



HASAN KALYONCU UNIVERSITY
Faculty of Engineering
Course Description Form

COURSE: Steel Structures					
CODE: CE354		SEMESTER: SPRING			
LANGUAGE: ENGLISH		TYPE: COMPULSORY			
PRE-REQUISITES: - CO-REQUISITES: -		THEORY	PRACTICAL	CREDIT	ECTS
WEEKLY HOURS: 3		3	0	3	4

CONTENT OF THE COURSE:

Mechanical behavior and material properties of structural steel, design of steel structures, allowable stress design approach, introduction to use of AISC-LRFD code. The concepts of structural steel including connections, tension members, compression members, beams and beam-columns, beams and girders as well as bolted-welded connections.

OBJECTIVE OF THE COURSE:

To enable students to learn the behavior of structural steel components and design it, such as, members and connections in two dimensional roof trusses, steel beams and frame structures.

WEEKLY SCHEDULE

Week	Topics
1	Introduction – Steel and properties
2	Tension members
3	Tension members
4	Tension members
5	Structural bolts
6	Structural bolts
7	Structural bolts
8	Mid-term
9	Welding
10	Welding
11	Compression members
12	Compression members
13	Beam Laterally supported
14	Beam Laterally supported

TEXTBOOK:

“Salmon CG, Johnson EJ, Malhas FA. Steel Structures, Design and Behavior. fifth Edition, USA: Pearson Prentice Hall. 2009.

EVALUATION SYSTEM:

IN-TERM STUDIES	QUANTITY	PERCENTAGE (%)
Midterm Exam	1	40
Homework		
Laboratory works		
Quiz		
Final Exam	1	60
TOTAL		100
CONTRIBUTION OF INTERM STUDIES TO OVERALL GRADE		40
CONTRIBUTION OF FINAL EXAMINATION TO OVERALL GRADE		60
TOTAL		100

COURSE CATEGORY:	PERCENTAGE (%)
Mathematics and Basic Sciences	10%
Engineering	20%
Engineering Design	70%
Social Sciences	

TABLE OF ECTS / WORKLOAD:			
Activities	QUANTITY	Duration (Hour)	Total Workload
Course Duration	13	3	39
Hours for off-the-classroom study (Pre-study, practice)	14	5	70
Laboratory works	0	0	0
Mid-term	1	2	2
Final examination	1	2	2
Homework			
Quiz	0	0	0
Total Work Load			113
Total Work Load / 30			3,7
ECTS Credit of the Course			4

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
LO1	3	3	2	0	0	0	0	0	0	0	0
LO2	3	3	2	0	0	0	0	0	0	0	0
LO3	3	3	2	0	0	0	0	0	0	0	0
PO: Program Outcomes LO: Learning Outcomes Values: 0: None 1: Low 2: Medium 3: High											

INSTRUCTOR(S):	Asst.Prof.Dr. D1a Eddin NASSANI
FORM PREPARATION DATE:	22.05.2019

LEARNING OUTCOMES OF THE COURSE:	PROGRAM OUTCOMES:
<p>LO1: Design of tension and compression members LO2: Design of bolted and welded connections LO3: Design of laterally supported beam</p>	<p>PO1: Adequate knowledge in mathematics, science and engineering subjects pertaining to the relevant discipline; ability to use theoretical and applied knowledge in these areas in complex engineering problems.</p> <p>PO2: Ability to identify, formulate, and solve complex engineering problems; ability to select and apply proper analysis and modeling methods for this purpose.</p> <p>PO3: Ability to design a complex system, process, device or product under realistic constraints and conditions, in such a way as to meet the desired result; ability to apply modern design methods for this purpose.</p> <p>PO4: Ability to devise, select, and use modern techniques and tools needed for analyzing and solving complex problems encountered in engineering practice; ability to employ information technologies effectively.</p> <p>PO5: Ability to design and conduct experiments, gather data, analyze and interpret results for investigating complex engineering problems or discipline specific research questions.</p> <p>PO6: Ability to work efficiently in intra-disciplinary and multi-disciplinary teams; ability to work individually.</p> <p>PO7: Ability to communicate effectively in Turkish, both orally and in writing; knowledge of a minimum of one foreign language; ability to write effective reports and comprehend written reports, prepare design and production reports, make effective presentations, and give and receive clear and intelligible instructions.</p> <p>PO8: Recognition of the need for lifelong learning; ability to access information, to follow developments in science and technology, and to continue to educate him/herself.</p> <p>PO9: Consciousness to behave according to ethical principles and professional and ethical responsibility; knowledge on standards used in engineering practice.</p> <p>PO10: Knowledge about business life practices such as project management, risk management, and change management; awareness in entrepreneurship, innovation; knowledge about sustainable development.</p> <p>PO11: Knowledge about the global and social effects of engineering practices on health, environment, and safety, and contemporary issues of the century reflected into the field of engineering; awareness of the legal consequences of engineering solutions.</p>

