## ERTH90030 Mineral Exploration Through Cover

Credit Points:	6.25
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	This subject is not offered in 2016. This subject is taugt through the Victorian Institute of Earth and Planetary Sciences: https://vieps.earthsci.unimelb.edu.au/.
Time Commitment:	Contact Hours: 20 hours of lectures; 15 hours of practicals Total Time Commitment: 85 hours
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	Knowledge of third-year geology strongly recommended.
Non Allowed Subjects:	None
Core Participation Requirements:	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.
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Subject Overview:	The main aim of the course is to present these exploration techniques largely in day trips to field based settings, supplemented by classroom-based information and practical exercises. Geochemical and geophysical exploration techniques will be covered in the course, using visited examples in the vicinity of Adelaide as cases studies, exposing the students to industry and current and future exploration techniques and technologies.
Learning Outcomes:	<ul> <li># 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;</li> <li># understand and apply practical tools required for mineral exploration in areas where prospective rocks are buried by younger cover sequences;</li> <li># synthesise geological, geophysical and geochemical data to remotely map buried basement rocks;</li> <li># assess and implement appropriate exploration tools (geochemical, biochemical, geophysical) within the context of the basement and cover geology and nature of the target.</li> <li># interpret exploration datasets in active exploration environments;</li> <li># learn about the latest biochemical and geo-microbal exploration techniques.</li> </ul>
Assessment:	A regolith/geochemical practical equivalent to 1000 words, due on last day of the teaching period (40%) A multi-day quiz equivalent to 850 words, due on last day of the teaching period (35%) A geophysics quiz equivalent to 650 words, due on the last day of the teaching period (25%)
Prescribed Texts:	Reading to be completed in the pre-teaching period.
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:	# Exercise critical judgement;

	<ul> <li># undertake rigorous and independent thinking;</li> <li># adopt a problem-solving approach to new and unfamiliar tasks;</li> <li># develop high-level written report and/or oral presentation skills;</li> <li># interrogate, synthesise and interpret the published literature; work as part of a team.</li> </ul>
Related Course(s):	Master of Geoscience Master of Science (Earth Sciences)
Related Majors/Minors/ Specialisations:	Earth Sciences Honours Program - Earth Sciences