

Environmental Solutions 11:374:220
Spring 2017
Mondays and Thursdays 10:55-12:15
Hickman 214

Dr. Rachael Shwom

shwomrac@rci.rutgers.edu / 848-932-9235

Office Hours: Monday 1:00-2:00 or by appointment

The causes of modern environmental problems are complex and multi-faceted. As our understanding of this complexity has grown, societies have begun to explore solutions beyond the traditional government regulatory approaches. This class focuses on understanding the complex causes of environmental problems and the full range of non-regulatory approaches to improving the environment. By focusing on understanding the causes and contexts of environmental problems along with innovative environmental solutions, the class aims to provide students an understanding of under what conditions various environmental solutions are appropriate and should be applied.

By the end of this class you will be able to:

- Analyze the competing models of social organizations (households, firms, government) environmentally harmful behavior that emerge from economics, psychology, and sociology (EPIB Goal 1.1 : Describe major patterns and drivers of natural resource use, pollution, and climate and environmental change.)
- Describe interventions to alter these behaviors and improve environmental problems outside traditional policy-making and regulation via the state. (EPIB Goal 2.7. Apply this (a-e) understanding to identify policies and plans that address the problem.)
- Analyze and synthesize information from lectures, case studies, outside sources, to generate insights on which solution/approach is appropriate for which kind of problem/context and identify ways to evaluate success through writing short memos and presentations (EPIB Goal 2.9. Evaluate the alternatives' environmental and differentiated social consequences.)

How Will We Learn About Innovative Environmental Solutions?

In this class, we will learn about models of environmental behavior and non-regulatory approaches to changing those environmental behaviors. We will focus on how to develop, implement and evaluate non-regulatory approaches to improve the environment. We will do this by reading case studies, written reflections, participatory lectures, films, active discussions and exercises in class, periodic class assignments. You will engage with a semester long project to improve your understanding of non-traditional environmental solutions, when they should be used, and how they can be evaluated. This class is a 200 level class and is meant to build on your knowledge of traditional environmental policy approaches and environmental behavior. It will require a reasonable commitment of your time to complete the readings and assignments.

For each class you will read case studies of innovative environmental solutions and fill out a worksheet that helps you analyze the approach. You are expected to read before class and come prepared to discuss the case study based on the worksheet. In class we will explore the models or theories of behavior underlying the intervention and how to evaluate the successfulness of the intervention. If the professor finds people are coming to class unprepared, a quiz will be instituted at the beginning of each class. In each one hour and twenty minute class we will have lectures, class discussions and debates, multi-media presentations, small group and independent activities. In class we will gain theoretical and evaluative frameworks for these case studies. Class attendance is very necessary for successful performance on quizzes and writing assignments.

How Will Your Learning Be Evaluated?

Your grade will be based upon several different kinds of assessments of your knowledge of and ability to apply class lessons.

<u>Assignments</u>	
Class Participation (Attendance, Speaking, Activities)	25%
Midterm: In-class short essay and multiple choice	15%
Innovative Solution Proposal/Revision/Final	30%
Real World Solutions – Group Presentations (2)	10%
Final Exam	20%

Class Participation (25%)

Class attendance and active participation in discussions and activities is expected and will be evaluated for each class. Your participation will not just be judged on your attendance, but on your worksheets from the readings and your level of engagement in class discussions and activities. Your three lowest class participation grades will be dropped (i.e. absences, not having done the reading).

Mid-term and in-class short essay (15%): You will have two in class writing assignments that will ask you to summarize your learning to date on a specific topic. They are mainly meant to help you learn and process information as we go along, assess how well you are learning the material, and prepare you to demonstrate your knowledge on the mid-term and solution development plan.

Real World Solutions (10%) : Groups will be asked to find a real world example of a corporate environmental solution and a household environmental solution. Your group will present at the end of each section “real world solutions”, how they worked, and evidence that they worked.

Innovation Solutions Proposal or Newspaper Article (30%): You have options!

Option 1) You will have the option to work independently or with a group up to 3. Your assignment will be to make a proposal for the Rutgers Energy Innovations Contest found at <http://rei.rutgers.edu/outreach/energy-contest>. You will meet with Professor Shwom to discuss your idea for a Rutgers energy solution. You will then write a proposal outline (5 points). You will then write a draft to turn in that Prof. Shwom will provide feedback on this draft (5 points -) and you will turn in an improved draft to the Rutgers Energy Institute and professor Shwom (15 points) and present (5 points).

Option 2) Working independently your assignment will be to write a solution proposal to a problem you have identified. You will meet with Professor Shwom to discuss your idea for a solution. You will then write a proposal outline (5 points). You will then write a draft to turn in that Prof. Shwom will provide feedback on this draft (10 points) and you will turn in an improved draft to professor Shwom (15 points).

Final (20%): You will be given an essay question covering class content along with 10 multiple choice questions. Your grade will be based 30% on writing quality and 70% on reflected knowledge expressed in answering the question.

The Rules

<http://academicintegrity.rutgers.edu/integrity.shtml>

No plagiarism. This means using ideas directly (cut and paste) or indirectly (summarizing) without citing where they came from is not allowed.

No cheating.

LATE ASSIGNMENTS WILL LOSE HALF A GRADE FOR EACH CALENDAR DAY LATE. If your paper is a 3.0 then it will be marked as a 2.5 for a day late, a 2.0 for 2 days late. If you must miss a deadline due to illness or emergency, notify all of us via email on or before the due date.

There will be extra credit announcements to encourage further exploration of the topics covered in this class. There will NOT be options for additional assignments or revised work for re-grading provided at the end of the semester. Instead, be prepared for tests and quizzes and do the work throughout the semester.

If you are having challenges meeting work deadlines email or speak to me right away. Do not wait to talk to me at the end of the semester or for me to come find you.

DATE & TOPIC	READINGS FOR CLASS
Thurs. CLASS 1 01/19/2017	Syllabus <ul style="list-style-type: none"> • What are the goals of this class? • Why is it important? • How will we learn?
THE ECONOMIC MODEL OF THE FIRM (SHAREHOLDER)	
Mon. CLASS 2 01/23/2017	<i>Command and Control Regulation</i> 1. Clark, D. and Grantham Research Institute. May 21, 2012 "Why do economists describe climate change as a 'market failure'?" with sidenote on command and control regulation by Prof. Shwom
Thurs. CLASS 3 01/26/2017	<i>Cap and Trade</i> 1. "From Market Failure to Market-Based Solution: Policy Lessons from Clean Air Legislation" by Eduard A. Pelz and Terry J. Fitzgerald.
Mon. CLASS 4 01/30/2017	<i>Taxes</i> 1. "Interview with Femke: How Taxes can Save the World?" 2. Does a Carbon Tax Work? Ask British Columbia, <i>New York Times</i> Eduardo Porter, ECONOMIC SCENE MARCH 1, 2016
Thurs. CLASS 5 2/2/2017	<i>Payment for Ecosystem Services</i> "Watershed-based Payment for Environmental Services in Asia." Marjorie Huang and Shyam K. Upadhyaya, Winrock International
Mon. CLASS 6 2/6/2017	<i>Market Transformation</i> 1. Holloman, Ledbetter, Sandahl, Shoemaker. 2002. "Seven years since Super Efficient Refrigerator Program: Successes in Technology Procurement." In Proceedings of ACEEE 2002 Summer Study on Energy Efficiency in Buildings. 2. Hoffman, A. 2009. "Whirlpool Case Study" pp. 121-128 in Getting Ahead of the Curve: Corporate Strategies that Address Climate Change.
SHAREHOLDER MODEL OF THE FIRM	
Thurs. CLASS 7 2/9/2017	<i>Snow day!!!</i>
Mon. CLASS 8 2/13/2017	<i>Direct Giving</i> 1. Christopher Marquis and Bobbi Thomason "The Dannon Company: Marketing and Corporate Social Responsibility (B)" 2. What Smart Businesses Know About Corporate Social Responsibility: Companies that are most successful in turning CSR into a business advantage do these three things well. By Alice Korngold Homework assignment: Find a corporate social responsibility statement on-line, read it, print it up, and be prepared to discuss in class.
Thurs. CLASS 9 2/16/2017	<i>B-Corporations</i> 1. "B is for Better Corporations: An innovative legal structure helps corporations make sustainability their true bottom line." by Anne Field <i>Stakeholder Auditing</i> 2. "The Body Shop approach to stakeholder auditing: A Body Shop case study" 3. Triple bottom line Case Study Novo Nordisk https://www.iisd.org/business/viewcasestudy.aspx?id=82 Sign up to meet with prof. Shwom week of 2/20 about your proposal/mid-term

HUMAN RESOURCES MODEL OF THE FIRM	
Mon. CLASS 10 2/20/2017	1. Hoffman, A. 2009. "Step 6: Engage the Organization/Wal-Mart Case Study" pp. 35-45 in <i>Getting Ahead of the Curve: Corporate Strategies that Address Climate Change</i> Proposal for your solution due: 1 page printed in class
Thurs. CLASS 11 2/23/2017	Solutions from the Real World: What did your group find that is working to improve corporate environmental performance? If you are doing the Rutgers energy institute contests write Beatrice Birrer at bea@marine.rutgers.edu no later than February 24, 2017 and tell her the names of your team members or yourself and that you are planning to participate.
Mon. CLASS 12 2/27/2017	MIDTERM EXAM
MODEL OF THE CONSUMER AS HOMO ECONOMICUS	
Thursday CLASS 13 3/2/2017	1. Stern, P., Dietz, T., Ruttan, V., Socolow, R. and Sweeney, J. 1997 "Environmentally Significant Consumption: Research Directions" Committee on the Human Dimensions of Global Change, National Research Council 2. Watch in class: https://www.youtube.com/watch?v=9GorqroigqM
Mon. CLASS 14 3/6/2017	1. Galbraith, Kate. "Of Water, Electricity, and Time of Day." <i>New York Times</i> . 2. Peck, A. E., and O. Doering III, 1976: Voluntarism and price response: consumer reaction to the energy shortage. <i>The Bell Journal of Economics</i> , 287-292. 3. Vandenbergh, Michael P., T. Dietz, and Paul C. Stern. "Time to try carbon labelling." <i>Nature Climate Change</i> 1:4-6.
MODEL OF THE CONSUMER AS PREDICTABLY IRRATIONAL	
Thurs. CLASS 15 3/9/2017	<i>Nudges, Norms, and Public Commitments</i> 1. Institute for Government. 2010. "MindSpace: Influencing Behavior through Public Policy" 2. Homework : Go to http://www.cbsm.com/cases/research Choose one case study and write 1-2 paragraphs discussing what it did and how it influenced behavior and print it and bring it to class.
3/13/2017 and 3/16/2017	SPRING BREAK!!!
MODEL OF THE CONSUMER AS SOCIALLY ORGANIZED	
Mon. CLASS 16 3/20/2017	<i>Resisting Consumption</i> The War Against Too Much of Everything By JEFF SOMMER DEC. 22, 2012 Draft of solutions proposal due – put in drop box (75% written, placeholders telling me what you plan to do in places that aren't filled in)
Thurs. CLASS 17 3/23/2017	<i>Sharing Economy</i> 1. Botsman, R. and Anderson, L. 2010. "Share Options" in <i>Big Issue</i> , UK. 2. Reich, R. The Share-the-Scraps Economy <i>New York Times</i> , Monday February 2, 2015 3. Spanish Town Installs Communal Fridge To Fight Food Waste

http://www.huffingtonpost.com/entry/galdakao-spain-communal-fridge-food-waste_55ccfb4be4b064d5910aecfa

Drafts handed back to you with comments.

MODEL OF CONSUMER AS CITIZEN/POLITICAL CHANGE	
Mon. CLASS 18 3/27/2017	<i>Understanding the Levers of Social Change</i> Darlington, Roger. "A short guide to the American Political System"
Thurs. CLASS 19 3/30/2017	<i>Grassroots Organizing</i> 1. http://ensia.com/voices/environmental-activism-needs-good-cops-and-bad-cops/ 2. http://ensia.com/interviews/may-boeve-changing-climate-change/ 4. Conversation Campaign Creates Path To Victory – April 2013, Case Study by Grassroots Solutions March 31st deadline for Rutgers Energy Institute Contest
Mon. CLASS 20 4/3/2017 No Class – Do work on-line and submit	1. Read Karlin, Beth, and John Johnson. "Measuring Impact: The Importance of Evaluation for Documentary Film Campaigns." M/C Journal 14.6 (Dec. 2011). 21 Jan. 2014 < http://journal.media-culture.org.au/index.php/mcjournal/article/view/444 >. 2. Read Activist Documentaries by Tom Brook 23 April 2014 3. Watch Beth Karlin Talk 4. Watch "A Fierce Green Fire"
Thurs. CLASS 21 4/6/2017 No Class – Do work on-line and submit	1. Watch Documentary: "If a Tree Falls: A Story of the Earth Liberation Front" Watch "Disobedience" https://www.youtube.com/watch?v=bM-4NSfOZM
Mon. CLASS 22 4/10/2017	<i>Environmental Education: Civic and Scientific Literacy</i> 1. Shwom, R., McCright, A., Isenhour, C., Jordan, R. and Robinson, Jennifer M. "Enhancing climate science literacy through the social sciences" revise and resubmit at <i>Frontiers in Ecology and Environment</i> 2. Ariasingam, DL. "Empowering Civil Society to Monitor the Environment: Education for Students, Awareness for the Public, and Functional Literacy for Targeted Groups"
Thurs. CLASS 23 4/13/2017	<i>E-Governance</i> 1. Review website for Glasshouse Policy https://www.glasshousepolicy.org/ 2. Digital Governance in Municipalities Worldwide (2015-16): page 1-32; 72-75
Mon. CLASS 24 4/17/2017	Solutions from the Real World: What did your group find that is working to improve household/individual environmental performance?
FUNDING YOUR SOLUTION	
Thurs. CLASS 25 4/20/2017	1. "Prema Shaw: Loans that Make a Difference" 2. "Google and Kiva kickstart crowdfunding for sustainable projects" by Sustainable Business News Published December 16, 2013 Final Solutions Paper Due if not Rutgers Energy Institute
Mon. CLASS 26 4/24/2017	Proposal Presentation & Evaluation Plan

Thurs. CLASS 27 4/27/2017	Proposal Presentation & Evaluation Plan
Mon. CLASS 28 5/1/2017	Proposal Presentation & Evaluation Plan
FINAL May 8th	9:30-11:00

