

City University of Hong Kong

**Information on a Course
offered by School of Energy and Environment
with effect from Semester B in 2011/2012**

Part I

Course Title: Energy and Environmental Economics

Course Code: SEE8123

Course Duration: 1 semester

Credit Units: 3

Level: R8

Medium of Instruction: English

Prerequisites: Nil

Precursors: Nil

Equivalent Courses: SEE5101 Energy and Environmental Economics

Exclusive Courses: EF5003 Energy and Environmental Economics

Part II

Course Aims

This course aims to introduce students a set of basic economic concepts that economists use to understand energy and environmental issues, and use the concepts to analyze energy and environmental problems, and to model their solutions.

Course Intended Learning Outcomes (CILOs)

Upon successful completion of this course, students should be able to:

No.	CILO	Weighting (if applicable)
1.	Identify, describe, and clarify economic concepts that are relevant to energy and environment problems	45%
2.	Apply the economic concepts to energy and environmental problems, and model their solutions	55%

Teaching and Learning Activities (TLAs)

(Indicative of likely activities and tasks designed to facilitate students' achievement of the CILOs. Final details will be provided to students in their first week of attendance in this course)

CILO No.	TLAs	Hours/week (if applicable)
CILO 1 and 2	Seminars <ul style="list-style-type: none">• Introduce and clarify basic economic concepts• Explain current and major energy and environmental problems• Use economic concepts to model environmental damages, and their remedies	3 hours/week or a total of 39 hours of block teaching

Assessment Tasks/Activities

(Indicative of likely activities and tasks designed to assess how well the students achieve the CILOs. Final details will be provided to students in their first week of attendance in this course)

CILO No.	Type of Assessment Tasks/Activities	Weighting (if applicable)	Remarks
CILO 1	Mid-term test (consists of short and multiple-choice questions)	25%	One hour, in the middle of the semester
CILO 2	Project (on a real-world energy and environmental issue)	25%	
CILO 1 and 2	Final examination (consists of short and multiple-choice questions, and essay questions based on real-world cases)	50% (short and multiple-choice questions count 20%, and essay questions count 30%)	Two hours, at end of the semester

Coursework: 50%

Exam: 50%

Examination duration: 2 hours

To pass a course, a student must do ALL of the following:

- 1) obtain at least 30% of the total marks allocated towards coursework (combination of assignments, pop quizzes, term paper, lab reports and/ or quiz, if applicable);
- 2) obtain at least 30% of the total marks allocated towards final examination (if applicable); and,
- 3) meet the criteria listed in the section on Grading of Student Achievement.

Grading of Student Achievement:

Letter Grade	Grade Points	Grade Definitions	Remarks
A+	4.3	Excellent	Strong evidence of analyzing economic concepts and applying the concepts to energy and environmental issues
A	4.0		
A-	3.7		
B+	3.3	Good	Evidence of analyzing economic concepts and applying the concepts to energy and environmental issues
B	3.0		
B-	2.7		
C+	2.3	Adequate	Some evidence of analyzing economic concepts and applying the concepts to energy and environmental issues
C	2.0		
C-	1.7		
D	1.0	Marginal	Sufficient familiarity with the subject
F	0.0	Failure	Little evidence of familiarity with the subject

Part III

Keyword Syllabus

Topic 1: Environment, economy, and their linkage: Materials balance model, resource and environmental issues, viz. energy production and consumption, pollution of air, water, land, etc.

Topic 2: Resources: Scarcity, choice, and opportunity cost

Topic 3: Market: Basic supply and demand model

Topic 4: Basic theories of consumer, producer, and cost

Topic 5: Perfectly competitive market, welfare, and efficiency

Topic 6: Market failure: Monopoly power, public goods, and externalities (energy and environmental problems)

Topic 7: Cost-benefit analysis

Recommended Reading

Books:

The Economic Approach to Environmental and Natural Resources, Third Edition, by KAHN, J.R., published by Thomson South-Western, 2005.

Energy Economics: A Modern Introduction, by F.E. BANKS, published by Kluwer Academic Publishers, 2000 (Second printing 2003).

Environmental Economics: Applications, Policy, and Theory, Fifth Edition, by THOMAS, J.M. and CALLAN, S.J., published by Thomson South-Western, 2009.

Economics, Second Edition, by KRUGMAN, P and WELLS, R, published by Worth Publishers, 2010.

The Copenhagen Diagnosis, 2009: Updating the World on the Latest Climate Science, The University of New South Wales Climate Change Research Centre (CCRC), Sydney, Australia, 2009.