İstanbul Technical University – Department of Architecture

MIM 125E- Statics, 22076 (21938)
Course Syllabus | 2019-2020 Spring Semester

Course Day and Hour : Wednesday 13.30-15.30	
Course Room :	
Course Credit : 1.5	
Course Web Site : https://ninova.itu.edu.tr/Ders/10694/Sinif/41742	

Course Instructor: Gülseren Erol Soyöz
e-mail: guluse@yahoo.com
Office no: 2282

Course Assistant/s:
e-mail:
Office no:

Course Description

Within the context of the course, the following subjects are given; concept of force, moment, rigid body, equilibrium of forces, introduction of load bearing systems and loads, evaluating support reactions of determinite systems (beams, columns, frames, arches) by using equilibrium concept, configuring truss systems and determining member forces of trusses, cable structures, determining cable forces under point and distributed loads. At the end of the course, students will be capable of choosing various appropriate load bearing systems for their architectural design projects.

Course Structure and Plan

Course Plan

WEEK	DATE	TOPIC
1	Feb 12th, 2020	Introduction, Fundamental Concepts
2	Feb 19th, 2020	Concept of a Force, Concurrent Forces, Coplanar Systems
3	Feb 26th, 2020	Moment of a Force, Moment of a Couple
4	Mar 4th, 2020	Equilibrium of a Rigid Body, Friction
5	Mar 11th, 2020	Problem Solving Session
6	Mar 18th, 2020	Load Bearing Systems, Loads, Supports and Reaction Forces
7	Mar 25th, 2020	Centroids
8	Apr 8th, 2020	Problem Solving Session
9	Apr 15th, 2020	Midterm Exam
10	Apr 22nd, 2020	Plane Truss Systems
11	Apr 29th, 2020	Cables
12	May 6th, 2020	Problem Solving Session
13	May 13th, 2020	Moments of Inertia
14	May 20th, 2020	Problem Solving Session

Recommended Readings

Title	Authors	Publisher
ineering Mechanics: Statics	Hibbeler, R.C.	Prentice Hall, 2010
Statics and Mechanics of Materials	Hibbeler, R.C.	Prentice Hall, 2010
Statics and Mechanics of Materials	Beer, F.P., Johnston, R., Dewolf J.T., Mazurek D.	McGraw-Hill, 2010
Mühendislik Mekaniğinde Statik Problemleri	Karataş, H., İşler, Ö.	Çağlayan, 2003
Mühendisler için Mekanik, Statik ve Mukavemet	Omurtag, M. H.	Nobel, 2010
Statik-Mukavemet	Bakioğlu, M.	Beta, 2007
Çözümlü Statik-Mukavemet Problemleri	Aköz, Y., Eratlı, N.	Birsen, 2005

Course Assessment

Assessment criteria is based on the scores of one homework assignment, one mid-term exam and one final exam.The effect of the homework assignment score and the mid-term exam score on the total mid-term score is 20% and 80%, respectively. In order to qualify for the final exam, course attendance should not be below 70% and at least 40 points out of 100 must be obtained as the total mid-term score. The effect of the total mid-term score and the final exam score on the overall success grade is 40% and 60%, respectively.

Total mid-term score: 80% mid-term exam score, 20% homework score
Qualification for the final exam: 70% course attendance and min. 40 points out of 100 as total mid-term score
Overall success grade: 40% total mid-term score, 60% final exam score