City University of Hong Kong Course Syllabus

offered by Department of Chemistry with effect from Semester A 2022/23

Part I Course Overview

| Course Title: | Directed Studies for Postgraduate Students |
|--|---|
| Course Code: | CHEM8004A, CHEM8004B |
| Course Duration: | Flexible, varying from a few weeks to one semester |
| Credit Units: | 1 credit (CHEM8004A); 2 credits (CHEM8004B) |
| Level | R8 |
| Medium of Instruction: | English |
| Medium of Assessment: | English |
| Prerequisites : (Course Code and Title) | Nil |
| Precursors : (Course Code and Title) | Nil |
| Equivalent Courses : <i>(Course Code and Title)</i> | BCH8004A, BCH8004B Directed Studies for Postgraduate Students |
| Exclusive Courses : (Course Code and Title) | Nil |
| | |

Part II Course Details

1. Abstract

This course aims to allow postgraduate students to pursue a defined programme of study directed by an academic staff member in CHEM and/or to attend courses/workshops/study tour in relevant areas recommended by the Department. The course encourages postgraduate students to broaden their vision in scientific research via discovery-based learning and research, to develop their initiative, interests, individual thinking. and have а deeper understanding on a specific area Chemistry/Biology/Environmental Sciences.

Postgraduate students can obtain 1 credit unit (CHEM8004A) or 2 credit units (CHEM8004B) from the CHEM8004 Directed Studies for Postgraduate Students. The credit units can be obtained from one directed study activity by taking either CHEM8004A or CHEM8004B. The credits units can also be obtained from two directed study activities by taking both CHEM8004A and CHEM8004B separately in different semesters. The maximum number of credit units that can be obtained from CHEM8004 is 3. The nature of the directed study activity, number of credit units gained (1 or 2), and evaluation/assessment pattern will be considered by the Head of CHEM, in consultation with the CHEM8004 Directed Studies Committee, before initiating the Directed Studies. Discovery-based study activities will be highly encouraged.

2. Course Intended Learning Outcomes (CILOs)

| No. | CILOs | Weighting* (if applicable) | Discov curricu learnin (please approp | ery-en lum rel g outco tick riate) | riched ated omes where |
|-----|---|--|---|--|---------------------------------|
| 1. | Conduct specified work under the direction of a faculty member in CHEM or attend courses/workshops/study tours [†] in relevant areas recommended by the Department | See the note below regarding restrictions on topics and/or areas of study | AI | <u>A2</u> √ | <u>A3</u> √ |
| | | 100% | | | |

[†]NOTE: The courses/workshops/study tours taken as Directed Studies should not be solely offered by the research degree supervisor of the postgraduate student. The postgraduate student has to obtain formal approval from the Head of CHEM, in consultation with the CHEM8004 Directed Studies Committee, before initiating his/her directed study.

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)

| TLA | Brief Description | CILO No. | Hours/week (if |
|------------|--|--------------|----------------|
| | | 1 | applicable) |
| Course/ | Although specific teaching and learning activities can be | \checkmark | Flexible, |
| Workshop/ | stated, discovery-based mode of study is emphasized. The | | depending |
| Study Tour | course is flexible, and has no specific syllabus. The | | upon total |
| | postgraduate student can attend a particular workshop or a | | credit units |
| | training course; participate in a study tour, etc., in | | assigned. |
| | Chemistry, Biology or Environmental Sciences. | | |

4. Assessment Tasks/Activities (ATs)

| Assessment Tasks/Activities | CILO No. | Weighting* | Remarks |
|---|--------------|----------------|---------|
| | 1 | | |
| Continuous Assessment: <u>100</u> % | | | |
| Varies dependent upon the nature of the | \checkmark | See the note | |
| directed study activities. | | below as well | |
| Evaluation/assessment could be a | | as the note in | |
| combination of continuous assessment, | | (3) above | |
| critical review on the subject, seminar | | | |
| presentation and examination [‡] . | | | |
| Examination: <u>0</u> % (duration:) | | | |
| | | 100% | |

[‡]NOTE: Examination should be offered by the workshop / training course of which the postgraduate student has taken for his/her Directed Studies. Examination should not be given by CHEM or any faculty member of CHEM.

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

Applicable to students admitted in Semester A 2022/23 and thereafter

| Assessment Task | Criterion | Excellent | Good | Marginal | Failure |
|-----------------|------------------------------------|-------------|-------------|-------------|-------------------|
| | | (A+, A, A-) | (B+, B) | (B-, C+, C) | (F) |
| 1. Varies | Varies dependent upon the | High | Significant | Basic | Not even reaching |
| dependent | nature of the studies. General | | | | marginal levels |
| upon the | criterion are students' ability to | | | | |
| nature of the | integrate concepts of | | | | |
| directed study | chemistry/biology/environmental | | | | |
| activities. | science, and to apply them to | | | | |
| Evaluation/ | solve problems and/or | | | | |
| assessment | demonstrate scientific | | | | |
| could be a | advancement in the subject of | | | | |
| combination | the studies | | | | |
| of continuous | | | | | |
| assessment, | | | | | |
| critical review | | | | | |
| on the subject, | | | | | |
| seminar | | | | | |
| presentation | | | | | |
| and | | | | | |
| examination. | | | | | |

Applicable to students admitted before Semester A 2022/23

| Assessment Task | Criterion | Excellent | Good | Fair | Marginal | Failure |
|-----------------|------------------------------------|-------------|-------------|-------------|----------|-------------------|
| | | (A+, A, A-) | (B+, B, B-) | (C+, C, C-) | (D) | (F) |
| 1. Varies | Varies dependent upon the | High | Significant | Moderate | Basic | Not even reaching |
| dependent | nature of the studies. General | | | | | marginal levels |
| upon the | criterion are students' ability to | | | | | |
| nature of the | integrate concepts of | | | | | |
| directed study | chemistry/biology/environmental | | | | | |
| activities. | science, and to apply them to | | | | | |
| Evaluation/ | solve problems and/or | | | | | |
| assessment | demonstrate scientific | | | | | |
| could be a | advancement in the subject of | | | | | |
| combination | the studies | | | | | |
| of continuous | | | | | | |
| assessment, | | | | | | |
| critical review | | | | | | |
| on the subject, | | | | | | |
| seminar | | | | | | |
| presentation | | | | | | |
| and | | | | | | |
| examination. | | | | | | |

Part III Other Information

1. Keyword Syllabus

The course is flexible, and has no specific syllabus. A postgraduate student can opt to attend a particular workshop or training course, participate in a study tour, etc. in Chemistry, Biology or Environmental Sciences. Discovery-based study activities will be highly encouraged.

Postgraduate students can obtain 1 credit unit (CHEM8004A) or 2 credit units (CHEM8004B) from the CHEM8004 Directed Studies for Postgraduate Students. The credit units can be obtained from one directed study activity by taking either CHEM8004A or CHEM8004B. The credits units can also be obtained from two directed study activities by taking both CHEM8004A and CHEM8004B separately in different semesters. The maximum number of credit units that can be obtained from CHEM8004 is 3. The nature of the directed study activity, number of credit units gained (1 or 2), and evaluation/assessment pattern will be considered by the Head of CHEM, in consultation with the CHEM8004 Directed Studies Committee, before initiating the Directed Studies.

2. Reading List

2.1 Compulsory Readings

| 1. | Depend on the nature of the directed study activities. |
|----|--|
| 2. | |
| 3. | |
| | |

2.2 Additional Readings

| 1. | Depend on the nature of the directed study activities. |
|----|--|
| 2. | Online Resources: |
| | Depend on the nature of the directed study activities. |
| 3. | |
| | |