- Information on Hip roof and its detailing,
- Information on Stairs and their detailing,
- Information on openings and their detailing.

GRADING CRITERIA

Attendance and Participation	: 5%
Portfolio	: 5%
Classworks & Quiz	:15%
Term Project	:15%
Mid-Term Exam	:20%
Final Exam	:40%

RELATIONSHIP WITH OTHER COURSES

It is very much related to all other Design Studio courses because the skills obtained here will be used in them as well.

LEARNING / TEACHING METHOD

There will be regular lectures and studio drawing sessions.

1-All students are required to attend the course with card board dimensioned as A3/A2 size and complete set of drawing instruments.

2-All drawings should be done with pencil. Strictly no CAD drawings or tracing paper will be accepted.

3-After the lectures, two hours studio work will follow and assignments will be finished during these hours.

4-Assignments will carefully be kept in a proper file.

5-Those files will be submitted whenever asked by the tutors for grading. Grading of files will be considered during the exams with great importance.

6-Students failing of doing so will not be allowed to the classes or to sit for the exams.

ASSIGNMENTS

Homework will be given on related subject.

METHOD OF ASSESSMENT

Attendance and Participation	: 5%
Portfolio	:5%
Classworks & Quiz	:15%
Term Project	:15%
Mid-Term Exam	:20%
Final Exam	:40%

ATTENDANCE

Attendance at 80% level to the course hours are necessary.

Less than 80% attendance level and lack of submitted data which are essential for the evaluation of the course will be evaluated as NG.

TEXTBOOK/S

None

INDICATIVE BASIC READING LIST

- 1- Foster, J.S., Mitchell's Building Series-Structure and Fabric, Part 1, Fifth Edition., Longman, 1994.
- 2- Ching, F.D.K., Building Construction Illustrated-second edition., John Willey & Sons, Inc., Canada, 1991.
- 3- King H. and Osbourn D., Mitchell's Building Series-Components, Anchor Press Ltd, London, 1979.
- 4- Foster, J.S and Harington, R., Mitchell's Structure & Fabric Part 2, sixth edition., Longman, 2000.
- 5- Osbourn D. and Greeno R., Mitchell's Building Series, Introduction to Building, Second edition., Longman, 1997.
- 6- Binan, M., Ahşap Çatılar., Birinci Baskı., Birsen Yayınları,, Istanbul, 1990.

EXTENDED READING LIST

- 1- Vandenberg, M (edt.), AJ Handbook of Building Enclosure., The architectural Press., London, 1984.
- 2- Ambrose, J., Building Construction and Design., Van Nostrand Reinhold., New York, 1992.
- 3- Rush, R. D., The Building Systems Integration Handbook., Butterworth, AIA, New York, 1986.
- 4- Orton, A., The Way We Built Now-form, scale and technique., E&FN SPON-Imprint of Chapman&Hall., London, 1988.

SEMESTER OFFERED

2019-2020 Spring Semester

CONTENT & SCHEDULE

Lectures will be held on Monday Gr.01&03&04 (08:30-12:20 pm) in A 13, A 20 Monday Gr.023 (12.30-16.20 pm) in A 13 & A 20. The lecture topics within the semester are as in the following schedule:

1	17-18 Feb. 2020	Introduction to the course, classification and definition of the course contents.
2	24-25 Feb. 2020	Roofs Classification of roofs in terms of their forms. Low and sloped roofs with RC, Precast Concrete, Timber, Steel, Cable and Composite materials.
3	02-03 March 2020	Roofs Classification of roofs in terms of their construction materials.
4	09-10 March 2020	Roofs Roof types for wide span buildings. Classwork
5	16-17 March 2020	Classwork on Roofs
6	23-24 March 2020	Stairs: Geometrical classification of stairs. Stairs to be classified according to the material and structural systems. Reinforced concrete stairs with comprehensive detailing and application techs. With larger scaled drawings. Assignment Introduction to term project.
7	30-31 March 2020	Design Week
8	06-07 April 2020	Mid-Term Jury Week
9	13-14 April 2020	Mid-Term Exam Week
10	20-21 April 2020	Stairs: Stair detailing as studio work.
11	27-28 April 2020	Wall Openings-Doors-Windows: Introduction to door openings with different material and function. Classification according to the function of doors/windows. Forming doors/windows with different methods and detailing. Partial Term Project Submission
12	04-05 May 2020	Wall Openings-Doors-Windows: Introduction to door openings with different material and function. Classification according to the function of doors/windows. Forming doors/windows with different methods and detailing. Partial Term Project Submission
13	11-12 May 2020	Term Project Submission
14	18-19 May 2020	Revisions
15	01-02 June 2019	Final Jury Week
16	08-09 June 2020	Final Exam Week

PLAGIARISM

This is intentionally failing to give credit to sources used in writing regardless of whether they are published or unpublished. Plagiarism (which also includes any kind of cheating in exams) is a disciplinary offence and will be dealt with accordingly.