

ENERGY SCIENCE AND TECHNOLOGY BACHELOR PROGRAM

Course Details									
Code				Acad	Academic Year			Semester	
EBT312				3	3		6		
Title				Т	Α	L	ECTS		
Sustainable Energy				3	0	0	6		
Language	German								
Level	Undergraduate	luate x Graduate				ostgra	aduate		
Department / Program	Energy Science and Technology								
Forms of Teaching and Learning	Formal								
Course Type	Compulsory)	Ele	Elective					
Objectives	It is aimed to teach the concept of energy, which is necessary for a sustainable life, to be obtained from sustainable and renewable resources. It is aimed to raise awareness of global warming and climate change and to specify preventive factors. To explain the cycles, which are sustainable natural formations; Information on recycling, waste management, carbon zero and energy zero concepts is desired.								
Content	Causes, effects and measures to be taken of global warming and climate change. Water oxygen, carbon and nitrogen cycles. Fossil fuels, renewable and non-renewable energy systems. Sustainable energy sources. Recycling, zero waste, zero emissions and zero energy systems.								
Prerequisites									
Coordinator									
Lecturer(s)									
Assistant(s)									
Work Placement	No								
Recommended or Required R	eading								
Books / Lecture Notes	Watter, H. (2011). Regenerative Energiesysteme: Grundlagen, Systemtechnik und Anwendungsbeispiele aus der Praxis. Springer Verlag								
Other Sources	De Haan, G. (2007). Studium und Forschung zur Nachhaltigkeit. W.Bertelsmann Verlag.								
Additional Course Material									
Documents									
Assignments									
Exams									
Course Composition									
Mathematics und Basic Sciences		20					%		



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Engineering		%
Engineering Design		%
Social Sciences	40	%
Educational Sciences		%
Natural Sciences	40	%
Health Sciences		%
Expert Knowledge		%
Assessment		
Activity	Count	Percentage (%)
Activity Midterm Exam	Count 1	Percentage (%) 40
Activity Midterm Exam Quiz	Count 1	Percentage (%) 40
Activity Midterm Exam Quiz Assignments	Count 1	Percentage (%) 40
Activity Midterm Exam Quiz Assignments Attendance	Count 1	Percentage (%) 40
Activity Midterm Exam Quiz Assignments Attendance Recitations	Count 1	Percentage (%) 40
Activity Midterm Exam Quiz Assignments Attendance Recitations Projects	Count 1	Percentage (%) 40
Activity Midterm Exam Quiz Assignments Attendance Recitations Projects Final Exam	Count 1 1	Percentage (%) 40 60

ECTS Points and Work Load

Activi	ity	Count	Duration	Work Load (Hours)
Lectures				
Self-Study				
Assignments				
Presentation / Se Preparation	eminar			
Midterm Exam				
Recitations				
Laboratory				
Projects				
Final Exam				
			Total Work Load	
		ECTS Poi	nts (Total Work Load / Hour)	6
Learning Outco	mes			
1				
2				
3				
Weekly Conten	t			
1				



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2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
Contribution o	f Learning Out	comes to Progr	am Objective	s (1-5)			
Contribution o	f Learning Out P1	comes to Progr P2	ram Objective P3	s (1-5) P4	P5	P6	P7
Contribution o	f Learning Out P1	comes to Progr P2	ram Objective P3	s (1-5) P4	P5	P6	P7
Contribution of 1 2	f Learning Out P1	P2	ram Objective P3	s (1-5) P4	P5	P6	P7
Contribution of 1 2 3	f Learning Out P1	P2	ram Objective P3	s (1-5) P4	P5	P6	P7
Contribution of 1 2 3 4	f Learning Out P1	P2	ram Objective P3	s (1-5) P4	P5	P6	P7
Contribution of 1 2 3 4 5	f Learning Out P1	P2	ram Objective P3	s (1-5) P4	P5	P6	P7
Contribution of 1 2 3 4 5 6	f Learning Out P1	P2	ram Objective P3	s (1-5) P4	P5	P6	P7
Contribution of 1 2 3 4 5 6 7	f Learning Out P1	P2	ram Objective P3	s (1-5) P4	P5	P6	P7
Contribution of 1 2 3 4 5 6 7 8	f Learning Out P1	comes to Progr	P3	s (1-5) P4	P5	P6	P7
Contribution of 1 2 3 4 5 6 7 8 9	f Learning Out P1	comes to Progr	ram Objective P3	s (1-5) P4	P5	P6	P7
Contribution of 1 2 3 4 5 6 7 8 9 10 11	f Learning Out P1	comes to Progr	P3	s (1-5) P4	P5	P6	P7
Contribution of 1 2 3 4 5 6 7 8 9 10 11 12	f Learning Out P1	comes to Progr	ram Objective P3	s (1-5) P4	P5	P6	P7
Contribution of 1 2 3 4 5 6 7 8 9 10 11 12 Contribution len	f Learning Out P1	P2	ram Objective P3	s (1-5) P4	P5	P6	P7
Contribution of 1 1 2 3 4 5 6 7 6 7 8 9 10 10 11 12 Contribution Level	f Learning Out P1	comes to Progr	ram Objective P3	s (1-5) P4	P5	P6	P7
Contribution of 1 1 2 3 3 4 5 6 7 6 7 8 9 10 10 11 12 Contribution Level	f Learning Out P1	comes to Progr P2	ram Objective P3	s (1-5) P4	P5	P6	P7
Contribution of 1 1 2 3 3 4 5 6 7 6 7 8 9 10 10 11 12 Contribution Level Compiled by:	f Learning Out P1	comes to Progr	ram Objective P3	s (1-5) P4	P5	P6	P7