

Marmara Üniversitesi - Mühendislik Fakültesi



Çevre Mühendisliği (İngilizce)

DERS İZLEME PROGRAMI

2017-2018 Bahar Yarıyılı

Ders Kodu	Ders Adı	Ders Türü	Haftalık Ders Saati		Kredi	ECTS	Kampüs / Haftalık Gün ve Saati / Derslik
			T	U			
ENVE462.2	Energy and the Environment	Ders	3	0	3,00	5,00	
Önkoşul Dersi			Önkoşullu Dersi				
Öğretim Üyesi	Prof.Dr. TANAY SİDKİ UYAR		Öğrendi Görüşme Gün ve Saati		Tuesday 09:30-11:30		
E-posta	tanayuyar@marmara.edu.tr / tanaysidkiuyar@outlook.com		Ofis / Oda No		MC662		
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Öğretim Üyesi Yardımcıları			Ofis / Oda No				
E-posta							
Dersin Tanımı	ENVE462.2 Energy and the Environment Course Objectives: Analyzing and understanding of 100% Renewable Energy as a solution. Introduction to case studies of Energy and Environment together with the Renewable Energy Technologies. Climate Change and Its Effects. Community Power. Passive Building Design.						
Dersin Kitabı ve/veya Kaynaklar	<ol style="list-style-type: none"> 1. Energy and Environment – Applications and Sustainable Development, A. M. Omer, British Journal of Environment & Climate Change Volume 1 Issue 4, 2011. 2. The Benefits of an Energy Revolution – Community Power, Community Power Project Briefing, EU, 2013. 3. Taking Control of Energy, for People and Planet – Community Power, Community Power Project Brochure, EU, 2013. 4. Community Power – Enabling Legislation to Increase Community Ownership for RES Projects Across Europe, H. Duha, Community Power Project Summary Report on Citizens' Engagement, Czech Republic, 2014. 5. Energy End-Use Efficiency, A. B. Lovins, Rocky Mountain Institute, 2005. 6. The Economics of Renewable Energy, D. Timmons, J. M. Harris, B. Roach, A GDAE Teaching Module on Social and Environmental Issues in Economics, Global Development and Environment Institute (GDAE), Tufts University, 2014. 7. Solution in Energy is Energy Use Efficiency and Transition to 100 % Renewable Energy, T. S. Uyar, KTMMOB International Energy Symposium, 2017. 8. Energy Policy and Externalities – An Overview, D. Pearce, Paper prepared for OECD Nuclear Energy Agency, Workshop on Energy Policy and Externalities – The Life Cycle Analysis Approach, Paris, 2001. 9. Energy Technology Systems Analysis Programme, R. Loulou, G. Goldstein, A. Kanudia, A. Lettita, U. Remme, Documentation for the TIMES Model – Part I, 2016. 10. The Energy Technology Systems Analysis Programme – History, The ETSAP Kyoto Statement and Post-Kyoto Analysis, T. Kram, OECD Workshop on Climate Change and Economic Modelling – Background Analysis for the Kyoto Protocol, Paris, 1998. 11. External Costs – Research Results on Socio-Environmental Damages due to Electricity and Transport, EUR 20198, European Commission, Luxembourg, 2003, ISBN 92-894-3353-1. 12. Kyoto Protocol to The United Nations Framework Convention on Climate Change, UNITED NATIONS, 1998. 13. Long-Term Contracts and Take-or-Pay Clauses in Natural Gas Markets, A. Creti, B. Villeneuve, LERNA-CEA, University of Toulouse, France. 14. Passive Design Toolkit – for Homes, G. Wimmers and Light House Sustainable Building Centre, City of Vancouver, 2009. 15. Module 7 – Renewable Energy Technologies, Sustainable Energy Regulation and Policymaking Training Manual, Sustainable Energy Regulation and Policymaking for Africa. 16. The Paris Agreement Summary, Climate Focus Client Brief on the Paris Agreement III, 2015. 17. The Social Costs of Energy Consumption, O. Hohmeyer, Rio 02 World Climate & Energy Event, Rio de Janeiro, 2002. 18. Transportation Energy Futures – Project Overview and Findings, PR-6A20-56270, NREL, U.S. Department of Energy. 19. Ways to Mitigate Transport Pollution, A. S. Bhal, Ministry of Urban Development – Government of India. 						
Açıklamalar	Teaching Methods: Lecture Notes, Powerpoint Presentations, Assignments.						
HAFTA	Tarih	Konular				Kaynak No - İlgili Bölüm	
1.Hafta	5.02.2018	Introduction					
2.Hafta	12.02.2018	Introduction					
3.Hafta	19.02.2018	Climate Change and Its Effects				12	
4.Hafta	26.02.2018	Climate Change Mitigation and Adaptation				16, 18	
5.Hafta	5.03.2018	Energy and Environment				1	
6.Hafta	12.03.2018	Externalities and Social Cost				6, 11, 17	
7.Hafta	19.03.2018	Renewable Energy Technologies				15, 9	
8.Hafta	26.03.2018	Midterm Exam					
9.Hafta	2.04.2018	Midterm Exam					
10.Hafta	9.04.2018	Community Power				2, 3, 4	
11.Hafta	16.04.2018	Energy End-Use Efficiency				5, 7	
12.Hafta	23.04.2018						
13.Hafta	30.04.2018	ETSAP				10	
14.Hafta	7.05.2018	Passive Building Design				14	
15.Hafta	14.05.2018	Renewable and Clean Transportation and Green Vehicles				19	
16.Hafta	21.05.2018	Local, National and Global Energy Policies				8, 13	
17.Hafta	28.05.2018	Final Exam					
18.Hafta	4.06.2018	Final Exam					