FIT5152
User interface design and development

Unit Guide

Semester 2, 2009

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FIT5152 User interface design and development - Semester 2, 2009

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Contact hours: Caulfield 5-6pm Tuesday, Friday 10-11am

Lecturer(s) / Leader(s):

Caulfield

Associate Professor ,Julie Fisher
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Additional communication information:

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

Introduction

Welcome to FIT5152 User Interface Design and Development - This unit provides a detailed understanding of user interface design principles and practices for computer-based systems. The principles, guidelines and theories of Human Computer Interaction are explored. The unit examines issues in interface design 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 interface design in other environments such as virtual reality and mobile devices will be covered.

The unit is an on-campus unit and as such is structured, taught and assessed on the assumption that ALL students who choose to enrol can, and will, attend ALL classes. Attendance will be monitored. The assessment tasks for the unit require attendance at classes for completion as well as group allocation. No alternative arrangements will be allowed.

Unit synopsis

This unit provides detailed understanding of user interface design principles and practices 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 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

The unit introduces students to the theories and principles behind interface design from the perspective of human computer interaction. At the completion of this unit students should be able to:

1. Understand from a management as well as technology perspective how the theories, guidelines and standards can be incorporated into the design of user interfaces;
2. Apply these principles in practice;
3. Develop and conduct a usability evaluation;
4. Understand the difference design considerations for deciding for the Web and mobile devices.

Contact hours

3 hrs/week

Workload

The unit is an on-campus unit and as such is structured, taught and assessed on the assumption that ALL students who choose to enrol can, and will, attend ALL classes. Attendance will be monitored. The assessment tasks for the unit require attendance at classes for task completion as well as group allocation. No alternative arrangements will be allowed.

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 for a normal 13 week semester).
The anticipated workload is:

- 2 hours per week lecture, and
- 1 hour per week tutorial

Plus

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

Unit relationships

Prerequisites

For MAIT Students FIT9017, FIT9019 and FIT9030.

For all other students FIT9003 and FIT9004.

Relationships

FIT5152 is a core unit in the Business Application Development professional track of the Master of Business Information Systems, Master of Information Management and Systems, and Master of Business Systems degrees, and an elective unit for students taking other professional tracks, or other masters degrees from within the Faculty.

Before attempting this unit you must have satisfactorily completed FIT9004, FIT9003 or equivalent.

You may not study this unit and IMS5302, CSE3030 or CSE5930 in your degree.

Teaching and learning method

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 non computer based activities. There will be reading that students will need to undertake for the tutorials. A number of assessable exercises will be undertaken during tutorials

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 to the unit	ACM Special Interest Group on Computer-Human Interaction (SIGCHI). ACM SIGCHI is an international, interdisciplinary forum for the exchange of ideas about the field of human-computer interaction. http://www.acm.org/sigchi/	No tutorial in week one.
2	Theories, standards and guidelines	Bevan (2001) International standards for HCI and usability, International Journal of Human Computer Studies, vol 55	
3	Interface design background	Plagiarisim exercise available from the Moodle site should be completed before tutorial 2	
4	Componential design and interface design elements	Barfield, W., C. Rosenberg and G. Levasseur (1991). "The Use of Icons, Earcons and Commands in the Design of an Hierarchical Menu." IEEE Transactions on Professional Communication: 101-108.	
5	User interaction	Inkpen, K (2001) Drag-and-drop versus point-and-click mouse interaction styles for children http://portal.acm.org/citation.cfm?doid=371127.371146	Assignment 1 to be completed during this week's tutorial
6	Designing user information	Fisher, J. (1999J). " The Importance of User Message Text and why Professional Writers should be Involved." Australian Computer Journal 31(4): 118-123	
7	Evaluation and usability testing	http://mashable.com/2009/01/09/user-experience-design/	
8	Data gathering and task analysis and Prototyping	Johnson, J. and A. Henderson (2002). "Conceptual models: begin by designing what to design." Interactions February: 25 -- 32.	
9	Designing for usability	TBA	
10	The Web, ecommerce and other interfaces What is	TBA	Tutorial time for assistance with

	different?		Assignment 2
Mid semester break			
11	Universal usability and accessibility	TBA	Students to present final assignment during tutorial
12	Guest speaker		Assignment 2 due October 16, 2009, 4pm. Students to present final assignment during tutorial
13	Summary	Mock exam available and should be completed before week 13	Tutorial mock exam and revision

Unit Resources

Prescribed text(s) and readings

Sharp, Rogers, Preece, (2007). Interaction Design: behond Human-computer interaction, 2nd edition. 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

Norman, D., (1990). The design of everyday things. Doubleday.

Shneiderman, B and Plaisant C. (2005). Designing the user interface. Addison Wesley.

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;
* 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

Active participation, including hosted online discussions and attendance in tutorials: 15%; Assignment 1: 20%; Assignment 2: 25%; Exam: 40%

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.

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 task 1**

  Title:
  Assignment 1: Form design
  Description:

In tutorial 4, Week 5, students will demonstrate their knowledge of theories and guidelines relating to designing menus covered to that point. Students must attend the tutorial to complete the assessment.

Weighting:
10%

Due date:
During the tutorial Week 5

- **Assignment task 2**

Title:
Assignment 2: Evaluating for usability

Description:
Group assignment and presentation

Weighting:
25%

Due date:
October 16, 2009, 4pm

Remarks:
Assignment 2 is a **group assignment**. Groups must be organised and finalised by week 6**.** No other arrangements will be allowed.

- **Assignment task 3**

Title:
Regular participation in online discussion forum

Description:
Students will be expected to contribute regularly to an online discussion forum **and to actively participate in tutorial classes.**

Weighting:
10%

Due date:
Throughout the semester

- **Assignment task 4**

Title:
Tutorial exercises

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

Weighting:
15%

Due date:
Throughout the semester

Examination

- **Weighting:** 40%
  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 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.

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