



**MONASH** University  
Information Technology

**FIT3063**  
**Human-computer interaction**

**Unit Guide**

**Semester 2, 2011**

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: 22 Aug 2011*

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# **FIT3063 Human-computer interaction - Semester 2, 2011**

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.

## **Mode of Delivery**

- Caulfield (Day)
- Sunway (Day)
- South Africa (Day)

## **Contact Hours**

2 hrs lectures/wk, 1 hr tutorial/wk

## **Workload**

Students will be expected to spend a total of 12 hours per week during semester on this unit as follows:

- Lectures: 2 hours per week,
- Tutorials: 1 hour per week and
- a minimum of 3 hours of personal study per one hour of contact time in order to satisfy the reading and assignment expectations.

## **Unit Relationships**

### **Prohibitions**

CSE3030, FIT2016, FIT3033, GCO3814, IMS2403, IMS3470, MMS2403

### **Prerequisites**

One of FIT2001, FIT2027, IMS2805, CSE2200 or equivalent

### **Chief Examiner**

Dr Judithe Sheard

### **Campus Lecturer**

## **Caulfield**

**Judy Sheard**

Contact hours: To be advised

## **South Africa**

**Stella Ouma**

Contact hours: To be advised

## **Sunway**

**Mylini Munusamy**

Contact hours: To be advised

## **Tutors**

### **Caulfield**

**Michael Smith**

Contact hours: To be advised

# Academic Overview

## Learning Objectives

At the completion of this unit students will have -  
A knowledge and understanding of:

- the underpinning theories relevant to HCI;
- the principles and practices of HCI in designing user interfaces;
- the importance and role of usability and evaluation in systems design;
- the issues relating to user diversity, different types of systems, interaction styles, devices and environments.

Developed attitudes that enable them to:

- appreciate the development of systems from a user perspective;
- differentiate between good HCI practice in systems development from other development practices;
- formulate attitudes which enable them to interact effectively with users;
- empathise with all users particularly those with specific needs.

Gained practical skills to:

- recognise the principles of HCI design required in systems development;
- gather user requirements effectively;
- design an effective user interface;
- conduct appropriate evaluation of systems from a HCI perspective and interpret the outcome.

Demonstrated the communication skills necessary to:

- work in teams to complete assessment tasks;
- empathise with users particularly those with some form of disability.

## Graduate Attributes

Monash prepares its graduates to be:

1. responsible and effective global citizens who:
  - a. engage in an internationalised world
  - b. exhibit cross-cultural competence
  - c. demonstrate ethical values

critical and creative scholars who:

- a. produce innovative solutions to problems
- b. apply research skills to a range of challenges
- c. communicate perceptively and effectively

## Assessment Summary

Examination (3 hours): 50%; In-semester assessment: 50%

Assessment Task	Value	Due Date
Online discussion forums	10%	Six forums each of approximately two weeks duration, throughout the semester.
Peerwise multiple choice questions	5%	Ongoing throughout the semester, up to the end of week 12.
Assignment	35%	Stage 1 due in week 7; Stage 2 due in week 10; Stage 3 due in week 12.
Examination 1	50%	To be advised

## Teaching Approach

This teaching and learning approach provides facilitated learning, practical exploration and peer learning through a variety of activities.

## Feedback

### Our feedback to You

Types of feedback you can expect to receive in this unit are:

- Informal feedback on progress in labs/tutes
- Graded assignments with comments
- Quiz results
- Other: Peer review of quiz questions

### Your feedback to Us

Monash is committed to excellence in education and regularly seeks feedback from students, employers and staff. One of the key formal ways students have to provide feedback is through SETU, Student Evaluation of Teacher and Unit. The University's student evaluation policy requires that every unit is evaluated each year. Students are strongly encouraged to complete the surveys. The feedback is anonymous and provides the Faculty with evidence of aspects that students are satisfied and areas for improvement.

For more information on Monash's educational strategy, and on student evaluations, see:

<http://www.monash.edu.au/about/monash-directions/directions.html>

<http://www.policy.monash.edu/policy-bank/academic/education/quality/student-evaluation-policy.html>

### Previous Student Evaluations of this unit

If you wish to view how previous students rated this unit, please go to

<https://emuapps.monash.edu.au/unitevaluations/index.jsp>

## **Required Resources**

Sharp, H., Rogers, Y. & Preece, J. (2007) *Beyond Human-Computer Interaction*, 2nd edition, Wiley.

The text book is available from the Monash University book shops. Availability from other suppliers cannot be assured. The book shops order texts specifically for this unit. You are advised to purchase your text book early.

## Unit Schedule

Week	Activities	Assessment
0		No formal assessment or activities are undertaken in week 0
1	Unit overview. Introduction to HCI, interfaces, usability and user-centred design. Human factors.	Note: Tutorials will commence in week 1; *Online Discussion - six forums each approx 2 weeks duration, throughout semester; *Peerwise multiple choice questions - ongoing throughout semester, ending in week 12.
2	Evolution of the interface, understanding the design space, conceptual models, mental models, metaphors, icons.	
3	Theoretical foundations of HCI: theories, models, frameworks and principles.	
4	Interface design principles, guidelines, standards and style guides.	
5	Interface design processes and methods, user-centred design, prototyping.	
6	Interface design elements, graphical components, sound, sequencing, labels, messages.	
7	Interaction styles, command language, natural language, menus, forms, direct manipulation, virtual and augmented reality.	Submission of stage 1 of the assignment
8	Usability: usability principles, usability evaluation methods.	
9	Accessibility: accessibility guidelines, assistive technologies.	
10	Interaction devices: input and output devices, performance evaluation.	Submission of stage 2 of the assignment
11	Designing for the Web and Web 2.0.	Presentations of stage 2 of the assignment
12	Future of HCI.	Submission of stage 3 of the assignment. Presentations of stage 2 of the assignment.
	Examination period	LINK to Assessment Policy: <a href="http://policy.monash.edu.au/policy-bank/academic/education/assessment/assessment-in-coursework-policy.html">http://policy.monash.edu.au/policy-bank/academic/education/assessment/assessment-in-coursework-policy.html</a>

\*Unit Schedule details will be maintained and communicated to you via your MUSO (Blackboard or Moodle) learning system.



# Assessment Requirements

## 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 50% then a mark of no greater than 49-N will be recorded for the unit

## Assessment Tasks

### Participation

#### • Assessment task 1

**Title:**

Online discussion forums

**Description:**

Students are required to participate throughout the semester in online discussion forums that will be available through the unit's Moodle site.

**Weighting:**

10%

**Criteria for assessment:**

Criteria for assessment will be based on level of active participation:

- ◆ number of postings,
- ◆ replies to postings,
- ◆ and timing of postings,
- ◆ relevance of contributions and
- ◆ evidence of wider reading and
- ◆ critical thinking.

More details will be made available in the task specification.

**Due date:**

Six forums each of approximately two weeks duration, throughout the semester.

#### • Assessment task 2

**Title:**

Peerwise multiple choice questions

**Description:**

Students will be required to design and contribute multiple choice questions to the Peerwise online tool and assess questions contributed by other students.

**Weighting:**

5%

**Criteria for assessment:**

## Assessment Requirements

Criteria for assessment will be based on quality of questions contributed and ratings given to other questions. More details will be made available in the task specification.

**Due date:**

Ongoing throughout the semester, up to the end of week 12.

### • Assessment task 3

**Title:**

Assignment

**Description:**

Students will be required to form groups to design and develop a low-level of an application (stage 1), a high-level prototype of this application (stage 2) and then evaluate the high-level prototype (stage 3).

Students will give a presentation of their stage 2 submissions in their tutorials in either week 11 or week 12.

In this assignment students will demonstrate their knowledge, skills and understanding of the principles and theories covered through the semester.

**Weighting:**

35%

**Criteria for assessment:**

5% for the design of a low-level prototype (Stage 1).

20% for the design of a high-level prototype, report of the process (Stage 2).

10% for the evaluation of the high-level prototype (Stage 3).

**Due date:**

Stage 1 due in week 7;

Stage 2 due in week 10;

Stage 3 due in week 12.

**Remarks:**

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.

## Examinations

### • Examination 1

**Weighting:**

50%

**Length:**

3 hours

**Type (open/closed book):**

Closed book

**Electronic devices allowed in the exam:**

None

## **Assignment submission**

It is a University requirement

(<http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-procedures.html>) for students to submit an assignment coversheet for each assessment item. Faculty Assignment coversheets can be found at <http://www.infotech.monash.edu.au/resources/student/forms/>. Please check with your Lecturer on the submission method for your assignment coversheet (e.g. attach a file to the online assignment submission, hand-in a hard copy, or use an online quiz).

## **Extensions and penalties**

Submission must be made by the due date otherwise penalties will be enforced.

You must negotiate any extensions formally with your campus unit leader via the in-semester special consideration process:

<http://www.infotech.monash.edu.au/resources/student/equity/special-consideration.html>.

## **Returning assignments**

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

## Other Information

### Policies

Monash has educational policies, procedures and guidelines, which are designed to ensure that staff and students are aware of the University's academic standards, and to provide advice on how they might uphold them. You can find Monash's Education Policies at:

<http://policy.monash.edu.au/policy-bank/academic/education/index.html>

Key educational policies include:

- Plagiarism  
(<http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-policy.html>)
- Assessment  
(<http://www.policy.monash.edu/policy-bank/academic/education/assessment/assessment-in-coursework-p>)
- Special Consideration  
(<http://www.policy.monash.edu/policy-bank/academic/education/assessment/special-consideration-policy.h>)
- Grading Scale  
(<http://www.policy.monash.edu/policy-bank/academic/education/assessment/grading-scale-policy.html>)
- Discipline: Student Policy  
(<http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-discipline-policy.html>)
- Academic Calendar and Semesters (<http://www.monash.edu.au/students/key-dates/>);
- Orientation and Transition (<http://www.infotech.monash.edu.au/resources/student/orientation/>);  
and
- Academic and Administrative Complaints and Grievances Policy  
(<http://www.policy.monash.edu/policy-bank/academic/education/management/complaints-grievance-policy>)
- Codes of Practice for Teaching and Learning  
(<http://www.policy.monash.edu.au/policy-bank/academic/education/conduct/suppdocs/code-of-practice-tea>)

### Student services

The University provides many different kinds of support services for you. Contact your tutor if you need advice and see the range of services available at [www.monash.edu.au/students](http://www.monash.edu.au/students). The Monash University Library provides a range of services and resources that enable you to save time and be more effective in your learning and research. Go to <http://www.lib.monash.edu.au> or the library tab in my.monash portal for more information. Students who have a disability or medical condition are welcome to contact the Disability Liaison Unit to discuss academic support services. Disability Liaison Officers (DLOs) visit all Victorian campuses on a regular basis

- Website: <http://adm.monash.edu/sss/equity-diversity/disability-liaison/index.html>;
- Telephone: 03 9905 5704 to book an appointment with a DLO;
- Email: [dlu@monash.edu](mailto:dlu@monash.edu)
- Drop In: Equity and Diversity Centre, Level 1 Gallery Building (Building 55), Monash University, Clayton Campus.

### READING LIST:

Shneiderman, B. (2010) Designing the User Interface. Addison-Wesley.

Norman, Donald (1998) The Design of Everyday Things, MIT Press.

Cooper, A., Reimann, R. & Cronin, D. (2007) About Face #: The Essentials of Interaction design, John

Other Information

Wiley & Sons, Inc.