

City University of Hong Kong

Information on a Gateway Education Course offered by the Department of Management Sciences with effect from Semester A, 2012/ 2013

Part I

Course Title: Understanding Energy-Environmental Policies

Course Code: GE2236

Course Duration: One Semester

Proposed Area: (Please insert "1" for the single **primary area**, and "2" for the **secondary area** if applicable. Students will only earn credit units from the primary area.)

- Arts and Humanities
- 1 Study of Societies, Social and Business Organisations
- Science and Technology

No. of Credit Units: 3 _____

Level: B2 _____

Medium of Instruction: English _____

Medium of Assessment: _____ Coursework and quiz _____

Prerequisites: (Course Code and Title) _____ NIL _____

Precursors: (Course Code and Title) _____ NIL _____

Equivalent Courses: (Course Code and Title) *generally none* _____

Exclusive Courses: (Course Code and Title) _____ NIL _____

Part II

1. Abstract

This course helps students to understand how energy-environmental policies are affecting the way people use energy and our lifestyle. In particular, through understanding Hong Kong energy-environmental policies, this course arouses students' awareness and interest in energy policies and the related environmental problems, develops students' understanding of the relationship between energy policies and environmental problems, develops students' ability in analyzing management problems related to energy policies, and develops students' sense of energy conservation and low carbon lifestyle. Learning activities include lectures, class debates, seminars, field visits, weekly journals, and team project with presentations. Overall, this course helps students understand the energy-environmental policies and the balance of energy consumption and environmental protection. Students will learn to see the connection among different policies with their lifestyle and life in Hong Kong. This course intersperses lectures, class debates, field visits, and sustainability team projects to provide an exploration to the sustainability of industry, construction, service, energy, transportation, and residential sectors of the dynamic Hong Kong society.

2. Course Aims

This course aims to

- a) Provide a comprehensive understanding of how energy-environmental policies are affecting the way people use energy and are influencing our lifestyle.
- b) Expose students to the key trends and issues in energy policies and the related environmental problems.
- c) Provide students with the requisite knowledge and skills to understand the relationship between energy policies and environmental problems, to critically analyze management problems related to energy policies, and to evaluate policies related to energy conservation and low carbon lifestyles.

3. Course Intended Learning Outcomes (CILOs)

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

No.	CILOs	Weighting (if applicable)
1.	Discuss current and major energy consumption and the related environmental issues	20%
2.	Explain how energy policy is related to our lifestyle and the environment	20%
3.	Describe the influences of energy-environmental policy issues on technology management, society, and government	20%
4.	Effectively analyse energy-environmental policy issues and problems from technological and political perspectives	20%
5.	Critically evaluate and suggest practical recommendations to solve energy-environmental policy problems and issues	10%
6.	Reflect on and demonstrate one's own responsibilities towards energy conservation and contributions to a low carbon lifestyle	10%

4. Teaching and Learning Activities (TLAs)

(designed to facilitate students' achievement of the CILOs - Some TLAs may address more than one CILO.)

Please be sure to consider how the TLAs align with the desired characteristics of GE courses (c.f. explanatory note 10).

TLAs	CILO No.	Functions
<p>Seminars (3 hours per week)</p> <p>Suggested arrangements/interactions:</p> <p>Part 1: 50 minutes</p> <ul style="list-style-type: none"> • Students learn fundamental concepts from the instructor, from videos and from guest speakers from NGOs, local government, and power companies. <p>Part 2: 25 minutes</p> <ul style="list-style-type: none"> • Students are divided into groups • Each group is assigned a reading • Readings are likely to be different for each group • Students analyse and discuss the topics and issues that arise from the readings <p>Part 3: 25 minutes</p> <ul style="list-style-type: none"> • A representative from each group summarizes and presents the group's ideas • Following this,, each group is required to submit one question for further discussion 	<p>1 – 5</p>	<ul style="list-style-type: none"> • Outline major energy-environmental policy and the related problems • Introduce basic energy-environmental policy and management concepts • Understand the relations between energy technology, policy, and environment • Understand who is affected by energy-environmental policies and how each is affected • Use the multi-dimensional approach to analyse energy-environmental policy related problems • Introduce the influences of energy-environmental policy issues on technology management, society, and government • Discuss a wide range of energy-environmental policy issues • Present policy instruments that have been adopted to solve energy-environmental problems. • Present students' findings and recommendations relating to

<p>Part 4: 25 minutes</p> <ul style="list-style-type: none"> • Each group takes the question raised by another group for further discussion • Each group is required to write a short paragraph based on the question (about 50 to 100 words), providing explanations or solutions for any problems raised. • A short paragraph should be submitted at the end of this part. <p>Part 5: 25 minutes</p> <ul style="list-style-type: none"> • The instructor gives comments on students' presentations and draws conclusions about the topic(s). • An extra session may be arranged for group project presentations. 		<p>energy-environmental policy issues and management problems.</p>
<p>Group project</p> <p>Suggested arrangements</p> <ul style="list-style-type: none"> • 4 to 5 students form a group • Each group identifies an energy policy problem (maybe as a result of a field trip) • Students need to explain and analyse the problem • Students need to suggest practical solutions to the problem • Students need to submit an essay as a summary of their findings and recommendations. 	<p>1 – 5</p>	<ul style="list-style-type: none"> • Develop students' ability to identify an energy-environmental policy problem • Enhance students' analytical skills • Enhance students' problem solving skills • Develop students' teamwork and communications skills • Provide students with an opportunity to practise their written English

<p>Presentation</p> <p>Suggested arrangements</p> <ul style="list-style-type: none"> • Students present their group project in the last (extra) seminar • Each group needs to respond to questions raised by the audience • Students can discuss their chosen topic with the instructor • The instructor gives verbal feedback to students after their presentations 	<p>1 – 5</p>	<ul style="list-style-type: none"> • Provide students with an opportunity to practise their oral English • Provide students with an opportunity to enhance their presentation skills
<p>Weekly journal</p> <p>Suggested arrangements</p> <ul style="list-style-type: none"> • Students are required to keep a weekly journal of what they have done to support energy conservation and to protect the environment • Students make connections between theory and practice, policy and lifestyle, energy policy and the environment, and reflect on their role as responsible environmentally-friendly citizens (I wanted to bring the idea of ‘reflection’ into this side of your table) • Students may need to submit their first six journals in Week 6 for informal assessment and feedback 	<p>6</p>	<ul style="list-style-type: none"> • Provide students with an opportunity to reflect upon their energy conservation and low carbon lifestyle • Encourage students to put what they learn into practice

5. Assessment Tasks/Activities

(designed to assess how well the students achieve the CILOs –Some assessment tasks/activities may address more than one CILo.)

Type of Assessment Tasks/Activities	CILo No.	Weighting (if applicable)
Group project	1 – 5	30%
Presentation	1 – 5	10%
Participation in seminars (including the questions and short paragraphs submitted during the seminars)	1 – 5	10%
Short quizzes (These mainly focus on energy-environmental policy issues)	1 – 2	20%
Weekly journal	6	30%

In week 3 students are required to submit their project proposal so as to receive formative feedback.

In the Group Project, grades will be awarded for the presentation as well as the response to questions raised by the instructor(s) or other students. Each group member will be asked to rate the participation for all other group members. Peer evaluation will be conducted when necessary.

Students need to submit 4 one-page reports on the reading assignments. These assignments will receive marks and comments, and will be returned to students within 2 weeks after their submission. (30%)

Each student needs to submit their first weekly journal in Week 2 in order to receive formative feedback and to ensure the quality of the rest of their weekly journals.

6. Grading of Student Achievement: Refer to Grading of Courses in the Academic Regulations.

Letter Grade	Grade Points	Grade Definitions	
A+	4.3	Excellent	<ol style="list-style-type: none"> 1. Strong evidence of original thinking in applying the multi-dimensional analysis and proposing practical recommendations to energy-environmental policy problems 2. Superior abilities in identifying major energy-environmental policy issues, understanding the relations between energy and environmental policy and appreciating the multi-disciplinary nature of energy-environmental policy issues 3. Extensive knowledge in current energy-environmental policy issues 4. Practical and innovative recommendations to energy-environmental problems mentioned in the journals 5. Delivering a succinct, convincing and fluent presentation on the original analysis and practical recommendations to an energy-environmental problem
A	4.0		
A-	3.7		
B+	3.3	Good	<ol style="list-style-type: none"> 1. Some evidence of critical capacity and analytic ability in applying the multi-dimensional analysis and proposing practical recommendations to energy-environmental policy problems 2. Evidence of abilities in identifying major energy-environmental policy issues, understanding the relations between energy and environmental policy and appreciating the multi-disciplinary nature of energy-environmental policy issues 3. Evidence of familiarity in current energy-environmental policy issues 4. Practical recommendations to energy-environmental policy problems mentioned in the journals 5. Delivering a fluent presentation on the critical analysis and practical recommendations to an energy-environmental policy problem
B	3.0		
B-	2.7		

C+	2.3	Adequate	<ol style="list-style-type: none"> 1. Ability of applying basic analysis and developing recommendations to simple energy-environmental policy problems 2. Basic understanding in major energy-environmental policy issues 3. Limited recommendations to energy-environmental problems mentioned in the journals 4. Delivering a presentation on the basic analysis and recommendations to a simple energy-environmental policy problem
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:

Introduction: Existing situation of energy demand and supply in Hong Kong

Demand side management: Energy efficiency policy; Energy consumption performance index; Building Energy code; Mandatory Energy Efficiency Labelling Scheme; etc.

Energy supply management: Fuel-mix energy policy; Security of supply; Policies for promoting renewable energy; Trade-off of using nuclear energy; Deregulation of power market; etc.

Energy-related environmental issues: Environmental policy; Air pollutions; Global climate change; Low-carbon lifestyle; Instruments; Energy-environmental policy model: Kyoto Protocol; Copenhagen Conference; etc.

More descriptions and the tentative weekly schedule can be found in TLAs section.

Recommended Reading:

Text(s):

Tortora, M. (2012). Sustainable Systems and Energy Management at the Regional Level: Comparative Approaches (pp. 1-468). doi:10.4018/978-1-61350-344-7

Glover P.C., Economides M.J. (2011). Energy and Climate Wars: how naïve politicians, green ideologues, and media elites are undermining the truth about energy and climate. The Continuum International Publishing Group, London.

Rutherford J.P., Scharpf E.W., Carrington C.G. (2007). Linking consumer energy efficiency with security of supply. *Energy Policy* 35: 3025–3035.

Andrews-Speed P. (2003). Energy Policy and regulation in the People's Republic of China. Kluwer Law International, The Netherlands.

Helm D. (2002). Energy Policy: security of supply, sustainability and competition. *Energy Policy* 30:173-184.

Banks F.E. (2000). Energy Economics: A Modern Introduction. Kluwer Academic Publishers, The Netherlands.

Cassedy E.S, Grossman P.Z. (1998). Introduction to energy: resources, technology, and society. Cambridge University Press, Cambridge, U.K.

Lam P-L. (1997). Competition in Energy. City University of Hong Kong Press, Hong Kong.

Resource Planning and Consultation:

(Please indicate the requirements and planning for special resources to support the course offering, and consult expertise in other related disciplines if the proposal covers content beyond your own discipline.)

No special requirement is needed. Should there be any additional materials concerning government policies required other discipline advices, business and law colleagues, Environment Bureau, Electrical and Mechanical Services Department, Transport Department will be consulted.