POL 562 - ENVIRONMENTAL POLICY
Spring 2018 Syllabus

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See: http://works.bepress.com/chad_mcguire/

Course Description

Environmental Policy will explore the decision-making process that underlies most of our current environmental laws, regulations, and other policy directives in the United States and internationally. Students learn about the process of environmental decision-making from an approach that utilizes a total valuation technique in order to fully internalize the costs and benefits of policy directions on our environment and, thus, wellbeing. Core understandings of the science, economics, and value systems that impact environmental policy directions are necessary in order to become adept at utilizing a total valuation technique in understanding and analyzing environmental problems. Thus, the course delves into these topics into some detail, and then reinforces the concepts through a set of case studies designed to fully explore the issues of environmental policy in context.

Course Goals

The following goals (conceptually and practically) for this course are outlined below:

- Understanding the major concepts that underlie environmental decisions. Categorically this includes understanding the following:
  - The major scientific principles that underlie environmental issue identification and agenda setting. Concepts include:
    - Understanding natural systems
• Identifying and understanding **systems thinking**

  o The primary **economic tools** used in understanding environmental decisions. Included are the following concepts:
    ▪ Total Valuation
    ▪ Discounting
    ▪ Tradeoffs
    ▪ Definitions of “value” in economic goal parlance
    ▪ Benefit/Cost Analysis and other means of measuring between *policy alternatives*.

  o The primary ways **value** is determined in order to support environmental decisions, including the basis for economic comparison between policy directions. Concepts include:
    ▪ **Objective** forms of defining value
    ▪ **Subjective** forms of defining value
    ▪ The importance of **scaling** in understanding valuations

• Identify and understand **major environmental policy themes**, both domestically and internationally.

• **Fully understand** the concept of “total valuation” (\( T_v = D_v + I_v + N_Uv \)) economic theory as applied to environmental problems and used as a tool in establishing baseline data for policy decisions (via an **internalization of costs** accounting method).

• **Apply** concepts of total valuation as a means of evaluating environmental problems. Case study approaches will be used as a way of applying these concepts.

**Requirements**

1. **Attendance**: Attendance is mandatory. Attendance is monitored by online discussion responses. Each week, a number of online questions are asked in conjunction with the reading and written lecture materials. You are required to respond to these questions (called discussion boards) by the stated deadline. In addition, you are required to interact (comment on other students responses) in each discussion board question. These responses are considered your attendance and will form the basis for your class participation grade.
2. **Online Access:** Necessary course materials will be housed at “MyCourses” via your “MyUMassD” login portal. The username is password is *exactly* the same as your UMass Dartmouth email username and password. All of your online courses are located at this site.

3. **Outside Readings/Personal Interests:** Students are encouraged to develop a dialogue in the online setting based on outside readings, experiences, or personal interests that are related to the subject matter. Because we are dealing with subjects of **public policy** (health, welfare, and justice), each student undoubtedly has personal experiences/viewpoints that will add to the discussion. You are encouraged to share such viewpoints.

4. **Deliverables:** Students will be required to interact with materials online, complete discussion board interactions and written assignments. The course will culminate in the analysis of hypothetical fact patterns where students (individually or in a group - TBD) will apply the theoretical knowledge learned in the course to the fact patterns presented.

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**Required Readings**

  - **ISBN-10:** 1439885753
  - **ISBN-13:** 978-1439885758

- Videos, handouts, and other supportive course materials are found on the course site. The major materials are already placed on the site, but new material may be added (and announced) during the semester.

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**Student Behavior/Conduct**

UMass-Dartmouth has developed a detailed student handbook to deal with various issues of student behavior. Each student should consult this resource for a better understanding of issues surrounding academic dishonesty. Any perceived negative behavior in this class will result in the student being reported and disciplined. I strive to treat each student as an adult, and will do so unless I am given a reason to act otherwise.

[http://www.umassd.edu/studentaffairs/studenthandbookintroduction/](http://www.umassd.edu/studentaffairs/studenthandbookintroduction/)
## Course Assignments

(please note that **two modules are completed per week**, for the first five weeks of POL 562)

<table>
<thead>
<tr>
<th>Week 1 (1/22/18 – 1/28/18)</th>
<th>Environmental Policy in Context</th>
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<tbody>
<tr>
<td>Module 1 – Introduction</td>
<td>• Readings:</td>
</tr>
<tr>
<td></td>
<td>- McGuire, pp. 1-5</td>
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<td>- Stone, Policy Paradox (handout)</td>
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<tr>
<th>Week 1 (1/22/18 – 1/28/18)</th>
<th>Ecosystem Principles, Biodiversity</th>
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<tbody>
<tr>
<td>Module 2 – Science: Natural Systems</td>
<td>• Readings:</td>
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<tr>
<td></td>
<td>- McGuire, pp. 7-29</td>
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<tr>
<td></td>
<td>- Costanza (1997) <em>The Value of Ecosystem Services</em> (handout)</td>
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<tr>
<th>Week 2 (1/29/18 – 2/4/18)</th>
<th>Ecosystem-Based Management</th>
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<tbody>
<tr>
<td>Module 3 – Science: Natural Systems</td>
<td>• Readings:</td>
</tr>
<tr>
<td></td>
<td>- McGuire, pp. 29-39</td>
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<td></td>
<td>- McGuire (2012) <em>Public Policy Frameworks in Environmental Settings</em> (handout)</td>
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<tr>
<th>Week 2 (1/29/18 – 2/4/18)</th>
<th>Systems, Box Modeling, Scientific Principles, Feedbacks</th>
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<tr>
<td>Module 4 – Science: Systems Thinking</td>
<td>• Readings:</td>
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<tr>
<td></td>
<td>- McGuire, pp. 39-60.</td>
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<td>- MEA, <em>Why Do Ecosystems Matter</em> (handout)</td>
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<tr>
<th>Week 3 (2/5/18 – 2/11/18)</th>
<th>Natural Resource, Ecological, Discounting, Substitution, Tradeoffs</th>
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<tbody>
<tr>
<td>Module 5 – Economics: Categories</td>
<td>• Readings:</td>
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<tr>
<td></td>
<td>- McGuire, pp. 63-81</td>
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<td></td>
<td>- Costanza (1997) <em>The Value of Ecosystem Services</em> (handout) – <strong>re-read.</strong></td>
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<td>- Clark (2001) <em>Ecological Forecasts</em> (handout)</td>
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<tr>
<th>Week 3 (2/5/18 – 2/11/18)</th>
<th>Measuring Well-being, GDP, Alternatives</th>
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<tbody>
<tr>
<td>Module 6 – Economics: Defining Value</td>
<td>• Readings:</td>
</tr>
<tr>
<td></td>
<td>- McGuire, pp. 81-90</td>
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<td></td>
<td>- NYT: <em>Rise and Fall of GDP</em> (handout)</td>
</tr>
</tbody>
</table>
| Week 4 (2/12/18 – 2/18/18) | Total Value Accounting, Benefit-Cost Analysis  
Module 7 – Economics: Valuations  
• Readings:  
  o McGuire, pp. 91-107  
  o Farber (2005) Valuing Oceans (handout) |
|---|---|
| Week 4 (2/12/18 – 2/18/18) | Risk Assessment, Quantification Methods, Role of Science  
Module 8 – Values: Objective  
• Readings:  
  o McGuire, pp. 113-129  
  o Layzer (2011) Defining Problems (handout) |
| Week 5 (2/19/18 – 2/25/18) | Emotion, Public Outrage, NIMBY, Role in Decision-making  
Module 9 – Values: Subjective  
• Readings:  
  o McGuire, pp. 129-146  
  o Sandman Hazard and Outrage (handout) |
| Week 5 (2/19/18 – 2/25/18) | Individual and Multiparty Decision-Making, Dynamics  
Module 10 – Values: Scaling  
• Readings:  
  o McGuire, pp. 146-176  
  o Ostrom (handout) |
| Weeks 6 and 7 (2/26/18 – 3/8/18) | Case Problem #3: Sustainability  
Module 11 – Case Problems  
• Readings:  
  o McGuire, pp. 185-187 |
| Weeks 7 and 8 (3/9/18 – 3/19/18) | Case Problem #4: Climate Change  
Module 12 – Case Problems  
• Readings:  
  o McGuire, pp. 187-189 |

### Course Evaluation Measures

**Grading**

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<tr>
<td>Discussion Board Interactions</td>
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<td>Case Problem Analysis</td>
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**Discussion Board Interactions – 50%**
Class Participation: Discussion board responses are due for each module of the course. You must submit an original response and at least one comment on another student’s post in order to receive full credit for the discussion board in question. Grading for each board response is as follows:

- A complete original response and at least one comment = 100%
- A complete original response with no comments = 75%
- A comment with no original response = 50%
- No response or comment = 0%

* I reserve the right to modify these grades based on the quality of the responses given in any discussion board.

Collectively your discussion board interactions will account for 50% of your final grade in the course.

Case Problem Analysis – 50%

The last two (2) modules of the course are dedicated to applying the conceptual frameworks developed in the course to problems laid out in the text. Each problem covers a different area of environmental policy management, requiring you to think about the unique characteristics of the problem presented and work through the solution by utilizing the concepts discussed. The problems may be handled either individually or as group projects (TBD). Each case problem analysis will result in a paper that will conform to the following standards:

- It must be no longer than 10 double-spaced pages of primary content, 12-point font. (The bibliography and title page – if used – is excluded from the page count).

- The paper must utilize the following format:
  
  - **Specific statement** of policy problem (identification of specific question that will be answered in paper).
  
  - **Identification of criteria** you will apply to answer the stated problem (including statement of assumptions made in the criteria).
  
  - **Application** of the criteria to the problem.
  
  - **Answering** the question, including statement of alternatives in answer if applicable.
Your grade on the paper will be based on the following factors:

- **Adherence** to the format and other requirements stated above.
- **Clarity** of writing and reasoning used in application of criteria.
- General content and flow of paper.
- **Use** of cognitive frameworks (i.e., total valuation) described in the course.

There will be **two papers** submitted, one for each case problem examined. The process will be completed in two steps. The first step will focus on developing a response to the case problem following the directions above. The response will then be posted to a discussion board for other individuals to view and comment on. The second step will be dedicated to reviewing, and where appropriate, editing and incorporating the information derived from the other postings. The final edited paper will be due at the end of the second step, where it will be submitted as an assignment for grading purposes.

Collectively your case problem grades will account for **50%** of your final grade in the course, with equal weighting (25% of final grade) being given to each case problem.

END OF SYLLABUS.