11.601
INTRODUCTION TO ENVIRONMENTAL POLICY AND PLANNING

Fall 2019

FIRST CLASS WILL MEET September 5, 2019 in Room 9-450A
Classes meet Tuesdays and Thursdays 9:30 a.m. – 11:00 a.m.

INSTRUCTORS

<table>
<thead>
<tr>
<th>Prof. Lawrence Susskind</th>
<th>Teaching Assistant</th>
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<tr>
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<td>Office hours: by appointment</td>
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COURSE OBJECTIVES

This class is required of all DUSP graduate students pursuing an environmental policy and planning specialization. It is open to graduate students (and advanced undergraduates) from other MIT and Harvard departments interested in national environmental and energy policy-making, environmental ethics, the techniques of environmental analysis, and strategies for collaborative environmental decision-making. The primary objective of the class is to help each student formulate a personal theory of environmental planning practice.

There are no prerequisites. The class is taught comparatively, that is, with constant references to examples from around the world.

The course has four parts: Federal Environmental and Energy Policy-Making, Environmental Ethics, Techniques of Environmental Analysis, and Public Participation and Collaborative Decision-Making. The first part explores the dynamics of public policy-making in the United States and strategies that interest groups can use to promote changes in policy. The second examines the ethical and philosophical underpinnings of environmental planning. The third looks at the strengths and weaknesses of key techniques of environmental analysis like cost-benefit analysis, environmental impact assessment, modeling and simulation, sustainability analysis, life cycle analysis, and risk assessment. The fourth part of the course explores collaborative decision-making and dispute resolution techniques as they are used in the practice of environmental and energy facility planning.
COURSE LOGISTICS AND PARTICIPATION

Class Meetings: The class meets for one-and-a-half hours every Tuesday and Thursday from September 5th through December 12th except for holidays. Students are required to attend all scheduled class meetings.

Reading Assignments: Readings are described (and most are available) on Stellar: http://stellar.mit.edu/S/course/11/fa19/11.601/ Please make a habit of checking the Stellar site, as new readings may be posted as the semester progresses.

Required Texts: The course will use four texts plus additional readings. The texts can be purchased from the COOP (or book purveyor of your choice). You may also choose to make use of the copies of each text on reserve in the Rotch Library (Building 7, second floor). Steven Cohen’s book is also freely available via an e-book web link (see Stellar site).


All additional readings will be available on Stellar.

We also encourage you to share your “normative struggles” on the Stellar forum as you attempt to develop your own “theory of environmental planning practice.”

In-Class Simulation: Participation in the October 31st in-class simulation is required. The Humboldt “game” will be played at that time. The game presents situations in which students can apply the ideas and techniques that have been discussed throughout the semester. The game deals with technical and ethnical disputes that arise in the context of science-intensive policy-making. A reflection of the simulation will be due on November 1st.

Recitations: Recitations are not required, but they are useful. These are sessions, led by Jung, in which students can discuss the written assignments before each is due. Jung is also available to meet with students by appointment.
GRADING AND ASSIGNMENTS

Grading:

Grading will be based on the four written assignments (papers) (40% of the grade), three short oral presentations (30%), the final exam (25%), and regular attendance and preparation of a short reflection on the Humboldt simulation experience (5%).

Final grades are based on a weighted average for the term. Grade cutoff points are as follows:

A = 93-100%; A- = 90-92%; B+ = 87-89%; B = 83-86%; B- = 80-82%; C+ = 77-79%; C = 73-76%; C- = 70-72%; F = <60

Overview of Assignments:

1. Each student is required to submit a paper at the end of each of the four separate class units. The length of each of paper is 1,500 words, double-spaced, 12-point font, 1-inch margins on all sides. Papers must be submitted by 11:59 PM on the due date via Stellar. Students can earn a maximum of 10 points for each paper [40 units total]. Students will be graded on both intellectual content and clarity of writing. All papers should be submitted as pdfs. Late papers will not be accepted.

   PAPER DUE DATES: September 26th, October 17th, November 12th, and December 3rd

2. Each student must make three oral presentations focused on three of the 14 scenarios available on Stellar in the Materials section entitled “Scenario Information.” Two students will sign up at the start of the semester for each scenario. The third presenter will be selected at the beginning of class to speak about that day’s scenario. Students will be graded on both their answer(s) to the assigned question(s) and the clarity of their presentation [30 points total].

3. There will be an in-class written final exam requiring short answers to three questions (500-800 words each). Students can submit these via Stellar at the assigned hour on the day of the exam [25 points total].

   FINAL EXAM DATE: December 12th

Written Assignments:

The first paper is due on September 26th. Each student is expected to submit (via Stellar) a 1,500-word paper responding to a question about federal environmental policy-making that will be available on Stellar on September 11th at the beginning of the first unit of the course.

The second written assignment is due on October 17th. Each student is expected to submit (via Stellar) a 1,500-word paper responding to a question about environmental ethics that will be available on Stellar on September 27th at the beginning of the second unit of the course.
The third written assignment is due on **November 12th**. Each student is expected to submit (via Stellar) a 1,500-word paper responding to a question about environmental analysis that will be available on Stellar on October 16th at the beginning of the third unit of the course.

The fourth written assignment is due on **December 3rd**. Each student is expected to submit (via Stellar) a 1,500-word paper responding to a question about collective decision-making that will be available on Stellar on November 13th at the beginning of the fourth unit of the course.

**Final Exam:**

The in-class final exam will ask for short 500-800-word answers to each of three questions. Here are some examples of the kinds of questions that have been on finals in the past.

- #1: Ensuring that an appropriate array of project, policy, or design options is included is a key step in preparing an Environmental Impact Assessment. What are the key considerations, in your view, in determining whether a sufficient number of appropriately different options have been included in an EIA?

- #2: How would you determine the appropriateness and the adequacy of a public participation method proposed for a specific environmental decision-making situation? Cite a specific case to make your point. That is, justify the appropriateness or inappropriateness of a public participation method used by a federal, state, or local agency in an actual policy-making or planning situation. Explain why you reached the conclusion you have.

- #3: Utilitarianism is an ethical stand that is often used to justify environmental planning decisions. Specify a situation in which utilitarianism would, in your view, be an inappropriate basis for justifying a particular environmental management decision.

**Academic Misconduct:**

Plagiarism and cheating are both academic crimes. Never (1) turn in an assignment that you did not write yourself, (2) turn in an assignment for this class that you previously turned in for another class, or (3) cheat on an exam. If you do so, it may result in a failing grade for the class, and possibly even suspension from MIT. Please see Professor Susskind or Jung if you have any questions about what constitutes plagiarism. Anyone caught cheating on an exam will be reported in line with recognized university procedures.

**Disabilities:**

If you have a documented disability or any other problem you think may affect your ability to perform in class, please see Professor Susskind or Jung early in the semester so that arrangements may be made to accommodate you.
MIT Writing Center:

When writing your papers, please consider using the services of the Writing and Communication Center (WCC) at MIT, which offers free one-on-one professional advice from communication experts (all are published scholars and writers). The Center helps you strategize about all types of academic and professional writing as well as about all aspects of oral presentations. It also helps with all English as Second Language issues, from writing and grammar to pronunciation and conversation practice. The WCC is located in E18-233, 50 Ames Street. To book an open slot, go to https://mit.mywconline.com. The best way to guarantee yourself an appointment is to schedule early, in advance of your deadlines!

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<th>COURSE SCHEDULE</th>
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<tr>
<td>Focus</td>
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<td>Part 1: Federal Environmental Policy-Making</td>
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<td>Optional Reading:</td>
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<tr>
<th>Date</th>
<th>Scenario</th>
<th>Assigned Reading</th>
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*Assigned Reading:*  
| 9/17 | Policy Evaluation: How can we tell whether national environmental policies are working? Should state and local environmental policies be evaluated differently from federal policies? | *Scenario #3*  
*Assigned Reading:*  
| 9/19 | Comparative Policy Analysis: Do you expect different countries to have different environmental policies? Why? What can a comparative look at environmental policy-making teach us? | *Scenario #4*  
*Assigned Readings:* |


**Assigned Readings:**


**Part II: Environmental Ethics and the Environmental Policy Debate**

9/24 **A Theory of Environmental Planning and Policy-making:** Can there be such a thing? What should we be looking for: a theory of the “problem?” A descriptive or a normative theory of the process by which human and natural systems interact? A prescriptive “theory of environmental planning practice?”

**Assigned Readings:**


10/3 **Utilitarianism vs. Deep Ecology:** What is utilitarianism and how does it find its way into environmental policy-making and planning? What
is deep ecology and in what ways should it and does it come into play in environmental policy-making and planning?

**Scenario #5**

**Assigned Reading:**

Chapter 3 “Ethics and Economics,” pp. 45-69;
Chapter 5 “Responsibilities to the Natural World,” pp. 94-122;
For 5th Edition: Check the titles, but should still be Ch. 3, Ch. 5, Ch. 6, and Ch. 9 (no need to read 9.8 and 9.9).


**Optional Reading:**


10/8 **Sustainability vs. Economic Growth:** What is sustainability? Are the goals of sustainability and economic growth incompatible? What is the difference between economic growth and economic development?

**Scenario #6**

**Note:** NO CLASS on 10/9 for Columbus Day

**Assigned Readings:**


**Scientific Expertise vs. Indigenous Knowledge:** What is scientific
0/10 expertise and what part does it play in environmental policy and planning? What role do we expect science and scientists to play in a democracy? What is indigenous knowledge? How should environmental policy-making and planning take account of indigenous or local knowledge, especially when it is at odds with what recognized scientific experts have to say?

**Scenario #7**

**Assigned Readings:**


**Optional reading:**


10/15 *NO CLASS – Columbus Day*

**Part III: Environmental Planning Techniques**

10/17 **UNIT #3: ENVIRONMENTAL ANALYSIS – SCIENCE, POLICY AND POLITICS IN ENVIRONMENTAL DECISION-MAKING** – What model should be used to describe the ideal interaction between science, politics, and policy in a democratic context? What are the tools of environmental analysis that experts have to offer? How should we assess the strengths and weaknesses of these analytic tools? When and how should they be used (and by whom) to produce “better” policy and planning?

*Second Written Assignment Due*

**Assigned Readings:**
<table>
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<tr>
<th>10/22</th>
<th><strong>Environmental Impact Assessment:</strong> What is it? How do you do it? How would we know a good Environmental Impact Assessment (EIA) from a bad one? <strong>Scenario #8</strong></th>
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<td><strong>Assigned Readings:</strong></td>
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<td><strong>Optional Readings:</strong></td>
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10/24  
**Cost-Benefit Analysis:** What is it? How do you do it? What are the key challenges to using Cost-Benefit Analysis in environmental decision-making?

**Scenario #9**

**Assigned Readings:**


**Optional Readings:**


### Risk Assessment: What is risk assessment? How do you do it? What is the relationship between risk assessment and risk management? How does risk perception factor into risk assessment?

#### Scenario #10

**Assigned Readings:**

“Introduction”; Chapter 2 “The Use of Risk Assessment in Environmental Management” (see example); Chapter 3 “A Typology of Risk Assessment and Management Methods”; Chapter 4 “Overview of Risk Assessment Methods”; Chapter 6 “Ecological Risk Assessment”; Chapter 7 “The Application of Environmental Risk Assessment in Industry”.


**Optional Readings:**


<table>
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<tr>
<th>Date</th>
<th>Assignment: How Safe Is Safe Enough? New York: Plenum Press. <strong>Skim Chapters 1-3.</strong></th>
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| **10/31** | **Humboldt Game Simulation Role Play**  
*Simulation reflection is due 10/31* |
| **11/5** | **Ecosystem Services Analysis:** Should we attempt to value the goods and services that nature provides to society? How should we measure the value of an ecosystem service?  
**Scenario #11** |
| **Assigned Readings:** |  
**Optional Readings:**  
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<th>Date</th>
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**Optional Reading:**  
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<th>Part IV: Public Participation and Collaborative Decision-Making</th>
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<td><strong>UNIT #4: PUBLIC PARTICIPATION AND GROUP DECISION-MAKING</strong> – How can the basic tenets of democracy be respected while still ensuring “sound” environmental planning? What assumptions should we make about the role that citizens, stakeholders, and the public-at-large ought to play in environmental decision-making?</td>
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**Assigned Readings:**


**Optional Readings:**


### Public Participation Techniques:
Polling, Focus Groups, Public Hearings, Advisory Committees, and On-line Dialogue. When should they be used and for what purpose?

**Scenario #12 on 11/19**

**NOTE: NO CLASS on 11/28 for Thanksgiving**

**Assigned Readings:**

  https://www.epa.gov/international-cooperation/public-participation-guide-tools


**Optional Readings:**


### Collaborative Decision-making:
What part should consensus building and collaboration play in a theory of environmental planning? What are the minimum conditions for effective stakeholder involvement in
collaborative decision-making with public agencies?

**Scenario #13**

**Assigned Readings:**


**Optional Readings:**


<table>
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<tr>
<th>12/3</th>
<th><strong>Consensus Building and Dispute Resolution:</strong> Neutrality, Advocacy and the Role of the Planner</th>
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<td><strong>Scenario #14</strong></td>
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<td><em>Final Written Assignment Due</em>**</td>
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**Assigned Readings:**


Politics, Power and Theories of Collective Action: In the final analysis, since planning is a political activity and political outcomes are inevitably a product of political power, is it possible for environmental planning to produce decisions that do something other than reflect and reinforce the existing distribution of power? How do theories of collective action (i.e. managing the commons, the failures of market forces to discount future needs properly, the failures of the market to internalize social costs, and the emergence of the public interest) shape environmental policy-making and planning?

Assigned Readings:


Optional Reading:
