

# RENEWABLE ENERGY

1	Course Title:	RENEWABLE ENERGY	
2	Course Code:	BSM4836	
3	Type of Course:	Compulsory	
4	Level of Course:	First Cycle	
5	Year of Study:	4	
6	Semester:	8	
7	ECTS Credits Allocated:	2.00	
8	Theoretical (hour/week):	2.00	
9	Practice (hour/week):	1.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	None	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Prof. Dr. ALİ VARDAR	
15	Course Lecturers:	Dr. Aslı Ayhan Arslan	
16	Contact information of the Course Coordinator:	Prof. Dr. Ali Vardar dravardar@uludag.edu.tr 0224 2941605 Bursa Uludağ Üniversitesi, Ziraat Fakültesi, Biyosistem Mühendisliği Bölümü, Görükle Kampüsü, 16059, Nilüfer/BURSA	
17	Website:		
18	Objective of the Course:	To give the basic concepts of renewable, to examine the issues of Solar Energy, Wind Energy, Hydraulic Energy, Geothermal Energy and Biomass Energy, To give the methods of producing solutions to energy problems in the perspective of renewable energies.	
19	Contribution of the Course to Professional Development:	The course contributes to the student's understanding of the infrastructure of renewable energy for agricultural purposes.	
20	Learning Outcomes:		
		1	To understand the importance of renewable energy
		2	To understand renewable energy technologies
		3	To learn the use of renewable energy technologies in agriculture
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21	Course Content:		
		<b>Course Content:</b>	
Week	Theoretical	Practice	
1	Introduction to the Concept of Energy	Problem Solutions	
2	Introduction to the Concept of Energy	Problem Solutions	
3	Developments in the Energy Sector and Renewable Energy Resources	Problem Solutions	

4	Introduction to Solar Energy	Problem Solutions
5	Thermal Solar Energy Technologies	Problem Solutions
6	Solar panels	Problem Solutions
7	Introduction to Wind Energy	Problem Solutions
8	Wind Turbines	Problem Solutions
9	Lesson repetition	Problem Solutions
10	Hydraulic Energy	Problem Solutions
11	Hydraulic Energy	Problem Solutions
12	Geothermal energy	Problem Solutions
13	Biomass Energy	Problem Solutions
14	Biomass Energy	Problem Solutions

22	Textbooks, References and/or Other Materials:	Quaschnig V., 2010. Erneuerbare Energien und Klimaschutz, Varl Hanser Verlag, München.
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23	Assesment	
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TERM LEARNING ACTIVITIES	NUMBER	WEIGHT
Midterm Exam	1	40.00
Quiz	0	0.00
Homeworks, Performances	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		Midterm Exam, Homework and Final Exam

<b>24</b>	<b>ECTS / WORK LOAD TABLE</b>
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Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	14	1.00	14.00
Self study and preperation	0	0.00	0.00
Homeworks, Performances	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	5.00	5.00
Others	0	0.00	0.00
Final Exams	1	15.00	15.00
Total Work Load			62.00
Total work load/ 30 hr			2.07
ECTS Credit of the Course			2.00

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	0	0	0	0	0	0	0	0	3	5	0	0	0	0	0	0
ÖK2	4	0	0	0	4	0	0	0	3	5	0	0	0	0	0	0
ÖK3	5	0	0	0	4	0	0	0	3	5	0	0	0	0	0	0
<b>LO: Learning Objectives    PQ: Program Qualifications</b>																
<b>Contribution Level:</b>	<b>1 very low</b>			<b>2 low</b>			<b>3 Medium</b>			<b>4 High</b>			<b>5 Very High</b>			