City University of Hong Kong
Course Syllabus

offered by School of Energy and Environment
with effect from Semester A 2015/16

Part I Course Overview

Course Title:	**Energy and Environmental Economics**
Course Code:	**SEE5101**
Course Duration:	**1 semester**
Credit Units:	**3**
Level:	**P5**
Medium of Instruction:	**English**
Medium of Assessment:	**English**
Prerequisites: *(Course Code and Title)*	**Nil**
Precursors: *(Course Code and Title)*	**Nil**
Equivalent Courses: *(Course Code and Title)*	**SEE8123 Energy and Environmental Economics**
Exclusive Courses: *(Course Code and Title)*	**Nil**

Part II Course Details

1. Abstract

This course aims to introduce students a set of 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. They will understand the economic principles and practices behind the use of market instruments to conserve energy resources and to control environmental impacts. They will be able to innovate solutions to environmental problems by applying these principles.

2. Course Intended Learning Outcomes (CILOs)

(CILOs state what the student is expected to be able to do at the end of the course according to a given standard of performance.)

No.	CILOs	Weighting (if applicable)	Discovery-enriched curriculum related learning outcomes (please tick where appropriate)		
			A1	*A2*	*A3*
1.	Identify, describe, and clarify economic concepts that are relevant to energy and environment problems	40%	✓		
2.	Apply the economic concepts to energy and environmental problems, and model their solutions	40%	✓		
3.	Design and critically evaluate from an economic perspective public policies associated with energy and the environment	10%		✓	
4.	Understand and be able to join intelligently in debates as an aid in the discovery of innovative applications of economics to energy and the environment	10%			✓
		100%			

A1: *Attitude*
Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

A2: *Ability*
Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to self-life problems.

A3: *Accomplishments*
Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

3. Teaching and Learning Activities (TLAs)

(TLAs designed to facilitate students' achievement of the CILOs.)

TLA	Brief Description	CILO No.				Hours/week (if applicable)
		1	2	3	4	
Classroom lectures	Explaining the basics of energy and environmental economics as well as some recent developments	✓	✓	✓	✓	3h/week
Homework	Application of the knowledge obtained during the lectures and material to generate in-class discussion	✓	✓	✓		1h/week
In-class student debates	Debates of controversial topics	✓	✓	✓	✓	0.5h/week

4. Assessment Tasks/Activities (ATs)

(ATs are designed to assess how well the students achieve the CILOs.)

Assessment Tasks/Activities	CILO No.				Weighting	Remarks
	1	2	3	4		
Continuous Assessment: 50 %						
Homework	✓	✓	✓		25%	
Mid-term	✓	✓	✓		25%	
Examination: 50 % (duration: 2h, if applicable)						
					100%	

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.

5. Assessment Rubrics

(Grading of student achievements is based on student performance in assessment tasks/activities with the following rubrics.)

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Adequate (C+, C, C-)	Marginal (D)	Failure (F)
Homework	Ability to analyse and solve problems related to energy and environmental economics.	High	Significant	Moderate	Basic	Not even reaching marginal levels
Mid-term	Ability to analyse and solve problems related to energy and environmental economics.	High	Significant	Moderate	Basic	Not even reaching marginal levels
Examination	Ability to analyse and solve problems related to energy and environmental economics.	High	Significant	Moderate	Basic	Not even reaching marginal levels

Part III Other Information (more details can be provided separately in the teaching plan)

1. Keyword Syllabus

(An indication of the key topics of the course.)

Topic 1: Economics and the environment (including basic economics)
Topic 2: Instruments for environmental policy
Topic 3: Renewable resources
Topic 4: Public goods
Topic 5: Decision theory for environmental issues
Topic 6: Energy economics

2. Reading List

2.1 Compulsory Readings

(Compulsory readings can include books, book chapters, or journal/magazine articles. There are also collections of e-books, e-journals available from the CityU Library.)

1.	Pindyck R. and Rubinfeld D. : *Microeconomics*, Pearson Education, 8th edition 2013
2.	Perman R., Ma Y. and McGuilvray J. : *Natural Resources and Environmental Economics*, Pearson Education 3rd ed., 2003
3.	Rosen, Harvey S. *Public Finance*, New York, NY : McGraw Hill 2005
4.	Tietenberg T. and Lewis L. : *Environmental Economics and Policy*, Pearson Education, 6th ed., 2010

2.2 Additional Readings

(Additional references for students to learn to expand their knowledge about the subject.)

1.	Thomas, J.M. and Callan, S.J *Environmental Economics: Applications, Policy, and Theory*,.Thomson South-Western 5th Edition, 2009.