CHEM8004B: DIRECTED STUDIES FOR POSTGRADUATE STUDENTS B

Effective Term
Semester A 2025/26

Part I Course Overview

Course Title
Directed Studies for Postgraduate Students B

Subject Code
CHEM - Chemistry
Course Number
8004B

Academic Unit
Chemistry (CHEM)

College/School
College of Science (SI)

Course Duration
Non-standard Duration

Other Course Duration
Flexible, varying from a few weeks to one semester

Credit Units
2

Level
R8 - Research Degree

Medium of Instruction
English

Medium of Assessment
English

Prerequisites
Nil

Precursors
Nil

Equivalent Courses
BCH8004B Directed Studies for Postgraduate Students B

Exclusive Courses
Nil

Part II Course Details

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 a deeper understanding on a specific area in 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.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
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 † 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.	100		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	Course/ Workshop/ Study Tour	Although specific teaching and learning activities can be stated, discovery-based mode of study is emphasized. The course is flexible, and has no specific syllabus. The postgraduate student can attend a particular workshop or a training course; participate in a study tour, etc., in Chemistry, Biology or Environmental Sciences.	1	Flexible, depending upon total credit units assigned.

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks ("-" for nil entry)	Allow Use of GenAI?
1	Varies dependent upon the nature of the directed study activities. Evaluation/ assessment could be a combination of continuous assessment, critical review on the subject, seminar presentation and examination ‡ .	1	100	-	Yes

Continuous Assessment (%)

100

Minimum Continuous Assessment Passing Requirement (%)

40

Additional Information for ATs

‡ 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.

Assessment Rubrics (AR)

Assessment Task

Varies dependent upon the nature of the directed study activities. Evaluation/ assessment could be a combination of continuous assessment, critical review on the subject, seminar presentation and examination. (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

Varies dependent upon the nature of the studies. General criterion are students' ability to integrate concepts of chemistry/ biology/environmental science, and to apply them to solve problems and/or demonstrate scientific advancement in the subject of the studies

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

Varies dependent upon the nature of the directed study activities. Evaluation/ assessment could be a combination of continuous assessment, critical review on the subject, seminar presentation and examination. (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

Varies dependent upon the nature of the studies. General criterion are students' ability to integrate concepts of chemistry/ biology/environmental science, and to apply them to solve problems and/or demonstrate scientific advancement in the subject of the studies

Excellent

(A+, A, A-) High

Good

(B+, B) Significant

Marginal

(B-, C+, C) Basic

Failure

(F) Not even reaching marginal levels

Part III Other Information

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.

Reading List

Compulsory Readings

	Title
1	Depend on the nature of the directed study activities.

Additional Readings

	Title
1	Depend on the nature of the directed study activities.
2	Online Resources: Depend on the nature of the directed study activities.