CU_CURR501
Page 1 of 4

THE CHINESE UNIVERSITY OF HONG KONG
Print Course Catalog Details

May 10, 2023
12:24:47 PM

Academic Org: Dept of Computer Sci & Engg – Subject: AI: Systems & Tech

Course: AIST3510   **Course ID:** 013214   **Eff Date:** 2022-07-01   **Crse Status: Active**   **Apprv. Status:** Approved   【Course Rev】

Human-computer Interaction 人機互動

This course provides an introduction to the fast evolving field of human computer interaction (HCI). HCI is a multidisciplinary subject concerning the design, implemen-tation and evaluation of interactive computing systems for human use, and the study of major phenomena surrounding them. We will provide a broad overview of the field, including the theory and principles underlying good designs, with an emphasis on the interface design process, development and evaluation. We will also sample some state-of-the-art technologies in HCI, such as speech recognition, haptics, virtual reality, software agents and computer supported cooperative work.

人機互動設計的基礎，包括人類處理信息的模型及其理論、智能介面的設計方法、步驟及評估之方法。人機互動的要素：佈局、顯示、規約、對話、程序及誤差的處理。應用於人機互動的新科技：語音識別、觸感合成、虛擬真實、軟件代理、群體軟件等。

Grade Descriptor:

A

EXCELLENT – exceptionally good performance and far exceeding expectation in all or most of the course learning outcomes; demonstration of superior understanding of the subject matter, the ability to analyze problems and apply extensive knowledge, and skillful use of concepts and materials to derive proper solutions.

有關等級說明的資料，請參閱英文版本。

B

GOOD – good performance in all course learning outcomes and exceeding expectation in some of them; demonstration of good understanding of the subject matter and the ability to use proper concepts and materials to solve most of the problems encountered.

有關等級說明的資料，請參閱英文版本。

C

FAIR – adequate performance and meeting expectation in all course learning outcomes; demonstration of adequate understanding of the subject matter and the ability to solve simple problems.

有關等級說明的資料，請參閱英文版本。

D

CU_CURR501
Page 2 of 4

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12:24:47 PM

MARGINAL – performance barely meets the expectation in the essential course learning outcomes; demonstration of partial understanding of the subject matter and the ability to solve simple problems.

有關等級說明的資料，請參閱英文版本。

F

FAILURE – performance does not meet the expectation in the essential course learning outcomes; demonstration of serious deficiencies and the need to retake the course.

有關等級說明的資料，請參閱英文版本。

Equivalent Offering:
Units: 3 (Min) / 3 (Max) / 3 (Acad Progress)
Grading Basis: Graded
Repeat for Credit: N
Multiple Enroll: N
Course Attributes:

Topics:

COURSE OUTCOMES

Learning Outcomes:

1. Acquiring the mathematical and engineering foundations that underlie human-computer interaction;
2. Appreciation of the use of other fields of knowledge in the interdisciplinary field of HCI, with the target to achieve a high degree of system usability;
3. Understanding of the integration of component technologies into end-to-end systems that support user-centered HCI;
4. Ability to design and critique user interfaces, as well as conduct empirical evaluation of their interim and overall performances;
5. Awareness of the state-of-the-art technologies that support HCI in real applications and usage contexts.

Course Syllabus:

This course provides an introduction to the fast evolving field of human computer interaction (HCI). HCI is a multidisciplinary subject concerning the design, implemen-tation and evaluation of interactive computing systems for human use, and the study of major phenomena surrounding them. We will provide a broad overview of the field, including the theory and principles underlying good designs, with an emphasis on the interface design process, development and evaluation. We will also sample some state-of-the-art technologies in HCI, such as speech recognition, haptics, virtual

reality, software agents and computer supported cooperative work.

Assessment Type:

Essay test or exam   : 50%
Homework or assignment   : 50%

Feedback for Evaluation:

1. Quiz and examinations
2. Course evaluation and questionnaire
3. Question-and-answer sessions during class
4. Student consultation during office hours or online

Required Readings:

1. Designing the User Interface: Strategies for Effective Human-Computer Interaction (6th Edition / May 3, 2016 / ISBN-13: 978-0134380384) Ben Shneiderman, Catherine Plaisant, Maxine Cohen, Steven Jacobs, Niklas Elmqvist, Nicholas Diakopoulos
Pearson Education
2. Designing with the Mind in Mind: Simple Guide to Understanding User Interface Design Guidelines (2nd Edition / Feb 24,2014 / ISBN-13: 978-0124079144) Jeff Johnson Morgan Kaufmann

Recommended Readings:

OFFERINGS

1. AIST3510   Acad Organization=CSD; Acad Career=UG

COMPONENTS

LEC : Size=30; Final Exam=Y; Contact=3
TUT : Size=30; Final Exam=N; Contact=1

ENROLMENT REQUIREMENTS

1. AIST3510   **Enrollment Requirement Group:**
                               Not for students who have taken SEEM3510

                               New Enrollment Requirement(s):
                               Exclusion = no change

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CU_CURR501
Page 4 of 4

THE CHINESE UNIVERSITY OF HONG KONG
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12:24:47 PM

eLearning hrs for blended cls   0
No. of micro-modules   0
Research components (UG)   0%

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