

## GEOM90033 Satellite Positioning

<b>Credit Points:</b>	12.50
<b>Level:</b>	9 (Graduate/Postgraduate)
<b>Dates &amp; Locations:</b>	This subject is not offered in 2011.
<b>Time Commitment:</b>	Contact Hours: 24 hours lectures and 36 hours lab exercises Total Time Commitment: 120 hours
<b>Prerequisites:</b>	None
<b>Corequisites:</b>	None
<b>Recommended Background Knowledge:</b>	None
<b>Non Allowed Subjects:</b>	None
<b>Core Participation Requirements:</b>	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 Unit website: <a href="http://www.services.unimelb.edu.au/disability/">http://www.services.unimelb.edu.au/disability/</a>
<b>Contact:</b>	<a href="mailto:enqr-subjectenquiry@unimelb.edu.au">enqr-subjectenquiry@unimelb.edu.au</a> (mailto:enqr-subjectenquiry@unimelb.edu.au)
<b>Subject Overview:</b>	The subject will provide an overview of the theory and applications of satellite positioning, particularly in a geodetic context. Content of the subject includes geodetic datum definition and coordinate systems, the principles and theory of satellite positioning, error modelling, practical applications and considerations, data processing strategies, heights from GPS and geoid modelling and the future of satellite geodesy.
<b>Objectives:</b>	On completion of this subject students will have the ability to: <ul style="list-style-type: none"> <li># Describe the theory of modern satellite geodesy</li> <li># Discuss the applications of modern satellite geodesy</li> <li># Apply space-based positioning systems (such as GPS) in combination with sophisticated mathematical modelling to solve the problems of determining 3-D position on and near the surface of the Earth.</li> </ul>
<b>Assessment:</b>	One written examination at the end of semester of not more than 3 hours (50%). Five written assignment reports of about 4 pages, due evenly throughout the semester (40%). One 1-hour class mid-semester test (10%). Students must achieve a grade of at least 50% in the written examination at the end of the semester in order to pass the subject.
<b>Prescribed Texts:</b>	TBA
<b>Breadth Options:</b>	This subject is not available as a breadth subject.
<b>Fees Information:</b>	Subject EFTSL, Level, Discipline & Census Date, <a href="http://enrolment.unimelb.edu.au/fees">http://enrolment.unimelb.edu.au/fees</a>
<b>Generic Skills:</b>	On completion of this subject students will have the: <ul style="list-style-type: none"> <li># Ability to apply knowledge of science and engineering fundamentals</li> <li># Ability to undertake problem identification, formulation, and solution</li> <li># Ability to communicate effectively, with the engineering team and with the community at large</li> <li># Ability to manage information and documentation</li> <li># Ability to function effectively as an individual and in multidisciplinary and multicultural teams, as a team leader or manager as well as an effective team member</li> </ul>

<b>Related Majors/Minors/ Specialisations:</b>	Master of Engineering (Geomatics)
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