

**City University of Hong Kong
Course Syllabus**

**offered by Department of Mathematics
with effect from Semester A 2017/18**

Part I Course Overview

Course Title: Seminars on Applied Mathematics I

Course Code: MA8001

Course Duration: Two semesters (Semesters A and B / Semesters B and A)

Credit Units: 1

Level: R8

Arts and Humanities

Proposed Area: Study of Societies, Social and Business Organisations

(for GE courses only)

Science and Technology

Medium of Instruction: English

Medium of Assessment: English

Prerequisites: Nil
(Course Code and Title)

Precursors: Nil
(Course Code and Title)

Equivalent Courses: Nil
(Course Code and Title)

Exclusive Courses: Nil
(Course Code and Title)

Part II Course Details

1. Abstract

This course aims to:

- enhance students' awareness and exposure to advanced topics in applied mathematics;
- broaden students' knowledge and keep them abreast with recent advances in various areas of applied mathematics by attending seminars given by experts; and
- develop students' skills in research topic presentation from seminars given by experts and from presentations given by themselves.

2. Course Intended Learning Outcomes (CILOs)

No.	CILOs [#]	Weighting* (if applicable)	Discovery-enriched curriculum related learning outcomes (please tick where appropriate)		
			A1	A2	A3
1.	Initiate independent studies in advanced topics of applied mathematics.	-	✓	✓	
2.	Advance knowledge of various areas of applied mathematics by conducting literature search and integrating up-to-date research development to their courses of study.	-	✓	✓	✓
3.	Acquire effective communication skills of presenting mathematical knowledge professionally.	-	✓	✓	✓
4.	Make mathematical and social contacts with academics from local and overseas communities.	-	✓	✓	✓
5.	Prepare a presentation summarizing research advances and/or progress in specific topic(s).	-		✓	✓
		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)

TLA	Brief Description	CILO No.					Hours/week (if applicable)
		1	2	3	4	5	
Seminar participation	Learning through participation in seminars, colloquia, workshops, etc. exposes students to recent research topics and frontiers of applied mathematics as well as enhances their mathematical	✓	✓	✓	✓		12 seminars

	knowledge and presentation skills.						
Seminar presentation	Learning through presentation enables students to report research development of specific topic(s) orderly and/or to relate its relevance to subject knowledge.	✓	✓	✓		✓	-

4. Assessment Tasks/Activities (ATs)

100% Coursework on a Pass/Fail basis

Each student is required to attend **12 seminars** and give **2-4 seminar presentations** on a date set by the course examiner and his/her supervisor (This seminar is to be attended by the supervisor and other students).

Based on the attendance of seminars (30%) and the quality of the presentations (70%) given by the student, he/she will be given a pass or fail.

Assessment Tasks/Activities	CILO No.					Weighting*	Remarks
	1	2	3	4	5		
Continuous Assessment: <u>30%</u>							
Seminar participation	✓	✓	✓	✓		30%	Participation in seminar and other academic activities engages students in appreciating more advanced topics of applied mathematics of their interest.
Seminar presentation	✓	✓	✓		✓	70%	Students are assessed on their ability of presenting substantial knowledge and research development of chosen topic(s) on applied mathematics in a seminar.
Examination: <u>0%</u> (duration: _____, if applicable)							
* The weightings should add up to 100%.						100%	

5. Assessment Rubrics

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Fair (C+, C, C-)	Marginal (D)	Failure (F)
1. Seminar participation	CAPACITY FOR SELF-DIRECTED LEARNING to understand recent research topics and frontiers of applied mathematics as well as mathematical knowledge and presentation skills.	High	Significant	Moderate	Basic	Not even reaching marginal levels
2. Seminar presentation	ABILITY to report research development of specific topic(s) orderly and/or to relate its relevance to subject knowledge.	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

- Independent study
- Literature search
- Communication and presentation skills

2. Reading List

2.1 Compulsory Readings

2.2 Additional Readings