Econ 132: Energy Economics
2014 Summer Session II

Instructor: Tamara Sheldon
Class Meeting Room: Warren Lecture Hall (WLH) 2113
Class Time: Tuesdays & Thursdays, 2:00-4:50pm
Office Hours: Tuesdays & Thursdays, 12:30-1:45pm
Office Hours Location: Perks Coffee Shop (Price Center)
Email: tsheldon@ucsd.edu

Course Website: http://ted.ucsd.edu

TA: Seung-Keun Martinez
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Office Hours: Monday, 2:30-4:00pm
Office Hours Location: Sequoyah Hall (SH) 236

Course Description: Energy plays a crucial role in the economy and is an important factor in many global issues and policy debates. In this course, you will learn how to: understand basic energy and economic concepts in a real world context, understand the relationship between energy/natural resources and the national and international economy, understand how we use economics to guide our energy decisions, understand the impacts of energy use (on health, the environment, the economy, and climate change), understand the justification for and analyze the effectiveness of energy related policies.

Grading:

Participation 5%
Reading Quizzes 5%
Homework 35%
Midterm Exam 20%
Final Exam 35%

Participation points are given for clicker questions (see below) in order to encourage and reward on-going, in-class engagement with course material. Each clicker question is worth one point. If you answer, you receive a point (regardless if the answer is correct or not). You need to answer 80% of the clicker questions during the quarter to get a 100% on participation. By dropping 20% of the questions, I have built in flexibility to account for error and special circumstances: student/instructor error, mechanical error, lost clickers, excused/unexcused absences, late adds to the class, emergencies, etc. Therefore, no make-up clicker/participation assignments will be offered.

Reading quizzes are meant to guide you through the readings and reward you for doing the readings. Quizzes must be completed on the course website (TED). The quiz will be opened at least 36 hours before class (more in advance when possible) and will be closed 2 hours before class, at noon. You must complete the quiz in this window. You may (and are encouraged to) reference the readings as you complete the quiz. You are allowed to work with classmates.

Homework: You will be assigned three problem sets and one short paper throughout the quarter. Each problem set is worth 10% of your course grade. The short paper is worth 5%. You will have one week to complete each assignment. You may work with classmates on the problem sets. If you choose to do so, each individual must turn in his or her own solutions, noting the names of the classmates you worked with on top of the problem set you turn in. Homework is due at the beginning of class on the indicated due date. Late assignments will be marked down 15% if turned in later on the due date, and a further 15% each day thereafter.

Midterm Exam: A midterm exam will be administered during class. The exam will be closed book. You will need a calculator.

Final Exam: A final exam will be administered during the designated final exam period, which is Saturday, September 6th from 3-6pm, location to be determined. It will be cumulative, however, it will focus more on material covered since the midterm. The exam will be closed book. You will need a calculator. Make-up exams will not be given except in the case of a serious extenuating circumstance (e.g., emergency medical problems or death in the family) with valid, convincing documentation.

Clickers: You will not need to purchase a textbook for this class, however, you will need to obtain an iClicker. You can purchase an iClicker at the bookstore (where you can also sell it back at the end of the quarter), you can purchase one online, or you can borrow one from a friend who is not in this course. Once you have obtained an iClicker, register it through the link on the course website. We will use clickers to develop more meaningful engagement in lecture and to promote learning. I will ask questions and solicit your responses several times each lecture and I will discuss the results with you in class. You are required to bring the clicker to each lecture and you are responsible to ensure that the clicker is working properly. You may not use a clicker that is not registered in your name for this course, meaning you are not allowed to "click in" for someone else.

Email/Office Hours: I will respond to emails within 2 business days. Email is best used for scheduling appointments or for other brief communication. Email is less ideal for substantive questions about course material. For the latter, please visit office hours. If you cannot attend the scheduled office hours, you may email myself or the TA to schedule alternative office hours. I enjoy meeting with students face-to-face very much, and find it much more effective for quality instruction.

Course Content: The table below details the list of topics and schedule for the course. Roughly the first third of the course will focus on oil and the macroeconomy, the second third on electricity markets, and the last third on externalities and climate change. Readings will be posted on the course website and should completed along with the reading quiz prior to the corresponding class. More detailed instructions for the readings (e.g., which pages to focus on) will be given one lecture in advance. Lecture slides will be posted after lecture. Homework assignments will be handed out in class and will also be posted online. Solutions will be posted online after problem sets are due.

Date	**#**	**Topic**	**Reading** (* Indicates Optional)	**Homework**
Tuesday Aug. 5	1A	Introduction and Basic Energy Facts	• *BP Statistical Review of World Energy (2013)	
Tuesday	1B	Energy: A Historical Perspective	• *Fouquet and Pearson (1998)	

Aug. 5			• *Fouquet and Pearson (2006) • *Heltberg (2004) • *Rosenberg (1998)	
Thursday Aug. 7	2A	Oil and the Macroeconomy	• Cassady and Grossman (1998) • Hamilton (2011) • *Hamilton (2009)	
Thursday Aug. 7	2B	Oil and International Trade	• Mason and Polasky (2005) • *Alhaji and Huettner (2000) • *Delucchi and Murphy (2008) • *Nordhaus (2009)	Paper Assigned
Tuesday Aug. 12	3A	Theory of Exhaustible Resources (Hotelling)	• Hartwick Chapter 8 • Hartwick Chapter 9	
Tuesday Aug. 12	3B	Theory of Exhaustible Resources (Peak Oil)	• Miller and Sorrell (2013) • *Atkins and MacFayden (2008) • *Hamilton (2012)	Problem Set 1 Assigned
Thursday Aug. 14	4A	Automobiles	• Parry and Small (2009) • Parry et al. (2007) • *Bento et al. (2005)	Paper Due
Thursday Aug. 14	4B	Clean Fuels & Alternative Vehicles	• Economist (2013) • Scientific American (2009) • Hidrue et al. (2011) • *Koo and Taylor (2008) • *ITF (2007)	
Tuesday Aug. 19	5A	Traditional and Renewable Power Sources	• Davis (2012) • Kerr (2010) • Victor (2009) • Scientific American (2006) • *Joskow and Parsons (2009) • *Wang and Krupnick	Problem Set 1 Due
Tuesday Aug. 19	5B	Electricity Market and Regulation	• Viscusi, Vernon, and Harrington Chapter 12 • *Borenstein et al. (1999) • *Viscusi, Vernon, and Harrington Chapter 18 • *National Transmission Grid Study	
Thursday Aug. 21	6A	Midterm		
Thursday Aug. 21	6B	Electricity Market Deregulation & Cournot Duopoly	• *Griffin and Puller (2005) • *Wolfram (1999)	Problem Set 2 Assigned
Tuesday Aug. 26	7A	Electricity Load Curves	• Shaten (2008) Chapter IV • Warwick (2002) • Charles (2009)	
Tuesday Aug. 26	7B	California Electricity Crisis	• Borenstein (2002) • Brennan et al. (2002) • *Bushnell (2004)	
Thursday Aug. 28	8A	Conservation & End User Programs	• Shaten (2008) Chapter IV • Scientific American (2005) • Scientific American (2008) • Gillingham et al. (2006) • *Baker et al. (2013) • *Dastrup et al. (2012)	Problem Set 2 Due
Thursday Aug. 28	8B	Fossil Fuel Externalities	• Carlin (1995) • Carson (2010) • Field (2003)	Problem Set 3 Assigned

			• *Koomey and Krause (1997) • *Scientific American (2008) • *Carson et al. (2003)	
Tuesday Sept. 2	9A	Global Climate Change: Problem and Solutions	• Economist (2013) • Pacala and Socolow (2004) • Victor (2009) • *NAS-TRS (2014) • *IPCC (2007)	
Tuesday Sept. 2	9B	Global Climate Change: An Economic Perspective	• Bushnell et al. (2008) • Greenstone et al. (2013) • *Nordhaus (2007) • *Stern (2008)	
Thursday Sept. 4	10A	Global Climate Change: Action	• New York Times (2014) • Newell et al. (2013) • *Nordhaus (2007) • *Carson (2009) • *Aldy et al. (2010)	Problem Set 3 Due
Thursday Sept. 4	10B	Final Review Session, Q&A		

Academic Integrity: I expect students to adhere to the highest standards of academic integrity and to have read the UCSD Policy on Integrity of Scholarship (http://senate.ucsd.edu/manual/Appendices/Appendix2.pdf).

Office for Student Disabilities: Students requesting accommodations and services for this course due to a disability need to provide a current Authorization for Accommodation (AFA) letter issues by the Office for Students with Disabilities (OSD) prior to eligibility for requests. Receipt of AFAs in advance is necessary for appropriate planning for the provision of reasonable accommodations. OSD Academic Liaisons also need to receive current AFA letters if there are any changes to accommodations. For additional information, contact the Office for Students with Disabilities: 858-534-4382 (V); 959-534-9709 (TTY) or by email: osd@ucsd.edu. OSD Website: http://disabilities.ucsd.edu.

Consideration for the Learning Environment: The "Golden Rule" is a useful guide here. Avoid any action that potentially disturbs the learning environment, such as talking in lecture, using your laptop for purposes other than note taking, which may distract your neighbors, and so forth. Attend lecture only if you are willing and able to pay attention and to respect the learning environment. In case of doubt, simply consider if an action contributes to the *purpose* and *benefit* of the class as a whole. If it does not, avoid it. Here, civility counts. Turn off cell phones to prevent disrupting the class. Exceptions will be made to cover emergency medical providers, active duty military personnel, child-care needs, or other *critical* issues.

Leaning Goals: The following table lists the course learning goals. The top row shows the higher-level learning goals for the course. The following rows show the lower-level, or lecture-level learning goals that support the course-level learning goals. The lecture-level learning goals are tangible learning outcomes that you should be able to do after each lecture (or after lecture, with some practice/reading). Use these learning goals to assess your progress in the class and as a study guide for exams. If you find yourself falling behind or unable to meet some of these goals after practice and reading, I highly recommend seeking additional help at office hours.