



School of Information Sciences

Course Profile: Human Computer Interaction

Course Number: INF 7940

Credits: 3

MLIS Prerequisite(s): INF 7420 or permission of instructor

MSIM Co-requisite(s): INF 6000

Rationale for Inclusion in Curriculum:

The interactions between human beings and computer technologies are becoming integrated part of our daily lives. A good understanding of the interactions is desirable for designing better user experience. The demand from libraries and information agencies for trained professionals who can conduct usability evaluations and user experience designs is increasing rapidly. Students will learn from this course the principles and theories of human-computer/information interactions; computer interaction technologies; and the skills for interaction designs and usability evaluations. In addition, students will learn the current topics in the area of HCI (such as information visualization, ubiquitous computing, ambient intelligence, etc.).

The course offers to students the opportunities to apply the HCI theories in practice through a series of assignments for a class project, which will include HCI design, user and context analysis, and usability evaluations. This course contributes to the School's user experience concentration curricula, and demonstrates the School's effort to train professional user experience librarians as the demand continues to grow from various libraries and information agencies.

Learning Outcomes:

By the end of the course students will be able to:

- Understand HCI principles and guidelines
- Understand computer system hardware features and how its design impacts human interactions
- conduct user and task analysis for information tasks
- Apply models of human performance in the design of information systems.
- Design interactions to support user interaction experience.
- Use evaluation methodologies to perform user interface evaluation and usability testing
- Explore advanced topics and research issues in HCI.

Content:

This course will explore the human, computer technologies and interaction design aspects of HCI. Specifically, the course will cover the following topics:

- Human characteristics and Human Information Processing Model;

- Mental models and Conceptual models, emotion and context: how people interact with technologies;
- Computer/technology systems and interface architecture: interaction devices and styles;
- Usability principles;
- User experience design: design process;
- Application context: User/Task analysis (Requirement analysis);
- Prototyping methods; Prototyping user interfaces;
- Usability evaluation framework and methods;
- Cognitive models and questionnaire design;
- Colors in UI design and Information visualization;
- Other non-text interaction designs;
- Related topics: computer supported cooperative work; ubiquitous computing, ambient intelligence, etc.

Course Methodology:

The course combines lectures, discussions, demonstrations, and assignments/projects to help students understand HCI design principles and design methods, interface evaluation and usability testing techniques in developing information systems. Students are encouraged to discuss, question, and clarify course content in class meetings.

Bases for Evaluation of Student Performance:

Projects, exercises, exam, and class participation.

Text: To be determined.

Approved: 4/12

Updated: 8/13