Environmental Regulation

Course description

Human activities are having an unprecedented impact on the planet. In “Governing the Earth” we will study some of the most serious environmental threats facing humanity and how they are being managed, if at all. Topics include: climate change, stratospheric ozone depletion, air pollution, biodiversity loss, nutrient pollution, fisheries collapse, and genetically modified organisms. For each of these issues we will investigate a set of central questions, including:

- **The Science:** What is the scientific basis for acting on this issue? How much scientific uncertainty is there and how does it impact the development of policy?
- **The Policy:** How has the international community dealt with this issue so far? What institutions have been created? How has responsibility for action been allocated?
- **The Stakeholders:** What role are non-governmental actors playing? What are their interests? Do they help or hinder action?

Outside speakers will be brought in to give their firsthand experience, and role-playing exercises simulating international negotiations will help us better understand stakeholder concerns and how they might be reflected in (or become a stumbling block to) a final deal. This course carries a prerequisite of Environmental Systems Science or permission of the instructor.

Grading Criteria

<table>
<thead>
<tr>
<th>Item</th>
<th>Percent of final grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments during semester</td>
<td>50%</td>
</tr>
<tr>
<td>Participation</td>
<td>10%</td>
</tr>
<tr>
<td>Final paper</td>
<td>40%</td>
</tr>
</tbody>
</table>

Participation

Participation is an important component of the class and of your final grade (10%). Classes will be a mix of lecture and discussion. You will be expected to attend every class, and if you need to miss class, or you fall ill, please let me know ASAP. Missing more than one class without permission will negatively impact your grade. There will be an online discussion board where you will be expected to post at least two questions based on the reading before every class. This will help drive active class conversation, which in turn will help us better unpack the assumptions, arguments and implications of the topics we discuss. In addition, several of the assignments will require you to present
in front of the class and take part in role-play negotiations, all of which will feed into how your participation is graded.

**Assignments**

There will be six assignments during the semester and a final research paper due at the end of the semester. This includes three policy memos, two of which will consist of policy positions for a role you’ll be assigned for in-class negotiations. There will also be two problem sets, with a mix of quantitative and qualitative elements. The sixth assignment will be a description of the research topic and a preliminary bibliography for your final research paper, which I will comment on, but will not give a letter grade.

*Final project* – The goal of the final research paper (15-20 pages, double-spaced, 12pt font) is for you to be an environmental policy entrepreneur. I want you to make a case for managing an international environmental problem in a new way. This can be either a problem that is already managed by an international body, but that you think isn’t being managed effectively. Or it can be a completely new chemical/process/industry that hasn’t yet been regulated in any serious way, but that you think, based on the evidence, should be. It does not have to be an issue we’ve discussed in class. Your paper should include a scientific case for action based on independent evidence and scholarly writings (what are the causes of the problem? How can they be addressed? What are the pollution trends? Who are the main polluters?). Your analysis should then inform and underpin your argument for a new policy approach to this problem, based on the organizing principles of environmental governance that we will have applied throughout the course. This paper is an opportunity to use the knowledge of global environmental governance that you’ve gained during the course in a creative way. I encourage you to reach out to me, other faculty members in the Department of Environmental Studies, and outside experts to discuss your ideas and get feedback. All the students will give 10-minute presentations of their papers in the final class.

*Due dates: Research topic and preliminary bibliography (Friday March 11); Final paper (Friday May 6)*

**Plagiarism and academic support**

Plagiarism results in failure in the class and referral to your academic dean. It includes: copying sentences or fragments from any source without quotes and references; not citing a source used in your papers; citing internet information without proper citation; presenting someone else’s work as your own; or inadvertently copying verbatim from any source. More detail can be found at http://cas.nyu.edu/page/academicintegrity. NYU offers academic support and tutoring at the University Learning Center: www.nyu.edu/cas/ulc , (212) 998-8085.
Class schedule

Introduction & overview (Weeks 1 & 2)

- Introduction to course
- Planetary boundaries: what is an acceptable level of human interference with the environment?
- What are the organizing principles of global environmental governance? For each issue studied during the course, we will investigate how these basic tenets are applied and the differences across issues. At the end of the course, we will revisit these principles to examine what lessons we think can be drawn from their application in the real world, and how they might be applied in the future.

Readings:
Speth & Haas, *Global Environmental Governance* (Chapters 1 & 3)
Barrett, *Environment & Statecraft* (Chapters 1, 2 & 6)
Steffen et al., *Planetary boundaries: Guiding human development on a changing planet*

Stratospheric Ozone Depletion (Week 3 & 4)

Assignment (Policy memo): The Parties to the Montreal Protocol are discussing whether to manage a new chemical. You will be split into pairs and assigned roles representing the following stakeholders: the U.S. government, the Chinese government, the Micronesian government, industry and an environmental NGO. You will write a policy memo (2 pages, double-spaced, 12pt font) outlining your position before class, and then defend it in a negotiation in class.

Due date: Beginning of first class Week 5

Readings:
Benedick, *Ozone Diplomacy* (Chapters 6-9, 11 & 16)
Parson, *Protecting the Ozone Layer* (Chapters 6-8)
NOAA, *Twenty Questions and Answers*

Air Pollution (Week 5)

Readings (pages TBD):
Kampa & Castanas, *Human health effects of air pollution*
Chan & Yao, *Air pollution in mega cities in China*
Wettestad, *Acid lessons? LRTAP implementation and effectiveness*
**Climate Change (Weeks 6 & 7)**

*Assignment* (Problem set): For this assignment you will have to calculate how much more carbon dioxide humankind can emit to stay below the 2°C threshold. You will then be responsible for deciding how quickly such a target should be implemented and how to divide emission reductions between developed and developing countries.

*Due date: Beginning of first class Week 8*

*Readings:*
- IPCC Fifth Assessment Report, *Summary for Policy Makers*
- Victor, *Global Warming Gridlock* (Chapters 2, 7 & 8)
- Socolow & Pacala, *Stabilization Wedges: Solving the Climate Problem for the Next 50 Years with Current Technologies*
- Stewart, Oppenheimer & Rudyk, *A new strategy for global climate protection*

**Biodiversity (Week 8)**

*Assignment* (Short paper): You will submit an abstract for your final paper. Grading will be based on whether you submit it.

*Due date: Friday March 11 (last day of class before Spring Break)*

*Readings:*
- Green, *Farming and the Fate of Wild Nature*
- Koh and Wilcove, *Is Oil Palm Biodiversity Really Destroying Tropical Biodiversity?*
- Hunter, *Maintaining Biodiversity in Forest Ecosystems* (Chapters 1, 17-19)

**Nutrient pollution (Week 9)**

*Assignment* (Problem set): For this assignment you will have to calculate the potential environmental and economic benefits of pursuing a new international agreement on nitrogen pollution.

*Due date: Beginning of first class Week 10*

*Readings:*
- Sutton et al. *Our Nutrient World* (Executive summary)
- Galloway et al. *The nitrogen cascade*
- Reay, *Nitrogen and climate change* (Introduction & Chapters 1-2)
Fisheries (Week 10)

Assignment (Policy memo): You will choose a fish served in a popular New York seafood restaurant (TBD), analyze the population trends, fishing techniques used and other relevant factors, before writing a recommendation (4 pages, double-spaced, 12pt font) for whether the restaurant should continue to serve the fish or not.

Due date: Beginning of first class Week 11

Readings:
Pauly & Watson, *Counting the Last Fish*
Beddington, *Current Problems in the Management of Marine Fisheries*
Jacquet & Pauly, *Seafood Stewardship in Crisis*

GMOs (Week 11)

Assignment (Policy memo): For the second role-play negotiation, we will focus on efforts to introduce GMO labeling in US supermarkets. You will again be split into pairs and assigned a role from the following: Whole Foods sustainability representative, Greenpeace campaigner, Monsanto scientist, and US Food and Drug Administration representative. You will write a policy memo (2 pages, double-spaced, 12pt font) outlining your position before class, and then defend it in a negotiation in class.

Due date: Beginning of first class Week 12

Readings:
Clapp, *Transnational corporate interests and global environmental governance: negotiating rules for agricultural biotechnology and chemicals*
Saletan, *The Misleading War on GMOs*

The post-2015 Sustainable Development Goals (Week 12)

Readings:
Post-2015 Consensus, *Smart Development Goals*
United Nations, *The Road to Dignity by 2030* (Chapters 1 & 2)
Sachs, *The Age of Sustainable Development* (Chapters 1 & 14)

The future of environmental governance (Week 13)

In these last couple of classes, we will revisit the organizing principles of environmental governance that we examined in the first set of classes. We will compare how they were applied across different issues and whether we can isolate a set of circumstances in which
they work most effectively, in order to develop some guidelines for future environmental governance efforts.

**Final paper presentations** (Week 14)

**Disability Disclosure Statement**

Academic accommodations are available to any student with a chronic, psychological, visual, mobility, learning disability, or who is deaf or hard of hearing. Students should please register with the Moses Center for Students with Disabilities at **212-998-4980**.

NYU's Henry and Lucy Moses Center for Students with Disabilities  
726 Broadway, 2nd Floor New York, NY 10003-6675  
Telephone: **212-998-4980**  
Voice/TTY Fax: **212-995-4114**  
Web site: [http://www.nyu.edu/csd](http://www.nyu.edu/csd)