City University of Hong Kong
Course Syllabus

offered by College/School/Department of _Mathematics_____
with effect from Semester __A____ 20_22_ / _23_

Part I Course Overview

Course Title:	**Project**
Course Code:	**MA4530**
Course Duration:	**Two semesters**
Credit Units:	**6 credit units**
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)*	**MA2503 Linear Algebra / MA1503 Linear Algebra with Applications; and MA2508 Multi-variable Calculus; and MA3511 Ordinary Differential Equations**
Precursors: *(Course Code and Title)*	**Nil**
Equivalent Courses: *(Course Code and Title)*	**Nil**
Exclusive Courses: *(Course Code and Title)*	**Nil**

Part II Course Details

1. Abstract

(A 150-word description about the course)

This course gives the student ample opportunity to demonstrate innovative abilities and initiative in his/her independent treatment of problems, and develops the ability to integrate and apply knowledge and analytical skills to practical situations. The course also serves to give students practice in clear and concise written and spoken communication of the results of an investigation.

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.	carry out independent study for problem solving and solution seeking.				✓
2.	apply mathematical knowledge and techniques of various subjects in formulating and analyzing models of real-life problems.				✓
3.	assess critically appropriateness of methods in approaching the problem.		✓		
4.	analyze results mathematically with suggestion of feasible actions.			✓	
5.	write well-structured report and present methodology and results effectively.			✓	
6.	the combination of CILOs 1-5		✓	✓	✓
** 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	5	6	
Consultation	Learning through **consultation** helps students identify appropriate themes of projects, acquire knowledge and techniques of specific topics from supervisors as well as improve quality of		✓	✓	✓	✓		20 hours in total

	written work (such as presentation of results in reports).							
Individual work	Learning through **individual work** helps students learn independently knowledge and skills required for project completion, and execute the associated work with sufficient diligence.	✓	✓	✓	✓	✓	✓	92 hours in total

4. Assessment Tasks/Activities (ATs)

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

100% coursework assessment

(based on project proposal, continuous progress, report and oral presentation)

Assessment Tasks/Activities	CILO No.						Weighting*	Remarks
	1	2	3	4	5	6		
Continuous Assessment: _100___%								
Project proposal		✓	✓				15%	Each student is required to submit a project proposal which outlines principal question(s) of investigation, suggested methodology and relevance of the project to various disciplines.
Continuous progress	✓	✓	✓	✓			20%	Student's progress is monitored regularly so as to identify any problem encountered in study and ensure he/she is likely to complete the project timely in a satisfactory manner.
Report	✓	✓	✓	✓	✓		40%	It should include student's own account of investigations and findings, with a systematic and critical exposition of knowledge in literature. The student is also required to present materials coherently, with all the necessary references stated.
Oral presentation					✓		25%	Each student is also assessed on the ability to communicate project aims, methodology and investigations/findings effectively.
Examination: ____% (duration: , if applicable)								
** The weightings should add up to 100%.*							100%	

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. Project proposal	Ability of formulate research problem	High	Significant	Moderate	Basic	Not even reaching marginal levels
2. Continuous progress	Research skills, problem solving skills	High	Significant	Moderate	Basic	Not even reaching marginal levels
3. Report	Writing skills, presentation skills, achieve	High	Significant	Moderate	Basic	Not even reaching marginal levels
4. Oral Presentation	Oral presentation skills, ability to answer questions, achievement	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.)

The project must be of an appropriate intellectual level to an honours degree. It should include substantial academic content and requires the student to apply his/her intellect through a wide variety of activities to arrive at a practicable and implementable solution.

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.	The reading list will be provided by each supervisor. In each project proposal, some key references are listed by supervisors, which can serve as reading lists.
2.	
3.	
…	

2.2 Additional Readings

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

1.	
2.	
3.	
…	