

**FIT2016**  
**Human computer interaction for multimedia**

**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: 06 Jul 2010*

# Table of Contents

<b><u>FIT2016 Human computer interaction for multimedia - Semester 2, 2010</u></b> .....	<b>1</b>
<u>Chief Examiner:</u> .....	1
<u>Lecturer(s) / Leader(s):</u> .....	1
<u>Berwick</u> .....	1
<u>Introduction</u> .....	2
<u>Unit synopsis</u> .....	2
<u>Learning outcomes</u> .....	2
<u>Contact hours</u> .....	3
<u>Workload</u> .....	3
<u>Unit relationships</u> .....	3
<u>Prerequisites</u> .....	3
<u>Prohibitions</u> .....	3
<u>Teaching and learning method</u> .....	4
<u>Teaching approach</u> .....	4
<u>Timetable information</u> .....	4
<u>Tutorial allocation</u> .....	4
<u>Unit Schedule</u> .....	4
<u>Improvements to this unit</u> .....	5
<u>Unit Resources</u> .....	6
<u>Prescribed text(s) and readings</u> .....	6
<u>Recommended text(s) and readings</u> .....	6
<u>Required software and/or hardware</u> .....	6
<u>Equipment and consumables required or provided</u> .....	6
<u>Study resources</u> .....	7
<u>Assessment</u> .....	8
<u>Overview</u> .....	8
<u>Faculty assessment policy</u> .....	8
<u>Assignment tasks</u> .....	8
<u>Examination</u> .....	11
<u>Due dates and extensions</u> .....	11
<u>Late assignment</u> .....	11
<u>Return dates</u> .....	12
<u>Feedback</u> .....	12
<u>Appendix</u> .....	13

# **FIT2016 Human computer interaction for multimedia - Semester 2, 2010**

## **Chief Examiner:**

### **Dr Michael Morgan**

Director of Research  
Phone: +61 3 990 47155  
Fax: +61 3 8622 8999

## **Lecturer(s) / Leader(s):**

### **Berwick**

### **Dr Michael Morgan**

Director of Research  
Phone: +61 3 990 47155  
Fax: +61 3 8622 8999

Contact hours: Wednesday 9am to 5.30pm

## Introduction

Welcome to FIT2016 Human Computer Interaction for Multimedia for semester 2, 2010. This 6 point unit is part of the Multimedia Applications major of the Bachelor of Information Technology and Systems degree. The unit has been designed to provide you with an understanding of the principles of human computer interaction and interface design. It will also allow you to research current issues in these fields. It explores many aspects of HCI with emphasis on the relationship between theoretical knowledge and its practical application.

## Unit synopsis

This unit will provide a detailed understanding of the principles and practices involved in the creation and implementation of user-centred interaction with multimedia products and systems in a range of environments. Focus will be on the development of multimedia that enhances the efficiency, safety, functionality, usability and the aesthetic appeal of the user experience with multimedia at the interface between the user and the technology. Topics include: cognitive psychology, health and safety issues relating to interaction, interface design and implementation, evaluation and testing, affective aspects of technology, social implications of Human-Multimedia (Computer) interaction.

## Learning outcomes

At the completion of this unit students will have -  
A theoretical and conceptual understanding of:

- the concepts of cognitive science and the physiology of human perception and the importance of these disciplines to interface design for multimedia systems and products;
- understand the importance of psychological characteristics and capabilities of the user in the design and implementation of multimedia interfaces;
- the principles of user-centred interface design and the ways in which they might be implemented.

Developed attitudes that enable them to:

- appreciate importance of the role of the interface designer/developer as the mediator between the multimedia product and the user;
- appreciate the importance of ergonomic, health and safety issues in the development of user-centric multimedia interfaces.

Developed the skills to:

- integrate existing technological skills acquired from [FIT1012](#) and [FIT2012](#) to construct multimedia products and systems using principles of user-centred interface design;
- design, create and implement interfaces appropriate to both content and context;
- identify and evaluate the cognitive, physical and social contexts in which the user will interact with a multimedia product or system;
- evaluate existing interfaces in relation to user-centric principles.

Developed the teamwork skills needed to:

- design with an understanding of the effects of their own cultural/social background and preconceptions;
- evaluate their own and others interface design and implementation in relation to user-centric principles;

- enable them to design, create and implement interface systems appropriate for use by individuals from diverse educational, social and cultural backgrounds and diverse cognitive styles.

## Contact hours

2 hrs lectures/wk, 2 hrs tutorials/wk

## Workload

Students will attend a 2 hour lecture and a 2 hour tutorial each week. In addition students be required to complete approximately 8 hours of self-directed learning, such as working on research assignments, completing practical assignments and revision or the exam.

## Unit relationships

### Prerequisites

FIT2012

### Prohibitions

MMS9008, MMS2403

## Teaching and learning method

### Teaching approach

Students will attend a 2 hour lecture and a 2 hour tutorial each week.

In weeks 6 to 12 lectures will consist of student group delivered seminars.

A 30 minute lecturer-delivered presentation will also be included in weeks 6 to 12.

In addition students be required to complete approximately 8 hours of self-directed learning, such as working on research assignments, completing practical assignments and revision or the exam.

### 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/>

### Unit Schedule

Week	Date*	Topic	Tutorials	Key dates
1	19/07/10	Introduction, Assessment, HCI Research and Seminar Topics	Seminar Topics and Research Techniques	Seminar Topic Selection
2	26/07/10	HCI Themes and Visual Perception	Slide Formatting, Presentation Skills and Portfolio Overview.	Seminar Topics Finalised.
3	02/08/10	Human Cognition and Interface Design	Flash Exercise 1- Task Wizard Interface	
4	09/08/10	User Centred Design, Equity and Evaluation	Flash Exercise 1- Task Wizard Interface	
5	16/08/10	Information Design and Example Seminars	Flash Exercise 2- Mobile Device Interface	Assessment 1: Group Seminar, Slides and Peer Evaluation (25%) Friday 3pm
6	23/08/10	Lecture Content and Seminar Topic 1 Topic 2	Flash Exercise 2- Mobile Device Interface	
7	30/08/10	Lecture Content and Seminar Topic 3 Topic 4	Flash Exercise 3- Game Interface	

8	06/09/10	Lecture Content and Seminar Topic 5 Topic 6	Flash Exercise 3-Game Interface	
9	13/09/10	Lecture Content and Seminar Topic 7 Topic 8	Flash Exercise 4-Metaphor-based Interface	
10	20/09/10	Lecture Content and Seminar Topic 9 Topic 10	Flash Exercise 4-Metaphor-based Interface	
Mid semester break				
11	04/10/10	Lecture Content and Seminar Topic 11 Topic 12	Flash Exercise 5-Portfolio Interface	
12	11/10/10	Lecture Content and Seminar Topic 13 Topic 14	Flash Exercise 5-Portfolio Interface	Assessment 2: HCI Interface Design Portfolio (50%) Friday 3pm.
13	18/10/10	Unit Review	No Tutorial	

\*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 has been extensively redesigned in order to allow students to research current topics in human computer interaction and interface design.

These changes mean that student research groups will investigate a cutting edge topic in HCI to present a seminar on the topic in weeks 6 to 12.

Students will participate in peer assessment for each of the seminar presentations.

The number of assessment items has been reduced to allow a focus on creating a portfolio of interface design examples.

A 30 minute lecturer delivered component will be included in weeks 6 to 12 before the student delivered seminars.

The practical work in this unit has been revised to simplify the requirements of the HCI Interface Portfolio.

Students will complete exercises in tutorials each week in order to construct interface design examples for their portfolio.

## Unit Resources

### Prescribed text(s) and readings

No textbook set for this semester.

### Recommended text(s) and readings

Highly Recommended

**Benyon, D., Turner, P., Turner, S.** *Designing Interactive Systems: People, Activities, Contexts, Technologies* Harlow, England: Addison-Wesley 2005 ISBN: 0 321 11629 1 available from the Monash University Book Shops.

Dix, A., Finlay, J., Abowd, G.B., Beale, R. (2004) *Human-Computer Interaction* (3rd Edition) Harlow, England: Prentice Hall ISBN: 0130-461091 Lauesen, S. (2005) *User Interface Design A Software Engineering Perspective* Harlow, England: Addison Wesley ISBN: 0 321 18143 3

The following recommended texts are available from the Berwick library.

Christine Faulkner (1998) *The Essence of Human-Computer Interaction* ISBN: 0-13-751975-3 Donald Norman (1998), *The Design of Everyday Things* ISBN: 0262640376 Steven Johnson (1997) *Interface Culture* ISBN 3608919805 Jeff Raskin (2000) *The Humane Interface* ISBN: 0201379376

Supplementary Library Resources

Carroll, J.M. (ed) (2002) *Human-Computer Interaction in the New Millennium* Call No: 004.019 C319H 2002 Cooper, A. (2004) *The Inmates are Running the Asylum*. Indianapolis, IN: Sams  
Dix, Finlay, Abowd, Beale (2004) *Human-Computer Interaction* 3rd Edition Call No: 004.019 D619H 2004 Head, A.J. (1999) *Design Wise: a Guide for Evaluating the Interface Design of Information Resources* Call No: 004.019 H432D 1999 Kristof, R.

### Required software and/or hardware

Graphic Development: Photoshop and Illustrator

Portfolio Development in Flash.

Students can access these packages during the tutorials in the computer labs or studios.

### Equipment and consumables required or provided

Students studying off-campus are required to have the minimum system configuration specified by the Faculty as a condition of accepting admission, and regular Internet access. On-campus students, and those studying at supported study locations may use the facilities available in the computing labs. Information about computer use for students is available from the ITS Student Resource Guide in the Monash University Handbook. You will need to allocate time each week for use of a computer, including time for newsgroups/discussion groups.



## **Study resources**

Study resources we will provide for your study are:

The FIT2016 web site on Moodle, where lecture slides, weekly tutorial requirements, assignment specifications and supplementary material will be posted.

Discussion groups will be linked to the Unit Homepage.

Seminar topics and student delivered seminar slides will also be posted on the Moodle site.

## Assessment

### Overview

Examination (2 hours): 25%; In-semester assessment: 75%

### 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.

Note that:

Raw scores may be scaled

Submission of group seminar slides for posting to the Moodle site for the unit is a barrier condition to receiving marks for assignment 1

### 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:**

Assessment 1: Group Seminar, Seminar Slides and Peer Evaluations. 25%.

**Description:**

This assignment requires groups of students to thoroughly research and present their findings to the class on a topic outlining the latest developments in human computer interaction for multimedia.

It consists of a Group Seminar presentation (20 marks) of 25 minutes plus a 10-minute

question time. Each member in the group should contribute both to the research of the topic and the presentation of the seminar to the class. Groups to be of two or three students and presentations to be delivered to class in lectures in weeks 6 to 12. In addition you will be required to complete Peer Evaluation sheets (5 marks) for the seminars of other groups.

### **The Seminar.**

Seminar topics to be selected from the list provided.

Each member in the group should contribute both to the research of the topic and the presentation of the seminar to the class. In order to present well in your seminar you will need to prepare a set of slides to guide your presentation. You will be marked on both the quality of the content presented and the manner in which the presentation is delivered. All Seminar Slides (20 max) on the seminar topics must be submitted (for posting by the lecturer to the FIT2016 Moodle) site by Friday 3 pm week 5. Submitting the powerpoint file for posting the slides is a barrier condition for receiving marks for this assignment.

In your seminar you will be expected to:

- ◆ To define the nature of the seminar topic,
- ◆ Explain any terminology used,
- ◆ Discuss relevant past developments in HCI,
- ◆ Focus on new developments and methods in the field of HCI,
- ◆ Provide interesting examples to illustrate ideas,
- ◆ Discuss any rapid or revolutionary changes in the area if applicable,
- ◆ Discuss how the topic relates to HCI for multimedia and provide an example.

All students are expected to attend and contribute to the question time of the seminars.

### **Peer Assessment.**

Assessment of seminar presentations will be based partly on lecturer assessment and partly on Peer Evaluation sheets completed by all students.

Each week in the seminars you will be given a Seminar Peer Evaluation sheet for the seminar presentations, which must be completed and handed back at the end of the seminar.

These will be used to help determine the grades for the group that is presenting the seminar.

Marks will be awarded as follows:

Complete 80 to 100% of Peer Evaluation sheets = 5 marks

Complete 70 to 79% of Peer Evaluation sheets = 4 marks

Complete 60 to 69% of Peer Evaluation sheets = 3 marks

Complete 50 to 59% of Peer Evaluation sheets = 2 marks

Complete less than 50% of Peer Evaluation sheets = 0 marks

**Weighting:**

25%

**Criteria for assessment:**

**Assessment Criteria for Seminar Presentation (20 marks).**

Slides Uploaded to MUSO Yes/No

- ◆ Presentation Delivery and Slides Formatting (5)
- ◆ Content and Research (10)
- ◆ Prototype or Example Discussion (5)

**Assessment Criteria for Peer Assessment (5 marks).**

- ◆ Completion of Peer Assessment Sheets (Up to 5 marks)

**Due date:**

Friday 3pm week 5

**Remarks:**

For detailed descriptions of assessment tasks see the Detailed Descriptions of Assessment Tasks page.

• **Assignment task 2**

**Title:**

Assessment 2: HCI Interface Design Portfolio, 50%.

**Description:**

Construct an interface for your HCI design portfolio and include 4 examples of your interface design skills based on the tutorial exercises provided:

Task Wizard Interface design - 10 marks

Mobile Device Interface Design - 10 marks

Game Interface Design - 10 marks

Metaphor-based Interface Design - 10 marks

Portfolio Interface Design - 10 marks

Each design task will be conducted over two weeks in the tutorials. For each example your portfolio will include the design brief information, and your design solution for the task (two screens with rollovers that provide a description of the features of the interface).

**Weighting:**

50%

**Criteria for assessment:**

Task Wizard Interface Design (10)

Mobile Device Interface Design (10)

Game Interface Design (10)

Metaphor-based Interface Design (10)

Portfolio Interface Design (10)

**Due date:**

Friday 3 pm week 12.

**Remarks:**

For detailed descriptions of assessment tasks see the Detailed Descriptions of Assessment Tasks page.

## Examination

•

**Weighting:**

25%

**Length:**

2 hours

**Type (open/closed book):**

closed book

**Electronic devices allowed in the exam:**

None

**Remarks:**

Exam will be based on the content covered in weeks 1 to 12.

**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 a 5% reduction in grade for each day (including weekends) the assignment is late. Late submissions MUST be time stamped and initialled when submitted. Assignments received later than one week after the due date will not normally be accepted.

This policy is strict because comments or guidance will be given on assignments as they are returned, and sample solutions may also be published and distributed, after assignment marking or with the

returned assignment.

## **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:

Informal feedback on progress in labs/tutes

Graded assignments with comments

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