

# MC-SISC Master of Spatial Information Science

Year and Campus:	2011 - Parkville												
CRICOS Code:	069276B												
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, <a href="http://enrolment.unimelb.edu.au/fees">http://enrolment.unimelb.edu.au/fees</a>												
Level:	Graduate/Postgraduate												
Duration & Credit Points:	200 credit points taken over 24 months full time. This course is available as full or part time.												
Coordinator:	Associate Professor Stephan Winterwinter@unimelb.edu.au												
Contact:	Melbourne School of Engineering Office <a href="mailto:courseinfo@eng.unimelb.edu.au">courseinfo@eng.unimelb.edu.au</a> (mailto:courseinfo@eng.unimelb.edu.au) <a href="http://www.eng.unimelb.edu.au">http://www.eng.unimelb.edu.au</a> ( <a href="http://www.eng.unimelb.edu.au">http://www.eng.unimelb.edu.au</a> )												
Course Overview:	<p>The Master of Spatial Information Science is a two-year full time program (also available in part-time mode) which offers a professional entry Masters qualification to graduates with a three-year undergraduate degree in an appropriate discipline*. Spatial Information is based on the now established Geographic Information Science (GIScience). GIScience is by nature interdisciplinary, at the intersection of spatial information science, artificial intelligence, cognitive and neuroscience, linguistics, and philosophy. This course uniquely reflects this character, not by trying to put everything together, but by enabling the students to specialize in one of these intersection areas, with geoinformatics as one of their bases.</p> <p>The course will allow students to study spatial information with a wide range of specializations, such as in economy (market and value of spatial information), in psychology (spatial cognition, human-computer interaction on spatial information), in computer science (mobile spatial computing, spatiotemporal databases, spatial data mining), in planning (spatiotemporal analysis and visualization), in civil engineering (management of infrastructure), or in Geomatics (spatial data capture, tracking, mining).</p>												
Objectives:	The course serves the needs for a professional qualification for the broad spatial information profession, which covers, among others, areas of government, infrastructure management, planning including public participatory planning, telecommunication (location-based) and webbased services (mapping, navigation, volunteered geographic information), intelligent transportation systems, intelligent building systems, land management, banking and insurance industry, consulting, environments, agriculture and forestry.												
Course Structure & Available Subjects:	<p>The Master of Spatial Information Science consists of:</p> <ul style="list-style-type: none"><li># Seven spatial information subjects (five core and two electives) (87.5 credit points)</li><li># Four subjects from (an)other discipline(s) (approved electives) (50 credit points)</li><li># One research methods subject to prepare for a research project (12.5 credit points)</li><li># One semester interdisciplinary research project (50 credit points)</li></ul>												
Subject Options:	<p>Core and elective requirements in the Master of Spatial Information Science</p> <p>Students must complete 62.5 credit points (five subjects) of core subjects, 25 credit points (two subjects) of spatial information electives, 50 credit points (4 subjects) of approved electives, 12.5 credit points (1 subject) of a research methods subject to prepare for a research project and 50 credit points (1 subject) of a interdisciplinary research project.</p> <p><b>Core spatial information subjects</b></p> <p>The following core subjects must be taken in the Master of Spatial Information Science</p> <table><tr><th>Subject</th><th>Study Period Commencement:</th><th>Credit Points:</th></tr><tr><td>GEOM90008 Foundations of Spatial Information</td><td>Not offered 2011</td><td>12.50</td></tr><tr><td>GEOM90018 Spatial Databases</td><td>Not offered 2011</td><td>12.50</td></tr><tr><td>GEOM90006 Spatial Analysis</td><td>Not offered 2011</td><td>12.50</td></tr></table>	Subject	Study Period Commencement:	Credit Points:	GEOM90008 Foundations of Spatial Information	Not offered 2011	12.50	GEOM90018 Spatial Databases	Not offered 2011	12.50	GEOM90006 Spatial Analysis	Not offered 2011	12.50
Subject	Study Period Commencement:	Credit Points:											
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GEOM90006 Spatial Analysis	Not offered 2011	12.50											

GEOM90016 Advanced Topics in GIScience	Not offered 2011	12.50
GEOM90007 Spatial Visualisation	Not offered 2011	12.50

### Spatial information selectives in the Master of Spatial Information Science

Students must select two subjects from the list below -

Subject	Study Period Commencement:	Credit Points:
GEOM90017 Geomatics Internship	Not offered 2011	12.50
GEOM90015 Spatial Data Infrastructure	Not offered 2011	12.50
GEOM90005 Remote Sensing	Not offered 2011	12.50
AGRI90073 Applications for Spatial Information	Not offered 2011	12.50
SWEN90003 IT Project Management	Not offered 2011	12.50
CVEN90045 Engineering Project Implementation	Not offered 2011	12.50
GEOM90036 Land Administration	Not offered 2011	12.50

### Research methodology subject in the Master of Spatial Information Science

Students must select one subject from the list of research methods subjects below, other equivalent research methodology subjects may be approved by the course coordinator

Subject	Study Period Commencement:	Credit Points:
ABPL90070 Research Methods (Masters)	Not offered 2011	12.50
ISYS90031 Research Methods in Information Systems	Not offered 2011	12.50

### Interdisciplinary research project subject/s in the Master of Spatial Information Systems

Students must select either

- # 451-650 Spatial Information Research Project; or
- # 451-612 Spatial Information Research Project A and 451-637 Spatial Information Research Project B; or
- # 451-625 Spatial Information Research Project C and 451-626 Spatial Information Research Project D

From the list of interdisciplinary research project subjects below

Subject	Study Period Commencement:	Credit Points:
GEOM90020 Spatial Information Research Project	Not offered 2011	50
GEOM90010 Spatial Information Research Project A	Not offered 2011	12.50
GEOM90023 Spatial Information Research Project B	Not offered 2011	37.50
GEOM90013 Spatial Information Research Project C	Not offered 2011	25
GEOM90031 Spatial Information Research Project D	Not offered 2011	25

### Electives in the Master of Spatial Information Science

Students must select four elective subjects. The course allows a combination of four subjects of ANY graduate or postgraduate subjects, pending the course coordinator's approval.

#### Entry Requirements:

A three-year undergraduate degree in an appropriate\* discipline with at least a 65% average (University of Melbourne equivalent).

All students at the University of Melbourne must satisfy the University's English language entry requirements. For details, see [www.eng.unimelb.edu.au/english](http://www.eng.unimelb.edu.au/english) (<http://www.eng.unimelb.edu.au/english>)

	<p>Students must meet the individual pre-requisites of chosen subjects within the course. With the general expectation that electives are chosen in the area of students first degree, prerequisites are not expected to be a major barrier.</p> <p>* Broad discipline areas include computer science, environments (planning, landscape, and agriculture), economics, cognitive science or public health or other discipline specialisation as approved by the Coordinator.</p>
<b>Core Participation Requirements:</b>	<p>The Master of Spatial Information Science welcomes applications from students with disabilities. It is University and degree 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 degree. The Master of Spatial Information Science requires all students to enrol in subjects where they will require: (1) the ability to comprehend complex science and technology related information; (2) the ability to clearly and independently communicate a knowledge and application of science and technology principles and practices during assessment tasks; and: (3) the ability to actively and safely contribute in laboratory, and fieldwork/excursion activities. Students must possess behavioural and social attributes that enable them to participate in a complex learning environment. Students are required to take responsibility for their own participation and learning. They also contribute to the learning of other students in collaborative learning environments, demonstrating interpersonal skills and an understanding of the needs of other students. Assessment may include the outcomes of tasks completed in collaboration with other students. There are additional inherent academic requirements for some subjects, and these requirements are listed within the description of the requirements for each of these subjects. Students who feel their disability will impact on meeting this requirement are encouraged to discuss this matter with the relevant Subject Coordinator and the Disability Liaison Unit: <a href="http://www.services.unimelb.edu.au/disability/">http://www.services.unimelb.edu.au/disability/</a></p>
<b>Graduate Attributes:</b>	<p>Master of Spatial Information Science Graduate Attributes</p> <p>Strong analytical skills Depth of understanding Practical ingenuity Creativity Understanding of global issues Communication Business and management High ethical standards and professionalism Leadership Lifelong learners Academically excellent Knowledgeable across disciplines Attuned to cultural diversity Active global citizens Leaders in communities</p>
<b>Professional Accreditation:</b>	<p>The Melbourne School of Engineering is seeking accreditation for the Master of Spatial Information Science from the Royal Institution of Chartered Surveyors (RICS) and Surveying and Spatial Sciences Institute (SSSI).</p>
<b>Generic Skills:</b>	<p>Graduates are able to demonstrate competence across the broad field of spatial information science and engineering, and, through a specialization in one other science or engineering discipline of their choice, they have an excellent understanding of interfaces and links with other science and engineering disciplines. The Master of Spatial Information Science program develops breadth of understanding and outlook, and ability to engage with a wide range of technologies and applications, with sufficient depth in one or more specific areas of practice to develop competence in handling technically advanced and complex problems.</p>
<b>Links to further information:</b>	<p><a href="http://www.eng.unimelb.edu.au/Postgrad/MEng/grad_msis.html">http://www.eng.unimelb.edu.au/Postgrad/MEng/grad_msis.html</a></p>
<b>Notes:</b>	<p>None</p>