

**City University of Hong Kong
Course Syllabus**

**offered by School of Energy and Environment
with effect from Semester A 2019/20**

Part I Course Overview

Course Title: Environmental and Energy Policy

Course Code: SEE8219

Course Duration: One Semester

Credit Units: 3

Level: R8

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) Nil

Exclusive Courses:
(Course Code and Title) Nil

Part II Course Details

1. Abstract

Theoretical frameworks and empirical studies are introduced to understand policy instruments for environmental protection and energy security with their impacts on promoting innovations. The effects of environmental policy on industrial competitiveness are explored with implications for the current discussions on how to achieve green growth. The role of innovation under the constraints of finite amounts of natural resources and limited capacities of environmental assimilation is critically examined. The principles of energy and environmental policies are discussed, drawing on historical developments as well as contemporary cases. Policy instruments including command-and-control, tax, subsidy and emission trading, are evaluated through empirical examination of past experiences in different countries and industrial sectors. Systemic approaches to designing and implementing policies for energy and environmental innovation are explored in the context of the accelerating rate of technological change and globalization of economic activities.

2. Course Intended Learning Outcomes (CILOs)

No.	CILOs	Weighting	Discovery-enriched curriculum related learning outcomes (please tick where appropriate)		
			A1	A2	A3
1.	Identify, describe and elaborate the overall structure of issues and problems related to energy and the environment in technological, economic and social contexts	20%	✓	✓	
2.	Apply the concepts, methodologies and practical tools of public policy to various issues and problems of energy and the environment	20%	✓	✓	
3.	Design, construct and critically evaluate policy options and alternatives for tackling energy and environmental issues and problems	20%		✓	✓
4.	Articulate the drivers and challenges that influence the process of policy making, include agenda setting, policy formulation, implementation and feedback	20%		✓	✓
5.	Demonstrate critical reasoning and constructive dialogues in interpersonal communication, oral presentations and short essays	20%	✓	✓	✓
		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)

TLA	Brief Description	CILO No.					Hours/week (if applicable)
		1	2	3	4	5	
Interactive lectures	Explaining key concepts, methodologies and practical tools of public policy concerning energy and environmental issues	✓	✓	✓	✓	✓	2h/week
In-class exercises	Applying and communicating the knowledge to tackle various problems and challenges concerning energy and the environment	✓	✓	✓	✓	✓	1h/week
Assignment	Consolidating the knowledge obtained through the lectures, discussions and learning materials	✓	✓	✓	✓	✓	
Group project	Identifying an issue related to energy and the environment and working to propose policies to address the challenges involved	✓	✓	✓	✓	✓	

4. Assessment Tasks/Activities (ATs)

Assessment Tasks/Activities	CILO No.					Weighting	Remarks
	1	2	3	4	5		
Continuous Assessment: <u>50%</u>							
Assignment	✓	✓	✓	✓	✓	20%	
Individual presentation and report	✓	✓	✓	✓	✓	30%	
Examination: <u>50%</u> (duration: 2 hours, 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

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Adequate (C+, C, C-)	Marginal (D)	Failure (F)
1. Assignment	Ability to understand the concepts, methodologies, and tools of public policy	High	Significant	Moderate	Basic	Not even reaching marginal levels
2. Group project	Ability to identify an issue concerning energy and the environment, analyse the structure of the problem and propose a solution to it	High	Significant	Moderate	Basic	Not even reaching marginal levels
3. Examination	Ability to apply the knowledge obtained through interactive lectures, reading materials and group discussions to energy and environmental issues	High	Significant	Moderate	Basic	Not even reaching marginal levels

Part III Other Information

1. Keyword Syllabus

- Rationales for public policy
- Instruments of energy and environmental policy including emission trading and carbon tax
- Processes of policy making
- Policy evaluation and assessment
- Double externalities of energy and environmental innovation
- Energy and environmental innovation systems
- Case studies of energy and environmental policies
- International climate policies including Kyoto Protocol, Clean Development Mechanism, Paris Convention

Special topics for tutorial sessions:

- Frontier on energy and environmental policy analysis
 - Advanced methods on environmental and energy policy analysis
 - Modelling energy and the economy
- Environmental Measurement and Assessment
 - Environmental impact assessment
 - Indicators of sustainability and sustainable development
 - Case studies concerning water, air and land pollution
- Global environmental management and sustainable governance
 - International agreements concerning the environment
 - Case studies concerning the design of environmental policy framework
 - Environmental, social and governance (ESG) factors
- Climate change policies
 - The international response to climate change
 - Climate change, uncertainty, and risks

2. Reading List

2.1 Compulsory Readings

1.	Robert Falkner, ed., <i>The Handbook of Global Climate and Environmental Policy</i> , Wiley-Blackwell (2016).
2.	Arnulf Grubler and Charlie Wilson, eds., <i>Energy Technology Innovation: Learning from Historical Successes and Failures</i> , Cambridge University Press (2014).
3.	Rebecca M. Henderson and Richard G. Newell, eds., <i>Accelerating Energy Innovation: Insights from Multiple Sectors</i> , The University of Chicago Press (2011).
4.	Scott J. Callan, Janet M. Thomas. <i>Environmental Economics and Management: Theory, Policy and Applications</i> , South-Western College Pub (2012).

2.2 Additional Readings

1.	Michael E. Kraft and Scott R. Furlong, <i>Public Policy: Politics, Analytics, and Alternatives, Fifth Edition</i> , Sage (2015).
2.	Jane Roberts, <i>Environmental Policy, Second Edition</i> , Routledge (2011).
3.	Hall, Bronwyn H., and Nathan Rosenberg, eds., <i>Handbook of the Economics of Innovation, Volume 1 and Volume 2</i> , Amsterdam: Elsevier (2010).
4.	Ruttan, Vernon W., <i>Technology, Growth, and Development: An Induced Innovation Perspective</i> , New York: Oxford University Press (2001).
5.	Organisation for Economic Co-operation and Development, <i>Tradeable permits policy evaluation, design and reform</i> (Paris: OECD, 2004).