

GEOL90008 Digital Geoscience

Credit Points:	12.5
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2015, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus. 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 class-room based workshop short course intensive-style. Total Time Commitment: 170 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 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.
Coordinator:	Assoc Prof Kevin Walsh
Contact:	Email: kevin.walsh@unimelb.edu.au (mailto:kevin.walsh@unimelb.edu.au)
Subject Overview:	This subject comprises two short course intensive modules aimed at developing further knowledge on how digital information is used to explore problems in geology and introduces students to modern software tools used in the geosciences. Topics may include three-dimensional modelling of complex geological objects; the concept of a GIS as a problem solving technology within the geosciences; data visualisation and analysis.
Learning Outcomes:	The specific objectives of the subject will vary depending upon the modules selected, but in all cases this subject aims to provide students with: <ul style="list-style-type: none"> # an ability to identify the kind of digital information and software most appropriate to solving different geological problems; # an opportunity to demonstrate their ability to work with state-of-the-art geological data sets in digital form; # confidence and competence to interrogate geological problems employing modern digital techniques.
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 "Students will construct an integrated, interpreted set of computer images for a particular area, concentrating on the geology and geomorphology. This will be completed on the last day of the course (100%)".

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:	<ul style="list-style-type: none"> # All modules available to this subject seek to assist students in developing their ability to: # handle large datasets in digital format; # exercise critical judgement; # undertake rigorous and independent thinking; # adopt a problem-solving approach to new and unfamiliar tasks. <p>Depending upon which modules are selected, students will have the opportunity to:</p> <ul style="list-style-type: none"> # 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:	Earth Sciences Earth Sciences Honours Program - Earth Sciences