Instructor: Richard Carson  
Class Meeting Room: Center Hall 212  
Class Time: MW 7:00-8:20pm  
Course Website: https://tritioned.ucsd.edu  
Office: Economics Building 323  
Office Hours: Thursdays 3:00-4:30pm and by appointment  
Email: rcarson@ucsd.edu  

Teaching Assistants:  
Alex Yu  Office hours: M 4-6pm  123 Economics Building  Email: chy037@ucsd.edu  
Wesley Howden  Office hours: Tu 10-11am  225 Sequoyah Hall  Email: whowden@ucsd.edu  

COURSE DESCRIPTION  
In this class, you will be introduced to the way that economists view energy choices by reading peer-reviewed journal articles written by economists actively working on energy issues. Each week we will address specific questions about energy supplies, energy demand, and the structure of energy markets by examining how different economists have looked at these questions and identify any important aspects of these questions that have not yet been answered.

PREREQUISITES  
Econ 1A-B, Econ 2 or Econ 100A AND Math 10C or Math 20C.

COURSE READINGS  
Required readings (listed below) are on the course website (http://tritoned.ucsd.edu). To provide an extra incentive for students to read the listed articles before lecture, regular reading quizzes will be given in class during the quarter.

STATEMENT OF ACADEMIC INTEGRITY  
Students are expected to do their own work, as outlined in the UCSD policy on Academic Integrity. Cheating will not be tolerated. Any student engaging in suspicious conduct will be subjected to the disciplinary process. Students found guilty of academic misconduct will receive a failing grade in the entire course and may be suspended from UCSD.

QUIZZES AND EXAMINATIONS  
Six quizzes will be given.  
- Quizzes will be given randomly at the start of class.  
- The top five quiz scores will be used to determine your quiz grade (lowest quiz score is dropped).  

Two midterm exams and one final exam will be given.  
- The midterm exams will be given in class: Wednesday January 30th & Monday February 25th.  
- The final exam will be given on Friday March 22, from 7-10pm

All quizzes and exams must be taken at the scheduled time and place. Students who arrive late will not receive extra time to complete their quiz/exam.

EXAMINATIONS  
There will be three examinations all given equal weight. None of the exams are explicitly cumulative but it is important to note that the course builds on topics learned earlier so conceptual material learned earlier should not be forgotten. Specific factual material from earlier parts of the course will not be asked on subsequent exams. This is true for the final. BRING CALCULATORS to exams. Blue books are NOT needed.
SHORT REPORT

You will need to write a two-page single-spaced report addressed to a policymaker (of your choice; examples include but not limited to Secretary of Energy/EPA, Member of Congress, Head of Energy Company/Environmental Group, Equivalent of Secretary of Energy/EPA in foreign country, Head of World Bank). Topic: pick any policy issue related to an emerging energy economics topic that you think will be important in the future to policymakers. Assume your policymaker knows little about the issue but needs to make a decision. Note who is likely to favor and oppose the decision you recommend to the policymaker and why. January 7th & January 9th: BP (2018) readings may be a good starting point for a topic as are websites listed under Energy Links in class Ted.ucsd.edu site. Turn in a hard copy. **Due January 16**th. **Email NOT ACCEPTED.**

QUizzes

Short multiple-choice questions on assigned reading for that day. Basic concepts/facts emphasized with no computational questions. A template that may be potentially helpful in thinking about the key points of an article is provided on the course website under the first lecture.

MISSED QUIZZES AND EXAMINATIONS

(1) No make-up quizzes/exams will be given. Missed quizzes for any reason will receive a grade of zero.
(2) Students who miss a midterm exam without an acceptable reason will receive a grade of zero (0) for that exam. Students who miss the midterm with an acceptable reason will have the weight of the other exam increased accordingly. You must take the final exam to receive a grade in this course.
(3) Reasons for missed midterm exams must be **pre-approved** by the instructor (except when this is not possible in an emergency situation). Students who make initial contact after the exam will have to document why they could not make contact prior to the exam. In addition, any student who misses an exam due to physical illness will be required to provide documentation from a health care professional indicating why the student was physically unable to take the exam. All documentation and an additional signed written statement explaining the relevant circumstances of the absence must be provided to the instructor within two working days of the student’s return to campus. Failure to comply with any of the above in the specified manner will result in a grade of zero (0) for the exam.

PROBLEM SETS

There will be three problems sets. Each emphasizes the types of quantitative questions needed for the next exam. Students are encouraged to work together in groups, but each student must turn in a separate fully-worked problem set. A hard copy of problem set turned in class is required. **Email submissions WILL NOT be accepted.**

READINGS

Students are responsible for all class readings unless clearly noted as optional. Optional readings may be covered in class but you are only responsible for the material gone over in class. Some additional optional readings not on this syllabus are provided on the course website in case you want to look at specific issues in more depth.

GRADING

Grades will be curved with the final letter grade determined by distribution of class raw numerical scores. Your raw numerical score will be determined as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Quizzes</td>
<td>5%</td>
</tr>
<tr>
<td>Short Report</td>
<td>5%</td>
</tr>
<tr>
<td>Problem Sets</td>
<td>15%</td>
</tr>
<tr>
<td>Midterm Exam 1</td>
<td>25%</td>
</tr>
<tr>
<td>Midterm Exam 2</td>
<td>25%</td>
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<tr>
<td>Final Exam</td>
<td>25%</td>
</tr>
<tr>
<td><strong>Total Raw Score</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
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DATE: TOPIC

January 7: Overview of Course/Current Policy Issues/Challenge of Climate Change

January 9: Role of Energy in U.S./World Economies: Micro & Macro Perspectives
(Note: you are responsible for reviewing basic economic concepts and energy facts lecture notes)

January 14 & 16: Theory of Exhaustible Resources
  Short Report Due January 16th

January 21: Martin Luther King Holiday (no class meeting)

January 23: Oil Supply; OPEC and Energy Cartels;
  & Search for New Supplies—Hubbert’s Curve, fracking and offshore drilling
  Problem Set I Due January 23th

January 28: International Trade and Security Issues Related to Energy

January 30: Midterm Exam 1

February 4: Electricity: Generation, Load Profiles, and Distribution

February 6: Electricity: Regulation and Deregulation, California Energy Crisis

February 11: Traditional Power Sources: Coal, Natural Gas, Hydro, Nuclear

February 13: Alternative Sources Energy (Biofuels, Geothermal, Solar, Wind) & Transmission Issues

February 18: President’s Day Holiday (no class meeting)

February 20: Automobiles: Regulation, Mass Transit, and the Structure of Urban Areas
  Problem Set II Due February 20

February 25: Midterm Exam 2

February 27: End-User Programs: Home/Commercial Energy Conservation & Solar Installations

March 4: Local/Regional Environmental Externalities Related to Burning Fossil Fuels

March 6: Global Climate Change: The Underlying Science and Technical Solutions

March 11: Global Climate Change: The Economic Perspective

March 13: Global Climate Change: International, National, State & Local Action
  Problem Set III Due March 13th

March 22: Final Exam (Friday 7:00pm-10:00pm)
DATE: READINGS

January 7: Course Overview


January 9: Role of Energy in U.S./World Economies: Micro & Macro Perspectives


January 14 &16: Theory of Exhaustible Resources


January 23: OPEC and Energy Cartels; Search for New Supplies Including Hubbert’s Curve, Fracking


January 28: International Trade and Security Issues Related to Energy


February 4&6: Electricity: Generation, Load Profiles, Distribution, Regulation, California Crisis


February 11: Traditional Power Sources: Coal, Hydro, Natural Gas, and Nuclear


February 13: Alternative sources of energy (Wind, Geothermal, Wave, Large Scale Solar) & Transmission Issues


February 20: Automobiles, Mass Transit and the Structure of Urban Areas


February 27: End-User Programs: Home/Commercial Energy Conservation & Solar Installations


March 4: Environmental Externalities Related to Fossil Fuels


March 6: Global Climate Change: Underlying Science and Technical Solutions


March 11: Global Climate Change: The Economic Perspective


March 13: International, National, State & Local Action on Climate Change

