



B.E. International Program

Faculty of Economics, Thammasat University



Course Syllabus

EE 475 Natural Resource Economics

Semester 2/2016 (January - May, 2017)

Date & Time: Tuesday and Thursday, 09.30-11.00 AM

Classroom: Room#304 Faculty of Economics,
Thammasat University, Tha Prachan Campus

Instructor: Chol Bunnag [cholb@econ.tu.ac.th]
Office: Room 456 (4th Floor)
Office hour: Wed, Fri 13.00-15.00

Moodle enrolment key: '2532'

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.

Number of credits: 3 credits

Prerequisites: EE311 and should complete EE320 or EE325

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 sectors, 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%	Friday, March 10 th , 2017 (09.30 - 11.00 AM)
Final Examination	40%	Saturday, May 20 th , 2017 (09.00 AM - 12.00 PM)
Assignment 1	5%	First class of each resource sector
Assignment 2	10%	Last class of each resource sector
Class participation	5%	Throughout the course
Essay	10%	Submit on Friday May, 26th, 2017

Assignment 1&2

Students will be divided into 6 groups, each group for each type of resource.

Assignment 1: Current Situation (5 %)

Each member of the group writes a summary of current situations / problems of the resource in the context of Thailand in the past 5 years. Content written by each member of the group must be different but connected to give overall picture of the resource current situation.

All members of the group will be presenting the current situation to the class on the first class of their resource sector.

Each student has to submit (first class of their resource sector):

- The Current Situation Report
- The handout of the presentation

Assignment 2: Article Review (10 %)

Each member of the group selects an academic article concerning any topic regarding the group's type of resource. The article has to be approved by the lecturer. The article should be published in the past 5 years, and should be selected and consulted with the lecturer at least 3 weeks before the presentation date.

The article review consists of 3 parts as follows:

- Summary of the article
- Interesting information and knowledge
- Evaluation and Opinion on the article (from your feelings towards this paper, its writing style to the possible contribution of the article).

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	Date	Topics	Remarks
1	18 th Jan	- Relationship between Human and Environment	T*-Ch.2; O*-Ch.1
	20 th Jan	- The Economic Approach to Natural Resource Management	HO*-Ch.1; F*-Ch.3-7; TD*-Ch. 1-4
2	25 th Jan	- Evaluating Trade-Offs: Benefit-Cost Analysis and Other Decision-Making Metrics	T*-Ch.3, 5; TD*-Ch.7
	27 th Jan	- Dynamic Efficiency and Sustainable Development	
3	1 st Feb	- Economic valuation of Natural Resources	T*-Ch. 4, 6; TD*-Ch.6
	3 rd Feb	- Depletable resources allocation	
4	8 th Feb	Energy Sector: Current Situation	Group Presentation

	10 th Feb	Energy Sector: Application of economic theories to the resource problems	T*-Ch.7; Additional readings
5	15 th Feb	Energy Sector: Specific theories for Energy Resources	T*-Ch.7; Additional readings
	17 th Feb	Energy Sector: Article Review Presentations	Group Presentation
6	22 st Feb	Thai University Game (Need 3-hour make-up class- Tentatively on Monday, Feb 20 th Recyclable Resources: Current Situation (Group Presentation) Recyclable Resources: Application of Economic Theories to the resource problems	
	24 th Feb		
7	1 st Mar	Recyclable Resources: Specific Theories for Recyclable Resources	T*-Ch.8 Additional readings
	3 nd Mar	Recyclable Resources: Article Review Presentations	Group Presentation
8	8 th Mar	Midterm Week Friday, March 10 th , 2017 (09.30 - 11.00 AM)	No class
	10 th Mar		No class
9	15 th Mar	Water Resource: Current Situation	Group Presentation
	17 th Mar	Water Resource: Application of economic theories to the problems	T*-Ch.9; HO*-Ch.3 Additional readings
10	22 st Mar	Water Resource: Specific Theories for Water Resources Water Allocation Board Game	T*-Ch.9; HO*-Ch.3 Additional readings
	24 rd Mar	Water Resource: Article Review Presentations	Group Presentation
11	29 th Mar	Land: Current Situation	Group Presentation
	31 st Mar	Land: Application of economic theories to the problems	T*-Ch.10; HO*-Ch.3 Additional readings

12	5 th Apr	Land: Specific Theories for Land Resource	T*-Ch.10; HO*-Ch.3 Additional readings
	7 th Apr	Land: Article Review Presentations	Group Presentation
13	12 th Apr	Songkran Festival Week	
	14 th Apr		
14	19 th Apr	Forest: Current Situation	Group Presentation
	21 th Apr	Forest: Application of economic theories to the problems	T*-Ch.12; HO*-Ch.10; F*-Ch.12 Additional readings
15	26 th Apr	Forest: Specific Theories for Forest Resources	T*-Ch.12; HO*-Ch.10; F*-Ch.12 Additional readings
	28 th Apr	Forest: Article Review Presentations	Group Presentation
16	3 rd May	Fishery Resources: Current Situation	Group Presentation
	5 th May	Coronation Day (Need 1.5 hour make-up class) Fishery Resources: Application of economic theories to the problems	T*-Ch.13 HO*-Ch.4,5,11 Additional readings
17	10 th May	Wisakha Bucha Day (Need 1.5 hour make-up class) Fishery Resources: Specific Theories for Fishery Resources	T*-Ch.13 HO*-Ch.4,5,11 Additional readings
	12 th May	Royal Ploughing Ceremony Day (Need 1.5 hour make-up class) Fishery Resources: Article Review Presentation	

Reading list

Main text

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

Recommended Readings

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

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]