

Course Outline and Description for
ENERGY, ECONOMICS & POLICY

Last update: August 21, 2026

Course Title: Energy, Economics & Policy
Semester: Fall 2026
Location: BRB 1.120
Day/Time: Monday & Wednesday 9:30 to 11:00 a.m.
Course listing: ECO 395K (37245)
Instructor: Harry R. Kennard, Ph.D.
Office Hours: By appointment via email or request after class
TA: Yumeng Zou

Course web site: Announcements, lectures, and course documents will be posted on Canvas

Description: This multidisciplinary course will give graduate students in economics a firm basis of understanding in the energy system, including fuels, environmental impacts and public policies. Topics will be interdisciplinary and include an introduction to quantitative concepts in energy, including the differences among fuels and energy technologies, energy policy levers, and the societal aspects of energy, such as culture and international affairs. Throughout the course the relationships to economics will be discussed, and, through a series of guest lectures, deeper themes of energy economics considered. This course will cover brief snippets of energy history, use real-world examples, and look forward into the future. The course will be interactive and lecture-oriented around current events related to energy. Students will be required to attend class, supported by the recommended reading, working towards a mid-term in-class closed book exam and final assessment based on an oral defense of a Short Response writing assignment.

Grades and Assignments:

33.3% Mid-term Exam
33.3% Policy Response/Research Paper (2/3 paper, 1/3 in-class defense)
33.3% Class attendance, participation and discussion

Additional tasks and extra credit assignments may be supplied throughout the semester.

Recommended Reading: The supplementary reference source for this course is a digital textbook, “Energy 101: Energy Technology & Policy” and available for \$40.00 via <https://www.energy101.com/eep-fall-2026/>

This link is meant only for students enrolled within the class – please do not share it with anyone else.

Companion calculators are available for free at <https://www.energy101.com/energy-calculators/>.

Class participation and discussion: Attendance is required and roll will be taken daily in class. Students are encouraged to ask questions and contribute to discussion in class. Students will get two excused absences, no questions asked, for the whole semester.

Exam: The exam will be closed-note, closed-book and will cover the lectures and topics preceding the exam date (see schedule).

Short Policy Response and Defense: Students to write a 2-page policy response on a topic related to those discussed in class. It should include novel analysis or policy position on a selected topic and could include the application of a particular method to a new topic area or particular energy system (i.e. geographic regions or equivalent). Responses are intended to **not** be summaries but rather should reflect critical thinking and response to the selected topic. A final oral defense of the paper will be given by the student at the end of the semester in class. Further scope and assessment details will be given during the semester.

Use of AI Tools for Class Work: Students are allowed to use AI tools but are highly encouraged to use them only for ideation and as a critical editor of original work. Note that any work turned in with false or fake references or citations, whether made up by the student or via AI, will result in receiving zero credit for the assignment and the student will not be allowed to redo or substitute in additional work for the assignment. Student comprehension of concepts presented in written work will be tested in class.

Observance of University policies: Standard University policies relating to accommodation for students with disabilities and to scholastic dishonesty will be followed in this course. Information regarding these policies may be found in the General Information Bulletin. The University of Texas at Austin provides upon request appropriate academic adjustments for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471-6259, 471-4641 TDD or the College of Engineering Director of Students with Disabilities at 471-4321.

Measurement and evaluation:

Standard overall course/instructor evaluations will be administered at the end of the course, as well as periodic topical evaluations specifically focused on course improvement.

Course Schedule

Energy, Economics & Policy

Subject to change, see Canvas for latest version

Week	Day	Date	Lecture #	Topic	Recommended Reading
1	Mon	8/24/2026	1	Introduction and Fundamentals, syllabus, etc.	
	Wed	8/26/2026	2	The Energy System	1,2,3,4,5
2	Mon	8/31/2026	3	Fossil Fuels I: Coal, Oil, Natural Gas	6,7,8,9
	Wed	9/02/2026	4	Fossil Fuels II: Midstream, Downstream, and Unconventionals	9,10
3	Mon	9/07/2026		Labor Day: No Classes Held	
	Wed	9/09/2026	5	Renewable Energy I: Wind, Solar, Ocean	11,13,14
4	Mon	9/14/2026	6	Renewable Energy II: Geo, Hydro, Bio	12,15,16
	Wed	9/16/2026	7	Nuclear Power	17
5	Mon	9/21/2026	8	The Electricity Sector I: heat rates, transmission, capacity factors	18,19
	Wed	9/23/2026	9	The Electricity Sector II: smart grids, super grids, microgrids	20,21
6	Mon	9/28/2026	10	Transportation	22,23
	Wed	9/30/2026	11	Review	
7	Mon	10/05/2026		WRITTEN EXAM 1 (Lectures 1 – 10)	
	Wed	10/07/2026	12	Energy Markets	
8	Mon	10/12/2026	13	Introduction to Methods in Energy Economics	
	Wed	10/14/2026	14	Introduction to Methods in Energy Economics	
9	Mon	10/19/2026	15	<i>GUEST LECTURE: The Economic Superorganism</i>	
	Wed	10/21/2026	16	Introduction to Methods in Energy Economics	
10	Mon	10/26/2026	17	Energy and Buildings	24
	Wed	10/28/2026	18	Energy, Climate and the Environment	28,29,30
11	Mon	11/02/2026	19	Energy & Health	
	Wed	11/04/2026	20	GUEST LECTURE (tbc)	
12	Mon	11/09/2026	21	Energy Policy I	
	Wed	11/11/2026	22	Energy Policy II	
13	Mon	11/16/2026	23	Artificial Intelligence and emerging demands	35
	Wed	11/18/2026	24	Megatrends and the Future of Energy	
14	Mon	11/23/2026		Fall break / Thanksgiving; no classes held	
	Wed	11/25/2026		Fall break / Thanksgiving; no classes held	
15	Mon	11/30/2026		PAPER DEFENSE	
	Wed	12/02/2026		PAPER DEFENSE	
16	Mon	12/07/2026		PAPER DEFENSE	