

B.E. International Program

Faculty of Economics, Thammasat University

1. Course ID	EE 475
2. Number of Credits	3 Credits
3. Course Title	EE475 Natural Resources Economics ศ 475 เศรษฐศาสตร์ทรัพยากรธรรมชาติ
4. Faculty	Faculty of Economics
5. Semester	January 20th - May 13th 2016
6. Academic Year	2/2015
7. Instructor's Name	Chol Bunnag
Section/Group	Section 0700
Office	Room 456
Office Hours	Wednesday and Friday 11.00 - 12.00 hr.
Contact information	cholb@econ.tu.ac.th
8. Course Conditions	
8.1 Prerequisite	[Curriculum 2552] EE311 and should completed EE320 or EE325
9. Course Status	Cluster-specific Courses
10. Curriculum Name	Bachelor of Economics (International Program)
11. Degree	Undergraduate
12. Number of Teaching Hours/Week	3
13. 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.

14. 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)

15. Evaluation

Midterm Examination	30%	March 11th 2016 (09.30-11.00)
Final Examination	40%	May 27th 2016 (09.00-12.00)
Essay 1	5%	Submit on February, 12th, 2016
Essay 2	10%	Submit on May, 28th, 2016
Assignment 1	5%	First class of each resource sector
Assignment 2	5%	Last class of each resource sector
Class participation	5%	Throughout the course

15.1 Essay 1

- (1) Choose a natural resource problem, (2) analyze it by applying a theory or framework discussed in week 1-3 and (3) discuss limitation of the theory, policy recommendation or question(s) arise from the analysis.
- Write 1-2 pages of A4 (excluding bibliography). Write it in the form of magazine article.
- Font: Times New Roman, size 11; spacing 1.5
- Citation style: Chicago - Plagiarism will not be tolerated.

15.2 Essay 2

- (1) Choose a natural resource problem and write a brief overview; (2) analyze it by applying any theories or framework discussed in the course; (3) identify the cause(s) of the problem; (4) propose policy recommendations; (5) discuss limitations of the theories, and/or questions arise from the analysis.
- Write 4-5 pages of A4. (excluding bibliography). Write it in the form of magazine article.
- Font: Times New Roman, size 11; spacing 1.5
- Citation style: Chicago - Plagiarism will not be tolerated.

15.3 Assignment 1&2

- Students will be divided into 6 groups, each group for each type of resource.
- **Assignment 1**: Each member of a group writes 1-2 pages summary of current situations / problems of the resource in the context of Thailand. Content written by each member of the group must be different but connected to give overall picture of the resource current situation.
- This assignment is to be presented in the first class of each resource sector.
- **Assignment 2**: Each member of the group reads an academic article and summarizes the content in 1-2 pages. The academic article has to be informed to and approved by the lecturer 3 weeks before the last class of each resource sector.

15.4 Class participation

- Each student has to ask other groups 10 questions, throughout the course, in order to get this 5%. If a student asks questions less than 10 questions when the course finishes, He/she will get 0%.
- In one class, a student can ask and be marked maximum 3 questions. More than 3 questions are welcome but will not be marked.

16. Weekly Teaching Plan

Week	Course Content	Reading Reference
1	- Relationship between Human and Environment - The Economic Approach to Natural Resource Management	T*-Ch.2; O*-Ch.1 HO*-Ch.1; F*-Ch.3-7; TD*-Ch. 1-4
2	- Evaluating Trade-Offs: Benefit-Cost Analysis and Other Decision-Making Metrics - Dynamic Efficiency and Sustainable Development	T*-Ch.3, 5; TD*-Ch.7
3	- Economic valuation of Natural Resources - Depletable resources allocation	T*-Ch. 4, 6; TD*-Ch.6
4	Energy - Basic knowledge and recent problems related to Energy - Application of economic theories to the problems	
5	Energy - Specific Theories for Energy - Recent research on Energy issue	T*-Ch.7 Additional readings
6	Recyclable Resources - Basic knowledge and recent problems related to recyclable resources - Application of economic theories to the problems	
7	Recyclable Resources - Specific Theories for Recyclable Resources - Recent research on Recyclable Resources	T*-Ch.8 Additional readings
8	Midterm Examination	
9	Water Resource - Basic knowledge and recent problems related to water resource - Application of economic theories to the problems	
10	Water Resource - Specific Theories for Water Resource - Recent research on Water Resource	T*-Ch.9; HO*-Ch.3 Additional readings
11	Land - Basic knowledge and recent problems related to Land Resource - Application of economic theories to the problems	
12	Land - Specific Theories for Land Resource - Recent research on Land Resource	T*-Ch.10; HO*-Ch.3 Additional readings

Week	Course Content	Reading Reference
13 (After Songkran Holiday)	Forest - Basic knowledge and recent problems related to Forest Resources - Application of economic theories to the problems	
14	Forest - Specific Theories for Land Resource - Recent research on Land Resource	T*-Ch.12; HO*-Ch.10; F*-Ch.12 Additional readings
15	Fisheries and Other Commercially Valuable Species - Basic knowledge and recent problems related to Fisheries - Application of economic theories to the problems	
16	Fisheries and Other Commercially Valuable Species - Specific Theories for Fisheries - Recent research on Fisheries	T*-Ch.13 HO*-Ch.4,5,11 Additional readings
17	Final Examination - May 27th 2016	

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]