ABPL90319 GIS In Planning, Design & Development

Credit Points:	12.5
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2015, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus. Quota: 30 This subject is a quota subject and places are limited. Students may provisionally enrol via the Student Portal, but places are not guaranteed until selection is completed. You will be notified in writing by the Student Centre if you are selected. Selection criteria: Academic merit. Priority will be given to students enrolled in the Master of Landscape Architecture, the Master of Urban Planning and the Master of Urban Design. Should applications from students enrolled in the above courses exceed the number of places available, selection will be based on academic merit (overall GPA). Should applications from students enrolled in the above courses be less than the number of places available, remaining applicants will be ranked and selected on the basis of academic merit (overall GPA). For detailed information on the quota subject application process and due dates, refer to the EDSC Quota Subjects webpage: http://edsc.unimelb.edu.au/quota-subjects
Time Commitment:	Contact Hours: 3 hours per week Total Time Commitment: 170 Hours
Prerequisites:	Admission into a course at the Melbourne School of Design.
Corequisites:	None
Recommended Background Knowledge:	General literacy across one of these fields: Computer Science, Ecology, Urban and Landscape Planning, Property Development and Management.
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:	Dr Siqing Chen
Contact:	**Environments and Design Student Centre** Ground Floor, Baldwin Spencer (building 113) *Enquiries* Phone: 13 MELB (13 6352) Web: **http://edsc.unimelb.edu.au/ (http://edsc.unimelb.edu.au/)** Email: **edsc-enquiries@unimelb.edu.au (mailto:edsc-enquiries@unimelb.edu.au)**
Subject Overview:	This subject introduces the concepts of Geographic Information Systems (GIS) and its application in landscape architecture, urban planning and development. It will: # introduce the origin and development of GIS respect to landscape architecture, urban planning and development; # introduce basic GIS concepts, data structure, data format, and data management; # introduce fundamental GIS operations such as digitising, overlay analysis, spatial analysis, hydrological analysis, 3D analysis, etc.; # address key issues of applying GIS in planning, design and development, such as landscape capacity and suitability analysis, urban heat island analysis, water sensitive urban design, property management, etc.;

	# place how GIS will facilitate site analysis, inform decision making and improve efficiency and productivity in planning, design and development. The subject will be delivered through lectures/guest lectures, lab tutorials, workshops and practical sessions synthesising dominant themes in this fields of using GIS as tool to achieve sustainable design and ecological landscape planning.
Learning Outcomes:	On completion of this subject students should be able to: # understand the basic concepts and theory of GIS and spatial modelling; # understand the origin and development of GIS as a disciplinary framework for planning and design; # conduct spatial modelling of landscape and cities using key environmental factors across scales; # communicate and interpret cities and landscapes using GIS-based thematic mapping; # understand that design and planning intervention can be informed and facilitated by GIS-based site analysis; # build GIS-based property management information system; # understand that GIS can be integrated into the design, planning, development and management of both the nature and the built environments.
Assessment:	Vector-based GIS project, due week 6 20% 1000 word equivalent. Raster-based GIS project, due week 8 30% 1500 word equivalent. Final GIS project, due two weeks after end of semester, 50%, 2500 word equivalent.
Prescribed Texts:	M.N. DeMers, 2009, Fundamentals of Geographical Information Systems (4th edition), John Wiley & Sons.T. Ormsby, E.J. Napoleon, R. Burke, C. Groessl and L. Bowden, 2010, Getting to Know ArcGIS Desktop (2nd edition for ArcGIS 10), ESRI Press.
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 completion of this subject students should have developed the following: # correct use of technical terminology # evaluation of design and planning decisions # critical thinking skills # scale thinking and spatial thinking skills # analysis and synthesis of information to propose solutions # communication of design and planning ideas verbally and graphically.
Related Course(s):	Master of Design (Urban Design) Master of Landscape Architecture Master of Landscape Architecture Master of Urban Design Master of Urban Planning
Related Majors/Minors/ Specialisations:	200 point Master of Landscape Architecture 300 point Master of Landscape Architecture Melbourne School of Design multidisciplinary elective subjects