

Environmental Economic Theory  
(PCP)  
Guidance

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25 September 2018

# Purpose of this lecture

- This course provides a basic theory of environmental economics. The analytical framework is elementary microeconomics, and partial equilibrium analysis is utilized in almost all the topics. Although the main purpose of this course is to give a comprehensive view of environmental economic theory to students, applicability of the theory to environmental policy is also considered and emphasized. Topics are chosen from the fundamental issues of conventional environmental economics.

# Prerequisite

- This lecture utilizes mainly a partial equilibrium analysis. Students are strongly recommended to study elementary microeconomic theory. Basically, mathematics is not used so often in this lecture. Graphic explanations are more often used, instead. However, knowledge of mathematics helps better understanding of this lecture.

# Homework

- Students are required to submit an essay every week. The theme of an essay will be given in advance in each class.

# Text

- Barry C. Field and Martha K. Field (2009)  
*Environmental Economics*, international edition,  
McGraw Hill.
- This textbook can be obtained through Amazon.
- Lecture notes can be downloaded from my  
website as well as keio.jp.  
(<http://web.econ.keio.ac.jp/staff/hosoda/lectures.html>)

# Lecture plan

0. Introduction
1. Benefits and Costs, Supply and Demand
2. Economic Efficiency and Markets
3. The Economics of Environmental Quality
4. Frameworks of Analysis
5. Benefit-Cost Analysis: Benefits
6. Benefit-Cost Analysis: Costs
7. Criteria for Evaluating Environmental Policies
8. Decentralized Policies: Liability Laws, Property Rights, Voluntary Action
9. Command-and-Control Strategies: The Case of Standards
10. Incentive-Based Strategies: Emission Charges and Subsidies
11. Incentive-Based Strategies: Transferable Discharge Permits
12. Comparable Environmental Policies
13. Economic Development and the Environment
14. Summary

# Evaluation

- Final exam 40%
  - Mid-term exam 20%
  - Homework 20%
  - Class participation 20%
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- Remark: Class participation is only a part of evaluation. But please note that class participation and homework count 40% of the total points.

# Class Schedule

- September 25<sup>th</sup>
- October 2<sup>rd</sup>, 9<sup>th</sup>, 16<sup>th</sup>, 23<sup>rd</sup>, 30<sup>th</sup>
- November 6<sup>th</sup>, 13<sup>th</sup>, 27<sup>th</sup>; **No lecture on 20<sup>th</sup>**
- December 4<sup>th</sup>, 11<sup>th</sup>, 18<sup>th</sup>, 25<sup>th</sup>
- January 8<sup>th</sup>, 15<sup>th</sup>

All classes are given on Tuesday.



# Others

- You may ask any question any time as far as I am available. Questions on my lecture are most welcome. Yet, please note that I may not be able to answer all the questions nor respond to requests of consultation due to time restriction.

# Homework 1

26 September 2017

- Theme: What is “climate change”? Is it really happening or not? Give your opinion on it, based on *scientific evidences*.
- Language: English.
- Volume: A4 two pages. Single space. 12 points.
- Submission period: 9 am. 1 October~9 am. 2 October 2018.
- Submission: Submit your paper in a pdf file. A file name must be “[HW1.xxx.pdf](#)” (xxx=your name). Send your file to [hosoda@econ.keio.ac.jp](mailto:hosoda@econ.keio.ac.jp).
- Remark: If you use internet documents, refer to plural different sources, not one single source. List references you have used. **Page numbers must be given.**