



MONASH University
Information Technology

FIT4063
Human-computer interaction

Unit Guide

Semester 1, 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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Table of Contents

<u>FIT4063 Human-computer interaction - Semester 1, 2013</u>	1
<u>Mode of Delivery</u>	1
<u>Contact Hours</u>	1
<u>Workload requirements</u>	1
<u>Unit Relationships</u>	1
<u>Prohibitions</u>	1
<u>Prerequisites</u>	1
<u>Chief Examiner</u>	1
<u>Campus Lecturer</u>	1
<u>Clayton</u>	2
<u>Academic Overview</u>	3
<u>Learning Outcomes</u>	3
<u>Unit Schedule</u>	4
<u>Assessment Summary</u>	4
<u>Teaching Approach</u>	5
<u>Assessment Requirements</u>	6
<u>Assessment Policy</u>	6
<u>Assessment Tasks</u>	6
<u>Participation</u>	6
<u>Examinations</u>	7
<u>Examination 1</u>	7
<u>Learning resources</u>	7
<u>Reading list</u>	7
<u>Feedback to you</u>	8
<u>Extensions and penalties</u>	8
<u>Returning assignments</u>	8
<u>Assignment submission</u>	8
<u>Online submission</u>	8
<u>Prescribed text(s)</u>	8
<u>Other Information</u>	9
<u>Policies</u>	9
<u>Graduate Attributes Policy</u>	9
<u>Student services</u>	9
<u>Monash University Library</u>	9
<u>Disability Liaison Unit</u>	10
<u>Your feedback to Us</u>	10
<u>Previous Student Evaluations of this Unit</u>	10

FIT4063 Human-computer interaction - Semester 1, 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

Clayton (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 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

Clayton

Marc Cheong

Consultation hours: To be advised

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; 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 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

Unit Schedule

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

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:

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

Assessment Requirements

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:

Students will research on 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 research (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

Learning resources

Reading list

Shneiderman, B. (2010) Designing the User Interface. Fifth Edition. Addison-Wesley.

Norman, Donald (1998) The Design of Everyday Things, MIT Press.

Assessment Requirements

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.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.

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 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:

- Plagiarism;
<http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-policy.html>
- Assessment in Coursework Programs;
<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.ht>
- 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.h>
- Code of Practice for Teaching and Learning;
<http://www.policy.monash.edu.au/policy-bank/academic/education/conduct/suppdocs/code-of-practice-teac>

Graduate Attributes Policy

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

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

This unit is running for the second time at Clayton campus in Semester 1, 2013.

Over the past two semesters in which the unit has been co-taught with FIT3063, students have reported an overall satisfaction with the content and presentation of the unit's material.

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