**GEOM90018 Spatial Databases** 

| Credit Points:                       | 12.50  |                            |                   |  |
|--------------------------------------|--|----------------------------|-------------------|--|
| Level:                               | 9 (Graduate/Postgraduate)  |                            |                   |  |
| Dates & Locations:                   | This subject is not offered in 2013.   |                            |                   |  |
| Time Commitment:                     | Contact Hours: 48 hours, comprising of two hours of lectures and two hours of laboratory exercises per week Total Time Commitment: 120 hours   |                            |                   |  |
| Prerequisites:                       | The prequisite/s for this subject may be taken concurrently  |                            |                   |  |
|                                      | Subject  | Study Period Commencement: | Credit<br>Points: |  |
|                                      | GEOM90008 Foundations of Spatial Information   | Not offered 2013           | 12.50             |  |
|                                      | SINF90001 Database Systems & Information Modelling   | Not offered 2013           | 12.50             |  |
| Corequisites:                        | None   |                            |                   |  |
| Recommended<br>Background Knowledge: | None   |                            |                   |  |
| Non Allowed Subjects:                | None   |                            |                   |  |
| Core Participation<br>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: <a href="http://services.unimelb.edu.au/disability">http://services.unimelb.edu.au/disability</a> <a href="http://services.unimelb.edu.au/disability">http://services.unimelb.edu.au/disability</a> |                            |                   |  |
| Contact:                             | Dr Egemen Tanin  etanin@unimelb.edu.au (mailto:mduckham@unimelb.edu.au)  Dr Kai-Florian Richter  krichter@unimelb.edu.au (mailto:krichter@unimelb.edu.au)  |                            |                   |  |
| Subject Overview:                    | The topics covered in this subject will include: the fundamentals of spatial databases; spatial data modeling; query language; indexes and access methods including quad trees and R-trees; 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 database systems  |                            |                   |  |
|                                      | # Use and customize specific spatial database systems  |                            |                   |  |
| Assessment:                          | Three-hour written exam at the end of the semester (60%) Four practical assignment reports of about 3 pages length each, due evenly throughout the semester (40%) Hurdle requirement: Students must achieve a mark of at least 50% in the written examination in order to pass this subject  |                            |                   |  |

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| 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 Geographic Information Technology Master of Information Technology Master of Information Technology Master of Philosophy - Engineering Master of Spatial Information Science Ph.D Engineering Postgraduate Certificate in Engineering  |  |
| Related Majors/Minors/<br>Specialisations: | Master of Engineering (Geomatics)  |  |

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