INFO30005 Web Information Technologies

Credit Points:	12.5
Level:	3 (Undergraduate)
Dates & Locations:	2015, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 48 hours, comprising of two 1-hour lectures and one 2-hour workshop per week Total Time Commitment: 170 hours
Prerequisites:	One subject from Group A and one subject from Group B Group A

Subject	Study Period Commencement:	Credit Points:
INFO20003 Database Systems	Semester 2	12.50
INFO20001 Informatics 3: Content Management	Not offered 2015	12.50

Group B

Subject	Study Period Commencement:	Credit Points:
INFO20002 Foundations of Informatics	Semester 1	12.50
INFO10002 Informatics 2: Programming on the Web	Not offered 2015	12.50
SWEN20003 Object Oriented Software Development	Semester 2	12.50

Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	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. 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
Coordinator:	Dr Rachelle Bosua
Contact:	Email: **rachelle.bosua@unimelb.edu.au (mailto:rachelle.bosua@unimelb.edu.au)**
Subject Overview:	**Aims** The Web has radically changed society, politics, science, business and the way people work. This subject introduces the concepts, technologies and standards underpinning the World Wide web and its applications. You will learn to apply tools and techniques required to model, design and develop applications for the web that can run on one or more platforms. Topics covered include the infrastructure of the web; the architecture of web applications; data representation

	and structure of the web; modeling and development processes for Web applications; security and social aspects of the Web. This subject assumes background programming skills and the basics of algorithmic thinking. These skills are combined with incremental and iterative development to develop functional and creative web applications that can support specific requirements or aspects of human work or social behaviour. **Indicative Content** Fundamental aspects of the Web: client server model, modelling of web applications (modelling data, content, functional aspects and navigation), incremental and iterative design and development of web applications, usability aspects and testing of web applications, and web application security. Examples of Web applications that students develop are: # A location-aware application for finding recommended restaurants nearby # A social app for hosting and developing HTML5 games # An application that lets users upload photos of themselves to see what they'd look like with different hairstyles
Learning Outcomes:	**Intended Learning Outcomes (ILOs)** On completion of this subject the student is expected to: 1 Understand the concepts, technologies and standards underpinning the Wold Wide web 2 Use and evaluate appropriate architectures for web applications 3 Use Web technologies and frameworks to develop web applications 4 Model, design and build secure, medium-scale web applications 5 Analyse and evaluate the social impact and value of web applications.
Assessment:	• A multi-stage project expected to take approximately 60-65 hours of work per student, with stages due at regular intervals throughout the semester (50%) • One 2-hour end-of-semester examination (50%) held in the examination period. Hurdle requirement: To pass the subject, students must obtain at least 50% overall (i.e. 25/50 for the project and 25/50) for the end-of-semester written examination Intended Learning Outcomes (ILOs) 1-5 are addressed in the projects, the presentations and the final exam.
Prescribed Texts:	None
Breadth Options:	This subject potentially can be taken as a breadth subject component for the following courses: # **Bachelor of Arts (https://handbook.unimelb.edu.au/view/2015/B-ARTS)** # **Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2015/B-COM)** # **Bachelor of Environments (https://handbook.unimelb.edu.au/view/2015/B-ENVS)** # **Bachelor of Music (https://handbook.unimelb.edu.au/view/2015/B-MUS)** 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.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	On completion of this subject, students should have developed the following generic skills: # An ability to undertake problem identification, formulation and develop a solution # The capacity for critical and independent thought and reflection # An expectation of the need to undertake lifelong learning, and the capacity to do so # The ability to work effectively as a member of a small team # The ability to develop appropriate presentation skills
Notes:	**Learning And Teaching Methods** The subject is delivered through a combination of lectures and workshops (combination of tutorial and individual/group work in a computer lab). Students get hands-on experience by applying principles taught in lectures in the workshops through discussions and by doing. Students also develop their presentation skills by presenting at least two prototypes and the

	final version of the web application during the different stages of the incremental development and design process. **Indicative Key Learning Resources** Students have access to lecture notes, lecture slides, workshops and supportive tools and frameworks to model, design and develop Web applications. The subject LMS site also contains links to recommended resources for modelling, programming, and advanced problems for students who want to enrich their learning experience. **Careers / Industry Links** As an initial modelling and design subject, the modelling and design approach taught in this subject can be considered an introduction to more complex Software Engineering (SE) principles taught in more advanced SE subjects at the graduate level. Examples of companies/ organisations which have been involved in the delivery of the subject (through guest lectures etc.) are 99designs (web-based logo design) and NICTA (web-based protein visualisation).
Related Course(s):	Diploma in Informatics Master of Information Technology
Related Majors/Minors/ Specialisations:	Computer Science Computer Science Computer Science Computer Science Health Informatics Informatics MIT Health Specialisation Master of Engineering (Software with Business) Science-credited subjects - new generation B-SCI and B-ENG. Selective subjects for B-BMED
Related Breadth Track(s):	Working with Information