UNIVERSITY OF IOWA

First-Year Seminar: Energy and the Environment
CHEM:1000:0005
First Year Seminar - Fall 2016

Day/Time/Place: 8/22/16-10/10/16, Monday 3:30-5:20 PM, Room E203 CB

Instructor: Prof. Sara E. Mason, Ph.D.
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Office hour: Wednesday 2:00 – 3:00 PM, W339 CB

Grading distribution: Class Attendance.................................25 pts
Class Participation .................................................25 pts
Writing Assignments...............................25 pts
Final Poster.........................................................25 pts

Motivation and Objective:

We face increasing energy demand through an increasing population, and that energy consumption is associated with greenhouse gas emissions and accumulation. At the same time, we face depleting petroleum and other resource reserves. There are 1.6 billion people without access to electricity or other forms of clean energy. Energy-related security challenges such as the uneven distribution of resources, vulnerability to natural disaster, and geopolitical instability add to the current tension over how to approach our energy future. Informed choices about energy sources requires an understanding of the scale and magnitude of energy demands, as well as the basic science of climate change and alternative energy sources. This seminar will help create and empower an informed generation of students that are scientifically literature about energy-related issues, while also engaging them in discussions about the attitudes and perceptions that are necessary to enable a sustainable future.
Skill Set Developed to Promote Your Learning at UI:
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First year seminars introduce first-year undergraduate students to the intellectual life of the University of Iowa (UI), and are designed to help students make the transition to college-level learning through active participation in their own learning. Skills to be introduced and developed in this class that will serve you throughout your time at UI include:

- Being informed about common misconceptions about learning and studying
- Approaches to making well-informed and educated “guesses”
- Written and oral presentation skills
- Learning in an multi-disciplinary environment

TOPICS LIST

Ultimately, the topics we discuss will be steered by the outcomes of class discussions and expressed interests. Here is a list of topics that are likely to be included:

- *Energy Basics: Units and Magnitudes of Energy Consumption and Demand*
- *Energy and Climate*
- *The Nature of the “Energy Problem”*
- *Alternative/Renewable Energy Sources*
- *Energy Efficient Buildings*
- *Energy Storage and Distribution*
- *What would you like to know?...Suggestions and recommendations appreciated!*

READING AND WRITING ASSIGNMENTS

All reading and homework assignments will either be distributed in class and/or posted later that day on the course ICON site. Reading will be short in nature, and sourced from recent news media items related to water resources in the US and around the globe (addressing the topic areas described above).

Periodically, you will be asked to complete reflective writing assignments in response to course readings.

FINAL POSTER

The culmination of the seminar will be our own Symposium on Energy and the Environment, which will be comprised of poster presentations given by students. You are encouraged to discuss possible poster topics with the instructor. Poster abstracts of ~300 words will be required, and due two weeks prior to the Symposium. The topic of your poster must be related to course content but is largely your choice. All posters must include some quantitative detail (in magnitude and units) about energy use or demand.
ATTENDANCE AND PARTICIPATION

Students are expected to attend all lecture sessions. Attendance in lecture counts toward your grade (25 pts), as does class participation (25 pts). You are therefore strongly recommended to show up and participate. Each unexcused absence from class will reduce the “attendance portion of the student’s grade by 5 pts. Absence from class will be excused only if the student submits a UI absence form (available at http://registrar.uiowa.edu/absence-class) within a week of the absence and the instructors determine that the absence should be excused. If you wish to know whether an anticipated absence will be excused, ask in advance.

When I evaluate student class participation, I will consider the extent to which an individual student participated in class discussion on a regular basis, whether the student’s contributions were pertinent to the topic under discussion, and whether the student’s contributions demonstrated that the student had done the reading or assignment and otherwise prepared for class. I will also take into account whether or not you use your cell phone (or other personal electronic devices) in an off-task fashion.

SAFE ZONE STATEMENT

I am part of the Safe Zone Project community network of trained University of Iowa faculty/staff/students who are available to listen and support you in a safe and confidential manner. My goal is to help you be successful and to maintain a safe and equitable campus. The purpose of the Safe Zone Project is to identify members of the University community who will model support, affirmation, and inclusion of LGBTQ people. Participants who complete this program are choosing to be visible allies and to be trained to be effective resource people for their workplace and classroom.

CLAS Policies and Procedures:

I. Administrative Home

The College of Liberal Arts and Sciences is the administrative home of this course and governs matters such as the add/drop deadlines, the second-grade-only option, and other related issues. Different colleges may have different policies. Questions may be addressed to 120 Schaeffer Hall, or see the CLAS Academic Policies Handbook at http://clas.uiowa.edu/students/handbook.

II. Electronic Communication

University policy specifies that students are responsible for all official correspondences sent to their University of Iowa e-mail address (@uiowa.edu). Faculty and students should use this account for correspondences (Operations Manual, III.15.2, k.11).
III. Accommodations for Disabilities

The University of Iowa is committed to providing an educational experience that is accessible to all students. A student may request academic accommodations for a disability (which includes but is not limited to mental health, attention, learning, vision, and physical or health-related conditions). A student seeking academic accommodations should first register with Student Disability Services and then meet with the course instructor privately in the instructor's office to make particular arrangements. Reasonable accommodations are established through an interactive process between the student, instructor, and SDS. See http://sds.studentlife.uiowa.edu/ for information.

IV. Academic Honesty

All CLAS students or students taking classes offered by CLAS have, in essence, agreed to the College's Code of Academic Honesty: "I pledge to do my own academic work and to excel to the best of my abilities, upholding the IOWA Challenge. I promise not to lie about my academic work, to cheat, or to steal the words or ideas of others; nor will I help fellow students to violate the Code of Academic Honesty." Any student committing academic misconduct is reported to the College and placed on disciplinary probation or may be suspended or expelled (CLAS Academic Policies Handbook).

V. CLAS Final Examination Policies

The final examination schedule for each class is announced by the Registrar generally by the fifth week of classes. Final exams are offered only during the official final examination period. No exams of any kind are allowed during the last week of classes. All students should plan on being at the UI through the final examination period. Once the Registrar has announced the date, time, and location of each final exam, the complete schedule will be published on the Registrar's web site and will be shared with instructors and students. It is the student's responsibility to know the date, time, and place of a final exam.

VI. Making a Suggestion or a Complaint

Students with a suggestion or complaint should first visit with the instructor (and the course supervisor), and then with the departmental DEO. Complaints must be made within six months of the incident (CLAS Academic Policies Handbook).

VII. Understanding Sexual Harassment

Sexual harassment subverts the mission of the University and threatens the well-being of students, faculty, and staff. All members of the UI community have a responsibility to uphold this mission and to contribute to a safe environment that enhances learning. Incidents of sexual harassment should be reported immediately. See the UI Office of the Sexual Misconduct Response Coordinator for assistance, definitions, and the full University policy.

VIII. Reacting Safely to Severe Weather

In severe weather, class members should seek appropriate shelter immediately, leaving the classroom if necessary. The class will continue if possible when the event is over. For more information on Hawk Alert and the siren warning system, visit the Department of Public Safety website.