

STATICS

1	Course Title:	STATICS
2	Course Code:	MAK1002
3	Type of Course:	Compulsory
4	Level of Course:	First Cycle
5	Year of Study:	1
6	Semester:	2
7	ECTS Credits Allocated:	3.00
8	Theoretical (hour/week):	3.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Dr. Öğr. Üyesi BEHIYE KORKMAZ
15	Course Lecturers:	Yrd.DoçDr.Behiye KORKMAZ
16	Contact information of the Course Coordinator:	resat@uludag.edu.tr. 0224-2941974 Uludağ Üniversitesi Müh. Mim. Fak. Makine Müh. Bölümü TR-16059, Bursa, Türkiye.
17	Website:	
18	Objective of the Course:	Teaching fundamentals of mechanics of rigid bodies and finding the forces acting on objects before design according to equilibrium positions.
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	
	1	Teaching of vertical components of vectors, scalar and vector multiplication of two vectors, moment to teach the concepts.
	2	Teaching of Equilibrium of a material point in space.
	3	Teaching of structural analyses.
	4	Teaching of frame analyses.
	5	Calculating of Center of gravity.
	6	Calculating of Moment of inertia.
	7	Calculating of Friction Loads.
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21	Course Content:	
	Course Content:	
Week	Theoretical	Practice

1	1.Lesson: Basic definitions 2.Lesson: The basic principles based on the mechanics 3.Lesson: The basic principles based on the mechanics(cont.)			
2	1.Lesson: Statics analysis of material point 2.Lesson: Forces action to a material point 3.Lesson: Vertical components of a vector, unit vectors			
3	1.Lesson: Scaler multiplication of two vectors, vectorial sum, moment 2.Lesson: Scaler multiplication of two vectors, vectorial sum, moment.(cont.) 3.Lesson:Movement of a force and couple system, Equivalent Forces			
4	1.Lesson: Moment of a force according to a point 2.Lesson: Equilibrium of a material point in planes. 3.Lesson: Free-Body Diagram			
5	1.Lesson: Equilibrium of a material point in space. 2.Lesson: Equilibrium of a material point in space. (cont.)			
Activites		Number	Duration (hour)	Total Work Load (hour)
6	1.Lesson: Statics of Rigid Bodies 2.Lesson: Equilibrium of Forces Plane System	14	3.00	42.00
Practicals/Labs		0	0.00	0.00
Self study and preperation		14	2.00	28.00
Homeworks		0	0.00	0.00
7	1.Lesson: Equilibrium of Forces in Space 2.Lesson: Equilibrium of Forces in Space	0	0.00	0.00
Field Studies		0	0.00	0.00
8	3.Lesson: Equilibrium of Forces in Space System (cont.)	1	2.00	2.00
Others		2	8.00	16.00
9	Repeating courses and midterm exam	1	2.00	2.00
Total Work Load				90.00
Total work load/ 30 hr				3.00
ECTS Credit of the Course				3.00
analyses (cont.)				
10	1.Lesson: Method of section for structural analyses 2.Lesson: Method of section for structural analyses(cont.) 3.Lesson: Method of section for structural analyses (cont.)			
11	1.Lesson: Frame Systems 2.Lesson: Frame Systems (cont.) 3.Lesson: Frame Systems (cont.)			

12	1.Lesson: Center of gravity and Distributed Loads 2.Lesson: Center of gravity (cont.) 3.Lesson: Center of gravity (cont.)	
13	1.Lesson: Moment of inertia 2.Lesson: Moment of inertia (cont.) 3.Lesson: Moment of inertia (cont.)	
14	1.Lesson: Friction 2.Lesson: Friction (cont.) 3.Lesson: Friction (cont.)	

22	Textbooks, References and/or Other Materials:	1. Shelley, J.F., Engineering Mechanics, Statics, McGraw-Hill, 1980 2. Hibbeler, R.C., Statics, Second Edition, Macmillan Publishing Co., Inc., New York, 1978. 3. Ferdinand P. Beer, Russell Johnston, Mühendisler için Mekanik-Statik, Birsen Yayınevi, 2011.
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23	Assesment
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TERM LEARNING ACTIVITIES	NUMBER	WEIGHT
Midterm Exam	1	40.00
Quiz	0	0.00
Home work-project	0	0.00
Final Exam	1	60.00
Total	2	100.00
Contribution of Term (Year) Learning Activities to Success Grade		40.00
Contribution of Final Exam to Success Grade		60.00
Total		100.00
Measurement and Evaluation Techniques Used in the Course		

24	ECTS / WORK LOAD TABLE
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25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	5	5	5	0	3	5	0	0	0	0	0	0	0	0	0	0
ÖK2	5	5	5	0	3	5	0	0	0	0	0	0	0	0	0	0
ÖK3	5	5	5	0	3	5	0	0	0	0	0	0	0	0	0	0
ÖK4	5	5	5	0	3	5	0	0	0	0	0	0	0	0	0	0
ÖK5	5	5	5	0	3	5	0	0	0	0	0	0	0	0	0	0
ÖK6	5	5	5	0	3	5	0	0	0	0	0	0	0	0	0	0
ÖK7	5	5	5	0	3	5	0	0	0	0	0	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																

Contribution Level:	1 very low	2 low	3 Medium	4 High	5 Very High
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