

COMP90025 Parallel and Multicore Computing

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	This subject is not offered in 2013.
Time Commitment:	Contact Hours: 3 hours per week; Non-contact time commitment: 84 hours Total Time Commitment: 120 hours
Prerequisites:	Knowledge of Operating Systems and Networks, and C Programming
Corequisites:	None
Recommended Background Knowledge:	C programming and UNIX familiarity.
Non Allowed Subjects:	None
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:	Dr Aaron Harwood email: aharwood@unimelb.edu.au (mailto:aharwood@unimelb.edu.au)
Subject Overview:	The subject aims to introduce students to parallel algorithms and their analysis. Fundamental principles of parallel computing are discussed. Various parallel architectures and programming platforms are introduced. Parallel algorithms for different architectures, as well as parallel algorithms addressing specific scientific problems are critically analysed.
Objectives:	On completion students should have gained an understanding of: <ul style="list-style-type: none"> # Have an understanding of parallel algorithms, analysis and architectures. # Obtain experience developing parallel algorithms for various parallel architectures.
Assessment:	ILO1 and ILO2 are addressed by extensive Project work of approximately 60 hours (40%), which involves programming exercises, measurements and analysis, architecture specific programming and written work. ILO1 is also addressed by one 3-hour end of semester examination (60%)To pass the subject, students must obtain at least:50% overall.20/40 in the Project work30/60 in the end-of-semester written examination
Prescribed Texts:	None
Breadth Options:	This subject is not available as a breadth subject.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	<ul style="list-style-type: none"> # Ability to undertake problem identification, formulation and solution # Capacity for independent critical thought, rational inquiry and self-directed learning # Profound respect for truth and intellectual integrity, and for the ethics of scholarship
Related Course(s):	Master of Engineering in Distributed Computing

	Master of Information Technology Master of Information Technology Master of Information Technology Master of Philosophy - Engineering Master of Science (Computer Science) Master of Software Systems Engineering Ph.D.- Engineering
Related Majors/Minors/ Specialisations:	Master of Engineering (Software)