

**Climate Change: Science, Perception and Policy**  
Collaborative Problem-Solving in a Fractured World

EST 696 / LAW 891 / PPA 730  
Fall 2013 • Wednesdays 2:30-5:15 PM • 175 Law  
Hirsch, Driesen and Wilcoxon

**Office locations and contact information:**

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<b>Office Hours</b>	Mon 2:30-3:30 Wed 1:30-2:30	Monday 2-5	Tue and Thu 1:30-3:00

**Course web site:**

Available through Blackboard

**Course Description**

Climate disruption will be one of the most pressing issues of the twenty-first century. This course introduces students to the challenges posed by climate disruption through a unique multi-disciplinary exploration of the issue. The course will cover topics such as the current state of scientific knowledge about climate disruption, competing perspectives on climate, risk and uncertainty in decision-making, costs and benefits of different types of policies, international negotiations under the United National Framework Convention on Climate disruption, the Kyoto protocol and other policy initiatives, actions being taken to address the issue, and the ethical dimensions of the choices facing humanity.

Faculty from SU and ESF in law, economics, and environmental studies will co-teach this course and bring to students a unique dialog that crosses traditional disciplinary boundaries. Moreover, emphasis will be placed on drawing out the general lessons obtained from a multi-disciplinary approach to climate disruption: many of the insights will be applicable to other complex, highly technical environmental problems. This course is intended to bring together students from a diverse range of backgrounds and does not have specific prerequisites.

**Course Objectives**

This course has two overarching goals: first, to provide you with an in-depth interdisciplinary background on the key natural, social science and legal issues that are important for understanding climate disruption; and second, to improve your ability to deal with problems requiring you to navigate complex tradeoffs and collaborate across disciplines, especially with people who may approach the issue from a very different perspective.

At a more detailed level, the topics you will understand by the end of the semester include: (1) why climate change is occurring; (2) alternative ways of understanding the problem; (3) what could be done to reduce it; (4) what could be done to adapt to it; (5) the status of important regional, national and international policy initiatives; (6) ethical and justice issues associated with both the impacts of climate change and the impacts of climate policies; (7) the role of uncertainty in both science and policy-making; (8) how law develops in response to information and public perception; (9) how to work with people who approach the problem from different modes of rationality.

### **Course Materials**

Readings and other material will be made available throughout the semester via the course Blackboard site. Please check Blackboard regularly for updates on readings and other assignments.

### **Evaluation**

There are three major components to evaluation in this course. They are described briefly below. More details about each assignment will be provided separately.

#### **Participation**

**10% (throughout)**

Participation is a vital part of this course. You should attend **all** classes and try to participate in discussions and other class activities. The quality of your participation is as important as the quantity.

#### **Perspectives Background Poster**

**30% (due Sep 25)**

You will work in an interdisciplinary team representing a key perspective on climate. Some of the perspectives will be countries and others will be interest groups. Your team will develop: (1) a poster presenting information on climate and climate policy from that perspective, and (2) a brief handout summarizing your poster for circulation to the rest of the class. There will be a poster session during class on October 2.

#### **Navigating Complex Tradeoffs Paper**

**30% (due Nov 6)**

Your team will examine three possible pathways forward on climate and choose two to evaluate in depth according to three modes of rationality: substantive, procedural and critical. One of the pathways should be the one your group finds most attractive, and the other pathway should be the one you find least attractive.

#### **Individual Paper**

**30% (due Dec 9)**

A short, focused individual paper on an aspect of climate disruption or climate policy that you would like to explore in more depth.

### **Attendance**

In general, attendance at all classes is mandatory. However, if something comes up and you cannot be in class, please notify us. Also, please bring your name card to every class.

## **Academic Integrity**

Do not plagiarize: you will fail the course if you do. Among other things plagiarism includes ANY text cut and pasted from the web or another document without quotation marks (“...”) and a citation or footnote next to it; or simply moving words around or substituting words in a web paragraph. Please be aware that all papers will be run through TurnItIn, a web service that is very good at detecting these and other forms of plagiarism.

## **Disabilities**

Accommodations For Students With Disabilities: If you have an identified disability and will need accommodations, you should contact one of the following: 1) ESF students: the ESF Office of Student Life in 110 Bray Hall; 2) Law students: the College of Law Senior Assistant Dean for Student Life in Suite 444; all other students: the Office of Disability Services (ODS) in room 309 of 804 University Avenue. They will discuss their disability policy with you and work with you to access supportive services.

## **Tape Recording**

You may tape record classes, but should notify one of us if you intend to do so.

## **Internet Use During Class**

Please do not access the internet or email during class.

## **Course Outline**

The course will be divided into two broad sections: defining the problem and evaluating possible pathways forward. Each of the sections will cover the range of topics listed in the following outline. For each topic, the principal instructor is shown along with the date the topic is expected to be covered. Readings and other material will be posted under the instructor’s name in the Documents section of the course Blackboard site. Please note that there is not a one to one match between topics and class days (or between topics and readings): most class meetings will cover multiple topics, and a few topics will span multiple classes. Readings should typically be done before the class where the topic will be covered. The exception is the reading for the first class, which should be done before the second class.

### **Part I: Defining the Problem**

Week 1, Aug 28

- Introduction
- Integrative thinking about complex problems (Hirsch)
- Climate basics, part I (Wilcoxon)

Week 2, Sep 4

- Climate basics, part II (Wilcoxon)
- International legal context (Driesen)
- Case study: Feed-in tariffs in Germany (Guest: Michael Mehling)

Week 3, Sep 11

- The energy sector and carbon emissions (Wilcoxon)
- Overview of mitigation actions and technologies (Wilcoxon)
- Wedges game

Week 4, Sep 18

- Uncertainty and economic modeling (Wilcoxon)
- Thinking like a planet (Hirsch)

Week 5, Sep 25

***Country posters due***

- Values and valuation (Hirsch)
- Economic approach: willingness to pay & cost-benefit analysis (Wilcoxon)

Week 6, Oct 2

- Alternatives & precautionary principle (Driesen)
- Country poster session

## **Part II: Pathways Forward**

Week 7, Oct 9

- Mitigation governance in a fractured world (Hirsch)
- Mitigation I: market based approaches (Wilcoxon)

Week 8, Oct 16

- Mitigation compliance simulation (All)
- Mitigation II: regulation (Driesen)

Week 9, Oct 23

- Mitigation III: cognitive and cultural change (Hirsch)
- Regional policies (Driesen)
- Case study: state policy in Florida (Guest: Kelly Stevens)

Week 10, Oct 30

- Impacts and climate justice (Hirsch)
- Adaptation I: local and regional (Wilcoxon)

Week 11, Nov 6

***Pathways paper due***

- Adaptation II: international (Driesen)
- The US political situation (Guest: Dan Maffei)

Week 12, Nov 13

- Presentations and discussion of pathways assignment
- Joint action: green infrastructure (Guest: Cliff Davidson)

Week 13, Nov 20

- Simulation: regional mitigation and adaptation planning
- Geoengineering (Guest: Don Siegel)

Thanksgiving, Nov 27

*No class*

Week 14, Dec 4

- Pathways discussion
- Integration and conclusion

Dec 9

***Individual paper due***