George Mason University
College of Science, Department of Environmental Science & Policy
Schar School of Policy & Government, Center for Energy Science & Policy

Course and Instructor Information

EVPP 505-202/POGO 750-021: Introduction to Energy Law

Spring 2022

Instructor Information

Instructor: Paul Bubbosh
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Office Hours: Contact me by e-mail to schedule a time to meet in-person, online, or by telephone

Course Information

Credit Hours: 3

Class Times: Wednesdays, 7:20-10:00pm

Course Location: Arlington Campus, Room 317

Course Description:

This course will provide an overview of the major laws and policies that shape and regulate the complex energy system in the United States and, to a lesser degree, the world. The goal is to provide students with a framework for understanding the energy laws and policies of today and those likely to be important in coming years. The course will review laws and policies for all major types of energy, including fossil fuels, nuclear, and renewables, as well as issues related to extraction, conversion, distribution, use, and conservation. Laws and policies ranging from local, state, federal, and international levels will be included. Laws and policies will be presented again in the context of profound changes occurring in the energy system, climate change and other environmental issues, economics, national security, and technology. The course will be largely empirical, but attention will be given to major theories. Most aspects of the course will be illustrated by reference to contemporary issues, such as court decisions, climate change negotiations, and changes in state and federal policies.

About Your Course

Course Structure

This course attempts to cover a subject that is expansive in its scope and breadth. Energy systems impact our lives and society in a pervasive manner and can be viewed through the following lenses: public policy and administration; national and international security; domestic and international law; national and global politics; international commerce, development, and finance; onshore and offshore infrastructure; economics and poverty; technology research and development; environmental and climate change science; transportation; sustainability and conservation; and societal and cultural impacts. The vastness of energy systems yields to laws and policies that are disaggregated and highly fragmented.

This course will approach the vast and complex subject of energy systems methodically and slowly, first by examining the fundamentals of energy law and policy for each energy source (fossil fuels, nuclear energy, and renewables), from initial development to final disposition. This review also includes the basic structure of the electric power industry, including infrastructure (e.g., pipelines and transportation). Within each module, once we cover the fundamentals, we will delve into laws and regulations and the ways energy impacts our lives, from our environment to economics to societal impacts. We will address current transition issues such as the ascendancy of

energy efficiency, conservation, and smart grid technology, as well as the descendancy of certain energy sources and its impacts on society. We will touch upon some of the lenses described above to relate this topic to your knowledge and background.

This course assesses students in two ways. First, students will be assessed on understanding and applying key legal and policy principles and concepts. This will be accomplished through weekly online quizzes. Second, students will be assessed on analyzing, critiquing, researching, and writing on energy issues. This represent a higher level of learning and will be accomplished through engaging in group discussions and activities, writing policy memorandums, presenting findings, reviewing recent literature, and completing a final research paper.

An important consideration for your success in this endeavor is for you to slow down and think carefully about the work. The course is designed to first assess basic understanding of energy law and policy fundamentals, but then shift to the higher level of learning (analysis, critical thinking, and creation, which equips you well for a future career in energy and the environment. You reach this higher plane of learning only through careful and considered work effort.

What to Expect in this Course

This course is 14 weeks in length. The course is in-person instruction, but students are required to complete on-line quizzes and blog posts. Work products will include occasional self-reflective blogs, publishable blogs, three short policy memorandums, weekly quizzes, book club reading and presentation, and a final research paper and presentation.

Class instruction is on Wednesdays, from 7:20pm to 10:00pm at the Arlington campus. The class week begins on a Monday and ends on the following Sunday, so you have until that Sunday to complete any weekly assignments. Each weekly module contains that week's student learning objectives and required reading assignments, as well as occasional short policy memos, weekly quizzes, and blogs. You should be prepared to read 50 to 60 pages per week. Please review the course syllabus thoroughly to learn about specific course outcomes and requirements.

Our classes will follow a predictable format. First, we will begin with a student-led discussion of the assigned reading. Second, the instructor will lecture and pose questions for group discussion. Third, the class will engage in a small group activity, whereby a case study (hypothetical or actual) will be provided, and each group will discuss questions posed, and develop occasional policy recommendations. Students will also read a book as part of a book club, which will require periodic meetings with book club members and a group presentation. A final research paper is due at the end of the course along with a presentation about the paper.

Student-Led Discussions: Each week (except for week 1), we will begin class with student-led discussions. The purpose of this task is to get students in the mode of speaking and participating, engaging in dialogue and debate, and generally learning from each other. Students will be pre-assigned to lead the discussion. If students are paired to lead a discussion, the students should coordinate before class on what questions to ask. Your questions must be submitted to your instructor the day before class meets.

Short Policy Memos: The policy memorandums are intended to promote creative thought and targeted writing on actual events. The length for each policy memo should be three to five pages (double-spaced, Times New Roman, 12-font). A references page (APA style) is not included in the page limit. Five policy paper topics will be offered in the first half of the semester, but students need only select **three** policy memos to complete for their required work. During some weeks, no policy memos will be offered to allow students to focus on other assignments (book club presentation; final paper).

Book Club: Prior to the start of the semester, you will be contacted by your instructor and provided book club options. You will rank the books per your preference. Depending on the size of the class and student preferences, you will be assigned a book and book club members prior to the start of classes. Once you are assigned a book, you will need to purchase your book. Book club members should meet in week one or two to discuss a timetable, plan for meetings, and format of meetings (live, virtual). The book club should meet on a periodic basis to discuss the

reading material. In week eight, each group will submit a written book review (3-5 pages) and present their book review to the class. The book review and presentation should contain the following parts: concise summery of content; critical assessment of the content (thesis statement); supporting evidence; and conclusion. The book review should strive for balance, focus more on commentary and not summary, and explain to the audience what you think of the book's treatment of the topic. Be specific in your comments.

Final Research Paper: The final research paper will be on a subject for an actual client (Sierra Club, Virginia Chapter). The potential topics for research will be provided to you at the start of the semester. The final research papers will be submitted to the instructor and client. Students will be required to present their findings to the client. You can work on the paper individually or in groups of two. If you decide to work in a group, the group must create a written agreement that specifies roles, responsibilities, and due dates for the group and its members. This is to ensure a fair and equitable distribution of work. The agreement must be submitted to the instructor by the third week of class.

Self-Reflective Blogs: Occasionally, students will be required to submit a self-reflective blog on the material covered in class. This an important part of your learning for this course. Consider this from the National Research Council: "The development and retention of new knowledge depends in large part on the relationship between what one is learning and what one already knows (Bransford, J.D., et al, 2000. *How People Learn: Brain, Mind, Experience and School*. National Academies Press). In practice, this requires that students engage in activities that make visible the processes of their thinking rather than merely the conclusions of their thinking. The goal with the reflective blog is to make connections between what you know and understand (i.e., to develop patterns that reinforce learning) and write this in a blog post. Blog posts are shared with the entire class. Think of this exercise as a diary between you and your instructor and other students.

Published Blogs: Each month, one or two students will be assigned to manage the blog page for GMU's Center for Energy Science & Policy (https://cesp.gmu.edu/category/blog/). This is an opportunity for students to publish on timely and relevant topics. The student (or students) will be responsible for publishing two blog posts for the month they are assigned. Student (or students) can select any topic germane to the course to write on for their monthly blog posts. Your instructor must review your blog post prior to submittal to the blog editor.

Course Learning Objectives

When you successfully complete the course, you will be able to:

C1 Identify fundamental legal rules, regulations, principles, and institutions in the field of energy law and policy.
C2 Critique the outcome of major landmark energy legal cases and historic policy decisions.
C3 Analyze actual and hypothetical fact scenarios through application of legal and policy theories.
C4 Evaluate strengths and weaknesses of energy laws, policies, markets, and institutions.
C5 Formulate potential legal responses and policy approaches to current and emerging energy challenges.
C6 Write concisely on legal and policy issues for government, non-government, and industry decision-makers.

Required Text and Other Materials

Textbook

The following text is required for this course:

- Eisen, J.B, et al. (2020). *Energy, Economics and the Environment: Cases and Materials* (5th Ed). Foundation Press
- **Note**: if the cost of this textbook is an issue and you want to purchase the 4th edition, published in 2015, the chapter titles generally correspond between the two versions; however, some adjustments will be needed with assigned pages and legal cases. A list of the assigned reading for 4th edition users will be posted on the Blackboard page (under "Weekly Lessons"). Legal cases not included in the 4th edition but required in the 5th editions are generally available in the public domain (e.g., Google Scholar, Nexis Uni- available under Library tab in Blackboard), although the legal cases in the textbook are heavily edited for length.

Book Club

The course book club will offer several book options, each on a timely an relevant component of GMU's energy and environmental programs. Once you have been assigned a book, you will be responsible for purchasing your assigned book for Book Club. All books should be available in paperback format.

Specific Technology Requirements & Skills for this Course

- Navigate in and use Blackboard
- Create and save MS Word documents
- Find basic resources on the Internet
- Create and organize files and folders on your computer
- Send, receive, and manage email

Evaluation and Grading Policy

In the table below, you will find a brief description of the various course requirements including assignment weights and frequency. A grading rubric will be provided in the Blackboard course page that details how your work will be evaluated.

Course Requirements	Total Points	Weight
Weekly Quizzes: Based on lecture and assigned readings, students answer questions through the online classroom. (10 quizzes, 10 points per quiz)	100 points	20%
Self-Reflective Blog: Students reflect on how the content of the week's reading and activities relate to their own experiences, personal and/or professional. Identify patterns between the module's learning objectives and what you know and understand. (4 blog entries, 5 points per entry)	20 points	10%
Publishable Blog: Students are assigned, per month, to submit two blog posts to the Center for Energy Science and Policy webpage.	20 points	10%
Student-Led Discussion & Participation: Students lead discussions, and other students actively participate in discussions.	10 points	10%
Short Policy Memos: Students are provided an actual or hypothetical issue and required to respond to questions in a short format policy memorandum—verbally in classroom and in written form. (3 policy memos total; 20 points per memorandum)	60 points	20%
Book Club & Presentation: Students are assigned a book to read (preferences considered), grouped into book clubs, required to meet on a regular basis to discuss the book, and present a book review (written and oral presentation).	50 points	10%
Final Research Paper: Students select from a pre-determined list of client-based topics; conduct research and interviews; complete a rough draft and final paper; and present their findings to client and class.	50 points	20%
Total		**100%**

Grading Scale

A	90-<100%
B+	88-90%
B	84-88%
B-	80-84%
C	70-<80%
F	0-<70%

Assignment Submission

On Blackboard course page, weekly directions will indicate where assignments (policy memos, blogs) and quizzes will be posted and the submittal deadline.

Students are required to adhere to the following guidelines when submitting written work:

- Use APA format for proper citations (https://apastyle.apa.org/)
- Turnitin or SafeAssign: All research papers will be submitted through Turnitin or SafeAssign), an educational tool designed to identify plagiarism. You do not need a Turnitin or SafeAssign account. This software program assigns an originality score which you and your instructor will be able to see.

Assignment Feedback
The instructor will aim to return assignments to you within 5-7 days following the due date, depending on the length of the assignment. You will receive feedback in the My Grades area of the course which can be accessed via the navigation menu.

Late Policy
You are expected to contact your instructor in advance if you think you cannot meet an assignment deadline and arrange for an alternative submission deadline. However, if an assignment is late and prior arrangements have not been made with the instructor, the assignment score will be reduced by a fraction of a letter grade for every day it is late, including weekends (e.g., A to A-, A- to B+, etc.). For example, if your assignment is submitted 5 days after the submission date (including weekends), without an agreed upon extension, an A quality grade would receive an F. Main take-away: communicate with your instructor to receive maximum flexibility.

Extra Credit
Events beyond your control will happen which may cause you to miss deadlines. Please consult with your instructor to discuss possible extra credit assignments.

Course Policies

Course Participation

Class Attendance
You are expected to attend every class session and arrive on time, but things happen in life which may cause you to miss class or arrive late. If you know you will miss class or arrive late, please let your instructor know in advance, if possible. Unexcused absences will be docked points in the class participation part of student grades. Main take-away: communicate with your instructor to receive maximum flexibility.

In-Class Participation
Classroom discussion is a form of community-centered learning where students learn from each other. Students are encouraged to be active and constructive participants. Further, they are encouraged to make—and learn from—mistakes. Intellectual camaraderie fosters support, challenge, and collaboration. The course subject matter will be explored and developed through active and effective class discussions. By "active" this means you should respond competently when called upon or when contributing to the discussions. You accomplish this by reading your assigned reading material and thinking about the information before class, and then trying your best to contribute and engage with others. By "effective class discussion," this means contributing thoughtful and considered comments or questions. Avoid talking simply for the sake of talking. This is not genuine participation. You are expected to bring a higher-level of thoughtfulness, intellectual curiosity, and intelligence to the discussion.

Time Management Expectations
This is a graduate-level course which requires more attention and time to complete the weekly assignments. It is expected that you look ahead to schedule your time. Plan to complete coursework across several days of the week rather than all in one day. Some assignments require that you work on them for multiple weeks (e.g., Book Club, Final Paper). Be sure to review the assignment directions at the beginning of the course so that you can plan your time accordingly. Please seek help before becoming frustrated and spending a significant amount of time to resolve an issue.

In-Class Etiquette
In this course, it is important to follow proper rules of etiquette - communicating with others in a proper and respectful way. See your instructor if you have any concerns.

COVID
Per university policy and city regulations, you will be required that you wear a mask during your time in the classroom.

Group Work
Group work will be assigned as part of this course (e.g., book club, in-class group activity). Where group work is required, you are expected to work equitably within your group to complete collaborative group activities. As mentioned above, any student working groups will require an agreement among members to equitably share the burden of the work. For book club (and final research paper, if applicable), each student will have an opportunity to privately rate your participation of your groupmates.

Course Protocols and Getting Help

Amendments to the Course
Changes to the course will be posted in the Announcements section of your course Blackboard page. If there is a discrepancy between the syllabus and the Blackboard course page, contact your instructor. Usually, the Blackboard page modules contain the most recent assignments and requirements.

Course Communication
When you have a question about an assignment or a question about the course, please contact your instructor. Email messages will be responded to within 24-48 hours.

If you have any questions, or if you feel like chatting about energy-related work or careers, please reach out to arrange some time. I welcome the opportunity to engage with and provide advice to students embarking on an energy or environmental career, shifting to this career, or seasoned professionals.

General University Policies

This course adheres to all University policies described in the academic catalog. Please pay close attention to the following policies:

ACADEMIC INTEGRITY

GMU has an Honor Code with clear guidelines regarding academic integrity, which covers cheating and attempted cheating, plagiarism, lying, and stealing. Plagiarism includes using third-party information on an exam without attribution to the source. The principle of academic integrity is taken very seriously, and violations are treated gravely.

GMU's honor code is available here: http://www.gmu.edu/academics/catalog/9798/honorcod.html.

Let's keep this simple: do not cheat. You are here to learn and grow intellectually as a person. If you are having difficulty keeping up with the work or it is too challenging, come see me. Don't risk disciplinary action.

DISABILITY ACCOMMODATIONS

If you have a documented learning disability or other condition that may affect academic performance you should: (1) make sure this documentation is on file with Office of Disability Services, and (2) talk with me to discuss your accommodation needs at the beginning of the semester.

DIVERSITY/INCLUSIVITY
George Mason University promotes a living and learning environment for outstanding growth and productivity among its students, faculty and staff. Through its curriculum, programs, policies, procedures, services and resources, Mason strives to maintain a quality environment for work, study and personal growth.
An emphasis upon diversity and inclusion throughout the campus community is essential to achieve these goals.

Diversity is broadly defined to include such characteristics as, but not limited to, race, ethnicity, gender, religion, age, disability, and sexual orientation. Diversity also entails different viewpoints, philosophies, political affiliations, and perspectives. Attention to these aspects of diversity will help promote a culture of inclusion and belonging, and an environment where diverse opinions, backgrounds and practices have the opportunity to be voiced, heard and respected.

STUDENT PRIVACY

Family Educational Rights and Privacy Act of 1974 (FERPA) is a federal law that governs the educational records of eligible students. It grants students continuous access to their educational records upon request, allows students to amend their records if they feel they're inaccurate, and restricts how and when their educational records can be disclosed.

When a student turns 18, or attends a postsecondary institution, FERPA rights belong to the student, not the parent. In general, Mason does not disclose non-directory information to third parties unless the student has provided consent, the release is to the parent of a dependent student, as required by § 23.1-1303.B.5 of the Code of Virginia, or the disclosure meets a qualified exception under FERPA. To find out more about FERPA see https://registrar.gmu.edu/ferpa/.

OTHER USEFUL CAMPUS RESOURCES

WRITING CENTER: Robinson Hall B213; 703-993-1200; http://writingcenter.gmu.edu

UNIVERSITY LIBRARIES: "Ask a Librarian" http://library.gmu.edu/mudge/IM/IMRef.html

COUNSELING AND PSYCHOLOGICAL SERVICES (CAPS): 703-993-2380; http://caps.gmu.edu

LEARNING SERVICES: 703-993-2999; http://caps.gmu.edu/learningservices ; offers many good study skills workshops!

ACADEMIC COUNSELING PROGRAM: 703-993-2380;
http://caps.gmu.edu/learningservices/academiccounseling.php

UNIVERSITY POLICIES: The University Catalog, http://catalog.gmu.edu, is the central resource for university policies affecting student, faculty, and staff conduct in university academic affairs. Other policies are available at http://universitypolicy.gmu.edu/. All members of the university community are responsible for knowing and following established policies.

Tentative Course Schedule

Activity and assignment details are found within each week's corresponding learning module in Blackboard (see "Weekly Lessons" in Blackboard). The schedule below is tentative and subject to change. To identify the most current assignments, consult the weekly module in Blackboard. If you have any questions, please contact your instructor.

Week	Course Objectives	Topics	Readings	Assessments & Due Dates
1 (Jan 24-Jan 30)	C1, C2, C4	Foundations Energy basics; relevance of energy Administrative law and constitutional principles Public utility principles Electric power industry I	Chapter 1 (pgs. 1-28) Chapter 2 (pgs. 35-56)	Short Policy Memo 1 (due by Sunday; need to complete 3) Week 1 Quiz (due by Sunday)
2 (Jan 31-Feb 6)	C1, C2, C3, C4, C5, C6	Electric power Rate regulation principles Historic energy laws	Chapter 2 (pgs. 81-96) Chapter 8 (pgs. 479-484; 489-521)	Week 2 Quiz (due by Sunday) Book Club plan due to instructor (due by Sunday)
3 (Feb 7-Feb 13.)	C1, C2, C3, C4, C5, C6	Electric Power Markets Competition Access to transmission facilities Interstate electric power	Chapter 10 (pgs. 683-712; 725-732; 739-754; 769-774)	Week 3 Quiz (due by Sunday) Self-reflections blog on Modules 1-3 (due by Sunday) Final research paper selections (due by Sunday)
4 (Feb 14-Feb 20)	C1, C2, C3	Coal Coal industry & regulations Coal mining, health, & safety Coal transportation Water contamination & land reclamation	Chapter 3	Short Policy Memo 2 (due by Sunday; need to complete 3) Week 4 Quiz (due by Sunday)

5 (Feb 21-Feb 27)	C1, C2, C3, C4, C5, C6	Oil & Natural Gas I Industry & regulatory overview Leases & ownership rights	Chapter 4 (pgs. 148-200)	Short Policy Memo 3 (due by Sunday; need to complete 3) Week 5 Quiz (due by Sunday)
6 (Feb 28-Mar 6)	C1, C2, C3, C4, C5, C6	Oil & Natural Gas II Environmental regulations Offshore oil and natural gas	Chapter 4 (pgs. 231-282)	Week 6 Quiz (due by Sunday) Self-reflections blog on modules 4-6 (due by Sunday)
7 (Mar 7-Mar 13)	C1, C2, C3, C4, C5	Nuclear power Safety and risks Regulating plants Wastes	Chapter 7 (pgs. 415-423; 435-478) Film: The China Syndrome	Short Policy Memo 4 (due by Sunday; need to complete 3) Week 7 Quiz (due by Sunday)
SPRING BREAK Mar 14-Mar 20	NO CLASSES			
8 (Mar 21-Mar 27)	C1, C2, C3, C4, C5	Hydropower Public v. private power Licensing Future of hydropower	Chapter 6 (pgs. 363-402)	Book club presentations Week 8 Quiz (due by Sunday)
9 (Mar 28-Apr 3)	C1, C2, C3, C4, C5	Renewable power Technology (cool and hot) Financing Transmission and land use	Chapter 11 (pgs. 793-819 Chapter 13 (pgs. 971-978; 983-996; 1010-1017; 1031-1038; 1052-1064; 1069-1077)	Book club peer evaluations of group members (due by Sunday) Short Policy Memo 5 (due by Sunday; need to complete 3) Week 9 Quiz (due by Sunday)

10 (Apr 4-Apr 10)	C1, C2, C3, C4, C5	Environment Clean Air Act Regulating greenhouse gases Acid Rain Air Toxics	Chapter 5 (pgs. 283-338)	Week 10 Quiz (due by Sunday) Self-reflections blog on modules 7-9 (due by Sunday)
11 (Apr 11-Apr 17)	C1, C2, C3, C4, C5	Pipelines Regulatory framework Siting oil and gas pipelines	Chapter 9 (pgs. 575-608; 635-676)	Rough draft of research paper (due by Sunday)
12 (Apr 18-Apr 24)	C1, C2, C3, C4, C5	Transportation Fueling transportation Biofuels Fuel efficient vehicles	Chapter 15 (pgs. 1186-1246)	Self-reflections Blog for modules 10-12 (due by Sunday)
13 (Apr 25-May 1)	C1, C2, C3, C4, C5	International Energy exports International trade law and markets Extraterritoriality Final reflections	Chapter 14	
14 (May 2-May 7)		Make-Up Material (if necessary)		Final research paper (due by May 13) Presentations
15 (May 11-May 18)	EXAM WEEK			