COMP10001 Foundations of Computing

Credit Points:	12.50
Level:	1 (Undergraduate)
Dates & Locations:	2012, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus. Semester 2, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 36 one-hour lectures (three per week) and 12 two-hour workshops (one per week) Total Time Commitment: 120 hours
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	<table><tr><th>Subject</th><th>Study Period Commencement:</th><th>Credit Points:</th></tr><tr><td>INFO10001 Informatics 1: Data on the Web</td><td>Not offered 2012</td><td>12.50</td></tr><tr><td>COMP20005 Engineering Computation</td><td>Semester 1, Semester 2</td><td>12.50</td></tr></table> INFO10001 Informatics-1:Practical Computing (prior to 2011) 615-145 Concepts of Software Development 1 433-151 Introduction to Programming (Advanced) 433-171 Introduction to Programming 600-151 Informatics-1: Practical Computing
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:	Assoc Prof Tim Baldwin, Dr Sean Maynard
Contact:	Associate Professor Tim Baldwin email: **tbaldwin@unimelb.edu.au (mailto:tbaldwin@unimelb.edu.au)**
Subject Overview:	Solving problems in areas such as business, biology, physics, chemistry, engineering, humanities, and social sciences often requires manipulating, analysing, and visualising data through computer programming. In this subject, you will learn how design and write small programs using a high-level procedural programming language, and to solve simple problems using these skills. Topics covered include fundamental programming constructs; fundamental data structures; abstraction; basic program structures; algorithmic problem solving, testing and debugging; introduction to the Web, multimedia and visualisation. Note: If you can demonstrate substantial knowledge of programming, you can apply to sit a programming proficiency test and enroll directly in **INFO20002 Foundations of Informatics**

	(../../CSCView?year=2012&code=COMP20006&view=editor) or in **COMP0002 Foundations of Algorithms (../../CSCView?year=2012&code=COMP10002&view=editor)**
Objectives:	On completion of this subject, students should be able to: # Use the fundamental programming constructs (sequence, alternation, selection) # Use the fundamental data structures (arrays, records, lists, associative arrays) # Use abstraction constructs such as functions # Understand and employ some basic program structures # Understand and employ some basic algorithmic problem solving techniques # Read, write, and debug simple, small programs
Assessment:	A three-stage project (30%) expected to take 36 hours, with stages due at the end of each third of the semester (approximately weeks 4, 8, and 12). Additional assessment components are: A1-hour mid-semester test (10%) A workshop assignment (10%) due at two thirds of the way through semester A 2-hour written examination in the examination period (50%) To pass the subject, students must obtain at least: 50% overall, 20/40 for the project and assignment work And 30/60 for the mid-semester test and end-of-semester written examination combined
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/2012/B-ARTS)** # **Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2012/B-COM)** # **Bachelor of Music (https://handbook.unimelb.edu.au/view/2012/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: # On successful completion of this subject, students should have developed the following generic skills: # Anability to apply knowledge of basic science and engineering fundamentals # An ability to undertake problem identification, formulation and solution # The capacity to solve problems, including the collection and evaluation of information # The capacity for critical and independent thought and reflection # An expectation of the need to undertake lifelong learning, and the capacity to do so
Related Course(s):	Diploma in Informatics
Related Majors/Minors/ Specialisations:	Science credit subjects* for pre-2008 BSc, BASc and combined degree science courses Science-credited subjects - new generation B-SCI and B-ENG. Core selective subjects for B-BMED.
Related Breadth Track(s):	Working with Information Computing Information Technology in Organisations