FIT5152
User interface design and usability

Unit Guide

Semester 2, 2010

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: 15 Jul 2010
# Table of Contents

**FIT5152 User interface design and usability - Semester 2, 2010**

Chief Examiner: ............................................................................................................................... 1  
Lecturer(s) / Leader(s):......................................................................................................................... 1  
Caulfield................................................................................................................................................. 1  
Gippsland............................................................................................................................................... 1  

### Additional communication information:

- **Introduction** .................................................................................................................................................. 2  
- **Unit synopsis** .............................................................................................................................................. 2  
- **Learning outcomes** ...................................................................................................................................... 2  
- **Contact hours** ............................................................................................................................................ 3  
- **Workload** .................................................................................................................................................. 3  
- **Unit relationships** ....................................................................................................................................... 3  
- **Prerequisites** .................................................................................................................................................. 3  
- **Prohibitions** .................................................................................................................................................. 3  

### Teaching and learning method

- **Teaching approach** .......................................................................................................................................... 4  
- **Timetable information** ...................................................................................................................................... 4  
- **Tutorial allocation** .......................................................................................................................................... 4  
- **Off-Campus Learning or flexible delivery** ...................................................................................................... 4  
- **Unit Schedule** ............................................................................................................................................... 4  
- **Improvements to this unit** ............................................................................................................................... 5  

### Unit Resources

- **Prescribed text(s) and readings** .................................................................................................................. 6  
- **Recommended text(s) and readings** ........................................................................................................... 6  
- **Equipment and consumables required or provided** ..................................................................................... 6  
- **Study resources** ............................................................................................................................................ 6  

### Assessment

- **Overview** .................................................................................................................................................... 7  
- **Faculty assessment policy** ........................................................................................................................... 7  
- **Assignment tasks** .......................................................................................................................................... 7  
- **Examination** ................................................................................................................................................ 9  
- **Due dates and extensions** .............................................................................................................................. 9  
- **Late assignment** .......................................................................................................................................... 10  
- **Return dates** ............................................................................................................................................... 10  
- **Feedback** .................................................................................................................................................. 10  

### Appendix

........................................................................................................................................................................... 11
FIT5152 User interface design and usability - Semester 2, 2010

Chief Examiner:

Associate Professor Julie Fisher
Associate Professor
Phone: +61 3 990 32621
Fax: +61 3 990 31077

Contact hours: 4.30-6.00 Tuesdays

Lecturer(s) / Leader(s):

Caulfield

Associate Professor Julie Fisher
Associate Professor
Phone: +61 3 990 32621
Fax: +61 3 990 31077

Contact hours: 4.30-6.00 Tuesdays

Gippsland

Dengsheng Shang

Contact hours: Off Campus co-ordinator

Additional communication information:

Contact details regarding tutor/s for this unit will be advised during the lecture and on the Moodle website.
Introduction


The unit is an on-campus and off campus unit and as such is structured, taught and assessed taking this into account. All lectures will be recorded and lecture material will be available from Moodle. Attendance for on campus students will be monitored. The assessment tasks will be adjusted for off campus students.

Unit synopsis

This unit provides detailed understanding of user interface design principles and practices and usability for computer-based systems. The principles, guidelines and standards for incorporating human factors in computer interface design are explored. The unit examines issues in interface design and usability from various perspectives and how to manage this during systems development. It explores contemporary issues including: background and underpinning theories, guidelines and standards, design processes and implementation in practice, user interface evaluation methods, interface styles and componential design. The application of HCI design in other environments such as virtual reality and mobile devices will be covered.

Learning outcomes

At the completion of this unit students should be able to:

- understand from a management as well as technology perspective how the theories, guidelines and standards can be incorporated into the design of user interfaces;
- understand and apply the principles of interface design relating to HCI, this includes recognising good and bad examples;
- apply the standards, principles and theories in practice.
- develop and conduct usability evaluations and be able to interpret the results, identify changes that are needed to a user interface;
- understand the different design considerations for designing for the Web and other devices;
- understand the different user centred development methodologies that look at design from a user perspective. In particular have knowledge of the basic principles of good interface design and HCI principles;
- appreciate the difficulties users face when working with systems and be able to comprehend the concepts and principles underlying effective interface design and recognise good design from poor design and what the difference is from a user perspective;
- develop attitudes which enable them to interact effectively with users in order to apply this knowledge to the design of interfaces for a range of technologies;
- analyse the component parts of an interface so to be able to identify what is good design;
- synthesise the knowledge, guidelines and theory to understand how each contributes to practice;
- effectively conduct an evaluation of an information system especially in terms of usability of information systems;
- understand the development of systems from a user perspective;
- appreciate the difficulties users face when working with systems;
- apply the principles, standards and theories relating to interface design and HCI to information systems development;
- gather user requirements effectively;
- design an effective user interface;
- conduct a usability test and interpret the outcome;
recognise poor design and solutions.

Contact hours

2 hrs lectures/wk, 1.5 hr laboratory/wk

Workload

This is a six point unit which, according to University guidelines, requires you to spend 12 hours per week (a total of at least 156 hours per semester).
The anticipated workload is:

- 1 x 2 hours per week lecture (commencing 20th July, 2010), and
- 1 x 1.5 hour per week tutorial (commencing 27th July, 2010)

Plus

- 10 hours per week preparation, online contributions and assignments, and
- A minimum of 2 hours per week additional reading.

Unit relationships

Prerequisites

For MAIT Students FIT9019 and FIT9030.
For all other students FIT9003.

Prohibitions

IMS5302, CSE5930
Teaching and learning method

Teaching approach

The lectures will provide material to stimulate discussion and debate where possible. Some reading will be required prior to the lecture.

Tutorials will involve discussions, debate, critiquing and practical activities. There will be reading that students will need to undertake for the tutorials.

Tutorials participation is assessed and there will be some tutorial activities that are assessed.

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.its.monash.edu.au/

Off-Campus Learning or flexible delivery

The following schedule provides you with a guide to the topics and assignment due dates. All material will be available from Moodle before the lectures and tutes

Unit Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Date*</th>
<th>Topic</th>
<th>References/Readings</th>
<th>Key dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>19/07/10</td>
<td>Introduction and overview of HCI</td>
<td>Please see reading guide available on Moodle</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>26/07/10</td>
<td>Theories, standards and guidelines</td>
<td>Please see reading guide available on Moodle</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>02/08/10</td>
<td>Design considerations 1</td>
<td>Please see reading guide available on Moodle</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>09/08/10</td>
<td>Design considerations 2</td>
<td>Please see reading guide available on Moodle</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>16/08/10</td>
<td>User Interaction</td>
<td>Please see reading guide available on Moodle</td>
<td>Assignment 1 to be done during your tutorial</td>
</tr>
<tr>
<td>6</td>
<td>23/08/10</td>
<td>Designing user information</td>
<td>Please see reading guide available on Moodle</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>30/08/10</td>
<td>Evaluation and usability testing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week</td>
<td>Date</td>
<td>Topic</td>
<td>Reading Guide</td>
<td>Assignment Details</td>
</tr>
<tr>
<td>------</td>
<td>-------</td>
<td>----------------------------------------------------------------------</td>
<td>--------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>8</td>
<td>06/09/10</td>
<td>Data gathering, task analysis and Prototyping</td>
<td>Please see reading guide available on Moodle</td>
<td>Groups for Assignment 2 must be decided this week</td>
</tr>
<tr>
<td>9</td>
<td>13/09/10</td>
<td>Web, Web 2.0, ecommerce and other interfaces. What is different?</td>
<td>Please see reading guide available on Moodle</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>20/09/10</td>
<td>Accessibility</td>
<td>Please see reading guide available on Moodle</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Mid semester break</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>04/10/10</td>
<td>Development: taking a User Centred Design approach</td>
<td>Please see reading guide available on Moodle</td>
<td>Presentation assignment 2</td>
</tr>
<tr>
<td>12</td>
<td>11/10/10</td>
<td>Guest Speaker</td>
<td></td>
<td>Presentation assignment 2. Assignment 2 written submission due 15/10/2010</td>
</tr>
</tbody>
</table>

*Please note that these dates may only apply to Australian campuses of Monash University. Off-shore students need to check the dates with their unit leader.

**Improvements to this unit**

This unit is continuously reviewed, lecture and tutorial, material and assignments change as does the exam each semester.
Unit Resources

Prescribed text(s) and readings

Shneiderman and Plaisant (2010), "Designing the user interface" , 5th Edition, publisher Pearson

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


Equipment and consumables required or provided

Students are required to have the minimum system configuration specified by the Faculty as a condition of accepting admission, and regular Internet access. Information about computer use for students is available from the ITS Student Resource Guide in the Monash University Handbook.

Study resources

Study resources we will provide for your study are:

* Weekly detailed lecture notes and details of required readings;
* Weekly tutorial tasks and exercises;
* Assignment specifications;

* Discussion forum

* This Unit Guide outlining the administrative information for the unit;
* The unit web site on MUSO, http://moodle.med.monash.edu.au. All materials will be available on Moodle
Assessment

Overview

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

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

The unit is assessed with two assignments, active participation in tutorials and online discussion and a three hour closed book examination.

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.

Further, a student MUST achieve a mark of 50% or above in the exam to be awarded a grade of C or higher. If a student achieves more than 40% but less than 50% in the exam and has 40% or more in the non-examination assessment then a mark of no greater than 55P 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 submission and preparation requirements will be detailed in each assignment specification. 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.
• Assignment task 1

Title: Assignment 1: Design

Description: Students will demonstrate in class for on campus students, their knowledge and understanding of the theories and guidelines relating to the design of the user interface covered in the unit to this point of semester. Off campus students will complete a similar exercise allowing for off campus mode.

Weighting: 10%

Criteria for assessment: The criteria for assessment will be provided with the assignment specification and will be available on Moodle.

Due date: 16/08/2010 completed in your tutorial

Remarks: Further details will be provided during semester.

• Assignment task 2

Title: Assignment 2: Evaluating for usability

Description: Group assignment and presentation

Weighting: 20%

Criteria for assessment: The criteria for assessment will be provided with the assignment specification and will be available on Moodle.

Due date: Presentations in class 05/09/2010 and/or 11/10/2010 - exact dates to be confirmed; Written component due Friday October 15 by 3pm

Remarks: Assignment 2 is a group assignment. Students must organise themselves into a group by August 30. There are two components to the assignment, the written component is 15% of the final mark and 5% for the presentation of the assignment.

Further details will be provided during semester.

• Assignment task 3

Title: Regular participation in online discussion forum

Description: During the semester you will be assessed on the quality of your contributions to online forum discussions include posting new topics and responding to the postings of other students.

Weighting: 10%

Criteria for assessment: The criteria for assessment will be explained in the first lecture with further details available on Moodle.
Due date: Throughout the semester
Remarks: Students will be notified of the opening and closing of forums for their contributions during semester.

• Assignment task 4

Title: Tutorial exercises
Description: During the semester you will be assessed on work in, and preparation for, tutorials. A number of exercises may be set and students will be expected to complete those exercises either during the tutorial or in preparation for the tutorial and to actively participate in tutorial classes.

Weighting: 10%
Criteria for assessment:
Due date: Throughout the semester
Remarks: No marks are awarded for simply attending tutorials.

Examination

•
Weighting: 50%
Length: 3 hours
Type (open/closed book): Closed book
Electronic devices allowed in the exam: None

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 and Assignments received later than one week after the due date will not normally be accepted.

**Return dates**

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

**Feedback**

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

- Graded assignments with comments
- Test results and feedback
- Solutions to tutes, labs and assignments
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