GEOL90009 Geophysics

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	This subject is not offered in 2014. Some parts of this subject may be taught off-campus.
Time Commitment:	Contact Hours: Sixty hours. Specific activities will depend upon selected modules, but will be either class-room based workshop and/or field-based. Total Time Commitment: Not available
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 steps will be made to enhance a student's participation in the University's programs. This subject requires all students to actively and safely participate in laboratory activities. Students who feel their disability may impact upon their participation are encouraged to discuss this with the subject coordinator and the Disability Liaison Unit.
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Subject Overview:	This subject comprises two short course intensive modules that will further develop knowledge of geophysical theory and techniques. Topics include, but are not restricted to, geophysical surveys for geological mapping, mineral exploration under cover, and the interpretation of satellite images. This subject is highly recommended for any geoscientist either currently or intending to work with state-of-the-art geophysical data sets. The subject will provide students with a thorough grounding in their acquisition and application to solve geological problems.
Learning Outcomes:	This subject aims to: # equip students with discipline-specific knowledge and expertise appropriate for post-graduate research in the field; # equip students with discipline-specific knowledge and expertise enabling them to take their place as professional geologists in industry or government organisations. Depending upon the specific modules selected, this subject will provide students with the confidence and competence to: # process regional geophysical datasets; # develop strategies to interpret geology from regional aeromagnetic and gravity data; # integrate geological data into the geophysical interpretation; # conduct a geophysical interpretation; # model geophysical data; # synthesise geological, geophysical and geochemical data to remotely map buried basement rocks; # establish a regolith and landscape evolution framework; # assess and implement appropriate exploration tools (geochemical, biochemical, geophysical) within the context of the basement and cover geology and the nature of the target; # interpret exploration datasets in an active exploration environment.
Assessment:	This subject comprises two short-course intensive modules, each equally weighted towards the final grade. The specific assessment details will depend upon the modules selected and students are directed to the outlines for each short-course for further details. Assessment tasks will be completed within the duration of the module, or within two weeks of its conclusion. Tasks required are broadly based upon 4,000 words equivalent for the entire subject, with a one-hour examination or 15 minute oral examination or presentation equivalent to approximately 1,000 words. Thus, a short course module may require a two-hour examination, a one-hour examination and a 15 minute presentation or 1,000 word assignment, or field reports, maps

	and cross sections equivalent of 2,000 words. For example, in the case of one short course that may be selected for this subject, the assessment can be described as “Submission of selected practical problems totalling no more than 1,000 words and a one-hour examination on last day of course”.
Prescribed Texts:	None
Recommended Texts:	Texts will vary depending upon choice of modules.
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:	All modules available in this subject seek to assist students in developing their ability to: # exercise critical judgement; # undertake rigorous and independent thinking; # adopt a problem-solving approach to new and unfamiliar tasks. Depending upon which modules are selected, students will have the opportunity to: # develop high-level written report and/or oral presentation skills; # interrogate, synthesise and interpret the published literature; # work as part of a team.
Related Course(s):	Master of Science (Earth Sciences)
Related Majors/Minors/ Specialisations:	Honours Program - Earth Sciences