

Geomatics

Year and Campus:	2011											
Coordinator:	Cliff Ogleby											
Contact:	<p>Eastern Precinct Student Centre The Eastern Precinct (building 138) (between Doug McDonnell building and Eastern Resource Centre)</p> <p><i>Enquiries</i> Phone: 13 MELB (13 6352) Email: 13MELB@unimelb.edu.au (mailto:13MELB@unimelb.edu.au)</p>											
Overview:	<p>Geomatic Engineering is the study of the science and technologies of 3D measurement, mapping and visualisation. This course provides the opportunity to acquire skills in modern, sophisticated technologies such as global positioning system (GPS), three dimensional computer visualisations, geographic information systems (GIS), surveying, and satellite and photographic image processing.</p> <p>Careers and Further Study</p> <p>Students pursuing a career in Geomatics will complete the Bachelor of Environments with a major in Geomatics, followed by the two-year Master of Engineering (Geomatics). The five-year Bachelor-Master combination leads to professional accreditation by Engineers Australia and the Institution of Surveyors, Australia. For more information on the Masters of Engineering and graduate careers, please visit the Melbourne school of Engineering web site: http://eng.unimelb.edu.au (http://eng.unimelb.edu.au/)</p>											
Objectives:	<p>By the end of a three year Bachelor of Environments degree with a Geomatics major, you will have developed a sound understanding of technologies used in one of the fastest growing IT industries in the world today. For more information visit: www.benvs.unimelb.edu.au (http://www.benvs.unimelb.edu.au)</p>											
Structure & Available Subjects:	See details below.											
Majors/Minors/Specialisations	<p>Course Planning for a Geomatics Major</p> <p>A major in Geomatics in the Bachelor of Environments consists of:</p> <ul style="list-style-type: none"> # 112.5 points (9 subjects) of Geomatics subjects; # 25 points (2 subjects) of core first year subjects (Natural Environments and Reshaping Environments); # 25 points (2 subjects) of breadth subjects required for the major (Calculus 1 and Linear Algebra). <p>This is in addition to elective subjects and breadth subjects to make up the 300 points required for the degree. Specific details of the Bachelor of Environments course structure can be found at:</p> <p>https://handbook.unimelb.edu.au/view/2011/B-ENVS (../view/2011/B-ENVS)</p> <p>In order to complete a major in Geomatics, you will undertake the following subjects:</p>											
Subject Options:	<p>1st year level subjects</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>ENVS10001 Natural Environments</td> <td>Not offered 2011</td> <td>12.50</td> </tr> <tr> <td>ENVS10002 Reshaping Environments</td> <td>Not offered 2011</td> <td>12.50</td> </tr> </tbody> </table> <p>1st year breadth subjects</p> <p>In the first year of the Bachelor of Environments, students intending to major in Geomatics must take the following two subjects as their breadth subjects (please note there are pre-requisite maths subjects that need to be met).</p>			Subject	Study Period Commencement:	Credit Points:	ENVS10001 Natural Environments	Not offered 2011	12.50	ENVS10002 Reshaping Environments	Not offered 2011	12.50
Subject	Study Period Commencement:	Credit Points:										
ENVS10001 Natural Environments	Not offered 2011	12.50										
ENVS10002 Reshaping Environments	Not offered 2011	12.50										

Subject	Study Period Commencement:	Credit Points:
MAST10005 Calculus 1	Semester 1, Semester 2	12.50
MAST10007 Linear Algebra	Summer Term, Semester 1, Semester 2	12.50

2nd year level subjects

Subject	Study Period Commencement:	Credit Points:
GEOM20013 Applications of GIS	Not offered 2011	12.50
GEOM20015 Surveying and Mapping	Not offered 2011	12.50
COMP20005 Engineering Computation	Not offered 2011	12.50
MAST10010 Data Analysis 1	Semester 2	12.50

3rd year level subjects

Subject	Study Period Commencement:	Credit Points:
GEOM30009 Imaging the Environment	Not offered 2011	12.50
GEOM30010 Programming Geomatics Applications	Semester 1	12.50
GEOM30011 Computational Methods in Geomatics	Semester 2	12.50
GEOM30012 Integrated Spatial Systems	Not offered 2011	12.50
GEOG20003 Environmental Politics and Management	Semester 2	12.50

Bachelor of Environments electives

All Bachelor of Environments students must complete **37.5 points** of Bachelor of Environments electives.

Breadth subjects

Bachelor of Environments students must complete between 50 and 75 credit points of subjects selected from those available as breadth for Bachelor of Environments students; with no more than 37.5 points at Level 1. For a complete listing of available subjects please click the 'Find breadth subjects' link on the **Handbook homepage (.J./)** and perform a search.

The breadth requirements for the Bachelor of Environments include the restriction of some subjects as breadth options, depending on a individual student's choice of major. Refer to the **Breadth Requirements for the Bachelor of Environments (<http://breadth.unimelb.edu.au/breadth/info/Environments.html>)** for additional information.

For more information on this major and to view a sample course plan please visit:

<http://www.benvs.unimelb.edu.au/current-students/course-info/geomatics.html> (<http://www.benvs.unimelb.edu.au/current-students/course-info/geomatics.html>)