

Istanbul Technical University – Department of Architecture
MIM 485E – Building Construction Techniques, CRN22406
Course Syllabus | 2019-2020 Spring Semester

Course Day and Hour : Friday, 14.30-17.30
Course Room : -
Course Credit :3+0
Course Web Site :-

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Course Description

Building construction techniques - analysis and classification according to different criteria: location of construction, level of industrialization, activities in construction, main material and "power" used in construction. Inputs of the construction process: materials, tools, workmanship and their classification according to different criteria. Analysis of construction and constructability criteria stages at building and architectural detail level. Interaction of design and construction. Analysis of architectural design according to constructability criteria. Working as different actors (designer- contractor) in collaboration.

Course Objectives:

1. To understand properties of building construction techniques
2. To understand construction – design interactions
3. To gain ability to analyse existing architectural design with constructability criteria

Course Structure and Plan

Course Plan

WEEK	DATE	TOPIC
1	14.02	Introduction to building construction techniques, terminology and actors of the building production process
2	21.02	Inputs of the construction process: Materials
3	29.02	Inputs of the construction process: Tools, workmanship
4	06.03	Building construction techniques and assembling techniques
5	13.03	Construction sequence, Constructability criteria and analysing techniques, Construction – design interactions
6	20.03	Construction techniques and technologies of the future
7	27.03	Construction process observation, presentation, discussion : wall systems
8	03.04	Mid term break
9	10.04	Construction process observation, presentation, discussion : floor systems
10	17.04	Construction process observation, presentation, discussion : roof systems
11	24.01	Examination of an existing architectural design (construction projects) by design teams and contractor teams
12	01.05	holiday
13	08.05	Analysing the inputs for construction of an existing architectural design: Building & Detail level
14	15.05	Constructability analysis of an existing architectural design: Building level
15	22.05	Constructability analysis of an existing architectural design: Detail level

Recommended Readings

Allen, E., Rand, P., 2007. Architectural Detailing – Function, Constructability, Aesthetics. Hoboken, N.J.: Wiley.
Meijs, M., Knaack, U., 2009. Components and connections: Principles of construction. Basel: Birkhäuser.
Simmons, H.L., 2011. Olin's Construction: Principles, Materials and Methods. Hoboken, N.J.: Wiley.
Smith, R. E., 2010. Prefab Architecture: A Guide to Modular Design and Construction. Hoboken, N.J.: Wiley

Course Assessment

Midterm work: %40 (=observation, presentation %20 + pre-examination pre-analysis of projects %20) (min. grade: 30)

Final work: %60 (=final exam %30, final submission %30)