GEOL20004 Field Mapping and Sedimentary Geology

Credit Points:	12.50
Level:	2 (Undergraduate)
Dates & Locations:	2010, Parkville This subject commences in the following study period/s: June, Parkville - Taught on campus. Lectures, practical work and fieldwork.
Time Commitment:	Contact Hours: 2 x one hour lectures per week for six weeks; 1 x two hour practical class per week for six weeks; 8 days of field excursion during the mid year recess. Total Time Commitment: Estimated total time commitment of 120 hours
Prerequisites:	One of # **625-104 Understanding Planet Earth (/view/2010/625-104)** # 880-101 Natural Environments # 625-104 The Earth, Atmosphere and Oceans (prior to 2010) # 625-102 Understanding Planet Earth (prior to 2008).
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	This subject involves physical activity in the field (walking up hills etc, walking a few kilometres in a day) and an appropriate (not a high) level of physical fitness is required. 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 fieldwork 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 Malcolm Wallace, Assoc Prof Stephen Gallagher
Contact:	**Email: mww@unimelb.edu.au (mailto:mww@unimelb.edu.au)**
Subject Overview:	This subject is concerned with the techniques used to analyse the geological history of the earth. General disciplines covered include field geology, sedimentology, stratigraphy, physical volcanology, palaeontology, weathering/soil formation, geomorphology and hydrogeology. Emphasis will be placed on the practical application of these disciplines including: rock, mineral and fossil identification in the field and under the microscope, construction of geological cross sections, development of geological histories.
Objectives:	This subject will cover the basic methods used to gather large scale geological data, the major component of the subject being a field mapping exercise. The subject will provide a practical introduction to geological field mapping, air photo interpretation, and the use of remotely sensed data of various forms. After completing this subject, students should be familiar with the basic methods of field mapping. Students should be able to determine how various rock units relate to one another in the field and be able to interpret the geological history of an area. Students should also be able to identify the common rocks and minerals that occur at the earth's surface.
Assessment:	A written report and assessment of fieldwork totalling up to 4000 words due in the middle of the semester (70%). A one hour practical exam at the end of semester (30%)

Prescribed Texts:	None
Breadth Options:	This subject potentially can be taken as a breadth subject component for the following courses: # **Bachelor of Arts (https://handbook.unimelb.edu.au/view/2010/B-ARTS)** # **Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2010/B-COM)** # **Bachelor of Environments (https://handbook.unimelb.edu.au/view/2010/B-ENVS)** # **Bachelor of Music (https://handbook.unimelb.edu.au/view/2010/B-MUS)** 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.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	Students should acquire generic skills in creativity and imaginative thinking, problem solving in complex field and geological situations, working and communicating within a team environment, thinking critically and conceptualising complex and abstract ideas, developing skills relevant to preparing technical written reports; and developing time management skills needed to meet assessment deadlines.
Notes:	This subject is available for science credit to students enrolled in the BSc (both pre-2008 and new degrees), BASc or a combined BSc course. Previously known as 625-223 Earth Surface Processes (prior to 2010) Previously known as 625-223 Field Geology (prior to 2009). Special Requirements: Geological hammer, hand lens and magnet. Students should consult the Earth Sciences web site for dates, charges for excursions, accommodation and food and other information including safety requirements.
Related Course(s):	Bachelor of Science
Related Majors/Minors/ Specialisations:	Environmental Science