INFO20002 Foundations of Informatics

Credit Points:	12.5
Level:	2 (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, one 1-hour tutorial and one 1-hour practical per week. Total Time Commitment: 170 hours
Prerequisites:	<table><tr><th>Subject</th><th>Study Period Commencement:</th><th>Credit Points:</th></tr><tr><td>COMP10001 Foundations of Computing</td><td>Semester 1, Semester 2</td><td>12.50</td></tr></table> OR Achieving at least 75% in the programming competency test.
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	Students cannot enrol in and gain credit for this subject and: <table><tr><th>Subject</th><th>Study Period Commencement:</th><th>Credit Points:</th></tr><tr><td>INFO10002 Informatics 2: Programming on the Web</td><td>Not offered 2015</td><td>12.50</td></tr></table> 600-152 Informatics-2: People, Data, and the Web
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:	Mr Ivo Widjaja
Contact:	Email: **ivow@unimelb.edu.au (mailto:ivow@unimelb.edu.au)**
Subject Overview:	**Aims** The ability to access, manipulate, organise, analyse and display data are fundamental skills for scientists, historians, managers, financiers, artists and many other professions. This subject explores various computational methods to represent, transform, and make sense of large, diverse sets of data such as share market prices, scientific data or demographic data. This subject is core within the Bachelor of Science for the Major of Informatics. Students completing the Diploma of Informatics can also take this subject. **Indicative Content** This subject serves as an introduction to Informatics. Its main focus is on representing and manipulating data using spreadsheet tools; basic web page construction using HTML and style-

	sheets; representing and manipulating information on the web using a scripting language. These skills form a useful basis for those looking at careers in which the manipulation and visualisation of information takes place.
Learning Outcomes:	**Intended Learning Outcomes (ILOs)** On completion of this subject the student is expected to: 1 Apply the fundamental concepts of the Informatics discipline 2 Manipulate large data sets in various domains 3 Solve practical data management tasks using ICT tools 4 Manipulate live web-based data 5 Communicate information effectively using Informatics tools 6 Appreciate the social implications of computing.
Assessment:	A three-stage project (total of 40%). The stages are: Part 1 – Individual – Solving a practical data manipulation problem – expected to take 10-12 hours, due around week 4 (10%). Addresses ILOs 1-5 Part 2 – Groups of 3 students – Design and analysis of data representation – expected to take 10-12 hours per student, due around week 8 (10%). Addresses ILOs 1-5 Part 3 – Groups of 3 students – Developing an application that enables the presentation, visualisation, and analysis of data – expected to take 20 to 30 hours per student, due around week 8 (20%). Addresses ILOs 1-5 A two-hour closed book examination in the examination period (60%). Addressing ILOs 1-6. Hurdle requirement: To pass the subject students must obtain at least: 50% of the marks available for the non-examination based assessment 50% of the marks available for the examination
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:	Upon completion of this subject you should have developed the following generic skills: # The ability to analyse and solve real-world problems with computers # Provide clear and constructive critique of other students' work # Synthesise information and communicate results effectively # Work effectively as a member of a project team
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 will also complete a three stage project which will reinforce the material covered in class. **Indicative Key Learning Resources** Students have access to lecture notes, lecture slides, tutorial worksheets, and the IVLE system which houses a programming environment. The subject LMS site also contains links to recommended resources relating to basic programming, and advanced problems for students who want to extend their learning. **Careers / Industry Links** This subject builds a foundation of knowledge for those IT careers where data manipulation and management are required.

Related Majors/Minors/ Specialisations:	Science-credited subjects - new generation B-SCI and B-ENG. Selective subjects for B-BMED
Related Breadth Track(s):	Working with Information