451-608 Spatial Analysis (Masters)

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2009, This subject commences in the following study period/s: Semester 1, - Taught on campus.
Time Commitment:	Contact Hours: 48 hours (2 hours lectures per week, 2 hours practical per week and 4 hours seminars); Non-contact time commitment: 96 hours Total Time Commitment: Not available
Prerequisites:	451-610 Fundamentals of GIS (or equivalent)
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 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: http://services.unimelb.edu.au/disability
Coordinator:	Assoc Prof Stephan Winter
Subject Overview:	Spatial data types; data structures for spatial data; point patterns; measures of dispersion; measures of arrangements; patterns of lines; paths, branching, topology and concepts of distance; patterns of area; patterns in fields; the role of spatial scale and spatial aggregation problems; exploratory spatial data analysis; and spatial autocorrelation.
Assessment:	A written exam consisting of a mid-semester test of 30 minutes (10%) and a 3-hour written examination at the end of semester (45%). Ten weekly assignments with practical exercise reports of about 4 pages length. The first assignment is optional and not marked. Some of the other assignments may be grouped to fortnightly assignments with report lengths equivalent to two weekly assignments. In any case the nine marked exercises are equally weighted to a total of 45%.
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 should have: # an understanding of the role of statistical and geometric techniques of spatial analysis for users of GIS # an understanding of the computational methods of analysis of spatial relationships # a proficiency in the analysis and evaluation of spatial data
Related Course(s):	Graduate Certificate in Geographic Information Systems Graduate Diploma in Geographic Information Systems Graduate Diploma in Geomatics Science Master of Applied Science (Geographic Information Systems) Master of Geographic Information Technology