

# ENERGY 309: Sustainable Energy Interdisciplinary Graduate Seminar (SEIGS)

Department of Energy Resources Engineering, Stanford University

Offered Fall 2021, Winter 2022, Spring 2022

Meeting on Wednesdays, 12:15 PM - 1:15 PM, in person (Green Earth Sciences 104) and via

Zoom

1 unit, **repeatable for credit**

Grade: Pass/Fail

## Instructors:

Prof. Ines Azevedo (Prof. Azevedo will serve as point of contact for the course this Fall quarter. Please contact her if you have any questions)

Prof. Ram Rajagopal

Prof. John Weyant

Dr. Jacques de Chalendar

Dr. Gunther Glenk

## 1 Course Overview

Moving towards sustainable energy systems and addressing climate change requires a transition of the energy sources used, as well as major market, technology, policy and behavior changes. In this graduate seminar course, graduate students will present their ongoing research on sustainable energy to an audience of faculty and graduate students with a diversity of disciplinary perspectives.

Students are **welcome to attend and participate in this seminar course on an ongoing basis during their studies at Stanford and the course may be repeated for credit**. This is pass/fail course. First year graduate students are very welcome to participate in this seminar course and can be assigned a discussion paper from the literature to present and discuss rather than present research results if they wish to do so.

One of the key goals of this course is to bring together researchers working on sustainable energy related issues, so Stanford graduate students, researchers, and faculty from are very welcome to attend the seminar even if you don't register for ENERGY309.

## 2 Course Goals

The goal of the course is to prepare an interdisciplinary group of graduate students in sustainable energy systems and to build a collaborative and scientifically sound community of graduate students in sustainable energy systems across Stanford University.

## 3 Pre-requisites

No pre-requisites are required for this course.

## 4 Textbooks and Resources

No textbooks will be used. We will select a few peer-reviewed papers and reports to be presented and discussed in class for graduate students that are just starting their research endeavor.

## 5 Course Website on Canvas

- The course management software package Canvas will be used for this course.
- The updated syllabus for the course as well as readings, slides, and other course materials for each class will be posted in the relevant Canvas folder ahead of time.
- Announcements will also be made through the Canvas site, and any questions should be posted to the Discussions tab.
- Presentation and homework materials should be submitted via the Canvas Assignments tab.

## 6 Course Logistics

Students attending the class are expected to either present a seminar on their research work or a paper from the literature assigned by the instructor or participate by attending all seminars in the series and serving as discussants to the work of their colleagues.

All students presenting a seminar will be asked to submit in Canvas their slides one week prior to their presentation date and share it with the assigned discussants. If they have a working/submitted paper related to the work and wish to have feedback on the paper, students are very welcome to also upload the paper a week in advance. The slides (and paper if they so wish) will be shared with the other participants on Canvas.

## 7 Course Expectations

### *What you can expect from the teaching team:*

We are here to guide your learning and will challenge you to actively engage in the learning process through this class. We will strive for an inclusive and collaborative classroom and welcome any suggestions for improvement. We will do our best to give you the tools, feedback, and support to succeed, so let us know if we can do anything more. Learning is a never-ending process, so we hope to motivate students to seek out more information on topics we don't have time to cover. We highly encourage everyone to visit us in office hours or to set up a meeting, even if you don't feel that you have questions. We want to get to know you and support you in this learning experience!

### *What we expect from you:*

We will expect you to take an active role in your learning by coming to class prepared and being ready to share your ideas and collaborate with your classmates. Each member of this class has different ideas and perspectives that will enrich the experience for everyone else, so we ask you to be respectful and thoughtful in your interactions. To get the most out of the class, you should be prepared to share your ideas, ask questions, listen actively and collaborate effectively during small group work. Never hesitate to email us, stop by during office hours, or set up a meeting.

### *Respect for diversity:*

It is our intent that students from all diverse backgrounds and perspectives be well served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. It is our intent to present materials and activities that are respectful of diversity, which may include but not limited to: gender, sexuality, disability, age,

socioeconomic status, ethnicity, race, religion, political affiliation, culture, health and so on. Your suggestions are encouraged and appreciated. Please let us know ways to improve the effectiveness of the course for you personally or for other students or student groups. In addition, if any of our class meetings conflict with your religious events, please let us know in the first week of classes and we will make arrangements for you as needed.

All people have the right to be addressed and referred to in accordance with their personal identity. In this class, we will have the chance to indicate the name that we prefer to be called and, if we choose, to identify pronouns with which we would like to be addressed. We will do our best to address and refer to all students accordingly and support classmates in doing so as well.

## **8 Assignments and Grading**

This will be a pass/fail course. To pass the course, students are expected to:

- Attend all seminars (and please let the instructors know at least a week in advance if you are not able to participate in a of the seminars).
- Present your research, a paper assigned by the instructors and/or serve as discussant.
- Participate actively with comments, discussion, and questions in each class.

## **9 University Policies**

### ***The Honor Code***

It is expected that instructors and students will follow Stanford's Honor Code in all matters relating to this course. You are encouraged to meet and exchange ideas with your classmates, but you are individually responsible for your participation and work. If you have any questions regarding this policy, feel free to contact the instructor.

Compromising your academic integrity may lead to very serious consequences, including (but not limited to) one or more of the following: failure of the assignment, failure of the course, disciplinary probation, suspension from the university, or dismissal from the university.

Students are responsible for understanding the University's Honor Code policy and must make proper use of ideas, citations of sources for writing papers, creating, presenting, and performing their work, taking examinations, and doing research.

### ***Academic accommodation***

Students who may need an academic accommodation based on the impact of a disability must initiate the request with the Office of Accessible Education (OAE). Professional staff will evaluate the request with required documentation, recommend reasonable accommodations, and prepare an Accommodation Letter for faculty dated in the current quarter in which the request is being made. Students should contact the OAE as soon as possible since timely notice is needed to coordinate accommodations. The OAE is located at 563 Salvatierra Walk (phone: 723-1066, URL: <http://oae.stanford.edu>).