

# SEE8219: ENVIRONMENTAL AND ENERGY POLICY

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## Effective Term

Semester A 2025/26

## Part I Course Overview

### Course Title

Environmental and Energy Policy

### Subject Code

SEE - School of Energy and Environment

### Course Number

8219

### Academic Unit

School of Energy and Environment (E2)

### College/School

School of Energy and Environment (E2)

### Course Duration

One Semester

### Credit Units

3

### Level

R8 - Research Degree

### Medium of Instruction

English

### Medium of Assessment

English

### Prerequisites

Nil

### Precursors

Nil

### Equivalent Courses

Nil

### Exclusive Courses

Nil

## Part II Course Details

### Abstract

Theoretical frameworks and empirical studies are introduced to understand policy instruments for environmental protection and energy security. 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.

### Course Intended Learning Outcomes (CILOs)

CILOs		Weighting (if app.)	DEC-A1	DEC-A2	DEC-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	x	x	
2	Apply the concepts, methodologies and practical tools of public policy to various issues and problems of energy and the environment	20	x	x	
3	Design, construct and critically evaluate policy options and alternatives for tackling energy and environmental issues and problems	20		x	x
4	Articulate the drivers and challenges that influence the process of policy making, include agenda setting policy formulation implementation and feedback	20		x	x
5	Demonstrate critical reasoning and constructive dialogues in interpersonal communication, oral presentations and short essays	20	x	x	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.

### Learning and Teaching Activities (LTAs)

LTAs	Brief Description	CILO No.	Hours/week (if applicable)
1	Interactive lectures	Explaining key concepts, methodologies and practical tools of public policy concerning energy and environmental issues	1, 2, 3, 4, 5 2h/week

2	In-class exercises	Applying and communicating the knowledge to tackle various problems and challenges concerning energy and the environment	1, 2, 3, 4, 5	1h/week
3	Assignment	Consolidating the knowledge obtained through the lectures, discussions and learning materials	1, 2, 3, 4, 5	
4	Course project	Identifying an issue related to energy and the environment and working to propose policies to address the challenges involved	1, 2, 3, 4, 5	

**Assessment Tasks / Activities (ATs)**

	ATs	CILO No.	Weighting (%)	Remarks ("- " for nil entry)	Allow Use of GenAI?
1	Assignment	1, 2, 3, 4, 5	20	-	Yes
2	Presentation and project report	1, 2, 3, 4, 5	40	-	Yes

**Continuous Assessment (%)**

60

**Examination (%)**

40

**Examination Duration (Hours)**

2

**Minimum Continuous Assessment Passing Requirement (%)**

30

**Minimum Examination Passing Requirement (%)**

30

**Additional Information for ATs**

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

- should not miss more than 3 lectures;
- 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)
- obtain at least 30% of the total marks allocated towards final examination (if applicable); and
- meet the criteria listed in the section on Assessment Rubrics.

**Assessment Rubrics (AR)****Assessment Task**

Assignment (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

**Criterion**

Ability to understand the concepts, methodologies, and tools of public 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

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**Assessment Task**

Course project (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

**Criterion**

Ability to identify an issue concerning energy and the environment, analyse the structure of the problem and propose a solution to it

**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

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**Assessment Task**

Examination (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

**Criterion**

Ability to apply the knowledge obtained through interactive lectures, reading materials and group discussions to energy and environmental issues

**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

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**Assessment Task**

Assignment (for students admitted from Semester A 2022/23 to Summer Term 2024)

**Criterion**

Ability to understand the concepts, methodologies, and tools of public policy

**Excellent**

(A+, A, A-) High

**Good**

(B+, B) Moderate

**Marginal**

(B-, C+, C) Basic

**Failure**

(F) Not even reaching marginal levels

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**Assessment Task**

Course project (for students admitted from Semester A 2022/23 to Summer Term 2024)

**Criterion**

Ability to identify an issue concerning energy and the environment, analyse the structure of the problem and propose a solution to it

**Excellent**

(A+, A, A-) High

**Good**

(B+, B) Moderate

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**Assessment Task**

Examination (for students admitted from Semester A 2022/23 to Summer Term 2024)

**Criterion**

Ability to apply the knowledge obtained through interactive lectures, reading materials and group discussions to energy and environmental issues

**Excellent**

(A+, A, A-) High

**Good**

(B+, B) Moderate

**Marginal**

(B-, C+, C) Basic

**Failure**

(F) Not even reaching marginal levels

**Part III Other Information****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
- Social choice theory and methods
- Case studies of energy and environmental policies
- International climate policies including Kyoto Protocol, Clean Development Mechanism, Paris Convention

Special topics for tutorial sessions:

1. Frontier on energy and environmental policy analysis
  - Advanced methods on environmental and energy policy analysis
  - Modelling energy and the economy
2. Environmental Measurement and Assessment
  - Environmental impact assessment
  - Indicators of sustainability and sustainable development
  - Case studies concerning water, air and land pollution
3. 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
4. Climate change policies
  - The international response to climate change
  - Climate change, uncertainty, and risks

**Reading List****Compulsory Readings**

	Title
1	Robert Falkner, ed., The Handbook of Global Climate and Environmental Policy Wiley-Blackwell (2016).
2	Tietenberg T. and Lewis L. : Environmental Economics and Policy Pearson Education, 6th ed., 2010
3	Scott J. Callan, Janet M. Thomas. Environmental Economics and Management: Theory, Policy and Applications, South-Western College Pub (2012).
4	J.D. Angrist and J.S. Pischke, Mastering 'Metrics: The Path from Cause to Effect, Princeton University Press, 2015(MM).

**Additional Readings**

	Title
1	Michael E. Kraft and Scott R. Furlong, Public Policy: Politics, Analytics, and Alternatives, Fifth Edition Sage (2015).
2	Perman R., Ma Y. and McGuilvray J.: Natural Resources and Environmental Economics Pearson Education 3rd ed., 2011
3	Jane Roberts, Environmental Policy, Second Edition Routledge (2011).
4	Organisation for Economic Co-operation and Development, Tradeable permits policy evaluation, design and reform (Paris: OECD, 2004).