

FIT4063
Human-computer interaction

Unit Guide

Semester 2, 2013

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, 2013

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 requirements

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 2-3 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

Henry Linger

Consultation hours: TBA

Tutors

Caulfield

Hamid Pousti

Consultation hours: TBA

Academic Overview

Learning 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.

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
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.	Assignment 2 - Design Concept submitted
4	Interface design principles, guidelines, standards and style guides.	Assignment 1 - Participation task
5	Interface design processes and methods, user-centred design, prototyping.	Assignment 2 - Conceptual design submitted
6	Interface design elements, graphical components, sound, sequencing, labels, messages.	Assignment 1 - Participation task
7	Interaction styles, command language, natural language, menus, forms, direct manipulation, virtual and augmented reality.	Assignment 3 - Review submitted
8	Usability: usability principles, usability evaluation methods.	Assignment 1 - Participation task
9	Accessibility: accessibility guidelines, assistive technologies.	Assignment 2 - Design demonstration submitted
10	Interaction devices: input and output devices, performance evaluation.	Assignment 1 - Participation task
11	Designing for the Web and Web 2.0.	Assignment 1 - Participation task
12	Future of HCI.	Assignment 2 - Judging the Design
	SWOT VAC	No formal assessment is undertaken in 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 learning system.

Assessment Summary

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

Assessment Task	Value	Due Date
Tutorial Participation Tasks	10%	Five tutorials are designated for this assignment in weeks 4, 6, 8, 10 and 11.

Unit Schedule

Design Competition	25%	Design Concept - Week 3; Conceptual Design - Week 5; Design Demonstration - Week 9; Design Presentations - Week 12
Critical Review of a Published Article	15%	Week 7
Examination 1	50%	To be advised

Teaching Approach

Lecture and tutorials or problem classes

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

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:

Tutorial Participation Tasks

Description:

Students are required to participate in at least 3 of the 5 scheduled tutorials designated for this task in weeks 4, 6, 8, 10 and 11.

Weighting:

10%

Criteria for assessment:

This assignment will be peer assessed as well as by the tutor.

Criteria for assessment will be based on:

- ◆ relevance of contributions
- ◆ evidence of preparation
- ◆ contribution to discussions
- ◆ level of critical thinking and quality of contribution

As a group assignment, member contributions will be peer assessed.

More details will be made available in the task specification.

Due date:

Five tutorials are designated for this assignment in weeks 4, 6, 8, 10 and 11.

Remarks:

In order to be assessed for this assignment you must participate in at least 3 of the tutorials that have been designated for this participation task

• Assessment task 2

Title:

Design Competition

Description:

Working in groups of 3, your task is to produce a proposal that will meet the design brief of the competition. The proposal will be assessed progressively through the semester to ensure that your proposal addresses the brief and included all necessary elements that need to be evaluated for the competition.

Assessment Requirements

- ◆ Design Concept - Week 3 (20%).
- ◆ Conceptual Design - Week 5 (30%).
- ◆ Design Demonstration - Week 9 (50%).
- ◆ Design presentations: Competition Judging - Week 12

Weighting:

25%

Criteria for assessment:

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

As a group assignment, member contributions will be peer assessed.

A detailed assessment criteria for each part of the assignment will be made available on the Moodle site.

Due date:

Design Concept - Week 3; Conceptual Design - Week 5; Design Demonstration - Week 9; Design Presentations - Week 12

Remarks:

Groups will be finalised by Week 1

• Assessment task 3

Title:

Critical Review of a Published Article

Description:

Write a critical review of a published article that explores aspects of HCI.

Weighting:

15%

Criteria for assessment:

The assessment criteria will be based on

- ◆ Originality of argument
- ◆ Clarity of the argument and its development
- ◆ Ability to synthesise and reflect on relevant issues in HCI
- ◆ Depth and breadth of reflections
- ◆ Use of current literature
- ◆ Relevance of references
- ◆ Layout, structure, spelling, etc. and adherence to style guides
- ◆ Adherence to citation and reference standards
- ◆ Ability to use class discussion to critically reflect on connections and conclusions between your review and other students' reviews of articles.

Due date:

Week 7

Examinations

• Examination 1

Weighting:

50%

Length:

3 hours

Type (open/closed book):

Assessment Requirements

Closed book

Electronic devices allowed in the exam:

None

Learning resources

Reading list

Shneiderman, B. (2010) Designing the User Interface. 5th 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 & Sons

Monash Library Unit Reading List

<http://readinglists.lib.monash.edu/index.html>

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

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.monash.edu.au/exams/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.

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). Please note that it is your responsibility to retain copies of your assessments.

Online submission

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

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 Edition) Wiley.

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:

www.policy.monash.edu.au/policy-bank/academic/education/index.html

Key educational policies include:

- Academic integrity;
<http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-academic-integrity-policy.html>
- Assessment in Coursework Programs;
<http://www.policy.monash.edu/policy-bank/academic/education/assessment/assessment-in-coursework-policy.html>
- Special Consideration;
<http://www.policy.monash.edu/policy-bank/academic/education/assessment/special-consideration-policy.html>
- 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/dates/>
- Orientation and Transition; <http://intranet.monash.edu.au/infotech/resources/students/orientation/>
- Academic and Administrative Complaints and Grievances Policy;
<http://www.policy.monash.edu/policy-bank/academic/education/management/complaints-grievance-policy.html>
- Code of Practice for Teaching and Learning;
<http://www.policy.monash.edu.au/policy-bank/academic/education/conduct/suppdocs/code-of-practice-teaching-and-learning.html>

Graduate Attributes Policy

<http://www.policy.monash.edu/policy-bank/academic/education/management/monash-graduate-attributes-policy.html>

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 <http://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/>.

Monash University Library

The Monash University Library provides a range of services, resources and programs that enable you to save time and be more effective in your learning and research. Go to 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/>.

Disability Liaison Unit

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://www.monash.edu/equity-diversity/disability/index.html> Telephone: 03 9905 5704 to book an appointment with a DLO; or contact the Student Advisor, Student Community Services at 03 55146018 at Sunway Email: dlu@monash.edu Drop In: Equity and Diversity Centre, Level 1, Building 55, Clayton Campus, or Student Community Services Department, Level 2, Building 2, Monash University, Sunway Campus

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 the Student Evaluation of Teaching and Units (SETU) survey. 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, see:

www.monash.edu.au/about/monash-directions and on student evaluations, see: www.policy.monash.edu/policy-bank/academic/education/quality/student-evaluation-policy.html

Previous Student Evaluations of this Unit

Student feedback informed improvements to this unit including:

- assessment now has a peer component for both assignments
- tutorial activities form part of the assessment
- assessment is more differentiated from co-taught FIT3063

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