

ENERGY SCIENCE AND TECHNOLOGY BACHELOR PROGRAM

Course Details				
Code		Academic Year		Semester
EBT413		4		7
Title		T	A	L
Coal Processing and Technology		2	0	2
		ECTS		
		6		
Language	English			
Level	Undergraduate	X	Graduate	Postgraduate
Department / Program	Energy Science and Technology			
Forms of Teaching and Learning	Formal			
Course Type	Compulsory	Elective		X
Objectives	It is aimed to teach the detailed scientific and engineering knowledge of coal processing and technology for the graduate level students enrolled in TAU FBE programs aiming to work in the fields of energy, materials, metallurgical, mining, mineralogical and chemical industries and academy.			
Content	The Concept of Coal Processing and Technology, Basic Principles and Methods, Laboratory Characterization and Tests, Scientific Thought Method, Research Types and Data Collection Methods, Using Computer in Text Creation and Using Internet Resources.			
Prerequisites				
Coordinator				
Lecturer(s)	Prof. Dr. Şafak Gökhan ÖZKAN			
Assistant(s)				
Work Placement				
Recommended or Required Reading				
Books / Lecture Notes	Laskowski, J. (2001). Coal flotation and fine coal utilization. Elsevier., First Edition ISBN: 0-444-50537-7			
Other Sources	Ateşok, G. (2004). Kömür hazırlama ve teknolojisi. YMGV, 375s.			
Additional Course Material				
Documents				
Assignments				
Exams				
Course Composition				

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Mathematics und Basic Sciences		%20
Engineering		%30
Engineering Design		%30
Social Sciences		%
Educational Sciences		%
Natural Sciences		%20
Health Sciences		%
Expert Knowledge		%

Assessment		
Activity	Count	Percentage (%)
Midterm Exam	1	25
Quiz		
Assignments	5	15
Attendance		
Recitations		
Projects		
Final Exam	1	60
Total		100

ECTS Points and Work Load			
Activity	Count	Duration	Work Load (Hours)
Lectures	12	2	24
Self-Study	14	5	70
Assignments	6	6	36
Presentation / Seminar Preparation			
Midterm Exam	1	2	2
Recitations	14	2	28
Laboratory	2	3	6
Projects			
Final Exam	1	2	2
Total Work Load			168
ECTS Points (Total Work Load / Hour)			6

Learning Outcomes	
1	Basic Principles of Coal Processing
2	Coal Processing Laboratory
3	Coal Processing Design

Weekly Content

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1	An Introduction to Coal Preparation and Processing
2	Introduction to Coal Characterization
3	Sampling and Ore Handling
4	Comminution, Crushing, Sizing and Grinding
5	Laboratory-Comminution and Sieving
6	Mid-term Exam
7	The Basic Principles of Coal Washing
8	Introduction to Coal Gravity Separation
9	Coal Gravity Separation Methods
10	Laboratory-Coal Washing
11	Coal Surface Properties and Floatability
12	Laboratory-Froth Flotation
13	Coal Flotation Technology and Reagents
14	Fine Coal Utilization

Contribution of Learning Outcomes to Program Objectives (1-5)

	P1	P2	P3	P4	P5	P6	P7
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							

Contribution Level

1: Low 2: Low-intermediate 3: Intermediate 4: High 5: Very High

Compiled by:

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