

GEOM90033 Satellite Positioning Systems

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	This subject is not offered in 2013.
Time Commitment:	Contact Hours: 48 hours, comprising of two hours of lectures and two hours of practicals per week Total Time Commitment: 120 hours
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	<p><p>For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Student Support and Engagement Policy, academic requirements for this subject are articulated in the Subject Overview, Learning Outcomes, Assessment and Generic Skills sections of this entry.</p> <p>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. Students who feel their disability may impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and Student Equity and Disability Support: http://services.unimelb.edu.au/disability</p></p>
Contact:	Dr Allison Kealy a.kealy@unimelb.edu.au (https://mce_host/faces/htdocs/a.kealy@unimelb.edu.au)
Subject Overview:	This subject will provide an overview of the theory and applications of satellite positioning systems such as the Global Positioning Systems (GPS). Content of this subject includes: operational principles of satellite positioning systems, positioning techniques, errors, practical applications and considerations, data processing strategies, and future developments.
Objectives:	On completion of this subject students will have the ability to: <ul style="list-style-type: none"> # Describe the operation of available satellite positioning systems such as GPS # Discuss the error sources for GPS and how they impact on the achievable positioning accuracies # Plan and design a real-world high precision GPS positioning task # Use high precision GPS receiver hardware to collect measurement data for real-time and post processed GPS positioning # Use commercial GPS processing software to generate GPS solutions and undertake a robust analysis of the solution quality
Assessment:	3-hour written examination, end of intensive period (50%) Three written assignment reports of about 3 pages each, due evenly throughout the intensive period (50%) Hurdle requirement: Students must achieve a grade of at least 50% in the examination in order to pass the subject
Prescribed Texts:	TBA
Breadth Options:	This subject is not available as a breadth subject.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees

Generic Skills:	<p>On completion of this subject students will have the:</p> <ul style="list-style-type: none"> # Ability to apply knowledge of science and engineering fundamentals # Ability to undertake problem identification, formulation, and solution # Ability to communicate effectively, with the engineering team and with the community at large # Ability to manage information and documentation # 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
Related Course(s):	<p>Master of Information Technology Master of Information Technology Master of Information Technology Master of Philosophy - Engineering Ph.D.- Engineering</p>
Related Majors/Minors/ Specialisations:	<p>Master of Engineering (Civil) Master of Engineering (Environmental) Master of Engineering (Geomatics)</p>