Environmental and Natural Resources Economics

WEO 46 - Human, Economic, Social and Juridical Sciences 2

USTH, 12-17 November 2012

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Pedagogical approach. The course adopts a constructivist stance, in which the students are the primary actors of their learning. In class, we alternate interactive academic teaching with overhead projections and whiteboard; hands-on paper or spreadsheet exercises; short videos presenting multiple point of views; and group discussions[1]. At home, we ask for[2] a simple exercise from one day to the next; a groupwork case study to be presented orally to the class: and a written report on the same case study.

Groups are 2-3 students, drawn at random, with stratification to garantee within-group diversity.

Grading is account for the oral presentation; the written report; and the individual attendance record including the quality of the presence.

Textbook: Steven C. Hackett. (2006) Environmental and Natural Resources Economics. Theory, policy and the sustainable society. 3rd edition. M.E. Sharpe publisher. ISBN 0-7656-1472-3 .

The course is in English[3].

Prerequisites:

English: CEFR B2, or TOEIC 400 - 485 (listening) 385 - 495 (reading), or TOEFL (IBT) 57 - 86

Calculus: familiar with derivative and integrals.

Creating a spreadsheet with formulas involving the basic arithmetic functions.

No background in economics.

Studies related to environmental or resources sciences such as water or energy.

1 A classroom experimental economics role playing game on: double auction market equilibrium was prepared but not performed for lack of time.

2 In addition to re-reading what has been seen in class. Provide copies of textbooks to the library ?

3 An English / Vietnamese / French dictionary of technical terms will be prepared for next year and distributed along with a copy of the textbook's glossary

I. Course schedule - 18 hours

Organization: There are five three hours lectures and the last half day is reserved to oral presentations. Lectures are divided in three sequences separated by a short break. Oral presenations are 15mn+10mn discussion for each group. Reports are due 2 weeks after that date.

Lecture 1. 9am – 12am. Monday 12 November 2012

Speaker	Contents	Duration
HDM	Introduction to Environmental and Natural Resources Economics: Economics, Rational choice, Production possibilities and Values	50 mn
NTHA	Case studies: Distribute, form groups, discuss	50 mn
HDM	Markets: The perfect market ideal, demand, supply, equilibrium and welfare analysis	50 mn
HDM	Exercises	10 mn

Corresponding chapters in the textbook: 1, 2 and first half of 3.

Lecture 2. 9am – 12am. Tuesday 13 November 2012

Speaker	Contents	Duration
HDM	Exercises correction Revise lecture 1. on rational choice, marginal analysis, utility	50 mins
HDM	Market failure : Externalities, collectively produced and consumed goods,	50 mins
HDM	Market failure (continued): Welfare analysis of the Pigouvian tax. Other instruments Videos on cap-and-trade for SOx and climate change	60 mins

Corresponding chapters in the textbook: Second half of 3, and 4.

No time for the

Lecture 3. 9am – 12am. Wednesday 14 November 2012

Speaker	Contents	Duration
NTHA	Exercise correction	10 mins
NTHA	Cost benefit analysis, total economic value	40 mins
NTHA	Maximizing net present value, discounting	50 mins
NTHA	Environmental valuation, pollution, measuring benefits and costs	30 mins
NTHA	In class groupwork: mini-case study	30 mins

Corresponding chapter in the textbook: 7

Lecture 4. 9am – 12am. Thursday 15 November 2012

Speaker	Contents	Duration
HDM	Review: Coase theorem, measuring benefits of reducing pollution, valuing environmental resources Exercises: Kuznet's curve, Malthus effect, abstention vs. optimization vs. precaution	50 mins
HDM	Choices in time: Time preference, discounting, economics of preservation, dynamic efficiency Choices in time: hands-on exercices with spreadsheet	50 mins
HDM	Exhaustible resource management: hands-on spreadsheet approach to Hotelling's rule	60 mins

Corresponding chapter in the textbook: 5[4]

Lecture 5. 9am – 12am. Friday 16 November 2012

Speaker	Contents	Duration
HDM	Renewable resource bioeconomics: sustainable equilibria, collapse, maximum sustainable yied, effort Videos: Are global fisheries depleted ?	50 mins
NTHA	Sustainable development: pilars, principles, components, indicators	50 mins
NTHA	International dimensions, Human Development Index, Gross Happiness Product Video-supported discussion: Millenium Development Goals	60 mins

Corresponding chapters in the textbook: 6, 12-14.

Lecture 6. 9am – 12am. Friday 16 November 2012

Case studies presentations

	Contents	Duration
	Economics of conserving the Cat Tien national park	30 mins
	Dam management (Total costs of failure :Song Tranh 2 hydro-power dam)	30 mins
	Mekong River Commission & international cooperations on Mekong river	30 mins
	Short-break	10 mins
	Climate change (Impacts of climate change on Red River's basin)	30 mins
	Coastal zone management in Central Vietnam (extreme events)	30 mins
	Final discussion and course evaluation	20 mins

4 Should swap with lecture 3 next year.