City University of Hong Kong
Course Syllabus

offered by Department of Computer Science
with effect from Semester A 2017/18

Part I Course Overview

Course Title:	Managing Software Projects
Course Code:	CS3356
Course Duration:	1 semester
Credit Units:	3 credits
Level:	B3
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)*	CS3342 Software Design or CS3354 Software Engineering or equivalent
Precursors: *(Course Code and Title)*	Nil
Equivalent Courses: *(Course Code and Title)*	Nil
Exclusive Courses: *(Course Code and Title)*	IS4500 Information Systems Project Management IS4530 Project Management & Requirements Analysis IS4532 Project Management and Outsourcing

Part II Course Details

1. Abstract

(A 150-word description about the course)

The course aims to introduce students to the principles behind the effective and successful management of software projects as well as tools, techniques and best practices. There are three main parts. One part is concerned with the project life cycle, processes and knowledge areas of the Project Management Framework as defined in "A Guide to the Project Management Body of Knowledge" (PMBOK) published by the Project Management Institute (PMI). The second part is concerned with the various soft skills required of a project manager, such as presentation skills, negotiation skills, interpersonal skills, people management skills, leadership skills, etc. The final part aims to expose students to highly realistic risk scenarios in which project managers need to prepare themselves for; issues that may involve hardware/software problems, to issues with clients/stakeholders, developers, budget, schedule, etc.

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.	Critically evaluate the Project Management Framework as described in the PMBOK.		✓	✓	
2.	Apply IT project management knowledge, techniques and tools to solve realistic problems related to IT projects.			✓	
3.	Recognize the importance of project management soft skills needed in project managers.		✓		
4.	Explore new ways to suitably integrate project management knowledge, techniques, tools and soft skills in enhancing IT project success.				
** 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.)

Teaching pattern:
Suggested lecture/tutorial/laboratory mix: 3 hours. lecture/tutorial.

TLA	Brief Description	CILO No.				Hours/week (if applicable)
		1	2	3	4	
Lecture	Explain the keys concepts in software project management and its framework as defined in PMBOK.	✓				
Risk scenario analysis	To reinforce what is learned from the reading and lecture, students are given a weekly risk scenario. The scenario poses an IT project problem situation for students to propose a course of action to take, as well as precautionary actions that should have been taken to avoid or alleviate the problem in the first place. Students are required to do some online research as well as make appropriate references to the PMBOK in their proposal.		✓		✓	
Journal	As a learning and knowledge sharing tool, students are required to keep a weekly self-reflective journal to record their learning progress and useful insights as they progress through the course. The journal provides evidence to support the learning of software project management concepts and best practices.	✓		✓		
Presentation and class discussion	Students will be randomly selected to present their proposals for the risk scenarios. The instructor will guide and help focus discussions.	✓	✓	✓	✓	

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		
Continuous Assessment: 60%						
Class exercise and discussion	✓	✓			20%	
Self-reflective journal and discussion			✓	✓	10%	
Analysis report and presentation		✓	✓		20%	
Risk scenario analysis report		✓	✓	✓	10%	
Examination^: 40% (duration: 2 hours)						
* *The weightings should add up to 100%.*					100%	

^ For a student to pass the course, at least 30% of the maximum mark for the examination must be obtained.

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. Class exercise and discussion	1.1 ABILITY to EXPLAIN and APPLY Project Management Framework for effective IT project management	High	Significant	Moderate	Basic	Not even reaching marginal levels
2. Self-reflective journal and discussion	2.1 ABILITY to EXPLAIN the important soft skills and APPLY the skills for effective IT project management	High	Significant	Moderate	Basic	Not even reaching marginal levels
3. Analysis report and presentation	3.1 ABILITY to APPLY the Project Management Framework and soft skills for effective IT project management	High	Significant	Moderate	Basic	Not even reaching marginal levels
4. Risk scenario analysis report	4.1 ABILITY to APPLY the Project Management Framework and soft skills for solving risk scenario problems	High	Significant	Moderate	Basic	Not even reaching marginal levels
5. Examination	5.1 ABILITY to EXPLAIN and APPLY Project Management Framework for effective IT project management	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 Management Framework. Project Management Institute (PMI). A Guide to the Project Management Body of Knowledge (PMBOK). Project Management Professional (PMP) certification. Roles/responsibilities of a project manager. Project manager soft skills: presentation skills, time management skills, people management skills, communication skills, negotiation skills, interviewing skills.

Syllabus

1. Overview
   Overview of the project management discipline; software system versus software project; system development life cycle; roles and responsibilities of the project manager, ethics of software project management; PMI; PMBOK

2. The Project Management Framework
   The chapters of the PMBOK – integration management, scope management, time management, cost management, quality management, human resource management, communication management, risk management, procurement management, etc

3. Project Management Soft Skills
   Presentation skills, managing time, managing meetings, managing people, managing team, doing interviews, interpersonal communication skills, problem solving skills, etc

4. Worst Case Scenarios
   Examples: "How to Give a Last Minute Project Status Presentation", "How to Convince Others, and Yourself, that the Software will be Delivered on Time", "How to Keep the Project Going After Your Key Developer Suddenly Quits", "What to Do When a New Technology Fails", "How to Convince Others, and Yourself, that the Software will be Absolutely Safe", "What to Do When the Customer Insists that You Add a New Feature", etc.

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.	K. Schwalbe (2014). *Managing Information Technology Projects*. Course Technology, 7th Edition.
2.	Project Management Institute (2013). *A Guide to the Project Management Body of Knowledge: (PMBOK Guide)*. 5th edition.

2.2 Additional Readings

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

1.	A. Stellman and J. Greene (2007). *Head First PMP: A Brain-Friendly Guide to Passing the Project Management Professional Exam*. O'Reilly.
2.	F.P. Brooks (1995). *The Mythical Man-Month: Essays on Software Engineering*. Addison-Wesley Professional, 20th Anniversary Edition.