MONASH University
Information Technology

FIT4063
Human-computer interaction

Unit Guide

Semester 2, 2012

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.

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FIT4063 Human-computer interaction - Semester 2, 2012

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)

Contact Hours

2 hrs lectures/wk, 2 hrs 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: 2 hours 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

FIT3063, FIT5152

Prerequisites

FIT9030

Chief Examiner

Associate Professor Judy Sheard

Campus Lecturer

Caulfield

Michael Smith

Consultation hours: To be advised

Academic Overview

Outcomes

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	15%	Five forums each of approximately two weeks duration, throughout the semester.
Assignment	20%	Stage 1 due in week 7; Stage 2 due in week 10;
Research Paper	15%	Week 12
Examination 1	50%	To be advised

Teaching Approach

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

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

This unit is running for the first time at Caulfield campus in semester 2, 2012

If you wish to view how previous students rated this unit, please go to
https://emuapps.monash.edu.au/unitevaluations/index.jsp

Prescribed text(s)

Limited copies of prescribed texts are available for you to borrow in the library.

Rogers, Y. Sharp, H. and Preece, J.. (2011). *Interaction Design: beyond human-computer interaction*. (3rd) Wiley.

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; Assessment Task 1: Online Discussion - five forums each approx 2 weeks duration, throughout semester;
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.	Assessment Task 2: Submission of stage 1
8	Usability: usability principles, usability evaluation methods.	
9	Accessibility: accessibility guidelines, assistive technologies.	
10	Interaction devices: input and output devices, performance evaluation.	Assessment Task 2: Submission of stage 2
11	Designing for the Web and Web 2.0.	
12	Future of HCI.	Assessment Task 3: Submission of Research Paper
	SWOT VAC	No formal assessment is undertaken SWOT VAC
	Examination period	LINK to Assessment Policy: http://policy.monash.edu.au/policy-bank/ academic/education/assessment/ assessment-in-coursework-policy.html

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

Assessment Requirements

Assessment Policy

Faculty Policy - Unit Assessment Hurdles
(http://www.infotech.monash.edu.au/resources/staff/edgov/policies/assessment-examinations/unit-assessment-hu

Academic Integrity - Please see the Demystifying Citing and Referencing tutorial at
http://lib.monash.edu/tutorials/citing/

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:
    15%
    Criteria for assessment:
    Criteria for assessment will be based on:

    - ♦ relevance of contributions and
    - ♦ evidence of wider reading and
    - ♦ level of critical thinking.

    More details will be made available in the task specification.
    Due date:
    Five forums each of approximately two weeks duration, throughout the semester.

- **Assessment task 2**

    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)

    - ♦ 5% for the design of a low-level prototype (Stage 1).
    - ♦ 15% for the design of a high-level prototype, report of the process (Stage 2).
    Weighting:
    20%
    Criteria for assessment:
    In this assignment students will demonstrate their knowledge, skills and understanding of
    the principles and theories covered through the semester.

    Contributions by individual group members to the overall group submission will be
    recorded by each group member and will be assessed by the markers in determining the

grade awarded to each member of a group.

Due date:

Stage 1 due in week 7; Stage 2 due in week 10;

Remarks:

Groups will be finalised by Week 5 of semester

- **Assessment task 3**

Title:

Research Paper

Description:

Student will research a particular aspect of HCI and present their findings in a research paper.

More details on this task and its requirements will be made available in the task specification.

Weighting:

15%

Criteria for assessment:

- ♦ Completeness of the reseacrh (adequate coverage of the topic and findings).
- ♦ Quality of the research - including literature (references) used, critically and appropriately applied.
- ♦ Written expression, style and appropriate overall structure (there should be a sound and logical flow and use of sub-headings where applicable).
- ♦ Correct citation of references

Further detailed information will be available in the task specification

Due date:

Week 12

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).

Online submission

If Electronic Submission has been approved for your unit, please submit your work via the VLE site for this unit, which you can access via links in the my.monash portal.

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-po
- 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. For Sunway see http://www.monash.edu.my/Student-services, and for South Africa see http://www.monash.ac.za/current/

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. At Sunway, visit the Library and Learning Commons at http://www.lib.monash.edu.my/. At South Africa visit http://www.lib.monash.ac.za/.

Academic support services may be available for students who have a disability or medical condition. Registration with the Disability Liaison Unit is required. Further information is available as follows:

- Website: http://monash.edu/equity-diversity/disability/index.html;
- Email: dlu@monash.edu
- Drop In: Equity and Diversity Centre, Level 1 Gallery Building (Building 55), Monash University, Clayton Campus, or Student Community Services Department, Level 2, Building 2, Monash University, Sunway Campus
- Telephone: 03 9905 5704, or contact the Student Advisor, Student Commuity Services at 03 55146018 at Sunway

Reading list

Shneiderman, B. (2010) Designing the User Interface. Fifth Edition. 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 Wiley &