MC-SISC Master of Spatial Information Science

Year and Campus:	2014 - Parkville
CRICOS Code:	069276B
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
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:	Professor Stephan Winter winter@unimelb.edu.au
Contact:	Melbourne School of Engineering Ground Floor, Old Engineering (Building 173) Current students: Email: **13MELB@unimelb.edu.au (mailto:13MELB@unimelb.edu.au)** Phone: 13MELB (13 6352) +61 3 9035 5511 Prospective students: Visit **Master of Spatial Information Science (http://www.msi.unimelb.edu.au/study/ graduate/master-of-spatial-information-science/)**
Course Overview:	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 web-based services (mapping, navigation, volunteered geographic information), intelligent transportation systems, intelligent building systems, land management, banking and insurance industry, consulting, environments, agriculture and forestry.
Learning Outcomes:	This course has as its objectives that graduates should: # Have a sound fundamental understanding of the scientific principles and the technology of spatial information # Have acquired the educational and professional standards of the professional institutions and boards with which the School's courses are accredited # Possess a broad knowledge base of spatial information science and technology so as to facilitate effective communication with those other professional with whom spatial information experts routinely communicate # Understand the basic principles underlying the management of physical, human and financial resources # Have acquired the mathematical and computational skills necessary for the solution of theoretical and practical problems for further professional development and for meeting future changes in technology # Possess analytical and problem-solving skills # Have verbal and written communication skills that enable them to make a meaningful contribution to the changes facing our society # Have developed professional ethics and responsibility towards the spatial information profession and the community # Have an appreciation of the interpersonal and management skills required by engineers in undertaking professional activities # Understand the social, cultural, global and environmental responsibilities of the professional engineer, and the need for sustainable development
Course Structure & Available Subjects:	The Master of Spatial Information Science is a 200 point course consisting of: # Eight spatial information subjects (six core and two electives) (100 credit points) # Four subjects from (an)other discipline(s) (approved electives) (50 credit points) # A interdisciplinary research project either in one semester or spread over a year (50 credit points)
Subject Options:	Core and elective requirements in the Master of Spatial Information Science

Students must complete:

- # Six core subjects - 75 credit points
- # Two spatial information electives - 25 credit points
- # Four approved electives - 50 credit points
- # Interdisciplinary research project - 50 credit points (1 or 2 subjects)

Core spatial information subjects

The following core subjects must be taken:

(75 points)

Subject	Study Period Commencement:	Credit Points:
GEOM90008 Foundations of Spatial Information	Semester 1	12.50
GEOM90018 Spatial Databases	Semester 1	12.50
GEOM90016 Advanced Topics in GIScience	Semester 1	12.50
GEOM90007 Spatial Visualisation	July	12.50
GEOM90006 Spatial Analysis	Semester 2	12.50
GEOM90015 Spatial Data Infrastructure	Semester 2	12.50

Spatial information selectives

Students must select two subjects from the list below:

(25 points)

Subject	Study Period Commencement:	Credit Points:
GEOM90017 Geomatics Internship	Summer Term, Semester 1, Semester 2, Winter Term	12.50
GEOM90042 Spatial Information Programming	Semester 1	12.50
GEOM90005 Remote Sensing	Semester 2	12.50
CVEN90045 Engineering Project Implementation	Semester 2	12.50
ISYS90050 IT Project and Change Management	Semester 1, Semester 2	12.50

Interdisciplinary research project subject/s

From the list of interdisciplinary research project subjects below students must select either:

- # GEOM90020 Spatial Information Research Project or
- # GEOM90010 Spatial Information Research Project A and GEOM90023 Spatial Information Research Project B or
- # GEOM90010 Spatial Information Research Project C and GEOM90023 Spatial Information Research Project D

(50 points)

Subject	Study Period Commencement:	Credit Points:
GEOM90020 Spatial Information Research Project	Summer Term, Semester 1, Semester 2, Winter Term	50
GEOM90010 Spatial Information Research Project A	Summer Term, Semester 1, Semester 2, Winter Term	12.50

GEOM90023 Spatial Information Research Project B	Summer Term, Semester 1, Semester 2, Winter Term	37.50
GEOM90013 Spatial Information Research Project C	Summer Term, Semester 1, Semester 2, Winter Term	25
GEOM90031 Spatial Information Research Project D	Summer Term, Semester 1, Semester 2	25

Electives

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

(50 points)

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

Students must meet the individual pre-requisites of chosen subjects within the course. Prerequisites are not expected to be a major barrier with the general expectation electives are chosen in the area of students first degree.

Language Requirements

All students studying at the University of Melbourne must satisfy the University's English language entry requirements in accordance with Selection Principles: Regulation 11.1.A2 – Admission and Selection to Courses.
http://futurestudents.unimelb.edu.au/admissions/entry-requirements/language-requirements (http://futurestudents.unimelb.edu.au/admissions/entry-requirements/language-requirements)
For graduate students the University's English language entry requirements are set out at:
http://futurestudents.unimelb.edu.au/admissions/entry-requirements/language-requirements/graduate-toefl-ielts (http://futurestudents.unimelb.edu.au/admissions/entry-requirements/language-requirements/graduate-toefl-ielts)
The University of Melbourne English Language Bridging Program (UMELBP)
The UMELBP provides a direct English language pathway from Hawthorn-Melbourne to specific courses at the University of Melbourne. Students who have achieved an IELTS band 0.5 lower than their University of Melbourne course entry requirement may be able to proceed directly to their University studies upon successful completion of the UMELBP. More information is available from the Hawthorn Melbourne website.
http://www.hawthornenglish.com/ (http://www.hawthornenglish.com/)
The Melbourne School of Engineering's English Language alternative may affect the duration and cost of your course
http://www.eng.unimelb.edu.au/study/english-requirements.html (http://www.eng.unimelb.edu.au/study/english-requirements.html)

* 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 |
| **Core Participation Requirements:** | 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 (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: http://www.services.unimelb.edu.au/disability/
Graduate Attributes:	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
Professional Accreditation:	The MSISc is accredited by EUR-ACE® and RICS as a professional qualification recognized in the Commonwealth and Europe.
Generic Skills:	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
Links to further information:	http://msi.unimelb.edu.au/study/graduate/master-of-spatial-information-science/
Notes:	None