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: Fundamentals of Internet Applications Development

Course Code: CS2204

Course Duration: One Semester

Credit Units: 3 credits

Level: B2

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)   Nil

Precursors:
(Course Code and Title)   Nil

Equivalent Courses:
(Course Code and Title)   Nil

Exclusive Courses: CS1303 Introduction to Internet and Programming
(Course Code and Title)   CS2161 Fundamentals of Web Technologies

Part II   Course Details

1.   Abstract
(A 150-word description about the course)

This course aims at providing the fundamental skills in programming Internet applications.

Upon completion, students should be able to:
   a)   be familiar with the development of WEB programming
   b)   write web pages with the HyperText Markup Language (HTML) and Cascading Style Sheet (CSS)
   c)   write dynamic web pages using scripting
   d)   write a basic client-side web-based application

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.	Explain the development of WEB and its current trends.	5%	✓		
2.	Use of internet development tools such as XHTML editor.	5%		✓	
3.	Design and implement static Web pages using WEB standards.	54%		✓	
4.	Create and set up Web sites and write interactive Web pages.	29%			
5.	Understand, compare and evaluate the design techniques required for Internet applications.	7%		✓	
	* 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: 2 hrs. lecture; 1 hr. tutorial.

TLA	Brief Description	1	2	3	4	5	Hours/week (if applicable)
				CILO No.			
1.	Lecturing, discussions, question and answer based tutorial sessions.	✓	✓				
2.	Instructor led and self-paced exercises focused on individual topics.			✓	✓		
3.	Problem Based Learning (PBL) approach is adopted; students are required to implement a Web application project.			✓	✓	✓	

4. Assessment Tasks/Activities (ATs)
(ATs are designed to assess how well the students achieve the CILOs.)

Assessment Tasks/Activities	1	2	3	4	5	Weighting*	Remarks
			CILO No.				
Continuous Assessment: <u>50%</u>							
3 Short Quizzes are used to assess students' understanding of fundamental concepts	✓		✓	✓	✓	15%	
Coursework are designed to assess students' ability to set up Web pages; it will include components with emphasis on structure, style setting and Javascript programming			✓	✓	✓	35%	
Examination^: <u>50%</u> (duration: 2 hours)							
Programming techniques will be examined and short questions to assess the breadth of knowledge of students	✓		✓	✓	✓	50%	
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. Coursework are designed to assess students' ability to set up Web pages	1.1. Ability to use matching structures in Web pages to meet specified requirements	High	Significant	Moderate	Basic	Not even reaching margin level
	1.2. Ability to design the layout of Web pages with justification	High	Significant	Moderate	Basic	Not even reaching margin level
	1.3. Ability to write Javascript codes with good practice to meet specified requirements	High	Significant	Moderate	Basic	Not even reaching margin level
2. Quiz	2.1. Quantitative mark based	High	Significant	Moderate	Basic	Not even reaching margin level
3. Examination	3.1 Quantitative mark based	High	Significant	Moderate	Basic	Not even reaching margin 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.)

   Review of Internet organization, Common Internet services and protocols.   HyperText Transfer Protocol (HTTP), Client-server model, HyperText Markup Language (HTML), Document Object Model (DOM), Cascading Style Sheet (CSS), Scripting language and Web browser, JavaScript and Client-side programming models.

   Syllabus

   1. Review of Internet and World Wide Web

   2. HTTP, WEB multimedia, XHTML CSS, and DOM

   3. Client-side Scripting

   4. Dynamic HTML and introduction to HTML5 scripting API

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.	Duckett J., (2014). *Web Design with HTML, CSS, JavaScript and jQuery Set,* Wiley, 1st edition.

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

1.	Osborn J., (2011). *HTML5 Digital Classroom*. Wiley, 1st edition.
2.	Duckett J., (2009). *Beginning HTML, XHTML, CSS, and JavaScript*, Wiley, 1st edition.
3.	Various on-line resources on HTML, CSS and Javascript