SEE8203: ENVIRONMENTAL IMPACT ASSESSMENT: PRINCIPLES AND PRACTICE

Effective Term
Semester A 2025/26

Part I Course Overview

Course Title
Environmental Impact Assessment: Principles and Practice

Subject Code
SEE - School of Energy and Environment
Course Number
8203

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
SEE6203 Environmental Impact Assessment: Principles and Practice

Exclusive Courses
Nil

Part II Course Details

Abstract

This course will review the principles, process and methods for assessing environmental impacts and examines the environmental consequence of development project, in advance. It provides students with inter-disciplinary nature of the subject (socio-economic, environmental and ecological systems) as well as critical analysis. Latest EIA legislation, guidance and good practice will be discussed in the context of both HK and overseas.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Examine and apply the general principles, processes and methodologies of environmental impact assessment (EIA) in development projects.	20		x	
2	Explain the approach in socio-economic impact and environmental risk assessments, and the interaction between EIA and landuse planning.	20		x	
3	Analyze cases, prepare and conduct EIA, and communicate effectively about the complex issues in EIA.	30		x	x
4	Critically evaluate the problems and issues, limitations and future trends in implementation of EIA.	30	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	Lecture	Explain the key concept, process and practice of EIA, and the relationship between EIA and sustainable development.	1, 2, 3, 4	2 hrs/wk
2	Tutorial and Group discussion	In large and small group activities students will examine various principles, processes and methodologies of EIA and apply these processes to examples of development projects.	1, 2, 3, 4	1 hr/wk

3	Case study	Students will discover the elements and application of the EIA framework through critical analysis of EIA case studies and develop communication skills through role play exercises and presentations of individual and/or group work.	1, 2, 3, 4	
4	Project presentation	In large and small group critical evaluation tasks students will discover the application of the EIA framework to specific situations and discuss the problems and issues, limitations and future trends in implementation of EIA.	1, 2, 3, 4	

Additional Information for LTAs

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

a. 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);

b. 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 Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks ("-" for nil entry)	Allow Use of GenAI?
1	In class test	1, 2, 3	20	-	No
2	Assignment	1, 2, 3	15	-	Yes
3	Project presentation	1, 2, 3, 4	25	-	Yes

Continuous Assessment (%)

60

Examination (%)

40

Examination Duration (Hours)

2

Minimum Continuous Assessment Passing Requirement (%)

30

Minimum Examination Passing Requirement (%)

30

Assessment Rubrics (AR)

Assessment Task
In-class test (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion
In tutorial assignments (case studies and scenarios) and end-of-course examination students will apply the range of principles, applications, processes and methodologies to EIA examples.

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

Criterion
Tutorial assignments (case studies and scenarios), discussion and end-of-course examination, will enable students to apply EIA concepts to evaluate the socio-economic impact, ecological impact and environmental risks and benefits.

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

Criterion
In a role play report, oral presentation and end-of-course examination students will critically analyze cases, apply knowledge to conduct EIA and communicate effectively in writing and orally about the complex issues in EIA.

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

Criterion
In-classroom and out-of-classroom discussion and end-of-course examination, using problem-based questions which require students to critically evaluate problems and issues, limitations and future trends in implementation related to EIA and environmental management.

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
In-class test (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion
In tutorial assignments (case studies and scenarios) and end-of-course examination students will apply the range of principles, applications, processes and methodologies to EIA examples.

Excellent
(A+, A, A-) High

Good
(B+, B) Significant

Marginal
(B-, C+, C) Moderate

Failure
(F) Not even reaching marginal levels

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

Criterion
Tutorial assignments (case studies and scenarios), discussion and end-of-course examination, will enable students to apply EIA concepts to evaluate the socio-economic impact, ecological impact and environmental risks and benefits.

Excellent
(A+, A, A-) High

Good
(B+, B) Significant

Marginal
(B-, C+, C) Moderate

Failure
(F) Not even reaching marginal levels

Assessment Task
Project (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion
In a role play report, oral presentation and end-of-course examination students will critically analyze cases, apply knowledge to conduct EIA and communicate effectively in writing and orally about the complex issues in EIA.

Excellent
(A+, A, A-) High

Good
(B+, B) Significant

Marginal
(B-, C+, C) Moderate

Failure
(F) Not even reaching marginal levels

Assessment Task
Final exam (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion
In-classroom and out-of-classroom discussion and end-of-course examination, using problem-based questions which require students to critically evaluate problems and issues, limitations and future trends in implementation related to EIA and environmental management.

Excellent

(A+, A, A-) High

Good

(B+, B) Significant

Marginal

(B-, C+, C) Moderate

Failure

(F) Not even reaching marginal levels

Assessment Task

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

Criterion

Ability to solve problems related to lecture material

Excellent

(A+, A, A-) Excellent analysis and problem solving skills to demonstrate in-depth understanding of atmospheric chemistry and its relationship to air pollution and climate

Good

(B+, B, B-) Good analysis and problem solving skills to demonstrate in-depth understanding of atmospheric chemistry and its relationship to air pollution and climate

Fair

(C+, C, C-) Moderate analysis and problem solving skills to demonstrate in-depth understanding of atmospheric chemistry and its relationship to air pollution and climate

Marginal

(D) Acceptable analysis and problem solving skills to demonstrate in-depth understanding of atmospheric chemistry and its relationship to air pollution and climate

Failure

(F) Poor analysis and problem solving skills to demonstrate in-depth understanding of atmospheric chemistry and its relationship to air pollution and climate

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Assessment Task

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

Criterion

Ability to explain key concepts and solve problems related to air pollution

Excellent

(A+, A, A-) Excellent understanding of concepts and ability to analyze and solve problems related to air pollution

Good

(B+, B, B-) Good understanding of concepts and ability to analyze and solve problems related to air pollution

Fair

(C+, C, C-) Moderate understanding of concepts and ability to analyze and solve problems related to air pollution

Marginal
(D) Acceptable understanding of concepts and ability to analyze and solve problems related to air pollution

Failure
(F) Failure to demonstrate understanding of concepts and ability to analyze and solve problems related to air pollution

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Assessment Task
Term paper and presentation (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion
Ability to propose and present an air pollution- or climate-related project

Excellent
(A+, A, A-) Excellent project design, writing, and presentation

Good
(B+, B, B-) Good project design, writing, and presentation

Fair
(C+, C, C-) Moderate project design, writing, and presentation

Marginal
(D) Be able to design, describe, and present the project

Failure
(F) Failure to design, describe, or present the project

Assessment Task
Assignments (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion
Ability to analyse and solve problems related to lecture material

Excellent
(A+, A, A-) Excellent analysis and problem solving skills to demonstrate in-depth understanding of air pollution chemistry

Good
(B+, B) Good analysis and problem solving skills to demonstrate good understanding of air pollution chemistry

Marginal
(B-, C+, C) Marginally acceptable analysis and problem solving skills to demonstrate limit understanding of air pollution chemistry

Failure
(F) Poor analysis and problem solving skills to demonstrate understanding of air pollution chemistry

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Assessment Task
Midterm (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

Ability to explain key concepts and solve problems related to air pollution

Excellent

(A+, A, A-) Excellent understanding of concepts and ability to analyse real-world problems related to air quality

Good

(B+, B) Good understanding of concepts and ability to analyse real-world problems related to air quality

Marginal

(B-, C+, C) Marginally acceptable understanding of concepts and ability to analyse real-world problems related to air quality

Failure

(F) Failure to demonstrate understanding of concepts and ability to analyse real-world problems related to air quality

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Assessment Task

Term paper and presentation (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

Ability to propose and present an air pollution-related project

Excellent

(A+, A, A-) Excellent project design, literature review, and writing in the term paper. Excellent, clear, and confident performance in the presentation.

Good

(B+, B) Good project design, literature review, and writing in the term paper. Good and clear performance in the presentation.

Marginal

(B-, C+, C) Marginally acceptable performance in project design, literature review, paper writing, and presentation.

Failure

(F) Failure to design the project and present it clearly.

Part III Other Information

Keyword Syllabus

- Principles, objectives and scope of EIA. Major issues of the EIA process. Administrative and organizational aspects.
- Defining the scope. Identification and evaluation of alternatives. Baseline studies.
- Detailed methodology and process in conducting EIA
- Content, preparation and review of environmental impact assessment.
- Monitoring and auditing of impacts.
- Case studies from developed and developing countries. Specific socio-economic impacts and limitations of EIA in developing countries. Case studies from Hong Kong.
- Risk assessment and management. Problems and constraints of EIA.
- Interaction between EIA, land use planning and engineering designs. Identification and evaluation of mitigation measures.

Reading List

Compulsory Readings

	Title
1	Introduction to environmental impact assessment: a guide to principles and practice. B.F. Noble. 2010. Oxford University Press.
2	Introduction to environmental impact assessment. J. Glasson, R. Therivel, A. Chadwick. 2012. Routledge, New York.
3	Methods of environmental impact assessment / edited by Peter Morris and Riki Therivel. Routledge, 2009.

Additional Readings

	Title
1	Environmental Impact Assessment Ordinance (EIAO), EPD (http://www.epd.gov.hk/epd/eia/english/legis/index1.html)
2	The Operation of Environmental Impact Assessment Ordinance in Hong Kong, April 1998 – December 2001, EPD (http://www.epd.gov.hk/eia/operation/index.html)
3	A Guide to the Water Pollution Control Ordinance, EPD (http://www.epd.gov.hk/epd/textonly/english/environmentinhk/water/guide_ref/guide_wpc_wpco.html)
4	Guidelines for Development Projects in Hong Kong, EPD (http://www.epd.gov.hk/epd/eia/hb/materials/guidelines.htm) Focused on Environmental Monitoring and Audit
5	Technical Memorandum on EIA Process, EPD (http://www.epd.gov.hk/epd/eia/english/legis/index3.html)
6	EPD Website (http://www.epd.gov.hk)