



Cooperative Research Centre for Landscape Environments and Mineral Exploration

For more information contact:

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The Minerals Tertiary Education Council (MTEC - *Minerals Education Australia*) is the tertiary education group of the Minerals Council of Australia (MCA). MTEC - *Minerals Education Australia* coordinates Honours- and postgraduate-level teaching in an earth sciences consortium comprising CRC LEME (Australian National University, Curtin University of Technology, University of Adelaide), the Victorian Institute of Earth and Planetary Sciences (Monash University, University of Melbourne) and the G3 (James Cook University, University of Tasmania, University of Western Australia). For more information about MTEC - *Minerals Education Australia* please visit the Minerals Council of Australia's website at <http://www.minerals.org.au/>.

*Note: MTEC students are those enrolled at the participating MTEC universities. Costs may include some additional accommodation or camping fees, meals, etc. ^This course *may* be run at the Australian National University, depending on enrolment numbers.

Regolith Geoscience Shortcourse Program

2004

In 2004, CRC LEME, through the MCA's Minerals Tertiary Education Council (MTEC), will offer 6 Honours-level and one Masters-level course to students, researchers and practicing professionals working in the national and international minerals industry and natural resource management sector.

Regolith Geology & Geochemistry (RGG), 23-27 February Wilsons Promontory, Victoria

This course provides an introduction to many of the key concepts and applications of regolith geology for both mineral explorers and environmental scientists. It includes an integrated combination of classroom lectures and field study set in the magnificent landscape of Wilsons Promontory and surrounding South Gippsland. This course leads in to **Regolith Mapping & Field Techniques (RMF)**.

Costs: MTEC* Student - \$nil tuition + camping fees and meals
Other student - \$220 + camping fees and meals
Industry - \$550 + camping fees and meals



Return transport will be available from the University of Melbourne.

Regolith Mapping & Field Techniques (RMF), 15-19 March Fowlers Gap via Broken Hill, NSW



Essential for anyone hoping to establish a career in mineral exploration, regolith geoscience, land and environmental management and rehabilitation and salinity mitigation. Working in groups, use existing maps, aerial photography and remotely sensed imagery to create base maps and collect field data. Learn to construct a regolith-landform map and other derivative (geochemical, geophysical, morphological) maps. Appreciate the fundamentals of regolith geochemical sampling media types and sample collection, GPS location, application of GIS and remote sensing to regolith, hard-rock geology and map production.

Costs: MTEC* Student - \$nil tuition + \$205 (includes 4 nights full board + van park fees)
Other student - \$220 + \$205 (includes 4 nights full board + van park fees)
Industry - \$550 + \$205 (includes 4 nights full board + van park fees)

Return Transport will be available from Canberra and Adelaide.

Introduction to Hydrogeochemistry (HGC), 29 March-2 April University of Melbourne, Victoria[^]

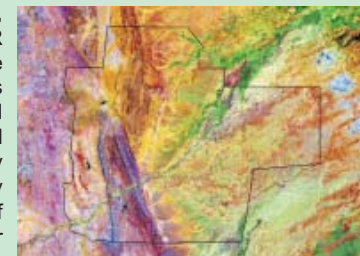
There are many good reasons for studying hydrogeochemistry. In Australia, perhaps the foremost are related to salinity, pollution and mineral exploration. This course provides a framework for the use of hydrogeochemistry in practical applications to address these and other problems. It is designed to follow **Introduction to Hydrogeology (HYG)**.

Costs: MTEC* Student - \$nil tuition + accommodation and meals
Other student - \$220 + accommodation and meals
Industry \$550 + accommodation and meals



Advanced Remote Sensing (RSM), 13-16 March University of Adelaide, South Australia

Introducing new and advanced forms of multispectral, hyperspectral (HyMap, Casi, Hyperion, ASTER) and RADAR image data, the acquisition, calibration and processing of these data and approaches to analysis and interpretation. These forms of remote sensing are finding increasing application in geological and regolith investigations, mineral exploration and natural resource management. Applications include the ability to identify mineral species, soil components and vegetation types by spectral signatures, mapping of abundance and distribution of landscape components and temporal variations for environmental monitoring.



Costs: MTEC* Student - \$nil tuition+ accommodation and meals
Other student - \$220 + accommodation and meals
Industry \$1100 + accommodation and meals

Clay Mineralogy and Geophysics (CMG), 27-28 April University of Adelaide, South Australia

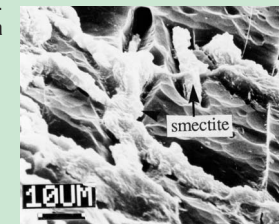
The relationship between regolith mineralogy and geophysics is often as important as the actual geophysical data values themselves. Linking clay mineralogy and geophysics provides an effective method for quantifying spatial and temporal soil-regolith processes in landscapes.

Costs: MTEC* Student - \$nil tuition + accommodation and meals
Other student - \$220 + accommodation and meals
Industry - Please contact course leaders re: Industry-specific course in September 2004

Environmental Mineralogy (EMN), 21-25 June Australian National University, ACT

The minerals of the regolith are the primary materials that influence mineral exploration, engineering structures, environmental degradation and rehabilitation and agriculture. Anyone considering a career in any of these disciplines must first have a reasonable understanding of regolith mineralogy.

Costs: MTEC* Student - \$nil tuition + accommodation and meals
Other student - \$220 + accommodation and meals
Industry - \$550 + accommodation and meals



Regolith Geology and Mineral Exploration (M. Sc. Unit), 2-13 August

This shortcourse includes 11 days of lectures and field work and can be used as credit towards the CODES/G3 MSc, an MSc in regolith geology within CRC LEME or as a BSc unit (depending on agreed accreditation). The shortcourse includes field and case studies demonstrating the relationships between the regolith, landscape evolution, environment and exploration strategies and regolith applications.

Venue: Fowlers Gap via Broken Hill, NSW
Cost: Tuition fee \$2000 + accommodation and meals (approx. \$490). \$1320 + approx. \$245 for one week. Reasonable transport for MTEC* students is subsidised