

**University of Georgia
INTL 8279**

Energy Security and Policy

Time: Tuesday, 12:30 PM – 3:15 PM

Place: Candler Hall, Room 214

David K. Gattie
PH: 706-542-0880
dgattie@engr.uga.edu

Office Hours:
Tuesday and Thursday, 11:00 AM – 12:00 PM or by appointment
Driftmier Engineering Center Room 2111 (2nd Floor)

COURSE DESCRIPTION

This course is a comprehensive study of the implications of energy resources on U.S. national security, political and economic stability, and global geopolitics. A particular emphasis will be the power generation sector and nuclear energy in the power sector. This course will extend the scope of energy beyond that of an economic commodity and explore the implications of energy as a tool for geopolitical leverage. There will be an emphasis on various data resources and compiling those data to inform weekly energy briefs, a midterm deliverable and a final deliverable.

The final deliverable for this course will be a group report and presentation on the disposition of U.S. energy "*in the world as it is*". Groups will be identified in the initial class session. The final deliverable will be data-supported and developed as a full briefing to the U.S. House Energy and Commerce Committee. The deliverable will be comprised of the written report itself, an executive summary and a PowerPoint that will be presented during the final exam period, which is scheduled for Thursday, April 30, 12:00 PM – 3:00 PM. This should be approached as a semester-long research project that will culminate in the presentation and defense of this final deliverable. As such, all assignments should be contextualized with this in mind.

REQUIRED TEXT

Yergin, Daniel. *The Quest: Energy, Security and the Remaking of the Modern World*, The Penguin Press, New York, 2011.

SUPPLEMENTAL RESOURCES

Additional readings and data resources related to contemporary treatments of energy and energy security issues will be assigned throughout the semester.

IMPORTANT DATES

January 7-13	Drop/Add for undergraduate-level courses
January 20	Holiday (M.L.K Day)
February 28	Midpoint of Semester
March 6	Last Day of Classes Prior to Spring Break
March 9-13	Spring Break
March 16	Classes Resume
March 20	Withdrawal Deadline
April 28	Monday Class Schedule in Effect
April 28	Last Day of Classes
April 29	Reading Day
April 30, May 1-6	Final Exams
May 11	Grades Due

GRADING

Course Requirements and Grading Components

Weekly Energy Brief and Participation	35%	Weekly
Midterm Presentation and Report	30%	February 25
Final Group Presentation and Report	35%	April 30

Weekly Energy Brief and Class Participation (35%)

The weekly reading is substantial, so the weekly energy brief should not be a summary of the entire reading nor should it be an editorialized opinion or commentary. Rather, each student should identify a key energy issue and succinctly, yet pointedly, convey the relevant aspects of that issue with the intent being to inform the reader and contribute to the final deliverable. Meaning, weekly briefs must convey a core message and demonstrate relevance.

Students must email weekly briefs by 12:00 PM on the Monday prior to class. The brief should be in Word format and no more than 2 pages. A template will be provided.

Reading assignments are listed in the syllabus for the day they will be discussed in class. Each student is expected to complete the required reading and be prepared to actively participate in discussions.

Participation: Each unexcused absence will result in a letter grade deduction from the final grade. Tardiness is defined as being 15-minutes, or more, late for class. Each unexcused tardy will result in a half-letter grade deduction from the final grade.

Midterm Presentation and Report (30%)

A midterm presentation will be required for each group. Each presentation must be accompanied by a PowerPoint and an executive summary limited to 2 pages. The planned date for midterm group presentations is Tuesday, March 3 and should be submitted by email by 12:00 PM on Monday, March 2.

Final Presentation and Report (35%)

As noted in the course description, the final presentation and report will be developed as a full briefing to the U.S. House Energy and Commerce Committee on the disposition of U.S. energy "*in the world as it is*". The final presentation will be during the final examination period, Thursday, April 30 from 12:00 PM-3:00 PM in Candler Hall, Room 214. The final report is limited to 5 pages and is due by email Monday, April 29, 5:00 PM, along with the PowerPoint. Each presentation is limited to 20 minutes.

CLASS STRUCTURE

Each class meeting should be viewed as a discussion of critical issues that will be leveraged to inform each group's final briefing to the U.S. House Energy and Commerce Committee. As such, it is imperative for each student to be prepared for each class by having completed the readings and having submitted the weekly brief with critical questions, observations and core message. The class will be broken into five groups of four students each. For each class meeting, one student from each group will serve as recorder, memorializing key points from the discussion as a transmittal, by email, to their respective group and to the instructor by the following Friday.

The first half of each class session will be constituted by an initial round-the-room discussion of critical observations and questions developed by each student in that week's reading and brief. This will be an open discussion subject to critical comments and constructive input by everyone, with the intention being to inform and contribute to the final deliverable.

Classes will regularly be accompanied by a lecture/presentation given by the instructor.

CLASS SCHEDULE

Week 1 January 7

Course Overview

Reading Assignment #1: The Quest, Part One—Chapters 1-5 (The New World of Oil)

Week 2 January 14

Discuss Reading Assignment #1

Reading Assignment #2: The Quest, Part One—Chapters 6-10 (The New World of Oil)

Week 3 January 21

Discuss Reading Assignment #2

Reading Assignment #3: The Quest, Part Two—Chapters 11-16 (Securing the Supply)

Week 4 January 28

Discuss Reading Assignment #3

Reading Assignment #4: The Quest, Part Three—Chapters 17-20 (The Electric Age)

Week 5 February 4

Work Day

Week 6 February 11

Discuss Reading Assignment #4

Reading Assignment #5: The Quest, Part Four—Chapters 21-26 (Climate and Carbon)

Week 7 February 18

Discuss Reading Assignment #5

Reading Assignment #6: The Quest, Part Five—Chapters 27-32 (New Energies)

Week 8 February 25

Midterm Group Presentations

Week 9 March 3

Discuss Reading Assignment #6

Presentation and Class Discussion: Basics of Atomic Energy

Reading Assignment #7 (TBD): Nuclear Power Generation

Nuclear Information and Data Links:

<https://www.iaea.org/>

<https://pris.iaea.org/pris/>

<http://www.world-nuclear.org/>

<http://www.world-nuclear.org/information-library.aspx>

March 9-13 [Spring Break]**Week 10 March 17**

Presentation and Class Discussion: Nuclear Power Generation

Reading Assignment #8 (TBD): The Nuclear Fuel Cycle

Week 11 March 24

Presentation and Class Discussion: The Nuclear Fuel Cycle

Reading Assignment #9 (TBD): Advanced Reactors

Week 12 March 31

Presentation and Class Discussion: Advanced Reactors

Reading Assignment #10 (TBD): U.S. Nuclear Power and National Security

Week 13 April 7

Class Discussion

Reading Assignment #11 (TBD): U.S. Nuclear Power and National Security

Week 14 April 14

Class Discussion

Reading Assignment #12 (TBD): U.S. Nuclear Power and National Security

Week 15 April 21

UGA State-of-the-Art Energy Conference

Thursday April 30; 12:00 PM – 3:00 PM

Final Presentations