

SEE3001: ENERGY AND ENVIRONMENTAL POLICY

Effective Term

Semester A 2022/23

Part I Course Overview

Course Title

Energy and Environmental Policy

Subject Code

SEE - School of Energy and Environment

Course Number

3001

Academic Unit

School of Energy and Environment (E2)

College/School

School of Energy and Environment (E2)

Course Duration

One Semester

Credit Units

3

Level

B1, B2, B3, B4 - Bachelor's Degree

Medium of Instruction

English

Medium of Assessment

English

Prerequisites

SEE3002 Energy and Environmental Economics

Precursors

Nil

Equivalent Courses

Nil

Exclusive Courses

Nil

Part II Course Details

Abstract

This course equips students to engage in well informed and rational debates on how to develop our societies in the long run. The first half of the course begins by positioning energy and environmental policy within the broader context of sustainable development. Notably, it helps cultivate an understanding of the problems and prospective solutions associated with fostering a transition away from carbon-intensive energy technologies, which consume finite resources. The second half of the course introduces students with existing energy and environmental policies, implemented by governments in the world, including Hong Kong and mainland China. The overall aim of the course is to cultivate a working understanding of the realities, issues, solutions and applied policy challenges that one faces when seeking to develop a sustainable energy and environmental policy.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Articulate environmental problems and resource limitations which impact energy use. Critically analyse the impact of energy use on the environment. This includes: 1. Introduction to environmental sustainability problems 2. The issue of non-renewable resources 3. The implications of climate change caused by greenhouse gas emissions 4. Introduction to environmental political economics	30		x	
2	Articulate personal and societal value considerations which impact energy supply and demand policies affecting people, plants and animals in different countries and of different generations.	10		x	
3	Critically evaluate international policy efforts to address energy supply and climate changes issues. This includes an emphasis on the UNFCCC process and the Kyoto Protocol flexible mechanisms.	10		x	
4	Analysis of current policies, legislations and regulations implemented by governments in the world, including Hong Kong and mainland China.	30		x	
5	Demonstrate argumentative reasoning and critical thinking in interpersonal dialogues, oral presentations and short essays.	20		x	

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 real-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.

Teaching and Learning Activities (TLAs)

	TLAs	Brief Description	CILO No.	Hours/week (if applicable)
1	Interactive Lectures	Interactive lectures are designed to facilitate application and synthesis of assigned readings.	1, 2, 3, 4, 5	2 hours per week in lectures.
2	Problem based learning	During the course of the resolution process they will be encouraged to highlight areas of further knowledge that they would need to seek.	1, 2, 3, 4, 5	1 hour per week in lectures.
3	Assignments		1, 2, 3, 4, 5	
4	Group project	Students will be asked to choose a policy topic by themselves and conduct policy analysis by applying the principles and methods that have learned during the lectures.	1, 2, 3, 4, 5	
5	Readings	Readings will provide students with the knowledge base necessary to participate effectively in interactive lectures.	1, 2, 3, 4, 5	

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Group project	1, 2, 3, 4, 5	25	
2	Assignments	1, 2, 3, 4, 5	25	

Continuous Assessment (%)

50

Examination (%)

50

Examination Duration (Hours)

2

Additional Information for ATs

Examination duration: 2 hrs

Percentage of coursework, examination, etc.: 50% by coursework; 50% by exam

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 Assessment Rubrics.

Assessment Rubrics (AR)

Assessment Task

1. Group project

Criterion

Ability to analyse and solve problems related to energy and environmental policy.

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal levels

Assessment Task

2. Assignments

Criterion

Ability to analyse and solve problems related to energy and environmental policy.

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal levels

Assessment Task

3. Examination

Criterion

Ability to analyse and solve problems related to energy and environmental policy.

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal levels

Part III Other Information

Keyword Syllabus

- Sustainable development
- Fossil fuel, carbon intensity of fossil fuel, peak oil, resource depletion, renewable energy, conventional energy, nuclear energy
- Greenhouse gas, radiative forcing, global warming, climate change, ocean acidification, biodiversity
- Energy efficiency, energy demand and energy supply
- Emission permits trading, Kyoto protocol, Clean Development Mechanism, UN Framework Convention on Climate Change, cap-and-trade, risk management, precautionary principle
- Environmental political economics: lobbies and interest group theory
- Cost benefit analysis
- Non-market valuation, willingness to pay (WTP) and willingness to accept (WTA), option, bequest and existence values, valuation methods
- Government planning and regulation: HKSAR government, PRC Central government, Intended Nationally Determined Contributions (INDCs) and international agreements.

Reading List**Compulsory Readings**

	Title
1	Robert Falkner, ed., <i>The Handbook of Global Climate and Environmental Policy</i> , Wiley-Blackwell (2016).
2	Winston Harrington, Richard D. Morgenstern, and Thomas Sterner, eds., <i>Choosing Environmental Policy: Comparing Instruments and Outcomes in the United States and Europe</i> , Resources for the Future (2004).
3	Michael E. Kraft and Scott R. Furlong, <i>Public Policy: Politics, Analytics, and Alternatives</i> , Fifth Edition, Sage (2015).
4	Eugene Bardach and Eric M. Patashnik, <i>A Practical Guide for Policy Analysis: The Eightfold Path to More Effective Problem Solving</i> , Fifth Edition, Sage (2016).

Additional Readings

	Title
1	Eva Sternfeld, ed., Routledge Handbook of Environmental Policy in China, Routledge (2017).
2	Other readings and journal articles will be assigned.