

GEOM90008 Foundations of Spatial Information

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 practicals per week Total Time Commitment: 120 hours
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	<p><p>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.</p> <p>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: http://services.unimelb.edu.au/disability</p></p>
Contact:	Professor Stephan Winter 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:	In semester assignments (30%), including: Four practical assignment reports of about 5 pages length each, due evenly throughout the semester An oral presentation of 5 minutes at one of the lecture dates Mid Semester Tests and End of Semester Examination: A 30 minute exam, mid-semester (10%) A 2-hour exam, end of semester (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:	<p>On successful completion, students will have:</p> <ul style="list-style-type: none"> # The ability to apply knowledge of science and engineering fundamentals # The ability to undertake problem identification, formulation, and solution # The ability to communicate effectively, with the engineering team and with the community at large # An understanding of professional and ethical responsibilities, and a commitment to them # A capacity for lifelong learning and professional development
Related Course(s):	<p>Master of Environmental Engineering Master of Environmental Engineering Master of Geographic Information Technology Master of Information Technology Master of Information Technology Master of Philosophy - Engineering Master of Science (Geography) Master of Spatial Information Science Ph.D. - Engineering Postgraduate Certificate in Engineering</p>
Related Majors/Minors/ Specialisations:	<p>Climate Change Conservation, Restoration and Landscape Management Development Environmental Science Environmental Science Integrated Water Catchment Management Master of Engineering (Geomatics) Sustainable Cities, Sustainable Regions Sustainable Forests</p>