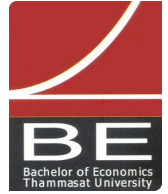




B.E. International Program

Faculty of Economics, Thammasat University



Course Syllabus

EE 475 Natural Resource Economics

Semester 2/2017 (January 8 – May 20, 2018)

Number of credits: 3 credits (3-0-6)

Lecture Time: Wednesdays and Fridays, 08.00 – 09.30 hours

Lecture Venue: Room 304, Faculty of Economics

Instructor: Ajarn Chol Bunnag

Office: Room 456, 4th Floor, Faculty of Economics,
Tha Prachan Campus

Email: cholb@econ.tu.ac.th

Moodle enrolment key: '1859'

Course Description:

The concepts of scarcity and economic rental of important natural resources and problems with these resources. Economic theories and tools used in natural resource management, including allocation among current users as well as inter-temporal allocation. Market failure due to deficiencies in the property rights system. Government natural resource policy and measuring its impact on the use of all kinds of natural resources.

Prerequisites: EE311

Course Objectives:

1. To provide students with economic theories for analyzing natural resource issues, especially scarcity and economic rents, intra- and inter- temporal allocation and utilization, market failures arising from resource characteristics and property rights system, and institutional arrangement for sustainable natural resource use
2. To study specific natural resource topics, in particular, depletable resources (minerals) ; recyclable resources (minerals, papers, bottles, e-waste); replenishable but depletable resources (water); a locationally fixed but multi-purpose resource (land), Storable, renewable resources (forests); Common-pool resources (fisheries)

Evaluation

Midterm Examination	30%
Final Examination	40%
Assignment 1	5% For a selected resource topic
Assignment 2	5% For a selected resource topic
Assignment 3	5% For a selected resource topic
Class participation	5% Throughout the course
Essay	10% Submit on

Assignment 1, 2, and 3

Because in this semester, there are only a small number of students enrolling this class, I would like to take this opportunity to increase the level of participation in class by increasing the number of assignments throughout the course.

The students will form a group of 2-3 students, which should result in two groups of students. Then each group has to select 3 out of 6 natural resource topics addressed in this course.

In each topic, the group has to do two tasks.

Task 1 (2 points): In the first class in the first week of that topic, the group has to present the status of that resource in Thailand (and/or the world).

Task 2 (3 points): In the last class of the second week of that topic, each member of the group has to find one recent academic paper (within the last 5-7 years), read, and write a summary and comment that paper, as well as present it to the classmate.

Class participation (5 %)

Students are expected to ask questions and participate in class discussion. They are also expected to participate actively when other groups are presenting their current situation and article review.

Each student has to ask 5 meaningful questions to other group presentations throughout the semester. Each question equals 1 point for class participation, therefore, 5 questions are equal to 5 points. The question can be asked 1 question per person per class. Each class (with group presentations) can be asked maximum 12 questions.

Excursion (Voluntary)

It is impossible to understand the complexity of agriculture only sitting in the classroom. At least one two-day field trip will be organized. Although this is voluntary, it is highly recommended because it could give you new perspectives towards Thai rural society and rural development. It could also be beneficial to the policy making activity as well as your personal experience.

Teaching Plans

Week	Topics	Remarks
1 Jan 10 Jan 12	- Relationship between Human and Environment - The Economic Approach to Natural Resource Management	T*-Ch.2; O*-Ch.1 HO*-Ch.1; TD*-Ch. 1-4
2 Jan 17 Jan 19	- Evaluating Trade-Offs: Benefit-Cost Analysis and Other Decision-Making Metrics - Dynamic Efficiency and Sustainable Development	T*-Ch.3, 5; TD*-Ch.6
3 4	The University Sports of Thailand (No Class) (January 22 – February 3, 2018)	
5 Feb 7 Feb 9	- Economic valuation of Natural Resources - Depletable resources allocation	T*-Ch. 3-4 , 6; TD*-Ch.6, 7
6 Feb 14	Energy use, global warming, and air pollution: Current Situation	Group Presentation
Feb 16	Energy use, global warming, and air pollution: Application of economic theories to the resource problems	T*-Ch.7; TD*-Ch.11

Week	Topics	Remarks
7 Feb 21	Energy use, global warming, and air pollution: Specific theories for Energy Resources	T*-Ch.7; TD*-Ch.11
Feb 23	Energy use, global warming, and air pollution: Article Review Presentations	Group Presentation
8 Feb 28	Recyclable Resources and waste management: Current Situation	Group Presentation
Mar 2	Recyclable Resources and waste management: Application of economic theories to the resource problems	T*-Ch.8; TD*-Ch.12 Additional readings
9 Mar 7	Recyclable Resources and waste management: Specific theories for Energy Resources	T*-Ch.8; TD*-Ch.12 Additional readings
Mar 9	Recyclable Resources and waste management: Article Review Presentations	Group Presentation
10	Midterm Week	No class
	Wednesday, March 14, 2018 (09.00 - 11.00)	No class
11 Mar 21	Water Resource: Current Situation	Group Presentation
Mar 23	Water Resource: Application of economic theories to the problems	T*-Ch.9; TD*-Ch.9 Additional readings
10 Mar 28	Water Resource: Specific Theories for Water Resources Water Allocation Board Game	T*-Ch.9; TD*-Ch.9 Additional readings
Mar 30	Water Resource: Article Review Presentations	Group Presentation
11 Apr 4	Land: Current Situation	Group Presentation
Apr 6	Land: Application of economic theories to the problems (April 6 is a public holiday. Make-up class is to be announced.)	T*-Ch.10; HO*-Ch.3 Additional readings
12	Songkran Festival Days (April 11-17, 2018)	
13 Apr 18	Land Use, Agricultural Policies, and the Environment	T*-Ch.10; HO*-Ch.3 Additional readings
Apr 20	Land: Article Review Presentations	Group Presentation
13 Apr 25	Forest and Biodiversity Conservation: Current Situation	Group Presentation

Week	Topics	Remarks
Apr 27	Forest and Biodiversity Conservation: Application of economic theories to the problems	T*-Ch.12; TD*-Ch. 10 Additional readings
15 May 2	Forest and Biodiversity Conservation: Specific Theories for Forest Resources	T*-Ch.12; TD*-Ch. 10 Additional readings
May 4	Forest and Biodiversity Conservation: Article Review Presentations	Group Presentation
16 May 9	Fishery resources: Current Situation	Group Presentation
May 11	Fishery resource: Application of economic theories to the problems	T*-Ch.13 Additional reading
17 May 16	Fishery resource: Specific theories for forest resources	T*-Ch.13 Additional reading
May 18	Fishery resource: Article Review Presentations	Group Presentation

Reading list

Main text

Tietenberg, Tom, and Lewis, Lynne (2011). Environmental and Natural Resource Economics. 9th Edition, MA: Pearson [T]

Tisdell, Clement, A., (2010). Resource and Environmental Economics: Modern Issues and Applications. Singapore: World Scientific. [TD]

Recommended Readings

Harwick, John M. And Olewiler, Nancy D. (1998). The Economics of Natural Resource Use. 2nd Edition, MA: Addison-Wesley. [HO]

Field, Barry C. (2008). Natural Resource Economics. 2nd Edition, Illinois: Waveland Press. [F]

Ostrom, Elinor (1990). Governing the Commons. Cambridge University Press. [O]

Remarks:

- ◆ Semester 2/2017 begins January 8, 2018
- ◆ **Mid-Term Examination Period** **March 12 - 17, 2018**
(Wednesday, March 14, 2018, 09.00 - 11.00 hrs.)
- ◆ Course withdrawal with “W” March 28 – April 2, 2018
- ◆ Chakri Memorial Day April 6, 2018
- ◆ Songkran Festival Day April 11-17, 2018
- ◆ Royal Ploughing Ceremony Day May 14, 2018
- ◆ Last day of class May 20, 2018
- ◆ **Final Examination Period** **May 21 – June 2, 2018**
(Friday, June 1, 2018, 09.00 – 12.00 hrs.)