

COURSE DESCRIPTION FORM	
Course Code and Title	CE483 STEEL STRUCTURES
Semester	7
Catalog description	Development of steel. Steel as a building material. Mechanical properties of steel. Lattice steel structure elements and element's behavior (single-piece drawstrings and pressure rods, bending elements. Steel element connections connection and connection elements (under axial loads; Under rivet, bolt, weld, axial load and moment; Rivet, bolt, welding) Multi-piece pressure rods. Truss system design materials
Required reading	Deren, H., "Çelik Yapılar", İ.T.Ü İnşaat Müh. Böl., 1995, 401 sayfa
Recommended reading	1. Odabaşı, Y. "Ahşap ve Çelik Yapılar", Beta Basım Yayım Dağıtım A. Ş., Cağaloğlu, İstanbul, 1997, 479 sayfa 2. Akkaş, N. and Yılmaz, Ç., "Steel Structures", classnotes, 1974, 52 p. 3. B. Bresler, T.Y. Lin "Design of Steel Structures", John Wiley&Sons.Inc. 4. TSE 648 (2016) 5. TS EN 1991-1-1,2,3 ve 4
ECTS	4
Prerequisites and co-requisites	Prerequisite course: CE226 STRENGTH OF MATERIALS I Required attendance to lectures is at least 70%
Compulsory/Elective	Compulsory
Language of instruction	English
Aim of course	To teach the principles of student steel structures
Learning outcomes of the course unit	1- Dimensioning and analysis of steel industry structures 2- Design and dimension plane steel system components and their connections.
Mode of delivery	The mode of delivery of this course is face to face.
Course content	<ol style="list-style-type: none"> 1. Introduction, material properties, mechanical properties of structure steel and stress unit deformation relation 2. Structural steel safety stresses and loading conditions, properties of profiles and plates 3. Determination of industrial building elements and influential loads. 4. Sample solutions for one-piece draw bars and pressure bars. 5. Sample solutions of rivet and bolt joints under axial load. 6. Examples of welded joints under axial load, 7. Examples of welded joints under axial load and Midterm 1 8. Multi-piece pressure rods(I-II-III grup), 9. Behavior of steel elements under axial load and moment

	10. Welded joints of steel elements under axial load and moment 11. Axial load and momentum of steel elements, bolted joints, 12. Full body beams: General information, profiled beams, 13. Welded and bolted connections of profile beams, 14. Midterms 2 15. Analysis and dimensioning of cage structure elements.																																																																																																															
Planned learning activities and teaching methods	3 lecture hours per week (3+0) Web search and library work Report preparation Midterm exam and required works Final exam and required works																																																																																																															
Assessment methods and criteria	<table><tr><td></td><td>Quantity</td><td colspan="5">Percentage (%)</td></tr><tr><td>Mid-terms</td><td>2</td><td colspan="5">60</td></tr><tr><td>Assignment</td><td>-</td><td colspan="5">-</td></tr><tr><td>Exercises</td><td>-</td><td colspan="5">-</td></tr><tr><td>Projects</td><td>-</td><td colspan="5">-</td></tr><tr><td>Practice</td><td>-</td><td colspan="5">-</td></tr><tr><td>Quiz</td><td>-</td><td colspan="5">-</td></tr><tr><td>Contribution of In-term Studies to Overall Grade %</td><td></td><td colspan="5">60</td></tr><tr><td>Contribution of Final Examination to Overall Grade (%)</td><td></td><td colspan="5">40</td></tr><tr><td>Attendance</td><td></td><td colspan="5"></td></tr></table>								Quantity	Percentage (%)					Mid-terms	2	60					Assignment	-	-					Exercises	-	-					Projects	-	-					Practice	-	-					Quiz	-	-					Contribution of In-term Studies to Overall Grade %		60					Contribution of Final Examination to Overall Grade (%)		40					Attendance																																									
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