

# INFO 7003 ADVANCED TOPICS IN USER SYSTEM INTERACTION

**Credit Points** 10

**Legacy Code** 301045

**Coordinator** Omar Mubin ([https://directory.westernsydney.edu.au/search/name/Omar Mubin/](https://directory.westernsydney.edu.au/search/name/Omar%20Mubin/))

**Description** The domain of User System Interaction or also known as Human Computer Interaction (HCI) dictates that IT graduates must be able to develop and evaluate interfaces that not only look professional but are usable, functional and accessible. This post graduate unit also examines HCI as a field of research and discusses novel areas of research in the area. Students in this unit will be required to complete a research project alongside a literature review document both of which comprise of content that is of a standard of being able to be considered for publication and/or presentation in a HCI conference or journal.

**School** Computer, Data & Math Sciences

**Student Contribution Band** HECS Band 2 10cp

**Level** Postgraduate Coursework Level 7 subject

**Incompatible Subjects** INFO 3003 - Human-Computer Interaction  
INFO 3004 - Human-Computer Interaction (Advanced)

## Restrictions

Students must be enrolled in a postgraduate program.

## Learning Outcomes

On successful completion of this subject, students should be able to:

1. Apply cognitive and user models to the design of application user interfaces.
2. Describe ways in which users' characteristics (i.e., age, education, cultural differences, disability etc.) require adaptation of a user interface to increase effectiveness.
3. Integrate appropriate user-centred design methodologies into the development of an application, website or emerging technology (such as mobile and wearable devices)
4. Describe and use the major usability guidelines and standards.
5. Develop low-fidelity prototypes, and high-fidelity prototypes.
6. Develop user interfaces for domain specific applications.
7. Create an appropriate user evaluation plan with carefully chosen subjective and objective measures.
8. Discuss state of the art research issues and novel interaction technologies under the umbrella of HCI by means of presenting discourse through a literature review paper.

## Subject Content

Understanding the user and the user experience  
Interaction styles  
Usability standards  
User-centred design methods  
Development tools and prototyping  
Matching interface elements to user requirements  
Usability testing: tools and methodologies  
Accessibility and assistive technologies  
Rich media

Localization, globalization  
Developing for multiple devices (Computer, PDAs, 3G phones etc)  
Human Computer Interface In Industry  
Emerging technologies  
Research initiatives in HCI  
Research skills (literature review, collecting and analysing data, writing a research report)  
Novel Interaction Techniques  
Multimodal Interaction  
Mobile HCI

## Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

Item	Length	Percent	Threshold	Individual/Group Task
Log/Workbook	3-5 questions to be completed during tutorial	10	Y	Individual
Log/Workbook	Weekly exercises to be completed at home	20	Y	Individual
Applied Project and Presentation	Part A - 750 words Part B - 1,200 words Part C - 10 minutes presentation	50	Y	Individual
Literature review	1,500-2,000 words	20	N	Individual

Teaching Periods

## 2022 Semester 1

### Parramatta - Victoria Rd

#### Evening

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## 2022 Trimester 1

### Sydney City

#### Day

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## 2022 Trimester 3

### Sydney City

#### Day

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