

Environmental and Natural Resources Economics

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

USTH, 23-28 December 2013

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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. At home, we ask for 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 guarantee 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.

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.

I. Course schedule - 18 hours

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

Lecture 1. 9am – 12am. Monday 23 December 2013

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 24 December 2013

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 SO _x and climate change	60 mins

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

Lecture 3. 9am – 12am. Wednesday 25 December 2013

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 exercises with spreadsheet	50 mins
HDM	Exhaustible resource management: hands-on spreadsheet approach to Hotelling's rule, integrated assessment	60 mins

Corresponding chapter in the textbook: 5

Lecture 4. 9am – 12am. Thursday 26 December 2013

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 5. 9am – 12am. Friday 27 December 2013

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

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

Lecture 6. 9am – 1pm. Saturday 28 December 2013

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
	International cooperations on Mekong river for hydro power development	30 mins
	Climate change (Impacts of climate change on Red River's basin)	30 mins
	Short-break	10 mins
	Coastal zone management in Central Vietnam (flood)	30 mins
	Halong Bay: tourism development and natural conservation	30 mins
	Air pollution in Hanoi	30 mins
	Final discussion and course evaluation	20 mins

Note: Topics and time schedules of the case studies are subject to change (to be confirmed by mid-December 2013)