## COMP90050 Advanced Database Systems

Level:         9 (Graduate/Postgraduate)           Dates & Locations:         This subject is not offered in 2011.           Time Commitment:         Contact Hours: 36 hours: made up of 24 one-hour lectures (two per week) and 12 one-hour workshops (one per week) Total Time Commitment: Not available           Prerequisites:         UNDERGRADUATE           ONE of the following:         Subject         Not offered 2011         12.50           AND         Completion of 50 points of third year computing study or equivalent.         Offered 2011         12.50           Recommended         Subject         None         Recommended         Subject         Subject           Subject         One         Contact Hours: Study or equivalent.         Gradit         Points: Points           Recommended         None         Recommended         Subjects:         Subject Web technologies and Applications 433-461 High Performance Database Systems 433-461 High Performance Database Systems 433-461 High Performance Database Systems 433-661 High Performance Database Syst	Credit Points:	12.50		
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Description Framework: dataspaces and data provenance: datacentres: and data prohiving	Subject Overview:	Many applications require access to very large amounts of data. These applications often require reliability (data must not be lost even in the presence of hardware failures), and the ability to retrieve and process the data very efficiently. The subject will cover the technologies used in advanced database systems. Topics covered will include: transactions, including concurrency, reliability (the ACID properties) and performance; and indexing of both structured and unstructured data. The subject will also cover additional topics such as: uncertain data; Xquery; the Semantic Web and the Resource Description Framework; dataspaces and data provenance; datacentres; and data archiving		

Objectives:	On completion of this subject students should be able to: # Describe the concepts and technologies underpinning new forms of Web data # Explain database transaction and recovery techniques and concepts	
Assessment:	Two written assignments, due in approximately weeks 6 and 11, of approximately 1750 words each (20% each); and a 2-hour end-of-semester open-book written examination (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:	<ul> <li>On completion of the subject the student should have the:</li> <li># Ability to undertake problem identification, formulation, and solution</li> <li># Ability to utilise a systems approach to complex problems and to design and operational performance</li> <li># Ability to manage information and documentation</li> <li># Capacity for creativity and innovation</li> <li># Ability to communicate effectively, with the engineering team and with the community at large</li> </ul>	
Related Course(s):	Master of Science (Computer Science) Master of Software Systems Engineering	
Related Majors/Minors/ Specialisations:	B-ENG Software Engineering stream Master of Engineering (Software)	