433-678 Cluster and Grid Computing

Credit Points:	12.500
Level:	Graduate/Postgraduate
Dates & Locations:	2008, This subject commences in the following study period/s: Semester 1, - Taught on campus.
Time Commitment:	Contact Hours: 3 hours per week; Non-contact time commitment: 84 hours Total Time Commitment: Not available
Prerequisites:	Knowledge of operating systems and computer networks at undergraduate level, or solid experience in network computing
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 R.Buyya
Subject Overview:	Parallel systems: parallel paradigms, parallelisation, resource management and scheduling, message-passing and parameter parallel programming; Cluster computing: cluster architecture, programming with MPI; Grid computing: grids and grid technologies, programming models, data management, grid security, grid software and tools, and applications, including molecular modelling and brain activity analysis.
Assessment:	A small research project including a report of not more than 5000 words (10%); project work (expected to take about 36 hours) during semester (30%); and one written examination (not exceeding three hours) at the end of the semester (60%).
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:	On successful completion, students will: # be able to understand emerging distributed technologies # be able to design large-scale distributed systems # be able to implement cluster and grid applications # have improved skills in teamwork and presentation of results
Related Course(s):	Master of Engineering in Distributed Computing Master of Information Technology Master of Information Technology Master of Software Systems Engineering