600-151 Informatics 1: Practical Computing

Credit Points:	12.50
Level:	1 (Undergraduate)
Dates & Locations:	2009, This subject commences in the following study period/s: Semester 1, - Taught on campus. Semester 2, - Taught on campus. Lectures and workshops.
Time Commitment:	Contact Hours: 36 one-hour lectures (three per week) and 12 three-hour workshops (one per week). Total 72 hours. Total Time Commitment: 120 hours total time commitment.
Prerequisites:	-
Corequisites:	-
Recommended Background Knowledge:	-
Non Allowed Subjects:	615-145 Concepts of Software Development 1 (prior to 2009); 433-151 Introduction to Programming (Advanced) (prior to 2008); 433-171 Introduction to Programming (prior to 2008).
Core Participation Requirements:	It is University policy to take all reasonable steps to minimise the impact of disability upon academic study and reasonable steps will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact upon their active and safe participation in a subject are encouraged to discuss this with the relevant subject coordinator and the Disability Liaison Unit.
Coordinator:	Mr Ivo Widjaja
Contact:	-
Subject Overview:	This subject introduces students to computational methods for analysing and visualising structured data. It covers fundamental programming constructs, algorithms and data structures; information visualisation; web-centric computing; and an overview of the field of computing. Workshops and team projects will give students practical experience in solving data-rich problems involving computers, people and the Web. The problems will be drawn from a diverse range of topics, e.g. climate change, finance, social networks, and language analysis.
Objectives:	On completion of this subject students should be able to: # develop programs using a high-level language (e.g. Python); # manipulate static, structured data; # implement solutions by writing programs; # evaluate proposed solutions; # use web technologies to collaborate with fellow team members; # communicate results effectively using web technologies.
Assessment:	Two group projects (30%) expected to take 36 hours, one due mid-semester and the other at the end of semester. This time commitment includes a peer-assessment component related to the projects (10%). Additional assessment components are a mid-semester test (10%) and a 2-hour written examination in the examination period (50%).It is a requirement of passing this subject that a student obtains at least 25/50 for the continuous assessment during semester, and at least 25/50 for the final exam.
Prescribed Texts:	-
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/2009/D09)** # **Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2009/F04)**

	# **Bachelor of Environments (https://handbook.unimelb.edu.au/view/2009/A04)** # **Bachelor of Music (https://handbook.unimelb.edu.au/view/2009/M05)** 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: # analyse and solve real-world problems with computers; # provide clear and constructive critique of other students' work; # discern quality with respect to the goals of the subject; # synthesise information and communicate results effectively; and # work effectively as a member of a project team.
Notes:	Students enrolled in the BSc (both pre-2008 and new degrees), BASc or a combined BSc course will receive science credit for the completion of this subject. VCE mathematics is not a prerequisite for this subject.
Related Majors/Minors/ Specialisations:	First year informatics