

AAE 773: Seminar in Resource and Energy Demand

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Office hours: by appointment

COURSE DESCRIPTION

The REDA seminar course consists of weekly presentations from academics and industry professionals on various topics related to energy and natural resources. We will cover 15 topics throughout fall & spring semesters. The seminar exposes students to a wide range of current issues affecting the energy and natural resource fields. A weekly discussion section will accompany each speaker's presentation.

LEARNING OUTCOMES

1. You will gain an understanding of current industry topics. You will master the vocabulary relevant to the topic, understand the economic context for the issue, and pros/cons associated with potential solutions.
2. You will develop professional writing skills through written essays.
3. You will practice professional discussion by participating in and facilitating class discussions.

COURSE STRUCTURE

This course is structured around a collection of topics. For each topic, students will complete the following activities:

- Read or listen to assigned course materials
- Complete & submit the reading guide (due 10pm the evening before discussion)
- Participate in (or facilitate) discussion
- Participate in the seminar
- Submit a 1-page essay related to the seminar topic (due 6pm one week after the seminar)

COURSE SCHEDULE

Our normal meeting time for fall semester is Tuesdays from 11-12:15 (discussion) and Tuesdays from 3-4:15 (seminar), both in Taylor 103. In order to take advantage of synergies with other seminars on campus and in the AAE department, occasionally seminars will take place outside of the designated class time. I will inform students of schedule changes in advance.

EVALUATION

- 30% Class participation
- 10% Discussion facilitation (2x per year)
- 10% Weekly reading guides
- 40% Weekly writing exercises (1-page)
 - 5% Peer review
 - 5% Quizzes

ACTIVITIES

Class participation includes participation in the discussion sections and interaction with the seminar speakers. Each student is required to ask at least 5 questions to seminar speakers throughout the year. Weekly participation will be graded according to a rubric.

Each weekly discussion will be led by two or three student facilitators. Students will work together and with Bethany to prepare discussion prompts and class activities to ensure students understand the basic concepts related to the weekly topic. Review these tips from [Carleton \(Links to an external site.\)](#)[Links to an external site.](#) and [Columbia University \(Links to an external site.\)](#)[Links to an external site.](#) for discussion facilitation. The goal of the discussion session is to increase student understanding of the topic, including the economic context of the issue, relevant vocabulary, and pros/cons of potential solutions. Facilitators should plan a variety of activities to ensure that all students participate each week. Examples include small group discussions, in-class activities, and large group discussions. Each student is required to facilitate 2 discussion sessions throughout the year: one in fall semester and the second in either fall or spring. Facilitators will be graded based on preparedness, effort, and quality of discussion prompts/activities. Facilitators will also introduce the speaker for the seminar, based on bio information provided by Bethany.

Bethany will assign a set of materials that correspond to each topic. These may include academic journal articles, industry reports, news articles, blog posts, or podcasts. You will answer a set of questions (the “reading guide”) related to these materials, meant to stimulate inquiry and deeper understanding of the concepts. You are allowed to work in groups on the weekly reading guides, but everyone must submit their own answers. Please type your responses and submit via dropbox. Reading guides are graded based on effort. Reading guides are due at 10pm the evening before the discussion section.

To further check your understanding of core concepts from the readings, we will have 5 pop quizzes throughout the year. These will take place during the first few minutes of the week's discussion section.

WRITING ASSIGNMENTS

Writing is a crucial skill for professional analysts; we must be able to communicate the results of our analyses to a variety of audiences. As with other skills, good writing takes significant effort. We will work together to improve your professional writing skills throughout the year. The writing exercises will take a lot of time for all of us, but

repeated practice is the best way to improve. The more effort you put into honing your writing craft, the better prepared you will be for your career.

Some weeks will have a writing prompt, other weeks you have the freedom to choose your specific subject (so long as it relates to the week's seminar topic). All essays should be written in a professional style. Please type your work and submit as a word document via the course website. Writing exercises are due one week following each speaker's presentation, by 6pm. Early in the semester we will focus on big picture writing concepts, like organization, accuracy, and using the appropriate tone for your intended audience. As the semester progresses, we will dig deeper into sentence structure, word choice, and grammar/punctuation. Check each week's writing assignment to see the grading rubric. Writing assignments will go through a peer review process; Bethany will make additional comments and assign the final grade.

The peer review process is designed to give you a chance to learn from each other and help each other improve. When you critique someone else's writing, you develop a deeper understanding of the characteristics of good writing. Peer reviewers will be automatically and randomly assigned. Please complete the peer review within 3 days. Delayed reviews or insufficient feedback will negatively impact your grade. During fall semester, I will not expect you to submit revisions. Instead, you should use the feedback from previous essays to improve your next essay. In the spring semester you will have the opportunity to revise several of your essays based on feedback from your peers.

LATE POLICY

Reading guides submitted after 6am on the day of the discussion section are subject to a 50% late penalty. Reading guides submitted during or after the discussion section will receive 0 credit.

Writing exercises are subject to a 25% late penalty for every day beyond the deadline.

Students may request an extension from Bethany. All extension requests should be made at least 24 hours before the deadline, or within 24 hours after the deadline in the case of an emergency.

There will be no opportunity to make up for missed quizzes.

PLAGIARISM

I have a zero tolerance policy for plagiarism. Any plagiarized assignment will automatically earn a 0 score. For more information on plagiarism, quoting & paraphrasing sources, and citation styles, please refer to the [UW Writing Center](#).

SPECIAL ACCOMMODATIONS

Please notify Bethany within the first two weeks of the semester if you have a conflict due to observance of religious holidays.

Please contact Bethany directly if you have a disability that requires special accommodations.

TOPICS (subject to change)

1. Real time pricing
2. Energy efficiency program design
3. Energy storage
4. Natural resources damage assessment
5. Vehicle-to-grid
6. PACE financing
7. Carbon tax
8. Performative based regulation
9. Optimization of energy systems
10. Environmental regulations