New York City College of Technology

Social Science Department

Environmental Economics – Econ 2505

Fall 2015

Econ 2505 Environmental Economics; sec. D-666

V-326; Wed. 11:30 – 2:00 PM

## **Prof. S. MacDonald (Economics)**

Office: Namm 624; Hours: Tues 1 – 2:00pm; Thur 1 – 2pm and by appointment

718-260-5084 [smacdonald@citytech.cuny.edu](mailto:smacdonald@citytech.cuny.edu)

**Prof. D. Mincyte (Sociology)**

Office: Namm 626; Hours: M 1-2:30pm; W 2-2:30pm, and by appointment

718-260-5080 dmincyte@citytech.cuny.edu

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**CATALOG DESCRIPTION**: This interdisciplinary course examines current environmental issues from a macroeconomic perspective, focusing on both the long and short-term economic viability of various proposals to address current environmental challenges. Traditional goals of economic efficiency will be examined in the context of the need to expand renewable energy sources, green design, sustainable construction and resource allocation and other efforts to combat climate change on a global scale.

COURSE PREREQUISITE:

CUNY proficiency in reading and writing and either Econ 1101 or Econ 1401

Readings\*

**Required**: All required readings for the course will be provided, with links to these posted on Open Lab each week. You will be required to read the assigned articles, post responses to assigned questions on Open Lab no later than Monday before class meets. You should also be prepared to discuss the readings in class.

**Other:** You will also be required to conduct independent field-based research for the semester research project.

WEEKLY SEQUENCE OF TOPICS

**Session 1: 9/2. Profs. MacDonald and Mincyte. Introductions.**

Review of/Introduction to key Economic and Sociological concepts; discuss how can these concepts inform your research? How will these be relevant to your research? The importance of a theoretical focus that relates how these concepts are connected to the research you will do in the course.

**Assigned readings for session 1:**

No readings

**Session 2: 9/9. Prof. MacDonald: How have economists traditionally viewed environmental - ecological crises** **and how to address them?**

Discussion of Atkinson and Hackler article/alternative theories

**Assigned reading for session 2:**  (link posted on Open Lab)

Robert D. Atkinson and Darrene Hackler. October 2010. “Economic Doctrines and Approaches to Climate Change Policy,” *The Information Technology and Innovation Foundation*

**Comment on posted discussion questions on Open Lab** for session 2; due on Monday, 9/7. Prepare for discussion of these questions in class; discussion of how economic theory influences policy proposals.

1. According to the authors, how have economists traditionally viewed environmental - ecological crises and how to address them?
2. How do the different economic theories discussed in the Atkinson article lead to different policy proposals to address environmental problems? What is ‘innovation economics?’
3. In class reading and discussion of two short articles that pose different policies consistent with the neoclassical and neo-Keynesian views on addressing carbon emissions. (Paul Krugman and Henry Paulson)

Discussion: 1) What do these two economists propose and why? 2) What neoclassical (Paulson) or Keynesian (Krugman) economic assumptions are implicit in each? 3) How do their claims differ?

* Henry M. Paulson, Jr. “The Coming Climate Crash.” New York Times, June 22, 2014.
* Paul Krugman, “The Big Green Test: Conservatives and Climate Change.” New York Times, June 22, 2014

1. Research topic ideas/discuss briefly

**Session 3: 9/16. Prof. Mincyte. Key Concepts in Environmental Sociology**

This class focuses on key debates in environmental sociology and surveys the development of the subfield

**Assigned reading for session 3 (Note: difficult reading: allocate enough time)**

David N. Pellow and Hollie Nyseth Brehm. 2013. “An Environmental Sociology for the Twenty-First Century.” *Annual Review of Sociology* 39:229-50.

**Recommended reading*:***David Owen, 2012. *The Conundrum: How Scientific Innovation, Increased Efficiency, and Good Intentions Can Make Our Energy and Climate Problems Worse*. Chapter 1.

**\*\*\*\*NO CLASSES ON WED. SEPTEMBER 23\*\*\***

**Session 4: 9/30. Profs. MacDonald and Mincyte. History of Consumer Society from an Economic and Sociological Perspective**

This lecture focuses on the economic and social infrastructures that define consumer society and its values.

**Assigned readings for session 4:**  (links posted on Open Lab); read one of the following articles:

1. William R. Emmons, “Don’t Expect Consumer Spending to be the Engine of Economic Growth in Once Was,” *The Regional Economist*, Jan. 2012, Federal Reserve Bank of St. Louis

2. World Economic Forum “Consumers: Changing the Terms of Engagement” (pgs. 13 – 21) *in The Consumption Dilemma: Leveraging Points for Accelerating Sustainable Growth,* April 2011;

3. Gary S. Cross and Robert N. Proctor (2014), *Packaged Pleasures: How Technology and Marketing Revolutionized Desire*. Chicago: University of Chicago Press. Ch. 2.

**Comment on posted discussion questions on Open Lab** for session 4; all comments due by Monday, 9/28. Prepare for discussion of these questions in class.

**Additional assignment for session 4:** Write a one – two paragraph summary of the specific topic you want to focus your semester research project on. In your summaries, please answer the following questions:

* + What specific site(s) are you planning to visit and study in order to better understand the issue? Examples include visiting and studying specific recycling facilities, going to a community garden, studying specific plans to improve ecological footprint of a transportation system, etc.
  + What central question or argument do you want to pursue?

1) Discussion: Alternative measures of economic growth/progress

The challenges to promoting a sustainable economy and economic ‘growth’ and renewable resources in a consumer driven market/capitalist economy

* + The consumer as central to the survival and thriving of market economies
  + Moving from the ‘disposable’ society to the practice of renewability
  + The problem with economic growth as conventionally viewed and measured
  + Importance of cultural norms in driving consumption (e.g. showering, laundering, new clothes, technologies, etc.)
  + Watch and discuss the Story of Stuff
  + Readings/discussion

2) Discussion of ideas (2 to 3) for research project and be prepared to share them with class; review research project requirements and discuss possible sites for field-based research; review/discuss formulation of research topic; review research methodologies; questionnaire development; documentation formats: notes, photo documentation, etc.

3**)** Class discussion:What is interdisciplinary research and why is it important for studying environmental issues?How do you plan to incorporate an interdisciplinary perspective into your research? (i.e., the perspectives of disciplines other than Economics or Sociology)? Which disciplinary perspectives do you believe would be most relevant for your topic? Identify two or three questions you might ask of the topic you are considering?

4) Review guidelines for summaries of how your field research will help to inform your project: summaries should identify two or three key findings you observed as most interesting and significant; prepare questionnaires.

**5)** **Choose site for your field- research**, and prepare specific questions you want to discuss on the day of your visit. You will conduct your visit on your own time – any day/time when class is not in session**. Field research should be completed by Week 7.**

**Some options to pursue on your own based on your research:**

1) Urban Grange Farm – Queens (Saturdays- 11: - 3:00 free; make reservation in advance)

2) Urban Grange Farm – Brooklyn Navy Yard (Wednesdays @ 10:00 and 11:00 AM/book online

2) A local neighborhood/community – survey of the environmental characteristics of the community

4) Building 92 at Brooklyn Navy Yard: **Option 1**: Wed through Sun 12:00 to 6:00 – free/self-guided tour of the building’s sustainable features and businesses; **Option 2:** Book a tour – join any public tour/book online with discount code (pending funding)

5) Visit a local hotel or restaurant involved in sustainable practices (sourcing locally produced foods; organic foods; other sustainable practices) – (list available)

6) Other of your choice

**Session 5: 10/7. Profs. MacDonald and Mincyte. Environmental History of New York City**

This lecture focuses on environmental history of New York City, in particular history of sanitation programs; history of industry and growth of the urban environment; superfund sites: their origins (Newtown Creek and Gowanus Canal); wildlife; watershed; economic evolution and transformation. Possible guest lecture.

**Assigned readings for session 5:**  (links posted on Open Lab)

Marc Linder and Lawrence S. Zacharias (1999). *Of Cabbages and Kings County: Agriculture and the Formation of Modern Brooklyn.* Excerpt.

# David Soll (2013) *Empire of Water: An Environmental and Political History of the New York City Water Supply*. Cornell University Press. Excerpt.

**Comment on posted discussion questions on Open Lab** for session 5; due on Monday, 10/5. Prepare for discussion of these questions in class.

**Session 6. 10/14. Profs. MacDonald and Mincyte. Midterm Exam and Research Project Overview**

Midterm first half of class (both Env. Econ and Env. Sociology topics covered to date). Second half of class session: overview and discussion of the research process; field research; bibliography; expectations, workshop with student ideas; interview questions and documentation for class tour/field research.

**Assigned readings for session 6:**

No readings, be prepared for Midterm Exam and in-class activities

**Session 7: 10/21. Prof. Mincyte. Sharing Economies**

This session focuses on new forms of consumption that use information technology to connect the consumer and the producer (e.g. AirB&B, Uber, Task Rabbit). We will discuss ecological footprint and social issues emerging through in this type of consumer society, and whether consumption infrastructures can encourage less waste and consumption. Introduction to annotated bibliography.

**Assigned reading for session 7:**

**Fuchs, Christian. 2015. Culture and Economy in the Age of Social Media. New York: Routledge. Excerpt.**

**Recommended reading:** Firnkorn, J. and M. Müller. 2011. “What will be the environmental effects of new free-floating car-sharing systems? The case of car2go in Ulm.” Ecological Economics 70(8): 1519-1528.

**Session 8: 10/28. Prof. MacDonald and Prof. Mincyte. Organized Class Field Tour/Field Research**

Fieldtrip to SIMS recycling center.

**Assigned reading for session 8:**

No assigned reading

**Post your summaries of findings/observations/photos from visit to the SIMS recycling center on designated Open Lab site (due by Monday, 11/2);** include a brief summary that identifies three findings that were interesting or significant for you.

**Session 9: 11/4. Prof. MacDonald. Sustainable Tourism**

(Prof. Susan Phillip – guest lecture) – to be confirmed\*

**Assigned reading for session 9:**

Read and be prepared to discuss reading assigned by guest lecturer posted on Open Lab prior to this session.

**Additional assignment for session 9:**

Submit preliminary one-pg. summary & annotated bibliography drafts.

**Session 10: 11/18. Prof. Mincyte. Ecology of Local Communities**

This lecture focuses on local communities and their responses to climate change and environmental problems. We will discuss various initiatives, including Community Supported Agriculture, urban farming, local currencies, etc, and focus on the efforts of community members to monitor pollution in their environments.

**Assigned readings for session 10:**

Nathan McClintock (2010), "Why Farm the City? Theorizing Urban Agriculture Through a Lens of Metabolic Rift," *Cambridge Journal of Regions, Economy and Society* 3: 191 – 207.

Gwen Ottinger (2010), “Buckets of Resistance: Standards and the Effectiveness of Citizen Science,” *Science, Technology, and Human Values* 35(2): 244 – 270.

**Session 11: 11/18. Prof. MacDonald. Local Perspective on Climate Change: How have cities/communities and nations begun to respond to the effects of climate change? How have they prepared to protect their economies, population and infrastructure?**

**Assigned readings for session 10:**

James Atlas, *Is This The End?* November 25, 2012. New York Times, Opinion

Alan Feuer, *Building for the Next Big Storm: After Hurricane Sandy*, *New York Rebuilds for the Future*, Oct. 25, 2014, New York Times

Discussion and in-class project; “The Big U” and other projects proposed around the New York metropolitan area.

\*\*circulate sign-up sheet for final presentations (presentations on 12/9 or 12/2)

**Session 12**: **11/25. Prof. Mincyte. Global Perspective on Climate Change**

During this lecture we think globally about the issues surrounding climate change and sustainability.

**Assigned readings for session 12:**

Cheryl McEwan and David Bek (2009), "The political economy of alternative trade: Social and environmental certification in the South African wine industry." *Journal of Rural Studies* 25: 255-266

Susanne Freidberg (2010) "Freshness from afar: the colonial roots of contemporary fresh foods," Food and History, 8, 1, 257-278.

**Session 13: 12/2. Profs. MacDonald and Mincyte. Energy and Sustainability. Final Presentations (Group 1)**

Economic and Sociological perspectives on hydraulic fracturing; how fracking threatens/impacts local economies and communities; impact on local ecosystems; human health; plant life; water; questions the practice raises for sustainable communities and economic growth

**Assigned readings for session 13:**

Schafft, K.A., Glenna, L.L., Borlu, Y., & Green B. (2014). Local impacts of unconventional gas development within Pennsylvania’s Marcellus Shale region: Gauging boomtown development through the perspectives of educational administrators, *Society & Natural Resources 27*, 389-404.

**In class presentations (Group 1). Hard copies due at the beginning of class:**

1. Final annotated bibliography;

2. One-page summary of research project;

3. Presentation

**Session 14: 12/9. Profs. MacDonald and Mincyte. Final Presentations (Group 2)**

**Assigned readings for session 14:**

No assigned readings

**In class presentations (Group 2). Hard copies due at the beginning of class:**

1. Final annotated bibliography;

2. One-page summary of research project;

3. Presentation

**Session 15: 12/16. Prof. Mincyte. Final Exam**

**Assigned readings for session 14:**

No readings, prepare for the Final exam

**COURSE INTENDED LEARNING OUTCOMES/ASSESSMENT METHODS:** To develop an understanding of the fundamental concepts of environmental economics. Specifically, course objectives include the following:

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| LEARNING OUTCOMES1 | ASSESSMENT METHODS |
| 1. Students in the course should be able to demonstrate an understanding of many dimensions of sustainability as they relate to the potential for renewed economic growth. | 1. The midterm and final exams, which will include essay questions, will test students’ understanding of sustainability issues as they relate to economic practices and policy |
| 1. Demonstrate a knowledge of the importance of changing economic behavior – from consumers, to business practices to government – to build upon the move toward sustainable economic practices | 2. Class discussions of assigned articles and other supplementary readings in class and on course blog site on Open Lab. |
| 1. Identify a range of tools from environmental economics that can be applied to solving real world environmental challenges that impact the U.S. economy. | 3. Both the exams and class discussions will serve as tools to encourage students to make the connections between environmental goals and addressing economy-wide and global economic issues. |
| 1. Develop a breadth and depth of knowledge of how to begin to apply the concepts of sustainability to consumer, business and trade practices. | 4. Through the written research project and/or case study and final presentations, students will focus on a problem/issue, the challenges posed by that issue and critically examine various solutions. |

GENERAL EDUCATION LEARNING OUTCOMES/ASSESSMENT METHODS

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| LEARNING OUTCOMES | ASSESSMENT METHODS |
| 1. KNOWLEDGE: To develop a understanding of the key concepts that relate to environmental economics, the central topics and theories of how to address environmental problems through economic policy. | 1. Discussion of readings, material presented by guest lecturers and field visits that both test an understanding of basic concepts and that require students to express their understanding in writing (short essay quizzes) |
| 1. SKILLS: Develop and apply the tools of environmental economics to be able to critically question, analyze, and discuss environmental economic problems and issues; Develop and strengthen the ability to discuss concepts and thoughts in writing. | 2.Completion of essay questions on exams; class discussions of questions tied to topics covered in class and to supplemental short readings and articles on timely relevant issues; students analyze, evaluate and consider policy options |
| 1. INTEGRATION: Apply the tools acquired in the course to be able to build upon an understanding of environmental issues and sustainability across disciplines, both in the social sciences and other disciplines. | 3. Research project which requires students to select and define a topic, problem or issue and examine possible solutions drawing upon and employing the tools of related disciplines; Final in-class summaries of research; participation in Emerging Scholars poster session. |
| 1. VALUES, ETHICS, AND RELATIONSHIPS: Develop an understanding of and ability to apply diverse perspectives to the understanding of sustainability/environmental economics; work creatively with others in group problem solving; develop a respect for diverse viewpoints and apply the skills and concepts covered in the course to the analysis of related issues and concepts across other disciplines | 4.Weekly in-class group assignments; assignments encourage student discussion and sharing of ideas and perspectives; focused discussions that encourage students to question and think critically to develop their own perspectives on issues covered in the class . |

From: Important General Education Learning Goals (6/1/11) DRAFT

Scope of assignments and other course requirements\*

Students in this course will be required to complete a written research project resulting in a final paper of approximately 5 pages. This may consist of a topic chosen from topics covered in the course or a case study tied to a particular topic in the student’s major course of study. Students will also be expected to participate in the Fall 2014 Poster Presentation, presenting their research project, or preliminary work (either individually or in teams). There will also be a midterm and final exam, both of which will place an emphasis on a written understanding of key concepts covered in the course and readings; class discussions of assigned readings – students will be expected to be prepared to discuss assigned questions based on the readings. The course will be writing intensive.

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METHOD OF GRADING – elements and weight of factors determining the students’ grade\*

Midterm exam 20%

In-class group project: Week 11 20%

Final exam 25 %

Final presentation on semester research project ; final summary; annotated bibliography 20 %

Participation in class discussions; entries on course blog on Open Lab; attendance 15%

**GRADING POLICY:** calculated according to the college grade scale:

Letter Grade Meaning of Letter Grade Number Grade

A Exceptional 100-93

A- Superior 92.9-90

B+ Very good 89.9-87

B Good 86.9-83

B- Above Average 82.9-80

C+ Slightly Above Average 79.9-77

C Average 76.9-70

D Poor 69.9-60

F Failure 59.9-0

\*Scope of Assignments and Method of Grading to be determined at discretion of the instructor.

ACADEMIC INTEGRITY POLICY STATEMENT

Students and all others who work with information, ideas, texts, images, music, inventions, and other intellectual property owe their audience and sources accuracy and honesty in using, crediting, and citing sources. As a community of intellectual and professional workers, the College recognizes its responsibility for providing instruction in information literacy and academic integrity, offering models of good practice, and responding vigilantly and appropriately to infractions of academic integrity. Accordingly, academic dishonesty is prohibited in The City University of New York and at New York City College of Technology and is punishable by penalties, including failing grades, suspension, and expulsion. The complete text of the College policy on Academic Integrity may be found in the catalog.

COLLEGE POLICY ON ABSENCE/LATENESS

A student may be absent without penalty for 10% of the number of scheduled class meetings during the semester as follows:

**Class Meets Allowable Absence\*\***

**1 time/week 2 classes**

2 times/week 3 classes

3 times/week 4 classes

\*\*Each department and program may specify in writing a different attendance policy for courses with laboratory, clinical or field work. If the department does not have a written attendance policy concerning courses with laboratory, clinical or field work, the College policy shall govern.

**Policies:**

**\*\*NO TEXTING OR OTHER USE OF CELL PHONES WHILE CLASS IS IN SESSION\*\***

1. **Final exam:** There will be **no option to make up the final exam**.
2. **Assigned Posts on Open Lab must be completed in the Assigned time period to receive credit;**  **Chapter readings must be completed prior to the next class**. In-class reviews are important to complete as part of the course. **These are 25% of final grade.**
3. **Class discussion and participation and posts/discussion on Open Lab constitutes 15 % of final grade**
4. **More than two** **absences will adversely affect your** **final grade.** If you must miss a class, please provide prior notification by email or in person. My email address and phone number are listed on the front of syllabus.
5. **Students must arrive on time for class and stay for the entire class; consistent lateness and leaving class early will negatively affect your final grade.**
6. **Texting, emailing and other use of cell phones is prohibited during class time; they must be turned off and put away while class is in session.**
7. **Phones may not be used during exams; calculators are permitted only.**
8. **There will be a 10 minute break halfway through each class.**