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**Instructor:** Dr. Kenneth Liao  
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**Office:** School of Business 207  
**Office Hours:** Monday/Wednesday 4:30-6:30pm, Thursday 8:15-9:15am, and by appointment  
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**Course Description and Objectives:**

This course extends the principles of economics to environmental policy and examines market failures in the presence of externalities and public goods. We consider policy responses to these market failures such as command-and-control regulations, taxes and subsidies, and tradable permits. We use various techniques to measure the benefits and costs associated with environmental goods not traded in standard markets. By the end of the semester, students will be aware of the major issues in environmental economics, understand how economists think about environmental problems, understand advantages and disadvantages of several environmental policies, and be able to complete economic analysis on a range of environmental problems.

**Prerequisites:** Intermediate Microeconomics or Managerial Economics (ECO 260 or ECO 262).

**Required Materials:**

- Access to MobLab: The access code for the course is: **ufg7qmev3**. Use your @farmingdale.edu email address to register. Registration instructions are posted on Blackboard. The price is \$25.
- Course Packet: I will provide students with the required 3-hole-punched course packet. The packet is 240 pages (back-to-back = 120 pieces of paper). I recommend students keep the packet in a 1”-wide 3-ring binder (not provided).
- Supplementary course materials will be posted on Blackboard. This includes assigned readings, problem sets, and course announcements.

**Recommended Materials:**

- Callan, S. and J. Thomas. 2013. *Environmental Economics and Management: Theory, Policy, and Applications*. Sixth edition. (ISBN: 9781111826673). There is a copy on reserve at the library.
- I strongly encourage students to read about current events related to environmental issues and try to connect and apply the course material to them. Important sources include: *The Wall Street Journal*, *New York Times*, and *The Economist*.
- I also encourage students to follow the well-known environmental economics blog: <http://www.env-econ.net/> and economics podcast: <https://www.npr.org/sections/money/>.

**Grading:**

6%	MobLab activities	
6%	Discussion session	
14%	Problem sets	
20%	Literature review	
4%	Peer-review process	
14%	Midterm exam 1	Tuesday, February 25 <sup>th</sup>
14%	Midterm exam 2	Thursday, April 2 <sup>nd</sup>
22%	Final exam	Tuesday, May 12 <sup>th</sup> , 10:50am-1:30pm

**MobLab activities (6%):** Students will further explore each topic by playing a game or by participating in an economic experiment using MobLab. These games will take place during class. An electronic device with wireless capabilities (e.g., a laptop, tablet, or phone) is required. Students who do not have such a device should speak to me after the first class. MobLab assignments are based on participation. Failure to attend a class without a valid excuse will result in zero points for the assignment.

**Discussion session (6%):** Each student will be responsible for co-leading a 15-minute discussion session on a topic related to environmental economics. You may select any topic related to environmental economics, subject to my approval. I will distribute a list of available dates and groups may choose the date of their presentations on a first-come first-served basis. Within one week after the discussion session, you must submit a written reflection highlighting any key points and controversies. The written reflection is to be completed individually. See page 7 of the course packet for details.

**Problem sets (14%):** Six problem sets will be assigned throughout the semester. Problem sets are to be turned in at the beginning of class on the due date. **Late problem sets will receive no credit.** Illegible or sloppy work will not be accepted.

**Literature review and peer-review process (24%):** The literature review is an opportunity for you to investigate an existing environmental problem, policy, or proposal, with particular attention to the economic aspects of the problem. The paper should be seven-ten pages and requires multiple drafts with various due dates and a peer-review process. See page 9 of the course packet for details.

**Two midterm exams (14% each):** The two in-class midterm exams will be on Tuesday, February 25<sup>th</sup> and on Thursday, April 2<sup>nd</sup>. There will be no make-ups for either exam. If you cannot attend an exam, you must let me know at least 48 hours in advance and provide proper documentation.

**Final exam (22%):** The cumulative final exam for this course is from 10:50am-1:30pm on Tuesday, May 12<sup>th</sup>. This time is not flexible. An excused absence for the final exam will be handled according to the policy of the college and the Dean of Students.

### **Expectations and Feedback:**

I expect you to attend every class and to have done the assigned readings. I value your attendance and participation in all class discussions and activities. I also expect you to help maintain an effective learning environment by being open-minded and considerate toward your fellow classmates. Students who are using their cell phones, laptops, or otherwise distracting class will be asked to leave. In return, I will strive to conduct organized and insightful class sessions and to treat you and your intellectual work with fairness and respect. I greatly value feedback related to the course subject matter, the lecture pace, and my teaching style. Feel free to talk to me in person, send me an email, or leave an anonymous note in my mailbox in the School of Business Mailroom (BUSC 125).

### **Academic Integrity Policy:**

Farmingdale State College has developed regulations concerning **academic integrity** and dishonesty to maintain an ethical academic environment. Presenting someone else's work as your own is a serious offense. Cheating on exams, papers, or other assignments, including **plagiarism**, will be dealt with harshly. I reserve the right to determine an appropriate punishment including course failure.

### **Students with Disabilities:**

If you have a disability and require accommodations, please let me know as soon as possible so that your learning needs can be appropriately addressed. You will need to provide documentation of your disability from the Disability Services Center (Roosevelt Hall, Room 151, or call 934-420-2411/2607).

## Course Outline

Date(s)	Topic	Reading	Problem Sets	Literature Review
1/23	What is Environmental Economics? (Intro)			
1/28, 1/30, 2/4, 2/6	Review of Competitive Markets	C&T Ch. 2	#1. Due 2/6 at start of class	
2/11, 2/13, 2/18, 2/20	Market Failures	C&T Ch. 3	#2. Due 2/20 at start of class	
<b>2/25 (Tue.)</b>	<b>Midterm Exam 1</b>			
2/27, 3/3	Command-and-Control Policies	C&T Ch. 4		<b>Research question</b> Due 2/28 at 11pm
3/5, 3/10, 3/12	Market-based Policies: Price Instruments	C&T Ch. 5	#3. Due 3/12 at start of class	<b>Peer outline</b> Due 3/5 at 11pm <b>Peer review edits</b> Due 3/10 in class <b>Revised outline</b> Due 3/13 at 11pm
3/17, 3/19	<i>Spring Break (No Classes)</i>			
3/24, 3/26, 3/31	Market-based Policies: Quantity Instruments	C&T Ch. 5	#4. Due 3/31 at start of class	<b>Peer-review draft 1</b> Due 3/26 at 11pm <b>Peer-review edits</b> Due 3/31 in class
<b>4/2 (Thu.)</b>	<b>Midterm Exam 2</b>			
4/7, 4/9, 4/14	Carbon Tax vs. Cap-and-trade	CRS Report (2009) CBO Study (2008) Tietenberg (2013) WRI (2016)		<b>Peer-review draft 2</b> Due 4/9 at 11pm <b>Peer-review edits</b> Due 4/14 in class
4/16, 4/21	Present Value and Dynamic Efficiency		#5. Due 4/16 at start of class	<b>Writing Center appt.</b> Between 4/15 and 4/30
4/23, 4/28, 4/30, 5/5	Cost-Benefit Analysis	C&T Ch. 7	#6. Due 4/30, at start of class	<b>Final draft</b> Due 5/1 at 11pm
<b>5/12 (Tue.)</b>	<b>Final Exam – Comprehensive (10:50am-1:30pm)</b>			

I will do my best to adhere to this schedule, but I reserve the right to make changes as needed.

*Special thanks go to Dr. Alicia Rosburg (University of Northern Iowa) for her help in creating this course.*