香港城市大學
City University of Hong Kong

SYL

Course Syllabus

offered by Department of Chemistry
with effect from Semester A 2020/21

This form is for the completion by the *Course Leader*. The information provided on this form is the official record of the course. It will be used for the City University's database, various City University publications (including websites) and documentation for students and others as required.

Please refer to the Explanatory Notes on the various items of information required.

Prepared / Last Updated by:

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Part I Course Overview

Course Title:	Environmental Impact Assessment
Course Code:	CHEM4040A
Course Duration:	1 semester
Credit Units:	3 credits
Level:	B4
Proposed Area: *(for GE courses only)*	☐ Arts and Humanities ☐ Study of Societies, Social and Business Organisations ☐ Science and Technology
Medium of Instruction:	English
Medium of Assessment:	English
Prerequisites: *(Course Code and Title)*	CHEM1807/BCH1807 Foundations of Environmental Science
Precursors: *(Course Code and Title)*	CHEM3068A/BCH3068A General Ecology **AND/OR** CHEM4021A/BCH4021A Environmental Pollution
Equivalent Courses: *(Course Code and Title)*	BCH4040A Environmental Impact Assessment
Exclusive Courses: *(Course Code and Title)*	Nil

Part II Course Details

1. Abstract

(A 150-word description about the course)

In this course, students will:

- explore the importance of Environmental Impact Assessment (EIA) in environmental management;
- develop an introductory understanding of EIA processes and methodologies;
- apply techniques to implement EIA.

2. Course Intended Learning Outcomes (CILOs)

(CILOs state what the student is expected to be able to do at the end of the course according to a given standard of performance.)

No.	CILOs[#]	Weighting* (if applicable)	Discovery-enriched curriculum related learning outcomes (please tick where appropriate)		
			A1	*A2*	*A3*
1.	Examine and apply the general principles, applications, processes and methodologies of environmental impact assessment (EIA) in development projects.	NA	NA	NA	NA
2.	Explain the approach and benefits in socio-economic impact, ecological impact and environmental risk assessments.	NA	NA	NA	NA
3.	Analyze cases and/or projects related to EIA.	NA	NA	NA	NA
4.	Critically evaluate the problems, limitations and future trends in implementation of EIA.	NA	NA	NA	NA
	** If weighting is assigned to CILOs, they should add up to 100%.*	100%			

[#] Please specify the alignment of CILOs to the Gateway Education Programme Intended Learning outcomes (PILOs) in Section A of Annex.

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)

(TLAs designed to facilitate students' achievement of the CILOs.)

TLA	Brief Description	CILO No.				Hours/week (if applicable)
		1	2	3	4	
Group activities	In large and small group activities students will examine various principles, applications, processes and methodologies of EIA and apply these processes to examples of development projects.	✓				
Group sessions and guest presentations	Students in large and small group sessions will investigate and explain the approach and benefits in socio-economic impact, ecological impact and environmental risk assessments. Complementary guest presentations will promote analysis of real-life situations.		✓			
Case studies and individual / group work	Students will learn through analysis of EIA case studies via individual/group work.			✓		
Group critical evaluation tasks	In large and small group critical evaluation tasks students will discuss the problems, limitations and future trends in implementation of environmental impact assessment.				✓	

4. Assessment Tasks/Activities (ATs)

(ATs are designed to assess how well the students achieve the CILOs.)

Assessment Tasks/Activities	CILO No.				Weighting*	Remarks
	1	2	3	4		
Continuous Assessment: 40%						
Tutorial Assignment / Case Studies	✓		✓		25%	
Discussion / Oral Presentation		✓		✓	15%	
Examination: 60% (duration: 3 hours)						
** The weightings should add up to 100%.*					100%	

Starting from Semester A, 2015-16, students must satisfy the following minimum passing requirement for courses offered by CHEM:

"A minimum of 40% in both coursework and examination components."

5. Assessment Rubrics

(Grading of student achievements is based on student performance in assessment tasks/activities with the following rubrics.)

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Fair (C+, C, C-)	Marginal (D)	Failure (F)
1. Tutorial Assignment / Case Studies	Correctness of interpretation and analysis of experimental data; understanding of the topic and reading materials; application of knowledge in solving real life problems	High	Significant	Moderate	Basic	Not even reaching marginal levels
2. Discussion / Oral Presentation	Understanding of the topic and material; completeness of the presentation; logic of the presentation structure; clarity of talk; appropriate use of photos and figures in the illustration of concepts; ability to discuss the presented topic	High	Significant	Moderate	Basic	Not even reaching marginal levels
3. Examination	Completeness and correctness of calculations/answers; correctness of interpretation and analysis of experimental data; application of knowledge in	High	Significant	Moderate	Basic	Not even reaching marginal levels

	solving real life problems; logic of argumentation and intelligent use of course content/ original thinking					

Part III Other Information (more details can be provided separately in the teaching plan)

1. Keyword Syllabus

(An indication of the key topics of the course.)

- Principles, objectives and application of EIA.
- EIA processes.
- Methodologies in the identification, prediction and assessment of specific and cumulative impacts: overlay, checklist, matrices, sequences flow diagram, network and other systems.
- Identification and evaluation of mitigation measures.
- Risk characterization, assessment and management.
- Content, preparation and review of environmental impact statements.
- Monitoring and auditing of environment impacts.
- Case studies from developed and developing countries. Specific socio-economic impacts and limitations of EIA in developing countries. Case studies from Hong Kong.
- Problems and constraints of EIA.

2. Reading List

2.1 Compulsory Readings

(Compulsory readings can include books, book chapters, or journal/magazine articles. There are also collections of e-books, e-journals available from the CityU Library.)

1.	
2.	
3.	
…	

2.2 Additional Readings

(Additional references for students to learn to expand their knowledge about the subject.)

1.	Environmental impact assessment. L.W. Canter, McGraw Hill, NY, 1996
2.	Introduction to environmental impact assessment: principle and procedures, process, practice and prospects. J. Glasson, R. Therivel, A. Chadwick, UCL Press, London, 1994 (1st ed), 1999 (2nd ed)
3.	Online Resources: To be provided, as required, in lectures and tutorials.

Annex
(for GE courses only)

A. Please specify the Gateway Education Programme Intended Learning Outcomes (PILOs) that the course is aligned to and relate them to the CILOs stated in Part II, Section 2 of this form:

GE PILO	**Please indicate which CILO(s) is/are related to this PILO, if any** ***(can be more than one CILOs in each PILO)***
PILO 1: Demonstrate the capacity for self-directed learning	
PILO 2: Explain the basic methodologies and techniques of inquiry of the arts and humanities, social sciences, business, and science and technology	
PILO 3: Demonstrate critical thinking skills	
PILO 4: Interpret information and numerical data	
PILO 5: Produce structured, well-organised and fluent text	
PILO 6: Demonstrate effective oral communication skills	
PILO 7: Demonstrate an ability to work effectively in a team	
PILO 8: Recognise important characteristics of their own culture(s) and at least one other culture, and their impact on global issues	
PILO 9: Value ethical and socially responsible actions	
PILO 10: Demonstrate the attitude and/or ability to accomplish discovery and/or innovation	

GE course leaders should cover the mandatory PILOs for the GE area (Area 1: Arts and Humanities; Area 2: Study of Societies, Social and Business Organisations; Area 3: Science and Technology) for which they have classified their course; for quality assurance purposes, they are advised to carefully consider if it is beneficial to claim any coverage of additional PILOs. General advice would be to restrict PILOs to only the essential ones. (Please refer to the curricular mapping of GE programme: http://www.cityu.edu.hk/edge/ge/faculty/curricular_mapping.htm.)

B. Please select an assessment task for collecting evidence of student achievement for quality assurance purposes. Please retain at least one sample of student achievement across a period of three years.

Selected Assessment Task