

Spatial Systems

Year and Campus:	2015																	
Coordinator:	Cliff Ogleby Department of Geomatics																	
Contact:	Email: cogleby@unimelb.edu.au (mailto: cogleby@unimelb.edu.au)																	
Overview:	<p>This major aims to provide science students with the background knowledge necessary for a career in spatial science. Spatial Systems is concerned with measurement, representation, analysis, management, retrieval and display of spatial data concerning both the Earth's physical features and the built environment. The principal disciplines embraced by Spatial Systems include the mapping sciences, land administration and management, geographic information systems, environmental visualisation, geodesy, photogrammetry, remote sensing and surveying. The major will develop a knowledge base in spatial measurement and analysis for both the human and natural environment. After completion of a science degree with a major in Spatial Systems students can enter the workforce with their current skills or apply to commence a professional masters degree.</p>																	
Learning Outcomes:	<p><i>Spatial Systems Major Graduates should demonstrate:</i></p> <ul style="list-style-type: none"> # sound fundamental understanding of the scientific principles underlying technology; # broad knowledge base of their chosen discipline and of other disciplines to facilitate effective communication with those other professionals with whom engineers routinely communicate; # ability to apply the basic principles underlying the management of physical, human and financial resources; # mathematical and computational skills necessary for the solution of theoretical and practical problems; # analytical, problem-solving and design skills, including those appropriate for sustainable development; # verbal and written communication skills that enable them to contribute substantially to society; # lifelong learning skills for further development professionally and for meeting future changes in technology; # commitment to professional ethics and responsibility towards the profession and the community; # interpersonal and management skills required by engineers in undertaking professional activities; # ability to enact the social, cultural, global and environmental responsibilities of the professional engineer, and the need for sustainable development. 																	
Structure & Available Subjects:	Completion of 50 points of study at Level 3.																	
Subject Options:	All four of:																	
	<table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>CVEN30008 Engineering Risk Analysis</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>GEOM30009 Imaging the Environment</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>GEOM30012 Integrated Spatial Systems</td> <td>Semester 2</td> <td>12.50</td> </tr> <tr> <td>GEOM30013 Land Administration Systems</td> <td>Semester 2</td> <td>12.50</td> </tr> </tbody> </table>			Subject	Study Period Commencement:	Credit Points:	CVEN30008 Engineering Risk Analysis	Semester 1	12.50	GEOM30009 Imaging the Environment	Semester 1	12.50	GEOM30012 Integrated Spatial Systems	Semester 2	12.50	GEOM30013 Land Administration Systems	Semester 2	12.50
Subject	Study Period Commencement:	Credit Points:																
CVEN30008 Engineering Risk Analysis	Semester 1	12.50																
GEOM30009 Imaging the Environment	Semester 1	12.50																
GEOM30012 Integrated Spatial Systems	Semester 2	12.50																
GEOM30013 Land Administration Systems	Semester 2	12.50																
Related Course(s):	Bachelor of Science																	