This course provides an introduction to the fast-evolving field of human computer interaction (HCI). HCI is a multidisciplinary subject concerning the design, implementation 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.

Human-computer Interaction 人機互動

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.

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.

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.
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.

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.

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, implementation 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
realities, 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:**
   Pearson Education

**Recommended Readings:**

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| New Enrollment Requirement(s): |
| Exclusion = no change |

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