

GEOM20013 Applications of GIS

Credit Points:	12.50
Level:	2 (Undergraduate)
Dates & Locations:	2010, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus. one 2-hour lecture per week and three 2-hour practicals per week.
Time Commitment:	Contact Hours: 48 hours of lectures and practicals Total Time Commitment: 120 hours, including non-contact time.
Prerequisites:	None
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 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/
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Subject Overview:	Geographic Information Systems (GIS) are a blend of computer mapping and database technologies used to store, manage, analyse and display geographic data. This subject introduces students to this exciting technology and provides them with the skills and knowledge to solve everyday problems facing our built and natural environments.
Objectives:	On completion of this subject students should be able to: <ul style="list-style-type: none"> # Explain the basic principles and procedures associated with GIS; # Demonstrate practical skills such as understanding data format, data collection, data entry and modification, projection systems, basic spatial and 3D analysis and finally concept of visualization in the use of GIS software; # Describe how GIS can be applied in a range of situations, such as urban planning, site selection, environmental management, facilities and network management, and many more; # Explain the particular role that GIS plays in decision making for problem solving purposes; and # Use GIS software for spatial analysis in a range of applications such as emergency management, urban development, land administration.
Assessment:	3 hour end of semester written exam (60%), 10 weekly practicals (4% each, 40%)

Prescribed Texts:	Lecture notes will be available for purchase from the University bookroom.
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:	<p>On the completion of this subject; students will have:</p> <ul style="list-style-type: none"> # The ability to apply knowledge of basic science fundamentals; # The ability to communicate effectively, not only with other scientists but also with the community at large; # The ability to undertake problem identification, formulation and solution; # The ability to function effectively as an individual and in multi-disciplinary and multi-cultural teams, with the capacity to be a leader or manager as well as an effective team member; # An expectation of the need to undertake lifelong learning and the capacity to do so; # The capacity for independent critical thought, rational inquiry and self-directed learning; and # Openness to new ideas and unconventional critiques of received wisdom.
Related Course(s):	Bachelor of Science
Related Majors/Minors/ Specialisations:	Geomatics Master of Engineering (Geomatics) Physical (Environmental Engineering) Systems