

MACHINE MATERIALS

1	Course Title:	MACHINE MATERIALS
2	Course Code:	BSM3821-S
3	Type of Course:	Optional
4	Level of Course:	First Cycle
5	Year of Study:	3
6	Semester:	5
7	ECTS Credits Allocated:	3.00
8	Theoretical (hour/week):	2.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	-
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Doç.Dr. NAZMI İZLİ
15	Course Lecturers:	-
16	Contact information of the Course Coordinator:	e-posta :nizli@uludag.edu.tr Telefon: 0 224 2941604 Adres: Uludağ Üniversitesi, Ziraat Fakültesi, Biyosistem Mühendisliği Bölümü, Görükle Kampüsü, 16059,
17	Website:	
18	Objective of the Course:	Outcome way of choose abilities to more proper material according to technical specification of materials in machine and structure constructions also with respect to determination of technical specifications of metallic material which will used in machine frame and components and developing of a new material
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	
	1	Students can be recognise of any material and can be say to places which is used according to base science
	2	Students can be determine of technical specifications of a material investigating as a mathematical or experimental
	3	Students can be decide to proper by making a strength analysis for plastic and metallic materials using often in industr.
	4	Students can be able to know to methods of ensuring of basic materials using often in industry and its can be able to apply for another materials
	5	Students can be know to alloy methods and heat processes of metallic materials and they can be apply to the methods and processes for a new specific material
	6	Students can be know to protection methods of metallic material at the opposite of outside effects and can be apply to the methods properly
	7	A proper material using in manufacture by analysis can be choosing
	8	Applying to method of a material choosing to basic informations of engineering which was taken from other courses

		9	Having of an ability in analysis of a material and to create a new material		
		10	Following a new material which was developed as international and developing a new material according to domestic conditions		
21	Course Content:				
	Course Content:				
Week	Theoretical		Practice		
1	General classification of materials,explanation of places using as with a special objective Demonstration of steel materials using often in Industry				
2	Explanation of mechanic and physical specifications of materials and analyzing by mathematical equations Solution some problems related to mechanic and physical specifications of materials				
3	Information on determination of methods of mechanic and physical specifications related to some methallic materials as experimental Explanation on draw experiment of steel material				
4	Explanation on shaping specifications of steel materials using in machine constructions Demonstration on bent and bow experiment in Sheet metals				
5	Making some solutions on strength problems				
Activites			Number	Duration (hour)	Total Work Load (hour)
Theoretical					
6	of metallic materials		14	2.00	28.00
Practicals/Labs			0	0.00	0.00
Self study and preparation			14	2.00	28.00
Homeworks			0	0.00	0.00
Projects			0	0.00	0.00
7	Explaination on ensuring methods of some				
Field Studies			0	0.00	0.00
Midterm Exam			1	15.00	15.00
Others			0	0.00	0.00
8	Instruction on alloye of metallic materials and				
Final Exam			1	25.00	25.00
Total Work Load					96.00
Total work load/ 30 hr					3.20
9	Repeating courses and midterm exam				
ECTS Credit of the Course					3.00
	determination related to mechanic specifications				
10	Instructions on miscellaneous steels using often in industry and showing way of steels briefly in standards Some examples related to showing of steels briefly				
11	Instructions on miscellaneous plastics and its classifications according to some specifications Instructions on ensuring methods for plastics				

12	Heat processes of metallic materials and protecting methods from corrosion of metallic materials Protecting ways of metallic materials from atmospherical effects	
13	Ensure of metallic materials by cinderation method Explanation on cinderation method	
14	Explanation of specifications of physical and interior structer of materials as out of metal as ceramic,wood Explanation of areas using in industry as an out of metal	

22	Textbooks, References and/or Other Materials:	1-ZEYTİNOĞLU M. 2003. Science of Material Course Notes of Agriculture Faculty of U.Ü. No:96 (128p.) 2-BAYDUR,G.,1979. Serial:32 Books of Government of Material 3-PATTON,W.J., 1975.Materials in Industry.Department of mechanical technology,Red RiverCommunity, New Jersey. 4-ONARAN,K., 1996.Problems of Material Science and solutions Science,Technic publish house İstanbul ,167 p. 5-ZEREN,Y.,1988. Material Science of Machine,Agricultural Mechanization Dept.of Agriculture Faculty of Ç.Ü. Adana,188p.
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23	Assesment
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TERM LEARNING ACTIVITIES	NUMBE R	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	3	3	4	3	4	3	4	5	4	3	4	4	0	0	0	0
ÖK2	3	3	3	5	4	3	4	4	5	4	3	3	0	0	0	0
ÖK3	4	3	4	3	5	3	3	5	4	4	3	5	0	0	0	0
ÖK4	4	4	4	3	5	4	2	4	5	5	5	4	0	0	0	0
ÖK5	4	4	4	2	5	3	4	4	3	3	4	4	0	0	0	0
ÖK6	3	5	3	3	4	3	3	4	3	4	2	4	0	0	0	0

ÖK7	4	4	4	3	5	2	3	5	3	3	4	4	0	0	0	0
ÖK8	5	4	4	2	4	3	3	5	2	3	4	4	0	0	0	0
ÖK9	4	5	5	4	5	4	4	4	4	4	5	5	0	0	0	0
ÖK10	3	4	4	4	4	3	3	4	3	3	3	4	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low			2 low			3 Medium			4 High			5 Very High			