GEOM90018 Spatial Databases

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2010, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 24 hours lectures and 24 hours lab exercises Total Time Commitment: 120 hours
Prerequisites:	The prerequisite for this subject is: 451610 Foundations of Spatial Information, or equivalent (or at least co-requisite)
Corequisites:	451-610 Foundations of Spatial Information, or equivalent (if not taken before).
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 Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements of this entry. The University is dedicated to provide support to those with special requirements. Further details on the disability support scheme can be found at the Disability Liaison Unit website: http://www.services.unimelb.edu.au/disability/
Coordinator:	Assoc Prof Matt Duckham
Contact:	Melbourne School of Engineering Office Building 173, Grattan Street The University of Melbourne VIC 3010 Australia General telephone enquiries + 61 3 8344 6703 + 61 3 8344 6507 Facsimiles + 61 3 9349 2182 + 61 3 8344 7707 Email **eng-info@unimelb.edu.au (mailto:eng-info@unimelb.edu.au)**
Subject Overview:	The topics covered in this subject will include: the fundamentals of non-spatial and spatial databases; spatial data modelling including entity-relationship models; indexes and access methods including B-trees, quadtrees, and R-trees; query languages and query processing.
Objectives:	On successful completion of this subject students will be able to: # Describe the need for spatial databases, and the differences between spatial and non-spatial database systems # Describe the design and principles of spatial databases, including techniques for efficiently storing and retrieving spatial data # Design queries for spatial and non-spatial database systems # Use and customize specific spatial and non-spatial database systems.

Assessment:	Three-hours of written examinations at the end of the semester (60%).Four practical assignment reports of about 3 pages length each, due evenly throughout the semester (40%)Students must achieve a grade of at least 50% in the written examinaiton at the end of the semester in order to pass this subject.
Prescribed Texts:	None
Recommended 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 of this subject students should be able to: # Apply knowledge of science and engineering fundamentals # Undertake problem identification, formulation, and solution # Communicate effectively, with the engineering team and with the community at large # Manage information and documentation
Related Course(s):	Master of Applied Science (Geographic Information Systems) Master of Geographic Information Technology Master of Spatial Information Science Postgraduate Certificate in Engineering