

GEOM90008 Foundations of Spatial Information

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	This subject is not offered in 2011.
Time Commitment:	Contact Hours: 24 hours lectures and 24 hours practicals Total Time Commitment: 120 hours
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/
Contact:	winter@unimelb.edu.au (mailto:winter@unimelb.edu.au)
Subject Overview:	Spatial information is ubiquitous in decision making. Be it in urban planning, in traffic management, in wayfinding, in issues of environment and sustainability, or in economic contexts: the question of where is a fundamental one. Spatial information is also special in many respects, such as its dimensionality, volume, or a phenomenon called autocorrelation. We will discuss representations and analysis of this information in spatial information technologies from location-based services to geographic information systems. Topics addressed are observing the environment; spatial and spatiotemporal data representations, spatial analysis and spatial communication.
Objectives:	Upon successful completion students will have the ability to: <ul style="list-style-type: none"> # Describe and discuss the process from observing the environment to representing information about the environment # Identify and assess fundamental data structures and analysis procedures associated with spatial information # Discuss the use of geographic information in decision making # Apply basic practical skills in the use of GIS software.
Assessment:	A written exam consisting of a mid-semester test of 30 minutes (10%) and a 2-hour written examination at the end of semester (45%). Four practical assignment reports of about 5 pages length each, due evenly throughout the semester (40%), and an oral presentation of 5 minutes at one of the lecture dates (5%).
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 have the ability to: <ul style="list-style-type: none"> # Ability to apply knowledge of science and engineering fundamentals # Ability to undertake problem identification, formulation, and solution

	<ul style="list-style-type: none"> # Ability to communicate effectively, with the engineering team and with the community at large # Understanding of professional and ethical responsibilities, and commitment to them # Capacity for lifelong learning and professional development
Related Course(s):	Master of Environmental Engineering Master of Environmental Engineering Master of Geographic Information Technology Master of Science (Geography) Master of Spatial Information Science Postgraduate Certificate in Engineering
Related Majors/Minors/ Specialisations:	Conservation, Restoration and Landscape Management Development Environmental Science Environmental Science Integrated Water Catchment Management Master of Engineering (Geomatics) Sustainable Cities, Sustainable Regions Sustainable Forests