

University of Wisconsin-Madison

AAE 773: Seminar in Resource and Energy Demand

Fall 2019

Course designations & attributes: Graduate

Prerequisites: Declared in REDA program

Instructional mode: face-to-face

Meeting time & location:

- Taylor Hall 103, Wednesdays from 1:30-2:45 (discussion)
- Taylor Hall 113, Wednesdays from 3-4:15 (lecture). It's possible seminars will take place outside of the designated class time; students will be notified at least one week in advance.

1 credit: We meet 2.5 hours/week for a total of 8 weeks. Students are expected to complete assignments and readings and prepare for quizzes and class discussions in addition to attending class; on average out of class work is roughly equivalent to 3-5 hours per seminar.

Instructor: Justin Margolies, Academic Staff

111 Taylor Hall

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608-773-8940

Office hours: by appointment

COURSE DESCRIPTION

Current issues in resource and demand analysis, with presentations by academic researchers and industry professionals, to introduce students to current issues in resource and demand analysis, and to develop their critical thinking to address these issues.

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 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 5pm the evening before discussion**)
- Participate in (or facilitate) discussion
- Participate in the seminar

TOPICS (subject to change)

1. Energy Efficiency and Demand Side Management
2. Wind, the Anticommons and Zoning
3. Wholesale Electricity Power Markets
4. Electric Vehicles and Rate Design
5. Social Cost of Carbon
6. Behavior Change
7. Utility Finance
8. Environmental Impact of Consumer Products

EVALUATION

- 35% In-class engagement/participation
- 20% Weekly reading guides
- 25% Discussion facilitation (1x per semester)
- 10% Quizzes
- 10% Attend one local resource or energy focused event (or 2 webinars) and write one page blog post style response (plus one extra credit opportunity for a maximum additional 2%)

ATTENDANCE

This class only meets 8 days and active in-person participation is essential to students achieving course learning outcomes. Each student will receive one excused absence from class no questions asked. Any additional absences will result in a weekly participation grade of zero.

ACTIVITIES

Class participation includes participation in the discussion sections and interaction with the seminar speakers. Each student is required to ask at least 4 questions to seminar speakers throughout the semester. Participation will be graded at the middle and end of the semester and will consist of a self-evaluation and assigned grade by Justin.

Each weekly discussion will be led by either 2-3 student facilitators or Justin. Student facilitators will work together to introduce and frame the topic, address any unclear concepts and develop discussion prompts/activities. Review these tips from [Carleton](#) and [Columbia University](#) 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. [Click here to sign up](#). Topic leaders will be graded based on preparedness, individual contribution, quality of content, and execution. Each student will also introduce the speaker for the seminar once during the semester, based on bio information provided by Justin.

Justin 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 Canvas. Reading guides are graded based on effort. Reading guides are due at 5pm the evening before the discussion section.

To further check your understanding of core concepts from the readings, we will have pop quizzes throughout the year. These will take place during the first few minutes of the week's discussion section and there will be no make-up opportunity for these points.

There is constantly new research and ideas being shared in the industry via conferences, local events and webinars and increasingly professionals are publishing periodic blog posts to share perspectives and showcase expertise. Each student is required to attend at least one industry related event outside of class and write a one page response. The topic can be of your choosing but needs to be either focused on an energy or resource related topic. Students will be graded based on the quality of their written response according to a rubric.

LATE POLICY

Reading guides submitted after 5pm the day before the discussion section are subject to a 50% late penalty. Reading guides submitted during or after the discussion section will receive 0 credit.

There will be no opportunity to make up missed quizzes.

ACADEMIC INTEGRITY

I have a zero tolerance policy for plagiarism. Any plagiarized writing 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](#).

By enrolling in this course, each student assumes the responsibilities of an active participant in UW-Madison’s community of scholars in which everyone’s academic work and behavior are held to the highest academic integrity standards. Academic misconduct compromises the integrity of the university. Cheating, fabrication, plagiarism, unauthorized collaboration, and helping others commit these acts are examples of academic misconduct, which can result in disciplinary action. This includes but is not limited to failure on the assignment/course, disciplinary probation, or suspension. Substantial or repeated cases of misconduct will be forwarded to the Office of Student Conduct & Community Standards for additional review. For more information, refer to studentconduct.wiscweb.wisc.edu/academic-integrity/.

ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

Please notify Justin within the first two weeks if you have a disability that requires special accommodations.

The University of Wisconsin-Madison supports the right of all enrolled students to a full and equal educational opportunity. The Americans with Disabilities Act (ADA), Wisconsin State Statute (36.12), and UW-Madison policy (Faculty Document 1071) require that students with disabilities be reasonably accommodated in instruction and campus life. Reasonable accommodations for students with disabilities is a shared

faculty and student responsibility. Students are expected to inform faculty [me] of their need for instructional accommodations by the end of the third week of the semester, or as soon as possible after a disability has been incurred or recognized. Faculty [I], will work either directly with the student [you] or in coordination with the McBurney Center to identify and provide reasonable instructional accommodations. Disability information, including instructional accommodations as part of a student's educational record, is confidential and protected under FERPA.

<http://mcburney.wisc.edu/facstaffother/faculty/syllabus.php>

DIVERSITY & INCLUSION

Diversity is a source of strength, creativity, and innovation for UW-Madison. We value the contributions of each person and respect the profound ways their identity, culture, background, experience, status, abilities, and opinion enrich the university community. We commit ourselves to the pursuit of excellence in teaching, research, outreach, and diversity as inextricably linked goals.

The University of Wisconsin-Madison fulfills its public mission by creating a welcoming and inclusive community for people from every background – people who as students, faculty, and staff serve Wisconsin and the world. <https://diversity.wisc.edu/>

SPECIAL ACCOMMODATIONS

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