STATICS

1	Course Title:	STATICS	
2	Course Code:	INS1012	
3	Type of Course:	Compulsory	
4	Level of Course:	First Cycle	
5	Year of Study:	1	
6	Semester:	2	
7	ECTS Credits Allocated:	4.00	
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:	Prof. Dr. BABÜR DELİKTAŞ	
15	Course Lecturers:	Prof. Dr. Babür Deliktaş	
16	Contact information of the Course Coordinator:	bdeliktas@uludag.edu.tr 224 2900744 Bursa Uludağ Univ. Müh. Fak. İnşaat Müh. Böl. Görükle, Bursa	
17	Website:	http://insaat.uludag.edu.tr	
18	Objective of the Course:	To provide the theory of engineering mechanics of rigid body in details with its applications.	
19	Contribution of the Course to Professional Development:	1 Be able to describe the definition, main branches, fundamental terms, historical development and application fields of the theory of engineering mechanics, both orally and in writing 2 Be able to explain Newton Laws of Motions, the basics rules, assumptions and limitations of the theory of engineering mechanics, both orally and in writing 3 Be able to express the force systems by using oral, writing and technical drawing skills 4 Be able to model the force systems by using simple, drawings or modern computer technology 5 Be able to analyze the force systems by using the knowledge of physics , mathematics and theory engineering mechanics along with the use of computer technology 6 Be able to establish reasonable and consistent links among real physical system, model, theory, equations, analysis and results 7 Be able to design of the new engineering system or to be able to control and judge the existing one	
20	Learning Outcomes:		
		1	Be able to describe the definition, main branches, fundamental terms, historical development and application fields of the theory of engineering mechanics, both orally and in writing
		2	Be able to explain Newton Laws of Motions, the basics rules, assumptions and limitations of the theory of engineering mechanics, both orally and in writing
		3	Be able to express the force systems by using oral, writing and technical drawing skills
		4	Be able to model the force systems by using simple, drawings or modern computer technology

	5	Be able to analyze the force systems by using the knowledge of physics , mathematics and theory engineering mechanics along with the use of computer technology
	6	Be able to establish reasonable and consistent links among real physical system, model, theory, equations, analysis and results
	7	Be able to design of the new engineering system or to be able to control and judge the existing one
	8	
	9	
	10	

21	Course Content:	
	Course Content:	
Week	Theoretical	Practice
1	Introduction	
2	Vectors and Vector Arithmetic	
3	Vectors and Vector Arithmetic	
4	Forces Systems	
5	Forces Systems	
6	Equilibrium of Particles	
7	Canter of Mass, Centroids and Distributed Loads	
8	Equilibrium of Rigid Bodies	
9	Equilibrium of Rigid Bodies	
10	Equilibrium of Rigid Bodies	
11	Analysis of Plane Trusses	
12	Analysis of Frame and Machines	
13	Analysis of Space Trusses	
14	Analysis of Flexiable Cables- Friction	

22	Textbooks, References and/or Other Materials:	Mühendislik Mekaniği Statik, Mehmet Bakioğlu, Birsen Yayınevi,2006 Mühendisler için Mekanik Satik Mehmet Hakkı Omurtag, Birsen yayınevi, 2009 Engineering Mechanics-Statics, 3rd SI Ed., Hibbeler, R. C., Prentice Hall, 2005. Engineering Mechanics: Statics (2nd Edition), A. Bedford, W.Fowler, Addison Wesley Longman, 1999 Vector Mechanics for Engineers–Statics, 7th SI Ed., Beer F. P., Johnston E. R. and Eisenberg E. R., McGraw-Hill, 2004. Engineering Statics, 3rd SI Ed., Meriam J. L., Kraige L. G., John Wiley, 2003.
23	Assesment	

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	1	20.00
Quiz	2	10.00
Home work-project	6	10.00

Final Exam	1	60.00
Total	10	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		Midterm and Final Exams

24 ECTS / WORK LOAD TABLE

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	3.00	42.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	14	4.00	56.00
Homeworks	4	4.00	16.00
Projects	2	4.00	8.00
Field Studies	0	0.00	0.00
Midterm exams	1	3.00	3.00
Others	0	0.00	0.00
Final Exams	1	2.00	2.00
Total Work Load			130.00
Total work load/ 30 hr			4.23
ECTS Credit of the Course			4.00

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	4	0	0	3	0	0	2	0	0	0	2	2	0	0	0	0
ÖK2	4	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
ÖK3	5	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK4	5	0	5	0	2	0	0	0	0	0	0	0	0	0	0	0
ÖK5	5	0	5	0	2	0	0	0	0	0	0	0	0	0	0	0
ÖK6	0	0	0	0	3	5	4	0	0	0	0	3	0	0	0	0
ÖK7	0	0	0	2	4	5	4	0	3	0	0	3	0	0	0	0

LO: Learning Objectives PQ: Program Qualifications

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