# FIT3063
# Human-computer interaction

# Unit Guide

# Semester 2, 2009

The information contained in this unit guide is correct at time of publication. The University has the right to change any of the elements contained in this document at any time.

*Last updated : 17 Jul 2009*

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## Chief Examiner:

None provided

## Lecturer(s) / Leader(s):

## Caulfield

**Mr Michael Smith**

Contact hours: To be advised

## Malaysia

**Ms Mylini Munusamy**

Contact hours: To be advised

# Introduction

Welcome to FIT3063, Human Computer Interaction for semester 2, 2009. This 6 point unit is offered to all undergraduate degree programs in the Faculty of IT. This unit provides a detailed understanding of the underpinning theories, principles and practices of interface design for computer-based systems and how these are applied in practice.

# Unit synopsis

This unit provides a detailed understanding of the underpinning theories, principles and practices of interface design for computer-based systems. It examines issues in the design of system interfaces from a number of perspectives: user, programmer, designer. It explores the application of the relevant theories in practice. The unit will cover topics such as methods and tools for developing effective user interfaces, evaluation methods such as the conduct of usability and heuristic evaluations, design of appropriate interface elements including the design of menus and other interaction styles. The unit will also focus on designing for a diverse range of users and environments.

# Learning outcomes

At the completion of this unit the students should have knowledge of:

1. The underpinning theories relevant to HCI
2. The principles and practices of HCI in designing user interfaces
3. The importance and role of usability and evaluation in systems design
4. The issues relating to user diversity, different types of systems, interaction styles, devices and environments.


At the conclusion of the unit students should:

1. Appreciate the development of systems from a user perspective
2. Differentiate between good HCI practice in systems development from other development practices
3. Formulate attitudes which enable them to interact effectively with users
4. Empathise with all users particularly those with specific needs


During the process of studying this unit students will be required to put into practice some of the HCI skills learnt including skills to:

1. Recognise the principles of HCI design required in systems development
2. Gather user requirements effectively
3. Design an effective user interface
4. Conduct appropriate evaluation of systems from a HCI perspective and interpret the outcome


As a result of studying this unit students should develop the skills to:

1. Work in teams to complete assessment tasks
2. Empathise with users particularly those with some form of disability

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# Contact hours

3 x contact hrs/week

# Workload

For on campus students, workload commitments are:

* two-hour lecture and
* one-hour tutorial (or laboratory) (requiring advance preparation)
* a minimum of 2-3 hours of personal study per one hour of contact time in order to satisfy the reading and assignment expectations.

You will need to allocate up to 5 hours per week in some weeks, for use of a computer, including time for newsgroups/discussion groups.

# Unit relationships

## Prerequisites

FIT2001 or IMS2805 or FIT2027 or CSE2200 or equivalent

## Prohibitions

IMS3470, IMS2403, GCO3814, FIT3033, CSE3030, MMS2403, FIT2016 (Translation for IMS3470)

## Relationships

FIT3063 is an elective unit in the BITS degree.

 Before attempting this unit you must have satisfactorily completed

FIT2001 or IMS2805 or FIT2027 or CSE2200 or equivalent.

You may not study this unit and CFR3208, CFR3232, COT3030, IMS2403, MMS2403, SYS3080, SYS3084, SYS4470, SYS3470"--and for IMS3470 -CSE3030, in your degree.

You may not study this unit if you have previously studied and passed CFR3208, CFR3232, COT3030, IMS2403, MMS2403, SYS3080, SYS3084, SYS4470, SYS3470"--and for IMS3470 -CSE3030, in your degree.

# Teaching and learning method

Knowledge and understanding objectives are achieved mainly through lectures and tutorial exercises.

Attitudes and beliefs objectives are achieved mainly through laboratory exercises and assignment work.

Practical skills objectives are achieved mainly through laboratory exercises and assignment work.

Relationships, communication and team work objectives are achieved mainly through laboratory exercises and assignment work.

# Timetable information

For information on timetabling for on-campus classes please refer to MUTTS, http://mutts.monash.edu.au/MUTTS/

# Tutorial allocation

On-campus students should register for tutorials/laboratories using the Allocate+ system: http://allocate.cc.monash.edu.au/

# Unit Schedule

| Week | Topic | References/Readings | Key dates |
|---|---|---|---|
| 1 | Introduction | Chapter 1 and 2 | Note: Lecture outline and due dates for assessment tasks may be subject to change as semester progresses |
| 2 | Theories, standards and guidelines | Chapter 5 | |
| 3 | Componental design and interface design elements | Chapter 10 | |
| 4 | Evaluating and usability testing systems | Chapter 7 | |
| 5 | HCI Development methods | Chapter 11 | Assignment 1 |
| 6 | Data gathering, task analysis and prototyping | Chapter 9 | |
| 7 | Interface design issues | Chapter 7 | |
| 8 | Designing user information | | |
| 9 | Web and other interface design issues | Chapter 14 | |
| 10 | Interaction devices | Chapter 3 | |
| Mid semester break | | | |
| 11 | Social and global issues and universal usability | Chapter 13 | Presentations of Assign 2 |
| 12 | Accessibility | Chapter 4 | Presentations of Assign 2 Assignment 2 Due |
| 13 | Summary and review | | |

# Unit Resources

## Prescribed text(s) and readings

Te'eni D., Carey J., Zhang P., (2007) Human Computer Interaction: Developing Effective Organisational Information Systems, Wiley

Text books are available from the Monash University Book Shops. Availability from other suppliers cannot be assured. The Bookshop orders texts in specifically for this unit. You are advised to purchase your text book early.

## Recommended text(s) and readings

Preece, J., Rogers, Y., Sharp, H., Benyon, D., Holland, S.& Carey, T. (1994) Human-computer Interaction. Addison-Wesley.

Cooper, A and Reimann R (2003) About Face 2.0, Wiley

## Equipment and consumables required or provided

Students studying off-campus are required to have the minimum system configuration specified by the Faculty as a condition of accepting admission, and regular Internet access. On-campus students, and those studying at supported study locations may use the facilities available in the computing labs. Information about computer use for students is available from the ITS Student Resource Guide in the Monash University Handbook. You will need to allocate up to **5** hours per week for use of a computer, including time for newsgroups/discussion groups.

## Study resources

Study resources we will provide for your study are:

- Weekly detailed lecture notes outlining the learning objectives, discussion of the content and required readings;
- Weekly tutorial or laboratory tasks and exercises;
- Assignment specifications;
- This Unit Guide outlining the administrative information for the unit;
- The unit web site on MUSO, where resources outlined above will be made available.

# Assessment

## Overview

Examination: 60%
Assignments: 30%
Active Participation: 10%

## Faculty assessment policy

To pass a unit which includes an examination as part of the assessment a student must obtain:

- 40% or more in the unit's examination, and
- 40% or more in the unit's total non-examination assessment, and
- an overall unit mark of 50% or more.

If a student does not achieve 40% or more in the unit examination or the unit non-examination total assessment, and the total mark for the unit is greater than 44% then a mark of no greater than 44-N will be recorded for the unit.

## Assignment tasks

### Assignment coversheets

Assignment coversheets are available via "Student Forms" on the Faculty website:
http://www.infotech.monash.edu.au/resources/student/forms/
You MUST submit a completed coversheet with all assignments, ensuring that the plagiarism declaration section is signed.

**Assignment submission and return procedures, and assessment criteria will be specified with each assignment.**

- ### Assignment task 1

    **Title:**
    > Online discussion forums and tutorial participation
    **Description:**
    > Students must complete any required preparation for tutorials, attend and actively participate in tutorials.
    >
    > Students are also required to participate throughout the semester in any online discussion forums that may be available through unit's Moodle site
    **Weighting:**
    > 10%
    **Due date:**
    > Ongoing throughout semester
    **Remarks:**
    > No marks will be awarded for simply attending tutorials.

- **Assignment task 2**

**Title:**
Assignment 1
**Description:**
Students will be required to complete a practical exercise in one tutorial class which will require them to demonstrate their knowldege and skills in relation to concepts presented to that stage of the semester
**Weighting:**
10%
**Due date:**
Week 5. Dates to be advised

- **Assignment task 3**

**Title:**
Assignment 2
**Description:**
Students will be required to form groups to develop and/or evaluate a website or websites, demonstrating their knowledge, skills and understanding of the principles and theories covered through the semester. Each group will present their work to the class.
**Weighting:**
20%
**Due date:**
Group presentations in Weeks 11 and 12. All final submissions in Week 12. Dates to be advised
**Remarks:**
The week in which groups give their presentations to the class will be determined during semester.

Groups will be finalised by Week 6 of semester and all group members must belong to the same tutorial. Forming groups across tutorials will not be allowed.

# Examination

- **Weighting:** 60%
  **Length:** 3 hours
  **Type (open/closed book):** Closed book

**See Appendix for End of semester special consideration / deferred exams process.**

# Due dates and extensions

Please make every effort to submit work by the due dates. It is your responsibility to structure your study program around assignment deadlines, family, work and other commitments. Factors such as normal work pressures, vacations, etc. are not regarded as appropriate reasons for granting extensions. Students are advised to NOT assume that granting of an extension is a matter of course.

Students requesting an extension for any assessment during semester (eg. Assignments, tests or presentations) are required to submit a Special Consideration application form (in-semester exam/assessment task), along with original copies of supporting documentation, directly to their lecturer within two working days before the assessment submission deadline. Lecturers will provide specific outcomes directly to students via email within 2 working days. The lecturer reserves the right to refuse late applications.

A copy of the email or other written communication of an extension must be attached to the assignment submission.

Refer to the Faculty Special consideration webpage or further details and to access application forms: http://www.infotech.monash.edu.au/resources/student/equity/special-consideration.html

## Late assignment

Assignments received after the due date will be subject to a penalty of 10% per day. **Assignments received later than one week after the due date will not normally be accepted.**
This policy is strict because comments or guidance will be given on assignments as they are returned, and sample solutions may also be published and distributed, after assignment marking or with the returned assignment

## Return dates

Students can expect assignments to be returned within two weeks of the submission date or after receipt, whichever is later.

# **Appendix**

Please visit the following URL: http://www.infotech.monash.edu.au/units/appendix.html for further information about:

- Continuous improvement
- Unit evaluations
- Communication, participation and feedback
- Library access
- Monash University Studies Online (MUSO)
- Plagiarism, cheating and collusion
- Register of counselling about plagiarism
- Non-discriminatory language
- Students with disability
- End of semester special consideration / deferred exams