

Vocational School / Construction Technology
2024 - 2025 Academic Year
THEORY of STRUCTURES
Syllabus

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
THEORY of STRUCTURES	İNŞ1227230	Spring Semester	3+0	3	4
Prerequisites Courses					
Recommended Elective Courses					
Language of Instruction	Turkish				
Course Level	Short Cycle (Associate's Degree)				
Course Type	Required				
Course Coordinator	Lect. Özge KARABAY				
Name of Lecturer(s)	Lect. Özge KARABAY				
Assistant(s)					
Aim	It is aimed to teach necessary information for the static analysis of isostatic load bearing systems.				
Course Content	This course contains; Isostatic Beams, Isostatic Beams, Isostatic Beams, Isostatic Beams, Isostatic Plane Frames, Isostatic Plane Frames, Isostatic Plane Frames, Isostatic Plane Frames, Isostatic Plane Truss Systems, Isostatic Plane Truss Systems, Isostatic Plane Truss Systems, Isostatic Plane Truss Systems, Isostatic Plane Truss Systems, Three-Hinged Systems, Three-Hinged Systems, Three-Hinged Systems, Three-Hinged Systems.				
Course Learning Outcomes			Teaching Methods	Assessment Methods	
1. The student will be able to express concepts of external force and internal force.			12, 14, 9	A	
2. The student will be able to calculate bar forces in isostatic plane truss systems.			12, 14, 9	A	
3. The student will be able to calculate section forces in isostatic beams.			12, 14, 9	A	
4. The student will be able to demonstrate section forces in isostatic beams on the graphs.			12, 14, 9	A	
5. The student will be able to calculate section forces in isostatic plane frames.			12, 14, 9	A	
6. The student will be able to demonstrate section forces in isostatic plane frames on the graphs.			12, 14, 9	A	
Teaching Methods	12: Problem Solving Method, 14: Self Study Method, 9: Lecture Method				
Assessment Methods	A: Traditional Written Exam				
Lecture Schedule					
Sequence	Topics	Preliminary Preparation			
1	Isostatic Beams				
2	Isostatic Beams				
3	Isostatic Beams				
4	Isostatic Beams				
5	Isostatic Plane Frames				
6	Isostatic Plane Frames				
7	Isostatic Plane Frames				
8	Isostatic Plane Frames				
9	Isostatic Plane Truss Systems				
10	Isostatic Plane Truss Systems				
11	Isostatic Plane Truss Systems				
12	Three-Hinged Systems				
13	Three-Hinged Systems				
14	Three-Hinged Systems				
Evaluation Methods		Weight(%)			
Midterm Exam		40			
General Exam		60			

Resources	
Course Presentations Karaduman, M., "MYO İnşaat Teknikerliği Programları İçin Yapı Statiği", Seventh Edition (2013), Nobel Akademik Yayıncılık. Can, H., "Çözümlü Örneklerle Yapı Statiği", Fifth Edition (2008), Birsen Yayınevi. Yorulmaz, M., Özgen, K., "Yapı Statiği", 1996, Birsen Yayınevi.	