

880-106 Mapping Environments

Credit Points:	12.50
Level:	1 (Undergraduate)
Dates & Locations:	On campus
Time Commitment:	Contact Hours: 24 hours of lectures and 36 hours of practical and laboratory classes. Total Time Commitment: 120 hours
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	It is University 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 University's programs. This course requires all students to enrol in subjects where they must actively and safely contribute to class activities. Students who feel their disability will affect their meeting this requirement are encouraged to discuss this matter with the Subject Coordinator and the Disability Liaison Unit.
Subject Overview:	<p>In this subject students will learn how information is used to support decision making in urban and rural environments. This includes methods of data collection, mapping, information communication through visualisation, and decision-support systems. This will be presented by studying the historical development of the supporting technologies, the social context of their use, and their current importance in the age of information. Specific topics covered include: methods of determining position; map projections and the shape of the Earth; the development of cartography from paper maps to GIS and 3D visualization; the development and use of GPS technology; data structures for managing information; methods of measuring built environments and monuments; the development of mapping from aerial photographs to hi-resolution satellite imagery.</p> <p>The practical sessions will give hands-on experience with a range of measurement, geographic information, image analysis and virtual reality technologies in a problem-solving context.</p>
Objectives:	<p>At the completion of this subject students should have the following skills:</p> <ul style="list-style-type: none"> # Be able to apply knowledge of basic science fundamentals # Be able to undertake problem identification, formulation and solution # Be able to understand the key role of information technology in sustainable development # Developed their capacity for independent critical thought, creative inquiry and self-directed learning # Developed a profound respect for truth and intellectual integrity, and for the ethics of scholarship
Assessment:	Fortnightly practical exercises 60% (due throughout semester) and a 2-hour examination 40% (in the end-of-semester examination period).
Prescribed Texts:	Lecture notes will be available from the University Bookroom.
Breadth Options:	<p>This subject potentially can be taken as a breadth subject component for the following courses:</p> <ul style="list-style-type: none"> # Bachelor of Arts (https://handbook.unimelb.edu.au/view/2009/D09) # Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2009/F04) # Bachelor of Music (https://handbook.unimelb.edu.au/view/2009/M05) <p>You should visit learn more about breadth subjects (http://breadth.unimelb.edu.au/breadth/info/index.html) and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.</p>

Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Links to further information:	http://www.benvs.unimelb.edu.au/
Notes:	Students enrolled in the BSc (new degree only) will receive science credit for the completion of this subject.
Related Course(s):	Bachelor of Environments
Related Majors/Minors/Specialisations:	First year geography and environments