

INFO30004 Usability Engineering

Credit Points:	12.50						
Level:	3 (Undergraduate)						
Dates & Locations:	This subject is not offered in 2014.						
Time Commitment:	Contact Hours: 36 hours, comprising of two 1-hour lectures and one 1-hour tutorial per week Total Time Commitment: 170 hours						
Prerequisites:	50 points of 2nd level subjects						
Corequisites:	None						
Recommended Background Knowledge:	None						
Non Allowed Subjects:	<table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>SINF30004 Human Computer Interaction</td> <td>Not offered 2014</td> <td>12.50</td> </tr> </tbody> </table> <p>615-348 Human Computer Interaction</p>	Subject	Study Period Commencement:	Credit Points:	SINF30004 Human Computer Interaction	Not offered 2014	12.50
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SINF30004 Human Computer Interaction	Not offered 2014	12.50					
Core Participation Requirements:	<p><p>For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Student Support and Engagement Policy, academic requirements for this subject are articulated in the Subject Overview, Learning Outcomes, Assessment and Generic Skills sections of this entry.</p> <p>It is University policy to take all reasonable steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and Student Equity and Disability Support: http://services.unimelb.edu.au/disability</p></p>						
Contact:	email: ploderer@unimelb.edu.au (mailto:ploderer@unimelb.edu.au)						
Subject Overview:	<p>Aims</p> <p>How do you design information and communication technologies that are useful, usable and satisfying? Usability Engineering addresses this question. Usability is now a vital part of the IT industry for both work and leisure. We can see usability (or the lack of it) in the design of tablets, aircraft cockpits, business software, car navigation devices, and many other technologies.</p> <p>In this subject students will learn concepts and techniques integral to creating usable systems. These include: contextual analysis of human activities; principles for designing usable human computer interactions; styles of user interfaces; and methods to evaluate the usability of new designs. Students will also learn relevant theories underpinning these techniques including aspects of human cognition and the theory of natural design.</p> <p>Indicative Content</p> <ul style="list-style-type: none"> # Theoretical foundations of Usability Engineering # Understanding User Requirements # Expert based evaluations (e.g. Cognitive Walkthroughs and Heuristic Evaluation) # User based evaluations # Prototyping (high fidelity and low fidelity) # Analysis of Usability data # Visual Design # Social Computing 						
Learning Outcomes:	Intended Learning Outcomes (ILO)						

	<p>On completion of this subject the student is expected to:</p> <ol style="list-style-type: none"> 1 Define and distinguish between the different types of user interface, 2 Exploit cognitive and social factors that make interactive software usable 3 Apply key design principles and guidelines that assist user interface designers, and understand the limitations of such guidelines 4 Apply techniques of Usability Engineering across the development lifecycle 5 Develop a sound usability test and evaluation plan for a particular design project
Assessment:	<p>Students work in groups of three to complete a project. The group project consists of two parts. The first report (3000 words or equivalent) is due mid-semester and a second report (3000 words or equivalent) is due at the end of semester (50%). Students will work on the group assignment in tutorial class and in regular group meetings outside of class. This assignment supports Intended Learning Outcomes (ILOs) 3, 4 and 5. One 2-hour examination held in the examination period (50%), supporting ILO 1, 2, 3 and 4 Hurdle requirement: To pass the subject, students must obtain at least 50% overall, at least 50% for the group project, and at least 50% for the end-of-semester written examination.</p>
Prescribed Texts:	None
Breadth Options:	<p>This subject potentially can be taken as a breadth subject component for the following courses:</p> <ul style="list-style-type: none"> # Bachelor of Arts (https://handbook.unimelb.edu.au/view/2014/B-ARTS) # Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2014/B-COM) # Bachelor of Environments (https://handbook.unimelb.edu.au/view/2014/B-ENVS) # Bachelor of Music (https://handbook.unimelb.edu.au/view/2014/B-MUS) <p>You should visit learn more about breadth subjects (http://breadth.unimelb.edu.au/breadth/info/index.html) and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.</p>
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	<p>On completion of this subject, students should have developed the following generic skills:</p> <ul style="list-style-type: none"> # Acquire design oriented problem-solving skills # Review and research skills # Team work skills # Written and oral presentation skills
Notes:	<p>Learning and Teaching Methods</p> <p>The subject is delivered through a combination of two 1-hour lectures and one 1-hour tutorial each week, over twelve weeks. The lectures will address relevant theoretical and conceptual ideas and will include guest speakers from industry where appropriate. The tutorials will focus on the application of the theories and concepts through practical exercises and assignment work. Outside class students will study theory and cases through reading, they will work on their group assignment and participate in a lab-based usability study.</p> <p>Indicative Key Learning Resources</p> <p>All relevant resources will be available on the Learning Management System (LMS). These include lecture slides, tutorial notes, recommended reading, extension material, and links to industry material.</p> <p>Careers/Industry Links</p> <p>This subject is relevant to careers as a usability engineer, interaction designer, information architect etc. Students will work on projects that will be applicable to real world cases. Speakers from Industry will be invited to give guest lectures. A collection of industry-based resources will be posted on the LMS.</p>
Related Majors/Minors/ Specialisations:	<p>Computing and Software Systems Health Informatics Informatics Master of Engineering (Software with Business)</p>

	Science credit subjects* for pre-2008 BSc, BAsC and combined degree science courses Science-credited subjects - new generation B-SCI and B-ENG. Selective subjects for B-BMED
Related Breadth Track(s):	Human Centred Computing Working with Information