

University of Georgia  
INTL 8278

## Energy Statecraft & Nonproliferation

Time: Tuesday, 12:45 – 3:35  
Place: Military Building 001

**Dr. David K. Gattie**  
dgattie@engr.uga.edu  
Driftmier Engineering Cntr, Rm 2111  
Office Hours: by appointment

**Dr. Joshua N. K. Massey**  
jnmassey@uga.edu  
Holmes-Hunter, Rm 120  
Office Hours: by appointment

### **Course Description**

This graduate seminar examines the role of energy in international politics with a particular emphasis on the link between nuclear energy and national security policy. The seminar explores the historical use of energy resources as a geopolitical tool and highlights the strategic aspects of nuclear energy in the contemporary security environment. The seminar has three main objectives: The first is to critically examine the original principles of U.S. nuclear energy policy while assessing their validity in the contemporary international environment. The second is to evaluate the disposition of U.S. nuclear power policy in the twenty-first century. The final objective of the seminar is to survey contemporary challenges to the U.S. nuclear enterprise with an eye toward developing policy proposals to address these challenges. When available, guest lecturers from both government and the private sector will supplement class discussions and course materials to offer policy perspectives and provide career advice.

### **Instruction**

Instruction for this course will be delivered via three components. The course is centered around a weekly face-to-face (f2f) lecture and discussion component that will take place on campus in the Military Building, room 001. Students are reminded that they must observe UGA's COVID-19 protocol while on campus including wearing of masks and a daily symptoms check (see UGA COVID-19 Precautions below). Due to COVID-19 classroom capacity restrictions, the class will be divided into two sections that meet on campus during the following times:

Section #1: Tuesday, 12:45 - 2:00  
Section #2: Tuesday, 2:20 - 3:35

Section #1 will incorporate a synchronous Zoom session to accommodate students unable to attend f2f instruction on campus. Students unable to attend f2f instruction must request their intent to participate via Zoom at the beginning of the semester. If a student's ability to attend f2f changes during the semester (see UGA COVID-19 Precautions below) the student must notify the instructors immediately.

In addition to f2f instruction, weekly discussion question(s) will be posted via the course’s eLC discussion board. Students are required to respond to the discussion question(s) and comment on at least one peer posting. The discussion question(s) will be posted each **Tuesday before class at 11:00am**, all responses and comments are due by **Tuesday after class at 5:00pm**.

Finally, in addition to regular office hours, Dr. Gattie and Dr Massey will co-host an informal, group Zoom session on alternating Friday’s, at a time TBD. These sessions are intended to provide students an additional opportunity to further discuss questions from class, relevant current events, and course assignments.

**Required Text**

Gates, Robert M. *Exercise of Power: American Failures, Successes, and a New Path Forward in the Post-Cold War World*. New York: Alfred A. Knopf, 2020.

O’Sullivan, Meghan L. *Windfall: How Energy Abundance Upends Global Politics and Strengthens America’s Power*. New York: Simon & Schuster, 2017.

All other readings for the seminar are either accessible through the University of Georgia library system or will be provided by the instructor.

**Grading**

**Course Requirements and Grading Components**

Professionalism	10%	Daily
Weekly Policy Memos:	20%	Weekly
Mid-term Policy Report and Presentation	30%	October 5th
Final Policy Report and Presentation:	40%	November 16th

**Professionalism (10%)**

A student’s professionalism grade is determined by one’s class participation, attitude toward and enthusiasm for the topic and assignments, contribution to lectures and discussion, engagement in group activities, personal conduct and correspondence with instructors and all class members. Finally, attendance and punctuality are the hallmarks of professionalism. **Unexcused absences will result in a one letter decrease in the student’s final grade.**

**Weekly Policy Memos (20%)**

Weekly policy memos should identify key aspects of the readings that are most important for informing nuclear energy policy in the twenty-first century. For example, students may discuss primary actors, their objectives, resources, strategies, policies, outcomes and lessons learned. Reading assignments are listed on the syllabus the day they will be discussed in class. Each student is expected to complete the required readings and be prepared to participate actively in discussions. Weekly policy memos must conform to the MIP Policy Memo Format attached to this syllabus and posted on eLC. Students must email each instructor their weekly policy memos by **12:00 p.m. (est) on the Monday prior to class**. Policy memos delivered after the 12:00 p.m. (est) deadline **will not** be reviewed or receive credit.

***Midterm Policy Report and Presentation (30%)***

This group project is designed to conduct an in-depth analysis of Russian and Chinese energy strategies. The class will be divided into four groups and each group will be assigned one of the following topics for their midterm policy report and presentation:

Russia's Oil & Gas Strategy  
Russia's Nuclear Strategy  
China's Oil & Gas Strategy  
China's Nuclear Strategy

The midterm policy report and presentation are due by email to each instructor by **12:00 p.m. (est) on Monday, October 5, 2020 (the day before class)**. Additionally, each group must deliver a hardcopy of their midterm policy report and presentation to each instructor (i.e., two copies of the report and presentation) at the beginning of class on **Tuesday, October 6, 2020**.

***Final Policy Report and Presentation (40%)***

This group project is designed to build on the analysis outlined in the midterm report by evaluating the national security implications of the midterm analysis. The final policy report will enumerate core U.S. energy policy principles and offer compelling and feasible energy policy recommendations to operationalize those principles in the contemporary international environment. The final policy report and presentation are due by email to each instructor by **12:00 p.m. (est) on Monday, November 16, 2020 (the day before class)**. Additionally, each group must provide a hardcopy of their final policy report and presentation to *each* instructor (i.e., two copies of the report and presentation) at the beginning of class on **Tuesday, November 17, 2020**.

**Administrative Issues**

The course syllabus is a general plan for the course; deviations announced to the class by the instructors may be necessary. All academic work must meet the standards contained in the University of Georgia's "Culture of Honesty" ([http://www.uga.edu/honesty/ahpd/culture\\_honesty.htm](http://www.uga.edu/honesty/ahpd/culture_honesty.htm)). You are responsible to inform yourself about those standards before performing any academic work. Our policy for academic dishonesty is very simple: Don't plagiarize. If you turn in a written assignment that is (in part) not your own work you will receive a failing grade for the course. Disciplinary proceedings to dismiss you from the University may be initiated against you.

The University of Georgia seeks to provide students with disabilities the opportunity to fully participate in educational programs and services. In keeping with this philosophy, it is University policy that students with documented disabilities receive reasonable accommodations through access to classroom information. If you require **special accommodations** because of a university-documented condition, please contact me during the first two weeks of the semester and we can work with the Disability Resource Center in order to achieve a positive outcome.

**Important Dates**

August 20 <sup>th</sup> -26 <sup>th</sup> :	Drop Add
October 13 <sup>th</sup> :	Midterm
October 27 <sup>st</sup> :	Withdrawal Deadline
October 30 <sup>th</sup> :	Fall Break
November 25 <sup>th</sup> -27 <sup>th</sup> :	Thanksgiving Break (All classes after Thanksgiving Break are on-line.)

**UGA COVID-19 Precautions**

**Face Coverings:** Effective July 15, 2020, the University of Georgia—along with all University System of Georgia (USG) institutions—requires all faculty, staff, students and visitors to wear an appropriate face covering while inside campus facilities/buildings where six feet social distancing may not always be possible. Face covering use is in addition to and is not a substitute for social distancing. Anyone not using a face covering when required will be asked to wear one or must leave the area. Reasonable accommodations may be made for those who are unable to wear a face covering for documented health reasons. Students seeking an accommodation related to face coverings should contact Disability Services at <https://drc.uga.edu/>.

**DawgCheck:** Please perform a quick symptom check each weekday on DawgCheck—on the UGA app or website—whether you feel sick or not. It will help health providers monitor the health situation on campus: <https://dawgcheck.uga.edu/>

***What do I do if I have symptoms?***

Students showing symptoms should self-isolate and schedule an appointment with the University Health Center by calling 706-542-1162 (Monday-Friday, 8 a.m.-5 p.m.). Please DO NOT walk-in. For emergencies and after-hours care, see <https://www.uhs.uga.edu/info/emergencies>.

***What do I do if I am notified that I have been exposed?***

Students who learn they have been directly exposed to COVID-19 but are not showing symptoms should self-quarantine for 14 days consistent with Department of Public Health (DPH) and Centers for Disease Control and Prevention (CDC) guidelines. Please correspond with your instructor via email, with a cc: to Student Care & Outreach at [sco@uga.edu](mailto:sco@uga.edu), to coordinate continuing your coursework while self-quarantined. If you develop symptoms, you should contact the University Health Center to make an appointment to be tested. You should continue to monitor your symptoms daily on DawgCheck.

***How do I get a test?***

Students who are demonstrating symptoms of COVID-19 should call the University Health Center. UHC is offering testing by appointment for students; appointments may be booked by calling 706-542-1162.

UGA will also be recruiting asymptomatic students to participate in surveillance tests. Students living in residence halls, Greek housing and off-campus apartment complexes are encouraged to participate.

***What do I do if I test positive?***

Any student with a positive COVID-19 test is **required** to report the test in DawgCheck and should self-isolate immediately. Students should not attend classes in-person until the isolation period is completed. Once you report the positive test through DawgCheck, UGA Student Care and Outreach will follow up with you.

**Course Schedule:** The syllabus is a general plan for the course; deviations announced to the class by the instructors may be necessary.

**Week 1, August 25th**

Course Introduction and Overview: Conducted via Zoom from 12:45-3:35.

SECTION I: ORIGINAL PRINCIPLES OF U.S. NUCLEAR POWER POLICY

**Week 2, September 1st**

Topic: 21<sup>st</sup> Century Energy Statecraft

Readings:

Gattie, David K. & Joshua N. K. Massey. "Twenty-First Century US Nuclear Power: A National Security Imperative," *Strategic Studies Quarterly*, Fall 2020.

Gates, *Exercise of Power*, Prologue – Ch. 2

**Week 3, September 8th**

Topic: Historical and Contemporary Contexts I

Readings:

Stimson, Henry L. "The Challenge to Americans," *Foreign Affairs*, 1947.

Gates, Ch. 9 Russia: Missed Opportunity?

O'Sullivan, Ch. 9, Russia: More Petulant, Less Powerful

**Week 4, September 15th**

Topic: Historical and Contemporary Contexts II

Readings:

Smyth, Henry DeWolf. "Nuclear Power and Foreign Policy," *Foreign Affairs*, 1956.

Gates, Ch.12 China: Competition, Conflict, or Something New

O'Sullivan, Ch. 10, China: Greater Degrees of Freedom

## SECTION II: DISPOSITION OF 21ST CENTURY U.S. NUCLEAR POWER POLICY

### **Week 5, September 22nd**

Topic: Policy Landscape I

Readings:

Yacobucci, Brent D. “Domestic Energy Challenges in the 21st Century,” *Congressional Research Service*, 2016.

Holt, Mark. “Nuclear Energy: Overview of Congressional Issues,” *Congressional Research Service*, 2020.

Nuclear Fuels Working Group Report

### **Week 6, September 29th**

Topic: Policy Landscape II

Readings:

Holt, Mark. “Nuclear Energy Policy,” *Congressional Research Service*, 2014.

Arostegui, Danielle A. and Mark Holt. “Advanced Nuclear Reactors: Technology Overview and Current Issues,” *Congressional Research Service*, 2019.

Kerr, Paul K. and Mary Beth D. Nikitin. “Nuclear Cooperation with Other Countries: A Primer,” *Congressional Research Service*, 2020.

## SECTION III: CONTEMPORARY CHALLENGES TO THE U.S. NUCLEAR ENTERPRISE

### **Week 7, October 6th**

Mid-term Policy Reports & Presentations

### **Week 8, October 13th**

Topic: Great Power Competition

Readings:

O’Rourke, Ronald. “Renewed Great Power Competition: Implications for Defense—Issues for Congress,” *Congressional Research Service*, 2020.

Fontaine, Richard, “Great-Power Competition is Washington’s Top Priority-but Not the Public’s,” *Foreign Affairs*, 9 September 2019

Report of the Task Force on 21st-Century National Security Technology and Workforce, *The Contest for Innovation: Strengthening America’s National Security Innovation Base in an Era of Strategic Competition*, Ronald Reagan Institute, December 2019.

### **Week 9, October 20th**

Topic: Great Power Competition - Energy

Readings:

Graham Jr., Ambassador Thomas, and Admiral Richard W. Mies, "National Security Stakes of U.S. Nuclear Energy," *The Hill*, 25 May 2019.

Ladislaw, Sarah and Nikos Tsafos, *Energy Spheres of Influence*, Report for Center for Strategic and International Studies, September 2019.

Ford, Jonathan. "UK's Reliance on China's Nuclear Tech Poses Test for Policymakers," *Financial Times*, 13 February 2019.

McBride, James and Andrew Chatzky. "Is 'Made in China 2025' a Threat to Global Trade?" *Council on Foreign Relations*, 2019.

**Week 10, October 27th**

Topic: Climate Change

Readings:

O'Sullivan, Ch. 7: Energy Abundance, Climate, and the Environment

Lofton, Robert Jay and Naomi Oreskes, "The False Promise of Nuclear Power in the Age of Climate Change," *Bulletin of Atomic Scientists*, 20 August 2019.

Tabuchi, Hiroko. "Japan Races to Build New Coal-Burning Power Plants, Despite Climate Risks," *New York Times*, 5 February 2020.

Ramseur, Jonathan L. "A Brief Comparison of Two Climate Change Mitigation Approaches: Cap-and-Trade and Carbon Tax (or Fee)," *Congressional Research Service*, 2019.

**Week 11, November 3rd**

Topic: Proliferation

Readings:

Gates, Ch.3 Iran: Great Satan's Bane

Gates, Ch.11 North Korea: Crazy Like a Fox

Kobezskii, Vladimir and Elliot Serbin, "Will Nuclear Proliferation Challenges Limit a Significant Expansion of Global Nuclear Power?" *Bulletin of Atomic Scientists*, 2019.

Wolf, Amy F., Mary Beth D. Nikitin, and Paul Kerr. "Arms Control and Nonproliferation," *Congressional Research Service*, 2020.

**Week 12, November 10th**

Topic: Security & Waste

Readings:

Nikitin, Mary Beth and Mark Holt. “Managing the Nuclear Fuel Cycle: Policy Implications of Expanding Global Access to Nuclear Power,” *Congressional Research Service*, 2012.

Holt, Mark. “Nuclear Power Plant Security and Vulnerability,” *Congressional Research Service*, 2014.

Campbell, Richard J. “Electric Grid Cybersecurity,” *Congressional Research Service*, 2018.

**Week 13, November 17th**

Group Presentation

**Week 14, November 24th**

Group Presentation

**Thanksgiving Break, November 25-27th**

\*All classes after Thanksgiving Break are online.

**Week 15, December 1st**

Course Wrap-up: Conducted via Zoom from 12:45-3:35



## Mental Health and Wellness Resources:

- If you or someone you know needs assistance, you are encouraged to contact Student Care and Outreach in the Division of Student Affairs at 706-542-7774 or visit <https://sco.uga.edu>. They will help you navigate any difficult circumstances you may be facing by connecting you with the appropriate resources or services.
- UGA has several resources for a student seeking mental health services (<https://www.uhs.uga.edu/bewelluga/bewelluga>) or crisis support (<https://www.uhs.uga.edu/info/emergencies>).
- If you need help managing stress anxiety, relationships, etc., please visit BeWellUGA (<https://www.uhs.uga.edu/bewelluga/bewelluga>) for a list of FREE workshops, classes, mentoring, and health coaching led by licensed clinicians and health educators in the University Health Center.
- Additional resources can be accessed through the UGA App.