356AA Bachelor of Geographic Information Technology

Year and Campus:	2010 - Parkville
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Level:	Undergraduate
Duration & Credit Points:	300 credit points taken over 36 months full time. This course is available as full or part time.
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Course Overview:	Geomatics is three-dimensional measurement, mapping and visualisation and is one of the fastest growing industry sectors in the world. Land surveying and spatial information science are disciplines covered in Geomatics and it is therefore ideally suited to students who have an interest in the management of the environment, information technology, computing and computer graphics, mathematics or working outdoors. Pathways to a professional degree in Geomatics (Land Surveying/Spatial Information Science) are through the Bachelor of Environments (BEnv) or the Bachelor of Science (BSc). A major attraction of geomatics is the diverse range of career options available. The rapid growth of geomatics across society has resulted in graduates obtaining an exceptionally high level of industry employment worldwide. Students routinely find employment in land development and management; natural resource and environmental management; computer-based mapping and modelling; hydrographic, land and engineering surveying; and applied computing and geographical information systems (GIS). Other exciting new areas of employment for graduates are web mapping specialists, GIS consultants, business development managers and with engineering mapping and multimedia companies. Across the three year undergraduate Geomatics major, students gain an understanding of mathematics and statistics as well as a sound introduction to a broad range of geomatics subjects including application of GIS, spatial imaging and integrated spatial systems. The three year degree also includes a one-week residential field course which integrates theoretical material with practical geomatics concepts. Students who have completed a three year BEnv or BSc with a major in Geomatics can continue on to the professional Masters of Engineering (Geomatics). Students then undertake studies in advanced measurement sciences, remote sensing, spatial analysis, photogrammetry, land administration, cadastral surveying, land law, professional development and and a comprehensive research project. The whole five year program for Geomatics is accredited by Engineers Australia and accreditation is pending for the Royal Institute of Chartered Surveyors (RICS) and the Surveyors Registration Board, Victoria.
Objectives:	On completion of this course graduates should: # Have a sound fundamental understanding of the scientific principles underlying technology; # Possess a broad knowledge base of their chosen discipline and of other disciplines to facilitate effective communication with those other professionals; # Have acquired the mathematical and computational skills necessary for the solution of theoretical and practical problems; # Possess analytical, problem-solving and design skills, including those appropriate for sustainable development; # Have verbal and written communication skills that enable them to contribute substantially to society; # Have acquired lifelong learning skills for further development professionally and for meeting future changes in technology; and

	# Have acquired a sense of professional ethics and responsibility towards the profession and the community.
Course Structure & Available Subjects:	The recommended or standard course structures are listed below. When setting the timetable every effort will be made to avoid clashes between the times of classes associated with these sets of subjects. Students should be aware however, that if it proves to be impossible to achieve a timetable without clashes in these sets of subjects, the School reserves the right to modify course structures in order to eliminate the conflicts. Students will be advised during the enrolment period of the semester if the recommended courses need to be varied. Where the courses include elective subjects these should be chosen so that timetable clashes are avoided. In particular, students in combined degrees should plan their courses so that the subjects chosen in the other faculty do not clash with those recommended for the engineering component.
Subject Options:	THERE WILL BE NO ENTRY INTO THIS COURSE FROM 2008. Students enrolled in this course should seek specific advice from the Engineering Student Centre (see contact details above). **Third Year** Subjects listed below **MUST** be taken in this approved order, regardless of semester availability. **Semester 1** **Subject** / **Study Period Commencement:** / **Credit Points:** 451-331 Spatial Analysis / Not offered 2010 / GEOM40001 Land Administration / Semester 1 / 12.50 GEOM40005 Professional and Business Studies / Semester 1 / 12.50 Elective (12.5 points) **Semester 2** **Subject** / **Study Period Commencement:** / **Credit Points:** 451-340 Integrated Spatial Systems 1 / Not offered 2010 / 451-341 Applications of GIS and Remote Sensing / Not offered 2010 / SINF10002 Concepts in Software Development I / Not offered 2010 / 12.50 Elective (12.5 points) **Honours Year** Students enrolled in this course should seek specific advice from the Engineering Student Centre (see contact details above) if they intend to complete an honours year.
Entry Requirements:	N/A - as there is no entry into the program from 2008.
Core Participation Requirements:	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements of this entry. The University is dedicated to provide support to those with special requirements. Further details on the disability support scheme can be found at the Disability Liaison Unitwebsite: http://www.services.unimelb.edu.au/disability/
Further Study:	N/A
Graduate Attributes:	Our graduates are known for their high standards and professionalism, their understanding of global issues and their outstanding communication skills. For details, see “Objectives”.
Professional Accreditation:	Royal Institution of Chartered Surveyors
Generic Skills:	For details, see “Objectives”.

Links to further information:	None
Notes:	None