AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Structural Technology							
Course Code	MCE515		Couse Level	Second Cycle (Master's Degree)				
ECTS Credit	8	Workload	200 *(Hours)*	Theory	3	Practice	0	Laboratory	0
Objectives of the Course	Today's construction technologies, load bearing systems, building elements, joints and material characteristics will be considered in the building technology course. Within this aim, prefabric construction technologies which can be produced by using concrete, reinforced concrete, light steel, steel profiles, timber will be explained.							
Course Content	Today's construction technologies, load bearing systems, building elements, joints and material characteristics will be considered in the building technology course. Within this aim, prefabric construction technologies which can be produced by using concrete, reinforced concrete, light steel, steel profiles, timber will be explained.							
Work Placement	N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Project Based Study, Individual Study				
Name of Lecturer(s)								

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	30
Final Examination	1	40
Quiz	2	20
Assignment	2	10

Recommended or Required Reading

1	Allen, E., Iano, J., (2008), Fundamentals of Building Construction: Materials and Methods, Fifth edition, WILEY, United States of America.

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction to course, Dwellings and Dwelling types
2	Theoretical	Industrialization, construction methods, prefabrication
3	Theoretical	reinforced prefabricated structures, structure, panel and cell systems, joins
4	Theoretical	Prefabricated dwellings
5	Theoretical	Construction steel, steel profiles, junctions
6	Theoretical	Construction steel, steel profiles, junctions
7	Intermediate Exam	Midterm
8	Theoretical	Light steel profiles, junctions
9	Theoretical	Dweliing examples made from light steel, foundation, wall and roof solutions
10	Theoretical	Timber technologies, production of laminated elementsjunctions
11	Theoretical	Dweliing examples made from timber
12	Theoretical	New designs, Structural Control Technology
13	Theoretical	New designs, Structural Control Technology
14	Theoretical	New designs, Structural Control Technology
15	Final Exam	Final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	21	1	1	42
Assignment	1	4	4	8
Term Project	2	30	10	80
Quiz	2	15	10	50
Midterm Examination	1	5	5	10

Final Examination	1	5	5	10
			Total Workload (Hours)	200
			[Total Workload (Hours) / 25*] = **ECTS**	8

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	interpret information from site investigations and apply it in the selection of appropriate building foundations;
2	describe and differentiate the methods for the construction of building superstructure using reinforced concrete, prestressed concrete, precast concrete, masonry, structural steel and timber;
3	describe typical concrete construction, steel fabrication and erection processes;
4	prepare sketches in concrete, block, structural steel and timber that correctly convey the required information to the intended user by: (a) interpreting and sketching elements or members from designers' calculations (b) arranging elements or members to preclude clashes and facilitate fixing while satisfying design requirements (c) applying appropriate conventions from relevant standards and building codes;
5	select and apply appropriate methods for weather, sound, and fire-proofing buildings;
6	gain high level ability to define the required information and data

Programme Outcomes *(Civil Engineering (English) Master)*

1	To be able to develop expertise knowledge in a civil engineering area founded on their graduate competence.
2	To be able to use the theoretical and practical expertise knowledge gained in their specialty area.
3	To be able to use the information, problem solving and / or practical skills from the field, in interdisciplinary studies.
4	To be able to create new knowledge by integrating their knowledge area with the knowledge coming from different disciplines; and solve problems that need expertise by using scientific research methods
5	To be able to solve the problems related to his/her area by using appropriate research methods
6	To be able to devise a problem in their specialty area, develop a solution methodology, solve the problem, and interpret the results and take action if necessary
7	To be able to criticize the knowledge in their specialty area, guide the learning process, and independently direct high level studies
8	To be able to systematically communicate the recent developments in their specialty area and their own studies to groups both inside and outside their specialty area, orally, in writing and visually
9	To be able to use computer software at a level required by their specialty area with drawing upon information and communication technology at a high level
10	To be able to introduce scientific, technological, social and cultural advancements in the field of civil engineering and to contribute to the process of being an information of the society and to sustain it.
11	To be conscious of professional and ethical responsibility and contribute to the establishment of this consciousness.
12	To be able to protect social, scientific, and ethical values during collection, interpretation, and dissemination stages of the data associated with their specialty area; instruct and supervise these values
13	To be able to use at least one foreign language in a level to follow current developments related to the field.

Contribution of Learning Outcomes to Programme Outcomes *1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High*

	L1	L2	L3	L4	L5	L6
P1	5	4	5	4	5	4
P2	4	5	4	5	4	5
P3	5	4	5	4	5	4
P4	4	5	4	5	4	5
P5	5	4	5	4	5	4
P6	4	5	4	5	4	5
P7	5	4	5	4	5	4
P8	4	5	4	5	4	5
P9	5	4	5	4	5	4
P10	4	5	4	5	4	5
P11	5	4	5	4	5	4
P12	4	5	4	5	4	5
P13	5	4	5	4	5	4