FIT5152 User interface design and usability - Semester 2, 2014

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

Mode of Delivery

- Gippsland (Off-campus)
- South Africa (Day)

Workload Requirements

Minimum total expected workload equals 12 hours per week comprising:

(a.) Contact hours for on-campus students:

- 2 hours of lectures
- One 1.5-hour laboratory

(b.) Study schedule for off-campus students:

- Off-campus students generally do not attend lecture and tutorial sessions, however should plan to spend equivalent time working through the relevant resources and participating in discussion groups each week.

(c.) Additional requirements (all students):

- A minimum of 8 hours independent study per week for completing lab and project work, private study and revision.

Unit Relationships

Prohibitions

FIT4063, IMS5302, CSE5930

Chief Examiner

Professor Julie Fisher
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 continuously reviewed, lecture and tutorial, material and assignments change as does the exam each semester.

As a result of previous student comments the percentage allocated to tutorial participation and Moodle forums has been reduced with a stronger emphasis on the last assignment.

If you wish to view how previous students rated this unit, please go to
Learning Outcomes

At the completion of this unit students should be able to:

- understand from a management as well as technology perspective how the theories, guidelines and standards can be incorporated into the design of user interfaces;
- understand and apply the principles of interface design relating to HCI, this includes recognising good and bad examples;
- apply the standards, principles and theories in practice.
- develop and conduct usability evaluations and be able to interpret the results, identify changes that are needed to a user interface
- understand the different design considerations for designing for the Web and other devices
- understand the different user centred development methodologies that look at design from a user perspective. In particular have knowledge of the basic principles of good interface design and HCI principles;
- appreciate the difficulties users face when working with systems and be able to comprehend the concepts and principles underlying effective interface design and recognise good design from poor design and what the difference is from a user perspective;
- develop attitudes which enable them to interact effectively with users in order to apply this knowledge to the design of interfaces for a range of technologies;
- analyse the component parts of an interface so to be able to identify what is good design;
- synthesise the knowledge, guidelines and theory to understand how each contributes to practice;
- effectively conduct an evaluation of an information system especially in terms of usability of information systems;
- understand the development of systems from a user perspective;
- appreciate the difficulties users face when working with systems;
- apply the principles, standards and theories relating to interface design and HCI to information systems development;
- gather user requirements effectively;
- design an effective user interface;
- conduct a usability test and interpret the outcome;
- recognise poor design and solutions.
### Unit Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Activities</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No formal assessment or activities are undertaken in week 0</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Introduction and overview</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Theories, principles standards and guidelines</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Interface design background</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Menus, forms and icons</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>User Interaction</td>
<td>Assignment 1 due</td>
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<tr>
<td>6</td>
<td>Evaluation and usability testing</td>
<td></td>
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<tr>
<td>7</td>
<td>Heuristic and other evaluation techniques</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Designing for the web</td>
<td></td>
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<tr>
<td>9</td>
<td>Designing user information</td>
<td></td>
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<tr>
<td>10</td>
<td>Data gathering, task analysis and prototyping</td>
<td>Assignment 2 due</td>
</tr>
<tr>
<td>11</td>
<td>Designing for mobile and small screen devices</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Summary</td>
<td>No formal assessment is undertaken SWOT VAC</td>
</tr>
</tbody>
</table>


*Unit Schedule details will be maintained and communicated to you via your learning system.

### Teaching Approach

- **Lecture and tutorials or problem classes**
  This teaching and learning approach provides facilitated learning, practical exploration and peer learning.
- **Other**
  Moodle discussion and readings: Students are encouraged to take responsibility for organising and directing their learning.

### Assessment Summary

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

<table>
<thead>
<tr>
<th>Assessment Task</th>
<th>Value</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment 1</td>
<td>15%</td>
<td>Week 5</td>
</tr>
<tr>
<td>Assignment 2</td>
<td>35% (30% written component, 5% presentation)</td>
<td>Week 11</td>
</tr>
<tr>
<td>Examination 1</td>
<td>50%</td>
<td>To be advised</td>
</tr>
</tbody>
</table>
Assessment Requirements

Assessment Policy

Faculty Policy - Unit Assessment Hurdles

Academic Integrity - Please see resources and tutorials at
http://www.monash.edu/library/skills/resources/tutorials/academic-integrity/

Assessment Tasks

Participation

• Assessment task 1

  Title: Assignment 1
  Description: Students will demonstrate their knowledge and understanding of form design and the relevant theories covered in the unit up to this point of the semester. Students will be required to answer questions and assess a particular interface presented for the purpose of the assessment task.

  Further details will be provided and posted on Moodle early in semester.
  Weighting: 15%
  Criteria for assessment: Quality of the answers and the justification provided for the answers.
  Due date: Week 5

• Assessment task 2

  Title: Assignment 2
  Description: Assignment 2 is a group assignment.

  There are two components to the assignment, a written component and a presentation. The assignment is designed to provide you with the practical experience of designing and conducting an evaluation of an application's interface.

  The written component will be the design, implementation and evaluation of an application's prototype interface, in line with what has been studied during the semester. The description of the application and all relevant details will be provided in the assignment specification.

  Group presentations can be done using video recording.

  Further details will be provided in semester.
  Weighting:
Assessment Requirements

35% (30% written component, 5% presentation)

Criteria for assessment:
All students in the group will be given the same mark unless an adjustment is made by the lecturer based on feedback from the group.

The written component will be assessed on the design and conduct of an evaluation of a selected website and background information, the analysis of that evaluation and written report on the outcome of the evaluation. Students are also required to demonstrate an understanding of the concepts and background literature on evaluation techniques.

The presentation will be assessed on the quality of the presentation and the delivery, the content selected for the presentation and its relevance.

Due date:
Week 11

Remarks:
Students will be asked to provide confidential peer assessment of the work and contribution of each member of the group. This will be taken into account when the final marks are awarded. An individual's mark in the group may be adjusted up or down in the light of their individual contribution. Each student in the group will be required to detail their contribution to the group's assignment. This will also be used where necessary to adjust marks.

The lecturer may request an interview with groups or individuals if required to clarify any points relating to the content of these submissions.

Examinations

• Examination 1

  Weighting: 50%
  Length: 3 hours
  Type (open/closed book): Closed book
  Electronic devices allowed in the exam: None

Learning resources

Monash Library Unit Reading List (if applicable to the unit)
http://readinglists.lib.monash.edu/index.html

Faculty of Information Technology Style Guide

Feedback to you

Examination/other end-of-semester assessment feedback may take the form of feedback classes, provision of sample answers or other group feedback after official results have been published. Please check with your lecturer on the feedback provided and take advantage of this prior to requesting individual consultations with staff. If your unit has an examination, you may request to view your examination script booklet, see
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.


Returning assignments

Students can expect assignments to be returned within two weeks of the submission date or after receipt, whichever is later.

Referencing requirements

Students should be aware of and adhere to the guidelines for referencing assignment work. Harvard style is the required format for referencing. This will be discussed in class early in the semester. Please also refer to the guidelines provided by the library.

Assignment submission

It is a University requirement 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/](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.

Required Resources

Please check with your lecturer before purchasing any Required Resources. Limited copies of prescribed texts are available for you to borrow in the library, and prescribed software is available in student labs.

A reading list and other resources, for each tutorial, will be available as required on Moodle. All reading and other material will be provided online.
Prescribed text(s)

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

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:

- Student Academic Integrity Policy and Student Academic Integrity: Managing Plagiarism and Collusion Procedures; http://www.policy.monash.edu/policy-bank/academic/education/conduct/student-academic-integrity-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/

Faculty resources and policies

Important student resources including Faculty policies are located at http://intranet.monash.edu.au/infotech/resources/students/

Graduate Attributes Policy

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

Student Charter


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 Malaysia 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 Malaysia, 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 Malaysia
- 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, Malaysia Campus