

DEPARTMENT OF MATERIALS SCIENCE AND TECHNOLOGY
COURSE SYLLABUS

Course Details				
Code		Academic Year		Semester
MWT303		3		5
Title		T	A	L
Technical Mechanics		3	2	6
Language	German			
Level	Undergraduate	X	Graduate	Postgraduate
Department / Program	Materials Science and Technology			
Forms of Teaching and Learning	Face to face			
Course Type	Compulsory	X	Elective	
Objectives	The students will master the basic techniques of statics of rigid bodies and the Elastostatic deformable body.			
Content	Force and moment equilibrium condition, Distributed forces, center of gravity, Cutting loads in the bar, adhesion and friction, Elastic bars, Stress condition, Distortion condition, Elasticity law			
Prerequisites				
Coordinator	None			
Lecturer(s)	Asist Prof.Dr. Çağatay Elibol			
Assistant(s)	None			
Work Placement	No			
Recommended or Required Reading				
Books / Lecture Notes	P. M. Chaikin & T. C. Lubensky: Principles of condensed matter physics			
Other Sources	Gross, Hauger, Schröder Wall, Technische Mechanik 1 Gross, Hauger, Schröder Wall, Technische Mechanik 2			
Additional Course Material				
Documents				
Assignments				
Exams				
Course Composition				
Mathematics und Basic Sciences				%
Engineering				100%
Engineering Design				%
Social Sciences				%
Educational Sciences				%

DEPARTMENT OF MATERIALS SCIENCE AND TECHNOLOGY
COURSE SYLLABUS

Natural Sciences			%
Health Sciences			%
Expert Knowledge			%
Assessment			
Activity	Count		Percentage (%)
Midterm Exam	1		40%
Quiz			
Assignments			
Attendance			
Recitations			
Projects			
Final Exam	1		60%
		Total	100
ECTS Points and Work Load			
Activity	Count	Duration	Work Load (Hours)
Lectures	14	3	42
Self-Study	14	3	42
Assignments	2	20	40
Presentation / Seminar Preparation			
Midterm Exam	1	3	3
Recitations	14	3	42
Laboratory			
Projects			
Final Exam	1	3	3
		Total Work Load	172
		ECTS Points (Total Work Load / Hours)	6
Learning Outcomes			
1	Mastering the basic techniques of statics of rigid bodies and the Elastostatic deformable body.		
2			
Weekly Content			
1	Force and moment equilibrium condition		
2	Distributed forces, center of gravity		
3	Adhesion and friction		
4	Stress condition		
5	Distortion condition		



DEPARTMENT OF MATERIALS SCIENCE AND TECHNOLOGY
COURSE SYLLABUS

6	elasticity law						
7							
8							
Contribution of Learning Outcomes to Program Objectives (1-5)							
	P1	P2	P3	P4	P5	P6	P7
1	3	2					
2							
3							
Contribution Level	1: Low 2: Low-intermediate 3: Intermediate 4: High 5: Very High						
Compiled by:							
Date of Compilation:							