T.C. ESKİŞEHİR OSMANGAZİ UNIVERSITY
ENGINEERING AND ARCHITECTURE FACULTY
MECHANICAL ENGINEERING DEPARTMENT

COURSE INFORMATION FORM

SEMESTER	Spring

COURSE CODE	151812138	COURSE NAME	Statics (B)

SEMESTER	WEEKLY COURSE PERIOD			COURSE OF			
	Theory	Practice	Laboratory	Credit	ECTS	TYPE	LANGUAGE
2	3	0	0	3	5	COMPULSORY (x) ELECTIVE ( )	Turkish

COURSE CATAGORY			
Basic Science	Basic Engineering	Mechanical Engineering [if it contains considerable design, mark with (√)]	Social Science
	x	( )	

ASSESSMENT CRITERIA			
	Evaluation Type	Quantity	%
MID-TERM	Mid-Term	1	50
	Quiz		
	Homework		
	Project		
	Report		
	Others (……)		
FINAL EXAM		1	50

PREREQUIEITE(S)	
COURSE DESCRIPTION	General principles of statics, Force vectors, Force system resultants, Equilibrium of rigid body, Geometric properties and distributed loadings, Structural analysis, Friction, Virtual work.
COURSE OBJECTIVES	To acquire and apply the basic knowledge necessary for the mechanics of materials and machine elements courses.
ADDITIVE OF COURSE TO APPLY PROFESSIONAL EDUATION	Ability to identify, formulate and solve problems in the related field.
COURSE OUTCOMES	By the end of this module students will be able to: 1. To be able to recognize and identify the static's problem 2. Define the problem 3. Using the necessary formulas to solve the problem, 4. Conclusion To be able to evaluate, 5. To be able to evaluate by evaluating the resultant solutions,
TEXTBOOK	Mühendislik Mekaniği - Statik, Hibbeler, R.C. ve Fan, S.C. Mühendisler için Mekanik - Statik, Beer, F.P. ve Johnston, E.R.
OTHER REFERENCES	Statik ve Mukavemet, Omurtag, M.H. Engineering Mechanics Static and Dynamics, Irwin H. Shames
TOOLS AND EQUIPMENTS REQUIRED	-

COURSE SYLLABUS	
WEEK	**TOPICS**
1	General principles of statics
2	Force vectors
3	Force system resultants
4	Equilibrium of rigid body
5	Equilibrium of rigid body
6	Geometric properties and distributed loadings
7	Geometric properties and distributed loadings
8	Mid-Term Examination
9	Mid-Term Examination
10	Structural analysis
11	Structural analysis
12	Friction
13	Friction
14	Virtual work
15,16	Final Exam

NO	PROGRAM OUTCOMES	3	2	1
1	Sufficient knowledge of engineering subjects related with mathematics, science and mechanical engineering; an ability to apply theoretical and practical knowledge on solving and modeling of mechanical engineering problems.	x		
2	Ability to determine, define, formulate and solve complex mechanical engineering problems; for that purpose an ability to select and use convenient analytical and experimental methods.		x	
3	Ability to design a complex system, a component and/or an engineering process under real life constrains or conditions, defined by environmental, economical and political problems; for that purpose an ability to apply modern design methods.		x	
4	Ability to develop, select and use modern methods and tools required for mechanical engineering applications; ability to effective use of information technologies.			x
5	In order to investigate mechanical engineering problems; ability to set up and conduct experiments and ability to analyze and interpretation of experimental results.			x
6	Ability to work effectively in inner or multi-disciplinary teams; proficiency of interdependence.			x
7	Ability to communicate in written and oral forms in Turkish/English; proficiency at least one foreign language.			x
8	Awareness of life-long learning; ability to reach information; follow developments in science and technology and continuous self-improvement.			x
9	Understanding of professional and ethical issues and taking responsibility			x
10	Awareness of project, risk and change management; awareness of entrepreneurship, innovativeness and sustainable development.			x
11	Knowledge of actual problems and effects of engineering applications on health, environment and security in global and social scale; an awareness of juridical results of engineering solutions.			x
1:None. **2**:Partially contribution. **3**: Completely contribution.				

Prepared by: Assist.Prof.Dr. Ümit ER **Date:** 13.11.2017

Signature(s):