City University of Hong Kong
Course Syllabus

offered by Department of Information Systems
with effect from Semester A 2017 / 2018

Part I Course Overview

Course Title:	Human-Computer Interaction for Business
Course Code:	IS4333
Course Duration:	One Semester (13 weeks)
Credit Units:	3
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)*	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

(A 150-word description about the course)

All kinds of modern information systems (e.g., big data analytics systems, decision support systems, transaction processing systems, etc.) involve humans (users), computers, and their constant interactions. Accordingly, studying human-computer interactions is essential for enhancing the ultimate utilization of any kinds of information systems. This course aims to enrich students' knowledge and practical skills for the design of user interfaces for general business systems, mobile apps, and e-Commerce Websites. In particular, students will be guided to explore the intersection between cognitive psychology and information systems for a disciplined and systematic way of designing, prototyping, and evaluating practical user interfaces.

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 concepts of human-computer interaction and their importance for user interface and interaction design.	25%	✓		
2.	Apply key principles of user interface design by building creative prototypes.	25%			✓
3.	Demonstrate the attitude and competency to evaluate user interfaces and interaction prototypes.	15%	✓		
4.	Demonstrate the ability to create innovative user interfaces following a user-centered approach.	35%		✓	
		100%			

** If weighting is assigned to CILOs, they should add up to 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**	
TLA1: Lecture	Concepts of user interface design and associated design and development techniques are explained. The focus will be on user interface design and development to enhance the efficiency, safety, functionality, usability and aesthetic appeal of user interfaces, so as to enhance the user's experience with information systems. Topics to be covered include: cognitive psychology, technological aspects constraining and enabling interaction, interaction models, usability principles and engineering, requirement collection and analysis methods, prototyping, evaluation, and implementation of user interfaces.	✓	✓	✓	✓	Seminar: 3 Hours/Week
TLA2: Laboratory	During laboratory sessions, the following activities are used to reinforce and practice various modelling and design techniques learnt in lectures: • *Exercises*: Hands-on activities to practice applying various principles of user interface design, prototyping and evaluation. • Exercises include requirement gathering using different techniques, as well as designing, prototyping, and evaluating user interfaces. • *Case Studies*: Critical reviews of real-world applications, focusing on the application of sound HCI concepts. • *Presentations*: Presentations of tutorial and project work and accompanying feedback will help to reinforce the learning of concepts.	✓	✓	✓	✓	
TLA3: Project	Student teams will be required to apply the concepts taught to develop a prototype system.	✓	✓	✓	✓	

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%						
AT1: Continuous Assessment Participation in class and lab sessions in activities such as: • Commitment in lab discussions to comment on other students' work or to elaborate on own interpretations; • Engagement in lecture interaction on understanding and interpretation of the knowledge	✓	✓	✓	✓	20%	

of user interface design concepts and principles, and prototyping and evaluation skills; • Participation in lab hands-on activities to apply the design principles learnt from lectures.						
AT2: Group Project Student teams will be required to develop a prototype system (such as a business system or an e-commerce Web site). Specifically, student teams will apply skills in analyzing user requirements, interface design, prototyping, and evaluation to develop the prototype. Teams will present their work several times during the semester, allowing other teams to discuss, comment, question and offer suggestions for improvements.	✓	✓	✓	✓	40%	
Examination: 40% (duration: one 2-hour exam)						
AT3: Examination This will assess both the conceptual understanding and the modelling skills.	✓	✓	✓	✓	40%	
** The weightings should add up to 100%.*					100%	

[#] Remark: Students must pass BOTH coursework and examination in order to get an overall pass in this course.

5. Assessment Rubrics

(Grading of student achievements is based on student performance in assessment tasks/activities with the following rubrics.)

Assessment Task (AT)	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Fair (C+, C, C-)	Marginal (D)	Failure (F)
AT1: Continuous Assessment	Ability to creatively, and accurately explain the concepts of cognitive science and the physiology of human perception and the importance of these disciplines to user interface design.	High	Significant	Moderate	Basic	Not even reaching marginal levels
	Capability to creatively, and accurately apply the principles of user interface design and create prototypes that meet user requirements.	High	Significant	Moderate	Basic	Not even reaching marginal levels
	Ability to creatively, and accurately utilize a usability approach to evaluate prototype and project works.	High	Significant	Moderate	Basic	Not even reaching marginal levels
	Ability to creatively, and accurately analyze different options to recommend the most suitable user interface design, prototyping and evaluation from a user-centric aspect.	High	Significant	Moderate	Basic	Not even reaching marginal levels
AT2: Group Project	Ability to creatively, and accurately explain the concepts of cognitive science and the physiology of human perception and the importance of these	High	Significant	Moderate	Basic	Not even reaching marginal levels

	disciplines to user interface design.					
	Capability to creatively, and accurately apply the principles of user interface design and create prototypes that meet user requirements.	High	Significant	Moderate	Basic	Not even reaching marginal levels
	Ability to creatively, and accurately utilize a usability approach to evaluate prototype and project works.	High	Significant	Moderate	Basic	Not even reaching marginal levels
	Ability to creatively, and accurately analyze different options to recommend the most suitable user interface design, prototyping and evaluation from a user-centric aspect.	High	Significant	Moderate	Basic	Not even reaching marginal levels
AT3: Examination	Ability to creatively, and accurately explain the concepts of cognitive science and the physiology of human perception and the importance of these disciplines to user interface design.	High	Significant	Moderate	Basic	Not even reaching marginal levels
	Capability to creatively, and accurately apply the principles of user interface design and create prototypes that meet user requirements.	High	Significant	Moderate	Basic	Not even reaching marginal levels
	Ability to creatively, and accurately utilize a usability approach to evaluate prototype and project works.	High	Significant	Moderate	Basic	Not even reaching marginal levels
	Ability to creatively, and accurately analyze different options to recommend the most suitable user interface design, prototyping and evaluation from a user-centric aspect.	High	Significant	Moderate	Basic	Not even reaching marginal levels

Part III Other Information

1. Keyword Syllabus

(An indication of the key topics of the course.)

User Interface Design; Human-computer interaction; Evaluation of User Interface Design; Usability principles in User Interface Design; Analysis and design of User Interfaces; Design of e-Commerce websites; Mobile App Interface Design, Design process; Requirement analysis; Prototyping.

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.	David Benyon, Designing Interactive Systems: A Comprehensive Guide to HCI, UX and Interaction Design, 3rd Edition, Pearson, 2013.

2.2 Additional Readings

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

1.	Rogers, Sharp & Preece, Interaction Design: Beyond Human - Computer Interaction, Wiley, 2011.
2.	Ben Shneiderman, Catherine Plaisant, Designing the User Interface: Strategies for Effective Human-Computer Interaction, 5th Edition, Addison Wesley/Pearson, 2009.
3.	Stone, D., Jarrett, C., Woodroffe, M., & Minocha, S. User interface design and evaluation, Morgan Kaufmann, Elsevier, 2005.
4.	Benyon, D., Turner, P., & Turner, S. Designing interactive systems: People, activities, contexts, technologies, Harlow, Addison-Wesley, 2005.
5.	Dix, A., Finlay, J., Abowd, G., & Beale, R. Human-Computer Interaction, 3rd edition, Prentice Hall, 2004.