**BHP 259 Honors Seminar**

**The Environment: A Conflict of Interest**

**Spring 2019**

**Contact Info**

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**Office Hours**

MB Office hours (285 in Fine Arts) Mondays and Wednesdays : 2.30-4.30pm and by appointment

DD Office hours (323F in the STC): Monday and Wednesday 3-4pm; Tuesday 1.30-2.30pm and by appointment

**Course Description:**

Examines critical environmental issues such as global warming; food, water and energy resources; population trends; and global industrialization. Topics for context will include the origin of the elements, the origin of solar systems, and the origin of life as well as the basic principles of the current biotechnical revolution. Scientific understanding will be combined with knowledge about strategies for raising community awareness in order to (re)formulate public policy. In teams, students will be asked to define the problems; research available and prospective solutions; identify the technical, social, political, and economic constraints; and finally propose a workable strategy for making progress toward solutions.

**Course Themes:**

This course satisfies the LAS General Education requirement for Disciplinary Perspectives: The Natural World: Science as a Mode of Inquiry. This course is organized around three main themes: 1) using a scientific approach to study the natural world, 2) examining critical environmental issues that arise at the intersection of human society and the earth system, and 3) achieving public policy solutions that overcome technical, social, political, and economic constraints.

**Student Learning Outcomes:**

Following from the three main units of this course, your learning objectives are to:

• Recognize and utilize a scientific approach to problem solving (Written Communication, Information Literacy, Technological Competence, and Scientific Reasoning)

• Explain the science underlying critical environmental issues and how they arise from our use of resources (Critical Thinking, Quantitative Reasoning, and Connected Learning)

• Recognize and employ effective and ethical policy approaches informing the use and management of our environment (Written Communication, Information Literacy, Ethics and Social Responsibility, and Global/Multicultural Perspectives)

**Readings:**

*A Sand County Almanac* by Aldo Leopold (on reserve)

All readings not in this text can be accessed via Canvas.

Calculation of grade:

Grade Distribution

Quizzes (2 x 10% each)

Field project/paper (30%)

Presentations: (3 x 10%)

Reading analyses (10%)

Class participation (10%)

*Field Project*

Students will learn about environmental politics by doing. In addition to analyzing environmental data, we will have students participate in a civic engagement project with various stakeholders over the political and environmental aspects of natural gas pipeline development and other environmental issues in NJ. As part of this assignment, students will do both grassroots engagement, connect with various interest groups involved on the issue, as well as participate in lobbying of members of the NJ state legislature on this issue. The grade for this project includes two short papers (project overview and reflection) and a series of tasks to be completed to help learn more about participating in the political process.

**Reading Analysis**

Each week students are to provide a 1-2 page summary of each of the required readings. Readings will be submitted on Canvas in the assignment section of the site by Monday evenings at midnight. To guide your reading, please make sure to address the following questions**:**

1. What are some of the various concepts/methods/explanations/theories presented?
2. What are the strengths and weaknesses of the different concepts/methods/explanations/theories as they relate to actual problem?
3. Does the author(s) provide adequate evidence/information to support their argument?
4. What additional evidence/information would be needed to strengthen the author(s)’ argument? Or what additional questions (1-2) do you have from the readings?

As the students’ interests become more specific it is possible to delve deeply into a particular project that will be the basis for the final presentation.

**Presentations and Paper**

Presentations must include:

* Presentation #1: An introduction that provides a thesis (hypothesis) statement about how they plan to analyze the methods, results, problems and discussion. The presentation must includean element of **PRESENTATION OF TABLES/FIGURES** and **data analysis** as they relate to your overall hypothesis, your research of peer-reviewed work to support your work.
* Presentation #2: Define and discuss the conflicts of interest pertaining to your problem to at least two different points of view.
* Presentation #3: Present best practices and a plan for mediating/addressing the environmental problem.

Each presentation should be 10 minutes with 5 minutes of discussion.

Paper:Students are required to complete a 5-7 page paper based on their three presentations.

### **Course Policies**

*Email Communications:*Any email either from us directly or through Canvas about this course will only be sent to your official Rider email address. You should check your Rider email account on a frequent and consistent basis. Email from you to us should come from your Rider account. Remember that even though it is digital, all correspondence should not lack any formality. Treat all emails as if they were short, professional letters.

*Code of Academic Conduct:* Rider University expects students to strictly adhere to the Code of Academic Conduct. The Code prohibits all forms of academic dishonesty including: cheating on exams or assignments or intentionally or knowingly assisting another student to do so, plagiarizing papers, submitting the same paper for credit in two courses without authorization, buying papers, submitting fraudulent documents, and forging signatures. *First infraction results in no credit for the assignment; second infraction results in an F for the course; and third infraction results in us reporting you to the Dean of Students for possible expulsion.*

*Accommodations for Students:* If you have a disability and believe you will need academic accommodations in this course, please make an appointment for an Intake Interview with Student Accessibility and Support Services in the Vona Academic Annex, Room 8. The phone number is (609) 895-5492 and the email is accessibility@rider.edu. They will ask for documentation of your disability to support your accommodation requests and to recommend services as appropriate to your individual situation.

*Validated Absences:*You will be given the opportunity, whenever feasible, to make up within a reasonable time any academic assignment that is missed due to illness or your participation in valid activities including religious observances, intercollegiate athletics, or placement interviews. It is *your* responsibility to notify me of any actual or anticipated absence in advance. In the case of an illness, you MUST provide a doctor’s note to validate your absence, especially if your absence occurs during a scheduled exam, particularly the final.

*Assignments and Lecture Materials:* All assignments are due on the dated assigned or subject to a late penalty of at least 10% per week day (beginning after the start of class). All written assignments will be submitted to Turn-it-in.com within Canvas. Lecture materials will be posted on Canvas when possible.

*Academic Support:* The Academic Success Center provides individual or group tutoring sessions, free of charge, for most content courses offered at Rider. Students review course content and develop sound study strategies with successful peers who have already mastered the material. Our Student Writing Tutors can help students improve their writing across the disciplines at any stage of the writing process through individual appointments. To work with a tutor for this or any other course offered at Rider, please schedule an appointment at the Academic Success Center or the Writing Lab through TutorTrac, stop by BLC 237, or call 896-5008 or 895-5640.

**Date Topic**

Week 1 **Overview of Science and Society**

Planetary Boundaries concept (Global warming, biogeochemical flows, land and water use, etc) and the Great Acceleration in the Anthropocene.

Steffen et al. (2015). *Sciencexpress*.

 Leopold. “The Upshot.” *Almanac*.

Week 2 **Origin of the Elements and Solar Systems**

Schlesinger and Bernhardt. Ch 2. *Biogeochemistry*.

Leopold. “January.” *Almanac.*

Week 3 **Origin of Life and Biogeochemistry**

 Schlesinger and Bernhardt. Ch 2. *Biogeochemistry*.

 Leopold. “February.” *Almanac*.

Week 4 **Student presentations** and discussion of both scientific and political issues pertaining to the environment.

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Week 5 **Quiz 1** plus **global warming and international policy**

Greenhouse effect and how current climate change differs from the past.

UN IPCC Report. Global Warming of 1.5˚ C.

Hulme, Mike 2009. “The Social Meanings of Climate”

Wood, Dan and Vedlitz, Arnold “Issue Definition, Information Processing, and the Politics of Global Warming” in *American Journal of Political Science*, Vol. 51, No. 3 (Jul., 2007), pp. 552-568.

 Keohane. “The Regime Complex for Climate Change”

Week 6 **The politics of defining environmental problems**

Garrett, Hardin “The Tragedy of the Commons”

Stone Chapter 8 “Causes”

Leopold. “March.” *Almanac*.

E.O. Wilson. Half Earth excerpt.

Week 7 **The politics of defining environmental problems**

Kraft “Environmental Problems and Politics”

Dryzek” Chapter 1 “Environmental Discourses”

Dryzek, Chapter 2 “Looming Tragedy”

Dryzek, Chapter 3 “Unlimited Growth”

Dryzek, Chaper 9 “Green Consciousness”

Weeks 8-9 **Environmentalism: Advocacy and Movements**

Meyers: “Becoming and Activist”

Meyers: “Why Protest”

Meyers “Tactics and Strategy of Protests”

Sanders Chapter 2: “Environmental Movements or Networks”

Frantzich: “Countering Cynicism”

Foley “Front Porch Politics” pp 1-11

Alinsky “Tactics”

Week 10 **Making Environmental Policy**

 Kraft, Michael E.. 2010 “Making Environmental Policy” in *Environmental Policy and Politics: 5th Edition.*

Layzer, Judith. 2010. “The Nation Tackles Pollution: The Environmental Protection Agency and the Clean Air and Water Acts” in *The Enviromental Case: Translating Values into Policy*. Washington DC: CQ Press.

Stephen M. Meyer, and David. M. Konisky. 2007. “Adopting Local Environmental Institutions: Environmental Need and Economic Constraints” *Political Research Quarterly*. Vol. 60, 1. pp. 3-16.

Rabe, Barry “Racing to the Top, the Bottom or Middle of the Pack: The Evolving Role of State Governments in Environmental Policy”

Leopold. “April.” *Almanac*.

Week 11 **Quiz 2 and Presentations** (Presentation#2 follows the first: discuss the politics and policy connected to your problem

Week 12 **Managing the Land**

Field trip to Rider’s Big Woods to discuss ecology and connection to Aldo Leopold. Field methods activities.

 Shenandoah National Park case study

 Druckenbrod. Leopold’s Big Woods. *NJ Studies*.

Week 13 **A Fait Accompli? Managing Environmental Crises**

Ostrom, Elinor. 1992. “An Institutional Approach to the Study of Self-Organization and Self-Governance in CPR Situations”

Lazer Chapter 10

Activity: Tap Water and Human Health

 Clark. Excerpt from *The Poisoned City*.

Week 14 **Final presentation and paper** (Presentation #3 follows the first two but provides solutions to the problem)