City University of Hong Kong
Course Syllabus

offered by Department of Computer Science
with effect from Semester A 2015/16

Part I Course Overview

Course Title:	Project
Course Code:	CS4514
Course Duration:	Two semesters
Credit Units:	9 credits
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)*	CS3502 / CS3503 / CS3504 IT Professional Placement or Approval from Programme Leader if CS3502 / CS3503 / CS3504 have not been completed.
Precursors: *(Course Code and Title)*	Nil
Equivalent Courses: *(Course Code and Title)*	FS4004 Overseas Research Internship Scheme
Exclusive Courses: *(Course Code and Title)*	Nil

Part II Course Details

1. Abstract

(A 150-word description about the course)

This course aims to provide an opportunity for students to explore individually an area of computing of their own choice. It allows students to develop further their skill and knowledge of this area of interest. It enables the exercise of good management methods to the planning, developing, and monitoring of progress. It provides the context for students to demonstrate their ability to integrate computer related knowledge they have acquired in other preceding and concurrent courses of study, including the application of good technical and presentation skills. It also provides an opportunity for the students to apply their ability to innovate in the design of novel systems as well as the discovery of solutions to challenging technical problems.

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.	Identify and describe real life, computer related problems in a chosen area of computing which involve novel designs or creative solutions.		✓	✓	
2.	Analyze requirements, review related works, and propose innovative solution with realistic constraints (such as costs, operational, social, cultural, ethical, health, or safety).		✓	✓	
3.	Provide a proof-of-concept for their solutions by designing and developing computer systems that implement the solutions.			✓	✓
4.	Design test cases and evaluate the developed systems in the light of the initial system requirements.		✓	✓	
5.	Document and report their system design, analysis, implementation and evaluation findings, through written reports and presentation.				✓
6.	Plan, monitor, and report their project progress.				
** 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	
Project proposal	The course is designed to guide students in proposing and managing their own projects. Each student is assigned a supervisor on a one for one basis for each project. The role of the supervisor is to closely monitor the project in order to give advice to the student, to establish criteria for assessment, and to detect and, if asked, advise on possible solutions to potential problems recognized at an early stage. In particular, the supervisor is expected to encourage the student to explore innovative approaches and alert the student to the possibility of alternative and novel solutions to problems encountered.	✓						
Project plan	Planning for the project – This includes choosing a project topic, outlining the level of innovation and creativity involved, identifying the problem for investigation and drafting up a project plan.	✓						
Literature review and design of solution	Proposing their solutions – Students have to analyze the problem identified and research on existing and/or related solutions. Then they will propose their own solutions which meet the identified requirements and constraints, indicating in what ways the solutions are innovative or provide novel alternatives to existing solutions.		✓					
Prototyping and evaluation	Implementing and evaluating their solutions – Students have to design a computer system that implements their solutions; and to test and evaluate their systems.			✓	✓			
Report and oral presentation	Documenting and reporting their project -- Students are required to produce regular progress reports and final report as an integral part of the project documentation. At the end, they are required to present their projects in the form of oral presentation and demonstration.					✓		
Project management	Students are expected to work independently, show initiative, and take responsibility for the success of their work. They are required to hold regular meetings with their supervisor, normally at least once per fortnight.						✓	

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	5	6		
Continuous Assessment: 100%								
Project Plan	✓						5%	
Interim Report I		✓				✓	5%	
Interim Report II			✓			✓	5%	
Project Management						✓	5%	
Technical Merit	✓	✓	✓	✓			40%	
Final Report		✓			✓		25%	
Oral Presentation					✓		10%	
Demonstration			✓	✓			5%	
Examination: 0% (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-)	Adequate (C+, C, C-)	Marginal (D)	Failure (F)
1. Project Pan	Scope, objective, schedule and methodology	High	Significant	Moderate	Basic	Not even reaching marginal level
2. Interim Report I	Literature review	High	Significant	Moderate	Basic	Not even reaching marginal level
	Problem analysis and design of solution					
3. Interim Report II	System design, prototyping and preliminary result	High	Significant	Moderate	Basic	Not even reaching marginal level
4. Project Management	Management skill and timely report of intermedia results	High	Significant	Moderate	Basic	Not even reaching marginal level
5. Technical Merit	The extent in which the project demonstrates 1) creativity, 2) arts of problem solving	High	Significant	Moderate	Basic	Not even reaching marginal level
	The extent in which the project demonstrates the application of 1) specialized knowledge in computer science, 2) use of software engineering methodology					
	Quality of deliverable					
6. Final Report	Quality of report in documenting the project work done	High	Significant	Moderate	Basic	Not even reaching marginal level
7. Oral Presentation	Presentation and communication skill	High	Significant	Moderate	Basic	Not even reaching marginal level
8. Demonstration	Functionality of a developed software	High	Significant	Moderate	Basic	Not even reaching marginal level

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.)

Student will work on a computer science project under the supervision of a faculty member and submit a project report on the work carried out.

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.)

N/A

2.2 Additional Readings

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

N/A