

# Introduction to Environmental Economics

## Autumn Term, 2008/09

### Course Outline

The course is convened by Dr. David Ockwell of the Sussex Energy Group in SPRU. His office is in The Freeman Centre, North Wing, 1<sup>st</sup> Floor (tel. 3541, email [d.g.ockwell@sussex.ac.uk](mailto:d.g.ockwell@sussex.ac.uk)). He will give most of the lectures, but where relevant lectures will be given by colleagues from the Sussex Energy Group currently working at the cutting edge of the issues covered in the lectures. Seminars will be run by David Ockwell and Florian Kern, a doctoral researcher also based in the Sussex Energy Group at SPRU.

The provisional lecture and seminar timetable is set out on the next page of this outline. Note that these will sometimes be subject to change so please check your email regularly.

There will normally be two one hour lectures and a one hour seminar each week. Times and venues are as follows:

<i>Lectures:</i>	Tuesdays 10.00	PEV 1B8
	Wednesdays 13.00	PEV1-0A2
<i>Seminars:</i>	Group1: Mondays 10.00	ARUN-204 (with Florian Kern) or
	Group 2: Wednesdays 15.00	ARUN-204 (with David Ockwell)

Copies of lectures, seminar notes, essay reading lists and useful links will be posted on Study Direct.

### Objectives and Contents

The objective of the course is to encourage students to develop an objective and critical engagement with environment-economy inter-linkages in theory and policy practice. It will make students aware of some of the most important contemporary issues in environmental economics, especially the micro economic issues in environmental damage and valuation. The course will also cover the rationale for and nature of various types of public policy responses, especially those based on economic ideas.

The lectures will normally present theory and analytical material. The objective of the seminars is to reinforce and expand on this through direct student participation. Each seminar will usually involve a presentation on a major theme by two or three students followed by a structured discussion. All students will be expected to do one piece of core reading prior to each seminar. Students presenting seminars will be provided with specialist reading material to help them.

## Assessment

There are three elements to the course assessment:

- The first is the seminar presentation. This will be marked for clarity and content. This accounts for 10% of the overall assessment. It will be done as a group project representing a collaboration between the two or three students involved. Presentations should last no more than 10 minutes.
- The second is a mark for a short essay to follow up seminar presentations. It will account for 20% of the overall assessment. Note that this is an essay and NOT a summary of the seminar and should be done individually by each student NOT as a group project. The essay should directly answer the questions that were set for the seminar presentation. It should be around 1,000 words in length, and should be handed to the seminar group leader the week after a student's seminar presentation. The essay will be marked and commented upon. The purpose of the essay is to ensure that the students understand the material they have presented, and to give some practice in essay writing in preparation for the third assessment item.
- The third part of the assessment accounts for 70% of the course mark. This consists of a longer essay of approximately 2,500 words. This should be handed in to the **School Office, JMS 3B10**. You should hand in **one** copy of your coursework, unless told otherwise by your Course Organiser. You must make sure that your work is stapled or securely fastened to the back of your completed Submission Coversheet, for 1<sup>st</sup> and 2<sup>nd</sup> years this is the **white coversheet**. Please complete this coversheet carefully, before you hand your work in.

You must sign in any Assessed Coursework on the Submission Sign In Sheet. It is important that you sign in the correct slot, and date and time your submission.

Guidelines for assessment criteria can be found at the following web address;

<http://www.sussex.ac.uk/biology/1-3-8.html>

### Late Submissions:

Deadlines for assessed coursework are absolute and no extensions are given. Coursework submitted **up to 24 hours late** will receive a penalty of **10% reduction of the marks available**. Submission up to 24 hours late should be handed in at the School Office, JMS 3B10.

Work submitted **after 24 hours will receive zero marks** – and should be submitted to your Departmental Office JMS 4B14.

If you are experiencing difficulty in getting your work in on time, you should talk to the Student Advisor. To see a Student Advisor, please make an appointment with the Student Support Coordinator (JMS 3B10). A Mitigating Evidence Form (available from the Student Support Coordinator) must be completed and returned, along with any medical evidence, to the Student Support Coordinator. Your work should be handed in to the Departmental Office (JMS 4B14) as soon as is possible. If the reason for your late submission is valid, the reduction in your mark may be altered or waived.

### Do you have a problem?

If a problem arises relating to this course, in the first instance you should talk to the Course Organiser, as many problems are easily resolved.

If you and the Course Organiser feel that the problem cannot be easily resolved, only then should you take it to your student rep and/or the Head of Department.

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**Lecture and Seminar Programme (updated Sept 07)**

Week	Lectures	Seminar (Mon)
1	Tue : Introduction Wed : <u>NO LECTURE</u>	<u>NO SEMINAR</u>
2	Tue : Economics and the environment Wed : Demand curves	How to pass this course
3	Tue : Supply curves Wed : Market equilibrium	Economics and the environment
4	Tue : Externalities Wed : Damage and control costs and optimal pollution levels	Microeconomics & the environment
5	Tue : Valuing the environment Wed : Property rights & polluter pays	Externalities
6	Tue : Environmental Kuznets curve Wed : Economic instruments vs. direct regulation	Valuing the environment
7	Tue : Environmental taxes Wed : Emissions trading	Property rights & the tragedy of the commons
8	Tue : Kyoto and flexible mechanisms Wed : Cost benefit analysis	Economic instruments vs. direct regulation
9	Tue : Project appraisal (AS) Wed : The economics of nuclear power (GM)	Kyoto Protocol's flexible mechanisms
10	Tue : Sustainability: economy/nvironment trade offs (TW) Wed : Development issues: China case study (TW)	Cost-benefit analysis

AS - lecture given by Prof. Andy Stirling  
GM - lecture given by Prof. Gordon MacKerron  
TW - lecture given by Dr Tao Wang

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### General Reading List

The easiest way to find texts in the library is by using their TalisList resource. Go to this link <http://ustalis.library.sussex.ac.uk:8080/talislist/index.jsp> and search for "introduction to environmental economics". This will bring up the full reading list and tell you where the texts are located in the library.

#### Core Text

The course will draw on a number of texts, but good introductory texts include:

K. Turner, D. Pearce, I. Bateman (1994) *Environmental Economics: An Elementary Introduction* Johns Hopkins University Press, Baltimore (MD)

Jacobs, M. (1991) *The Green Economy*, Pluto

These are available from the library and can also be bought online at relatively little cost. Where readings are required for the seminars these will be given to you in the lectures.

#### Other reading

The other books and articles listed below provide additional sources for reading around the subjects covered by the course. Although some were written over ten years ago, they are still relevant and accessible guides to some of the material we will cover. Where these and other specific readings are relevant to lectures, seminars and course work these will be highlighted accordingly during the course.

#### General texts

Nick Hanley, Jason F. Shogren and Ben White (2001) *Introduction to Environmental Economics*, Oxford University Press, Oxford

Tom Tietenberg (2002) *Environmental and Natural Resource Economics* Seventh Edition, Pearson, Boston

David Pearce *et al* (1995) *Blueprint for a Green Economy* Earthscan, London. The Sussex University bookshop usually has copies - if not, they can order it.

Michael Common and Sigrid Stagl (2005) *Ecological Economics: An Introduction* Cambridge University Press, Cambridge

#### Property rights

Hardin, G. (1968) The tragedy of the commons. *Science* 162:1243-1248

Lovett, J. C., C. H. Quinn, D. G. Ockwell, and R. Gregorowski. (2006) Two cultures and tragedy of the commons. *African Journal of Ecology* 44:1-5

#### Cost-benefit analysis

Adams, J. (1993) The Emperor's Old Clothes: The Curious Comeback of Cost-benefit Analysis. *Environmental Values* 2:247-260

#### Sustainability debates

World Commission on Environment and Development (1987) *Our Common Future (The Brundtland Report)* Oxford University Press, Oxford

Boulding, K. R. (1966) *The Economics of the Coming Spaceship Earth*. Johns Hopkins University Press, Baltimore, Md.

Bjorn Lomborg (2001) *The Skeptical Environmentalist* Cambridge University Press, Cambridge

Paul Hawken, Amory Lovins and L. Hunter Lovins (2000) *Natural Capitalism: Creating the Next Industrial Revolution* Earthscan, London

Neumayer, R. (2004) *Weak Versus Strong Sustainability: Exploring The Limits Of Two Opposing Paradigms*. Edward Elgar, Cheltenham.

D Pearce (1991) *Blueprint 2* Earthscan, London; especially Chaps 1,2,6-10.

P Ekins (1999) *Economic growth and environmental sustainability: the prospects for green growth* Routledge, London

### ***Kyoto protocol***

Michael Grubb (2000) *The Kyoto Protocol: A Guide and Assessment* Royal Institute of International Affairs, London

Royal Commission on Environmental Pollution (2000) *Energy - The Changing Climate* [<http://www.rcep.org.uk/newenergy.htm>]

S Sorrell and J Skea (eds.) (1999) *Pollution for Sale* Edward Elgar, Cheltenham

Department for the Environment, Food and Rural Affairs (2006) *Climate Change: The UK Programme 2006* [<http://www.defra.gov.uk/environment/climatechange/uk/ukccp/pdf/ukccp06-all.pdf>]