AME/EG 40401

ENERGY TECHNOLOGY AND POLICY

Syllabus: Spring 2015

Date	Topic	Power Point Module	Reading[1,2]	Problems Sets (P) Essays (E)[3]
W_ 1/14	Introduction	1	CN_ 1, Appen. A	------
M_ 1/19	Fossil Fuels: General	2	CN_2, SA_1	------
W_ 1/21	Fossil Fuels: Oil	3	CN_3	------
M_ 1/26	Fossil Fuels: Coal	4	CN_4	------
W_1/28	Fossil Fuels: Natural Gas	5	CN_5, SA_2	------
M_2/2	Fossil Fuels: Synopsis	---	----	E1
W_2/4	The Nature of Energy	6	CN_6	P1
M_2/9	First & Second Laws of Thermodynamics	7	CN_7	------
W_2/11	Energy Systems	8	CN_8	------
M_2/16	Electric Power	9	CN_9	------
W_2/18	Electric Power (Continued) Transportation	9, 10	CN_10	------
M_2/23	Transportation (Continued)	10	SA_3	P2
W_2/25	Fundamentals of Radiation, the Global Energy Balance and Greenhouse Gases	11	CCM_ 2, 3 SA_4	------
M_3/2	Global Warming	12	CCM_4	------
W_3/4	Hesburgh Remembrance	------	------	------
3/7-3/15	Spring Break	------	------	------
M_3/16	Mitigation	13	CCM_6,7	------
W_3/18	Politics of Climate Change	14	CCM_8	P3
M_3/23	Michael Della Penna, PG&E	------	------	E2
W_3/25	Joseph Grace, Chrysler	------	------	------
M_3/30	Mid-Term Examination	------	------	------
W_4/1	Ethics of Climate Change	15	CCM_10	
4/3-4/6	Easter Holiday	------	------	------
W_4/8	Nuclear Energy	16	CN_16	------

[1] Reading is from Class Notes (CN), Climate Change Manuscript (CCM) and Selected Articles (SA).

[2] Reading is to be done before the designated class period.

[3] Problem sets and essays will be collected at the beginning of the designated class period.

Date	Topic	Power Point Module	Reading	Problems(P) Essays(E)
M_4/13	Renewables: Solar	17	CN_12,13	------
W_4/15	Renewables: Wind	18	CN_14	P4
M_ 4/20	Renewables: Biofuels	19	SA_5	------
W_4/22	Mike O'Sullivan, NextEra	------	------	------
M_4/27	Your Energy Future: Synopsis	------	SA_8	E3
W_4/29	Project Presentations	------	-------	------

SA_1 The Bottleneck, E.O. Wilson
SA_2 Natural Gas Changes the Energy Map, Rotman
SA_3 Transportation, Technology Review
SA_4 Guide to the Carbon Cycle, Normile
SA_5 Ethanol Can Contribute to Energy and Environmental Goals, Farrell et al.
SA_6 Leaping the Efficiency Gap, Charles
SA_7 Unlocking Energy Efficiency in the U.S. Economy, McKinsey&Company
SA_8 A Path to Sustainable Energy by 2030, Jacobson and Delucchi