MONASH University

# FIT3063
# Human-computer interaction


# Unit guide

# Semester 2, 2008

# Table of Contents

# FIT3063 Human-computer interaction - Semester 2 , 2008

## Unit leader :

Julie Fisher/Dan Eaves

## Lecturer(s) :

## Caulfield

- Julie Fisher

FIT3063 Human-computer interaction - Semester 2 , 2008

# Introduction

Welcome to FIT3063, Human Computer Interaction for semester 2, 2008. This 6 point unit 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

ASCED Discipline Group classification: 029999 Human-computer interaction

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

Knowledge and Understanding

At the completion of this unit the students should have knowledge of:
- C1. The underpinning theories relevant to HCI
- C2. The principles and practices of HCI in designing user interfaces
- C3. The importance and role of usability and evaluation in systems design
- C4. The issues relating to user diversity, different types of systems, interaction styles, devices and environments.

Attitudes, Values and Beliefs

At the conclusion of the unit students should:
- A1. Appreciate the development of systems from a user perspective
- A2. Differentiate between good HCI practice in systems development from other development practices
- A3. Formulate attitudes which enable them to interact effectively with users
- A4. Empathise with all users particularly those with specific needs

Practical Skills

During the process of studying this unit students will be required to put into practice some of the HCI skills learnt including skills to:
- P1. Recognise the principles of HCI design required in systems development
- P2. Gather user requirements effectively
- P3. Design an effective user interface
- P4. Conduct appropriate evaluation of systems from a HCI perspective and interpret the outcome

Relationships, Communication and TeamWork

As a result of studying this unit students should develop the skills to:
- S1. Work in teams to complete assessment tasks
- S2. Empathise with users particularly those with some form of disability

# 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

Before attempting this unit you must have satisfactorily completed CSE1203, CSE1303, BUS1042, IMS1002, IMS2805 or equivalent, and completed at least 48 points of an undergraduate degree, or equivalent

## 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.

# Continuous improvement

Monash is committed to 'Excellence in education' and strives for the highest possible quality in teaching and learning. To monitor how successful we are in providing quality teaching and learning Monash regularly seeks feedback from students, employers and staff. Two of the formal ways that you are invited to provide feedback are through Unit Evaluations and through Monquest Teaching Evaluations.

One of the key formal ways students have to provide feedback is through Unit Evaluation Surveys. It is Monash policy for every unit offered to be evaluated each year. Students are strongly encouraged to complete the surveys as they are an important avenue for students to "have their say". The feedback is anonymous and provides the Faculty with evidence of aspects that students are satisfied and areas for improvement.

# Student Evaluations

The Faculty of IT administers the Unit Evaluation surveys online through the my.monash portal, although for some smaller classes there may be alternative evaluations conducted in class.

If you wish to view how previous students rated this unit, please go to
http://www.monash.edu.au/unit-evaluation-reports/

Over the past few years the Faculty of Information Technology has made a number of improvements to its courses as a result of unit evaluation feedback. Some of these include systematic analysis and planning of unit improvements, and consistent assignment return guidelines.

Monquest Teaching Evaluation surveys may be used by some of your academic staff this semester. They are administered by the Centre for Higher Education Quality (CHEQ) and may be completed in class with a facilitator or on-line through the my.monash portal. The data provided to lecturers is completely anonymous.
Monquest surveys provide academic staff with evidence of the effectiveness of their teaching and identify areas for improvement. Individual Monquest reports are confidential, however, you can see the summary results of Monquest evaluations for 2006 at http://www.adm.monash.edu.au/cheq/evaluations/monquest/profiles/index.html

# Unit staff - contact details

## Unit leader

**Julie Fisher/Dan Eaves**
## Lecturer(s) :

**<u>Associate Professor Julie Fisher</u>**
Associate Professor
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Fax +61 3 99031077
## Additional communication information

Julie Fisher

Dan Eaves

# 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.

## Tutorial allocation

On-campus students should register for tutorials/laboratories using Allocate+.

## Communication, participation and feedback

Monash aims to provide a learning environment in which students receive a range of ongoing feedback throughout their studies. You will receive feedback on your work and progress in this unit. This may take the form of group feedback, individual feedback, peer feedback, self-comparison, verbal and written feedback, discussions (on line and in class) as well as more formal feedback related to assignment marks and grades. You are encouraged to draw on a variety of feedback to enhance your learning.

It is essential that you take action immediately if you realise that you have a problem that is affecting your study. Semesters are short, so we can help you best if you let us know as soon as problems arise. Regardless of whether the problem is related directly to your progress in the unit, if it is likely to interfere with your progress you should discuss it with your lecturer or a Community Service counsellor as soon as possible.

## Unit Schedule

| Week | Topic | References/Readings | Key dates |
|------|-------|---------------------|-----------|
| 1 | Introduction | Chapter 1 and 2 | |
| 2 | Theories, standards and guidelines | Chapter 5 | |
| 3 | Componential design and interface design elements | Chapter 10 | |
| 4 | Evaluating and usability testing systems | Chapter 7 | Assignment 1 Practical exercise |
| 5 | HCI Development methods | Chapter 11 | |
| 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 | |
| 11 | Social and global issues and universal usability | Chapter 13 | Presentations of Assign 2 |
| Mid semester break | | | |
| 12 | Accessibility | Chapter 4 | |

| | | | Presentations Assign 2. Assignment 2 Development of a website Due |
|---|---|---|---|
| 13 | Summary and review | | Note lecture outline subject to change as semester progresses |

# Unit Resources

## Prescribed text(s) and readings

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

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

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

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

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 **n** 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:

## Library access

The Monash University Library site contains details about borrowing rights and catalogue searching. To learn more about the library and the various resources available, please go to http://www.lib.monash.edu.au.  Be sure to obtain a copy of the Library Guide, and if necessary, the instructions for remote access from the library website.

## Monash University Studies Online (MUSO)

All unit and lecture materials are available through MUSO (Monash University Studies Online). Blackboard is the primary application used to deliver your unit resources. Some units will be piloted in Moodle. If your unit is piloted in Moodle, you will see a link from your Blackboard unit to Moodle (http://moodle.monash.edu.au) and can bookmark this link to access directly. In Moodle, from the Faculty of Information Technology category, click on the link for your unit.

FIT3063 Human-computer interaction - Semester 2 , 2008

You can access MUSO and Blackboard via the portal: http://my.monash.edu.au

Click on the Study and enrolment tab, then Blackboard under the MUSO learning systems.

In order for your Blackboard unit(s) to function correctly, your computer needs to be correctly configured.

For example:

- Blackboard supported browser
- Supported Java runtime environment

For more information, please visit: http://www.monash.edu.au/muso/support/students/downloadables-student.html

**You can contact the MUSO Support by: Phone: (+61 3) 9903 1268**

For further contact information including operational hours, please visit:
http://www.monash.edu.au/muso/support/students/contact.html

Further information can be obtained from the MUSO support site:
http://www.monash.edu.au/muso/support/index.html

# Assessment

## Unit assessment policy

To pass this unit, a student must obtain :

* 40% or more in the unit's examination and
* 40% or more in the unit's 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 assessment then a mark of no greater than 44-N will be recorded for the unit.
If a student's result is more than 50% overall but the student achieves a result of 48% or less in either component then the maximum grade that will be awarded is P irrespective of the overall result.

## Assignment tasks

- ### Assignment Task

  **Title :** Active participation in tutorials and online discussion forums

  **Description :**

  Students must complete any required preparation for tutorials, attend and actively participate in discussions. Students are also required to participate througout the semester in the online discussion forums which will be available through Moodle

  **Weighting :** 10%

  **Criteria for assessment :**

  Active participation, evidence of wider reading and attendance at tutorials.

  Number of postings, replies to postings and spread of postings on discussion forums throughout the semester

  **Due date :** 10/10/08
- ### Assignment Task

  **Title :** Assignment 1 Practical exercise

  **Description :**

  Students will be required to complete a practical exercise in one tutorial which will require them to demonstrate their knowldege and skills

  **Weighting :** 10%

  **Criteria for assessment :**

  Satisfactory completion of the exercise

FIT3063 Human-computer interaction - Semester 2 , 2008

    **Due date :** 14/8/08
- **Assignment Task**

    **Title :** Assignment 2 Development of a website

    **Description :**

    Students will be required in groups to develop a website demonstrating their knowledge, skills and understanding of the principles and theories covered through the semester. The assignment will also require the website to be evaluated.  Students will present their websites to the class

    **Weighting :** 20%

    **Criteria for assessment :**

    Design of the website, completed evaluation, written report and class presentation

    **Due date :** 9/10/08

# Examinations

- **Examination**

    **Weighting :** 60%

    **Length :** 3 hours

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

# Assignment submission

Assignment 1 will be submitted in the tutorial it is undertaken. Submission will be to the tutor. Assignment 2 will be submitted to the tutor in the tutorial of the week the assignment is due.

# Assignment coversheets

Students must include a completed and signed assignment coversheet. Assignment coversheets can be found :

* via the "Student assignment coversheets" ( http://infotech.monash.edu.au/resources/student/assignments/ ) page on the faculty website

# University and Faculty policy on assessment

## Due dates and extensions

The due dates for the submission of assignments are given in the previous section. 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 seldom regarded as appropriate reasons for granting extensions. Students are advised to NOT assume that granting of an extension is a matter of course.

Requests for extensions must be made to the unit lecturer at least two days before the due date. You will be asked to forward original medical certificates in cases of illness, and may be asked to provide other forms of documentation where necessary. A copy of the email or other written communication of an extension must be attached to the assignment submission.

## 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.

Assessment for the unit as a whole is in accordance with the provisions of the Monash University Education Policy at http://www.policy.monash.edu/policy-bank/academic/education/assessment/

We will aim to have assignment results made available to you within two weeks after assignment receipt.

## Plagiarism, cheating and collusion

Plagiarism and cheating are regarded as very serious offences. In cases where cheating  has been confirmed, students have been severely penalised, from losing all marks for an assignment, to facing disciplinary action at the Faculty level. While we would wish that all our students adhere to sound ethical conduct and honesty, I will ask you to acquaint yourself with Student Rights and Responsibilities (http://www.infotech.monash.edu.au/about/committees-groups/facboard/policies/studrights.html) and the Faculty regulations that apply to students detected cheating as these will be applied in all detected cases.

In this University, cheating means seeking to obtain an unfair advantage in any examination or any other written or practical work to be submitted or completed by a student for assessment. It includes the use, or attempted use, of any means to gain an unfair advantage for any assessable work in the unit, where the means is contrary to the instructions for such work.

When you submit an individual assessment item, such as a program, a report, an essay, assignment or other piece of work, under your name you are understood to be stating that this is your own work. If a submission is identical with, or similar to, someone else's work, an assumption of cheating may arise. If you are planning on working with another student, it is acceptable to undertake research together, and discuss problems, but it is not acceptable to jointly develop or share solutions unless this is specified by your lecturer.

Intentionally providing students with your solutions to assignments is classified as "assisting to cheat" and students who do this may be subject to disciplinary action. You should take reasonable care that your solution is not accidentally or deliberately obtained by other students. For example, do not leave copies of your work in progress on the hard drives of shared computers, and do not show your work to other students. If you believe this may have happened, please be sure to contact your lecturer as soon as possible.

Cheating also includes taking into an examination any material contrary to the regulations, including any bilingual dictionary, whether or not with the intention of using it to obtain an advantage.

Plagiarism involves the false representation of another person's ideas, or findings, as your own by either copying material or paraphrasing without citing sources. It is both professional and ethical to reference clearly the ideas and information that you have used from another writer. If the source is not identified, then you have plagiarised work of the other author. Plagiarism is a form of dishonesty that is insulting to the reader and grossly unfair to your student colleagues.

# Register of counselling about plagiarism

The university requires faculties to keep a simple and confidential register to record counselling to students about plagiarism (e.g. warnings). The register is accessible to Associate Deans Teaching (or nominees) and, where requested, students concerned have access to their own details in the register. The register is to serve as a record of counselling about the nature of plagiarism, not as a record of allegations; and no provision of appeals in relation to the register is necessary or applicable.

# Non-discriminatory language

The Faculty of Information Technology is committed to the use of non-discriminatory language in all forms of communication. Discriminatory language is that which refers in abusive terms to gender, race, age, sexual orientation, citizenship or nationality, ethnic or language background, physical or mental ability, or political or religious views, or which stereotypes groups in an adverse manner. This is not meant to preclude or inhibit legitimate academic debate on any issue; however, the language used in such debate should be non-discriminatory and sensitive to these matters. It is important to avoid the use of discriminatory language in your communications and written work. The most common form of discriminatory language in academic work tends to be in the area of gender inclusiveness. You are, therefore, requested to check for this and to ensure your work and communications are non-discriminatory in all respects.

# Students with disabilities

Students with disabilities that may disadvantage them in assessment should seek advice from one of the following before completing assessment tasks and examinations:

- Faculty of Information Technology Student Service staff, and / or
- your Unit Coordinator, or
- Disabilities Liaison Unit

# Deferred assessment and special consideration

Deferred assessment (not to be confused with an extension for submission of an assignment) may be granted in cases of extenuating personal circumstances such as serious personal illness or bereavement. Information and forms for Special Consideration and deferred assessment applications are available at http://www.monash.edu.au/exams/special-consideration.html. Contact the Faculty's Student Services staff at your campus for further information and advice.