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:	Window on Science B
Course Code:	CHEM8007B
Course Duration:	4 semesters (Sem A & B)
Credit Units:	3 credits
Level:	R8
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)*	Nil
Precursors: *(Course Code and Title)*	Nil
Equivalent Courses: *(Course Code and Title)*	BCH8007B Window on Science B
Exclusive Courses: *(Course Code and Title)*	Nil

Part II Course Details

1. Abstract

(A 150-word description about the course)

This course is a core postgraduate course for M.Phil. students of the Department of Chemistry.

In this course, postgraduate M.Phil. students will:

- Discover and learn about frontier scientific research methodologies and achievements in Chemistry, Biology, Environmental Science and various other disciplines in science from leading experts in their fields
- Develop skills in communication and presentation of scientific results in a professional manner
- Develop ability to critically appraise research results
- Broaden their knowledge base in scientific research topics other than their own disciplines, and to develop critical thinking and analytical skills in research

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.	Articulate and critically evaluate advanced research methodologies in Biology, Chemistry, Environmental Science and various other disciplines of science based on available literatures and experience acquired by leading experts in their fields	40%	√	√	
2.	Demonstrate detailed knowledge of the relevant background literature with good understanding of the scientific research methods involved; analysis and interpret experimental data; draw scientifically sound conclusions from experimental results	20%	√	√	
3.	Demonstrate good presentation skills and ability to communicate scientific information in a professional manner	10%		√	√
4.	Critically evaluate experimental data and results	30%		√	√
		100%			

** If weighting is assigned to CILOs, they should add up to 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	
Departmental seminars and seminar reports	(1) Participate in departmental seminars given by invited speakers (2) Preparation of seminar reports on selected seminars to provide critical analyses and reviews on the research topics and the methodologies adopted	✓				(1) Attendance of at least twelve departmental seminars within a period of four semesters (at least three seminars per semester) (2) Preparation of two seminar reports within a period of four semesters
Oral presentations	Delivery of formal oral presentations of students' own research work (50 min.) followed by questions (10 min.) from the audience		✓			(1) Attendance of at least twelve oral presentations given by fellow postgraduate students of the relevant discipline within a period of four semesters (at least three seminars per semester) (2) Delivery of two oral presentations within a period of four semesters
As in CILO 2	As in CILO 2			✓		As in CILO 2
Critiques	Preparation of critiques to critically analyse and review the content, research methodology, interpretation of experimental data and presentation skill of selected presentations of other fellow postgraduate students				✓	Preparation of four critiques within a period of four semesters

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: 100%						
Attendance of seminars and assessment of seminar reports by the corresponding invited speakers or relevant assessors	✓				40%	
Assessment of student's oral presentation by his/her research supervisor and a second assessor		✓			20%	See the note below
As in CILO 2			✓		10%	
Assessment of the critiques by the supervisors of the postgraduate students to whom the critiques were concerned				✓	30%	
Examination: 0% (duration: --)						

** The weightings should add up to 100%.*	100%

Note: Assessment from the research supervisor and the second assessor each constitutes 50% of the overall presentation marks (CILO 2 & 3)

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. Attendance of seminars and assessment of seminar reports by the corresponding invited speakers or relevant assessors	General criterion are students' understanding of the topic, research methodologies involved and material presented and their critical analysis of the science in the presentation.	High	Significant	Moderate	Basic	Not even reaching marginal levels
2. Assessment of student's oral presentation by his/her research supervisor and a second assessor	General criterion are the content, method and organization of the presentation, the students' communication skill and their handling of the questions.	High	Significant	Moderate	Basic	Not even reaching marginal levels
3. Assessment of the critiques by the supervisors of the postgraduate students to whom the critiques were concerned	General criterion are students' understanding of the topic and materials presented, their critical analysis of the science in the presentation and their critical evaluation of the presentation skills.	High	Significant	Moderate	Basic	Not even reaching marginal levels

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.)

There will be no fixed syllabus for this course. Seminars and presentation topics will be based on the research disciplines of the postgraduate M.Phil. student.

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.	
2.	
3.	
…	

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