BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

Course Syllabus

EE375 Applied Economics for Natural Resources and Environment

Semester 1/2024 (August 13th - December 2nd, 2024)

Number of Credit: 3

Prerequisite: EE210 or EE211 or EE213

(Credits will not be awarded to students who are taking or have completed any 400-level courses in this subfield.)

Course Description: The relationship between economic growth, natural resources allocation and environmental problems. Basic economic theories used for analysis and application in natural resources management and environmental problems. The roles of government, community, and business sectors to control and solve problems in natural resource and environmental exploitation at local, national, and global levels. Concept of sustainable development. Concept of environmental justice. Basic concepts and methodologies in economic valuation of natural resources and environment.

Course Objectives: The course aims to provide fundamental knowledge on what topics are discussed in the fields of natural resources and environment, how economic concepts are applied to analyze issues in these fields, and how to approach a range of natural resource management and environmental problems using economic instruments to inform private and public sector with policy considerations.

Instructor Information:

Name: Assistant Professor Watcharapong Ratisukpimol, Ph.D.

Office: ECON 501 (The fifth floor of Economics building, Chulalongkorn University)

Office Phone: (02)-218-6284-5

Office Hours: By appointment

Email Address: Watcharapong.r@chula.ac.th (preferred method of contact)

Lecture time: Monday, 09.00-12.00 hours

Venue: Room 202, Faculty of Economics, Thammasat University

Teaching Materials Platform: Google Classroom

Textbooks:

[TL] – Tietenberg, T. and Lewis, L. Environmental Natural Resource Economics, 2018 (11th edition), Pearson.

[HSW] – Hanley, N., Shogren, J. and White, B., Introduction to Environmental Economics 2013 (2nd edition), Oxford University Press.

Textbooks are not required. In each class, I provide lecture notes for you to download from Google Classroom. Lecture notes summarize what you need to know from the textbooks.

Technical Requirements:

You may find a graphing calculator or financial calculator useful, but I am not going to require that you have one. You will want some form of calculator (NOT a mobile phone) for the exams.

Grading:

The grade for this class will be based on the curve system.

Evaluation:

Assignments	10%
Group Project	15%
Excursion	5%
Midterm Exam	35%
Final Exam	35%

Assignments

There will be approximately 7-8 assignments throughout this semester. Assignments can be either homework or in-class short assignments. The main purpose of homework and in-class assignments is to provide you with practice and will be very similar to problems you will see on both exams. There will be no makeup assignments given. Also, late assignments will not be accepted.

Group Project

Students will work in groups of 4-5 students. Each group will either identify problems of interests related to natural resources and environment, approach the problems using economic concepts and tools and propose policy considerations. Alternatively, I provide a list of interesting topics for you to select. The evaluation will be based on the quality of two deliverables i) A 15-minute group presentation ii) A 5-page policy brief or an online article. More details are provided after the midterm examination.

Excursion

The purpose of the excursion is to explore the world beyond the lessons in the classroom. If approved by the BE International Program, there will be one short field trip during the class time. Students will visit places or sites to learn the current situation of natural resource management issues or environmental problems.

Tentative Course Schedule and course topics:

This course schedule is subject to change if necessary. But I try to closely follow this table. Any change in class scheduling (class cancellation/ makeup classes/ switching to online learning mode due to my health condition) will be announced either in class or by the BE program staff.

Week	Topics
1 (19th Aug)	Introduction to Natural Resource Economics
2 (26th Aug)	Introduction to Environmental Economics
3 (2nd Sep)	Welfare and Market Efficiency
4 (9th Sep)	Market Failure: Externalities and Public Goods
5 (16th Sep)	Economic Valuation: Concepts and methods Types of valuation methods (1)
6 (23rd Sep)	Economic Valuation: Concepts and methods Types of valuation methods (2)
7 (23rd Sep)	Land Economics
8 (30th Sep)	**Midterm Exam**
9 (7th Oct)	Economics of Pollution Control (1)
10 (21st Oct)	Economics of Pollution Control (2)
11 (28th Oct)	Forest Economics
12 (4th Nov)	Fishery Economics
13 (11th Nov)	Water Economics
14 (18th Nov)	Economics of nonrenewable resources

15 **(25th Nov)**	Field Trip
16 **(2nd Dec)**	Group Project Presentations
17 **(16th Dec)**	**Final Exam**

Additional Notes:

- The exams will be closed-book exams and based on the class lectures. The class lectures will roughly follow the textbook, but sometimes they will go beyond what is covered in the textbook. Therefore, although attending classes is not required, **attending classes regularly and taking good lecture notes are very important and good strategies to succeed in this course**.

- You are highly encouraged to work and study with your classmates. Study group is strongly recommended. Try to find your group members at the beginning of the semester.

- Lastly, if you are having problems with lessons, I am more than willing to help you. You just need to approach me either after the lecture class time or during our office hours.

Classroom behavior and other Class Distractions:

Please turn off all mobile phones and other electronic devices that may disrupt the class. Disruptive electronics and behavior will not be tolerated. Disruptive behavior includes, but is not limited to, reading the newspaper or magazine, working on your laptop, working on homework or reading for other classes, coming to the class late, talking to classmates, listening to headphones, text messaging, playing with your pets, etc.

Expectations of Classroom Behavior:

Students and faculty each have responsibility for maintaining an appropriate learning environment. Students who fail to adhere to behavioral standards may be subject to discipline. Faculties have the professional responsibility to treat students with understanding, dignity and respect, to guide classroom discussion and to set reasonable limits on the manner in which students can express opinions.

Classroom Behavior (online learning):

- To learn smoothly, please ensure that your internet connection is stable during the whole class time.
- Rename your ZOOM name to your first name and last name.
- Please dress properly for online learning.
- Please keep your microphone muted unless you are answering the questions or participating in the discussions so that you will not disturb other classmates.
- Use a virtual classroom backdrop when appropriate. If this is not an option, ensure that there are limited distractions in your physical backdrop.
- When using the chat box, please type properly.

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Expected Learning Outcomes

To understand natural resource and environmental problems with the perspectives of an economist and be able to apply economic concepts and tools to analyze and solve the problems in the fields.

Expected learning outcomes	Evaluation Method
1. Morality & ethics 1.1 Students demonstrate integrity and ethics 1.2 Students recognizes social responsibility and accountability to the society and the environment 1.3 Students recognize the importance of sustainable development and natural resource allocation	Assignment and discussions in class
2. Knowledge 2.1 Students understand problems related to the fields 2.2 Students can apply economic principles to understand the causes of the problems in the fields of natural resource and environmental economics 2.3 Students understand various economic instruments that can be used to solve the problems in the fields	Assignment, quiz and exam
3. Intellectual development 3.1 Students improve critical thinking in analyzing the problems 3.2 Students are sufficiently trained in research skills 3.3 Students demonstrate abilities to analyze and propose policy recommendations using economic concepts and tools	Group project's policy brief
4. Interpersonal skills & responsibilities 4.1 Students are responsible for the assigned tasks 4.2 Students work effectively as a team, demonstrating leadership and teamwork 4.3 Students respects other opinions and provide constructive comments	Assignment and group presentation
5. Quantitative analysis, communication, and information technology skills 5.1 Students can apply mathematical methods in solving the problems in the fields	Exam and group presentation

5.2 Students communicate effectively and select appropriate presentation approach to deliver discussion points and ideas to solve the problems 5.3 Students use information and communication technologies appropriately to analyze the problems and propose policy recommendations.	