

**City University of Hong Kong  
Course Syllabus**

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

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**Part I Course Overview**

**Course Title:** Internet Application Development

**Course Code:** CS5281

**Course Duration:** One semester

**Credit Units:** 3 credits

**Level:** P5

**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:**  
(Course Code and Title) Nil

## Part II Course Details

### 1. Abstract

This course provides an overview of the platforms, technologies and architectures used in modern Web-based application development. The objective of this course is to ensure that all students have a good balance of practical hands-on development experience as well as systems-level concepts to ensure that they can make intelligent analysis and critique of platforms and technologies for future development work.

### 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.	Compare, analyze and explain different Web architectures.		√		
2.	Explain what are Web standards and their roles and importance in Web development.		√		
3.	Create practical website design with consideration of user requirement.			√	√
4.	Propose enhancements over static webpages with client-side script/tools.			√	√
5.	Propose designs of server-side programs which interact with client-side elements.			√	√
6.	Explain current trends in Web technologies and development.		√		
		100%			

**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 hrs. lecture/tutorial.

TLA	Brief Description	CILO No.						Hours/week (if applicable)
		1	2	3	4	5	6	
Lecture / Tutorial	Explain key concepts, such as client - server architecture, web standards and markup languages.	√*	√*	√*	√*	√*	√*	3hrs/wk
Group Project	Require students to design and implement fully functional internet based system for real-life application like hotel booking or online bidding.	√*	√*	√	√	√	√*	on average 3~5hrs/wk

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### 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: <u>50%</u>								
Midterm Quiz	√	√	√	√		√	15%	
Group Project	√	√	√	√	√	√	35%	
Examination <sup>^</sup> : <u>50%</u> (duration: 2 hours)								
							100%	

<sup>^</sup> 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. Midterm Quiz	1.1 ABILITY to EXPLAIN and compare different Internet technologies with focus placed on client side development.	High	Significant	Moderate	Basic	Not even reaching marginal levels
2. Group Project	2.1 ABILITY to DESIGN and implement web-based Internet application.	High	Significant	Moderate	Basic	Not even reaching marginal levels
3. Examination	3.1 ABILITY to EXPLAIN and compare different Internet technologies for both client side and server side.	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.)*

History of Internet and the Web, overview of Web-based architectures and platforms, client-server model, browser and web server structures, Web standards and protocols (HTTP, XML, HTML, CSS), client-side programming (JavaScript), server-side programming (e.g. PHP / Java platform, AJAX, Web services), Framework for PC/Mobile platform (e.g. JQuery), Web 2.0 (concept and technologies).

**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.)*

	None – Freely available online material will be used
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**2.2 Additional Readings**

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

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