

### Other courses and workshops in development:

- Biogeochemistry of the regolith for mineral exploration, natural resource management and environmental monitoring. Explores using regolith biota and microbiota for mineral exploration, metal extraction/fixation and determining environmental health. 2 days date TBA\*.
- Data handling and statistics for geochemical mineral exploration in regolith-dominated terrains. 2 days date TBA\*.

\*Both are also offered as modules within other courses.

### Ongoing programs:

- On-site introductory regolith and regolith mapping shortcourses for the minerals industry. Our experts come to your site to help you come to terms with the regolith, recognise your exploration problems and suggest solutions for your exploration program.

For more information contact:

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#### CRC LEME

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Or visit: CRC LEME website: <http://crcleme.org.au/>  
Minerals Council of Australia website: <http://www.minerals.org.au/>



The Minerals Council of Australia supports Australia's minerals industry by promoting it and the Earth Sciences, Mining Engineering and Metallurgical disciplines within Australia's primary, secondary and tertiary education institutions. The MCA, through its tertiary education arm the Minerals Tertiary Education Council (MTEC), supports undergraduate and postgraduate Earth Sciences training through 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 the MCA's tertiary education activities please visit the MCA's website at <http://www.minerals.org.au>. CRC LEME's Honours courses are administered through the VIEPS program. More information about the Honours program and external student enrollment forms can be found at <http://www.vieps.org.au/>.

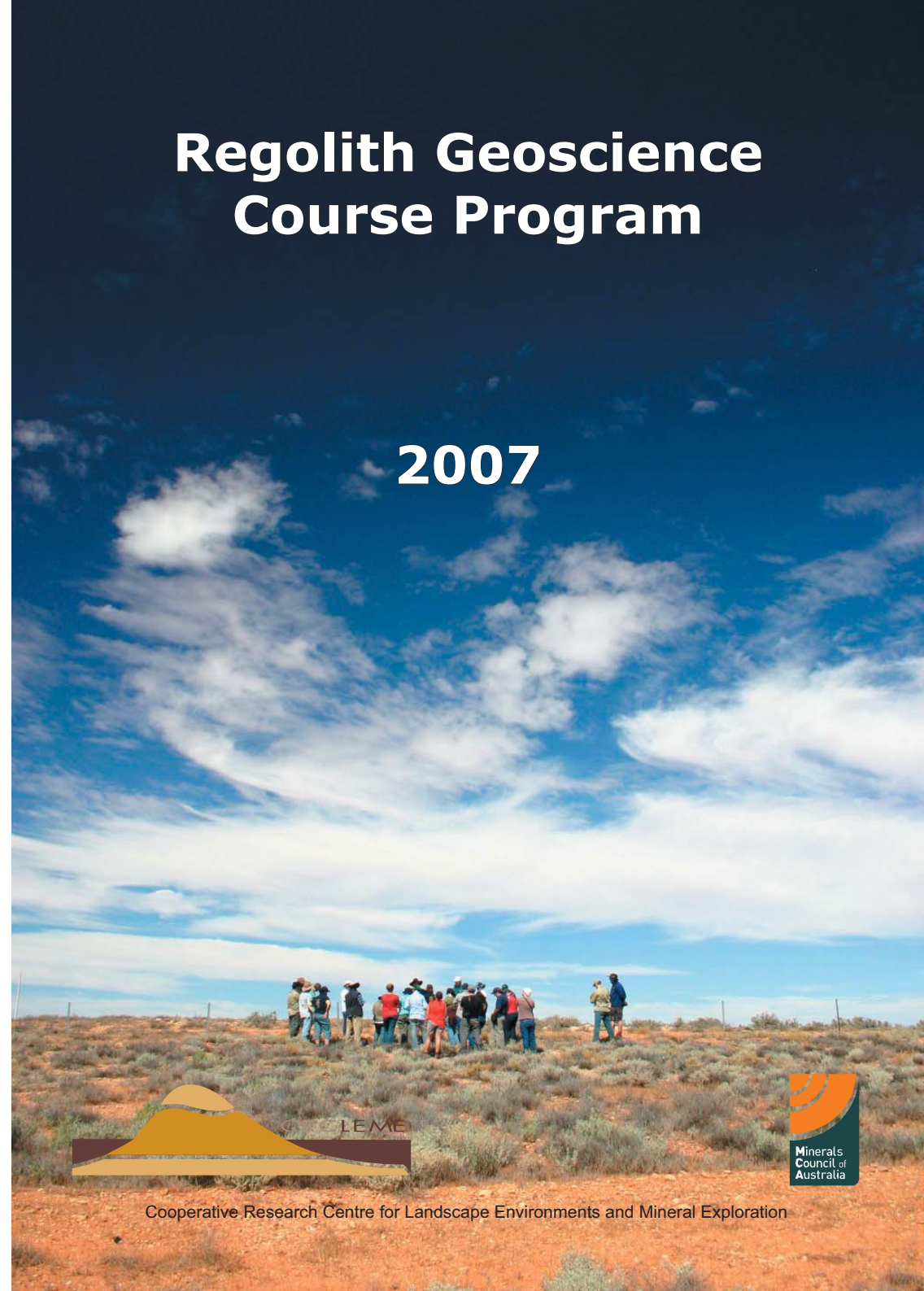
\*Note: MTEC students are considered those who are enrolled at the participating universities mentioned above. All costs may include some additional transport, accommodation, camping fees, meals, etc.



CRC LEME is established and supported under the Australian Government's Cooperative Research Centres Program. The CRC Program is an Australian Government initiative which brings together research groups with common interests.

# Regolith Geoscience Course Program

## 2007



Cooperative Research Centre for Landscape Environments and Mineral Exploration

In 2007 CRC LEME, for the Minerals Council of Australia's Minerals Tertiary Education Council (MTEC), offers a range of Honours- and Masters-level courses to students, researchers and practising professionals working in the national and international mineral exploration, dryland salinity, groundwater hydrology and natural resource management industries.

### **RGG - Regolith Geology and Geochemistry (Honours/MSc course)** **19-23 February 2007, Wilsons Promontory, Victoria**

This course provides an introduction to the key concepts and applications of regolith geoscience for both mineral explorers and environmental scientists. It includes integrated classroom lectures and field study set in the magnificent landscape of Wilsons Promontory and surrounding South Gippsland and Phillip Island. The course leads in to **Regolith Mapping and Field Techniques (RMF)**. Return transport is available from the University of Melbourne.



#### **Costs:**

**MTEC\* Student:** \$nil tuition + \$100 camping fee + meals. **Other student:** \$330 tuition + \$100 camping fee + meals + transport. **Industry:** \$1100 + \$100 camping fee + meals + transport. **Masters by coursework:** \$2000 + \$100 camping fee + meals + transport

### **RMF - Regolith Mapping and Field Techniques (Honours/MSc course)** **19-23 March 2007, Fowlers Gap via Broken Hill, NSW**



An essential course for careers in mineral exploration, natural resource management and regolith geoscience. Use existing maps, aerial photography and remotely sensed imagery to collect field data. Learn to construct a regolith-landform map and other derivative (geochemical, geophysical, morphological) maps and to work safely in remote locations. Appreciate the fundamentals of regolith geochemical sampling media types and sample collection, GPS location and the applications of GIS and remote sensing to regolith geoscience, hard-rock geology and map production. Return transport can be arranged from Canberra and Adelaide.

#### **Costs:**

**MTEC\* student:** \$nil tuition + \$240 (incl. 4 nights full board + van park fees). **Other student:** \$330 + \$240 (incl. 4 nights full board + van park fees), transport. **Industry:** \$1100 + \$240 (incl. 4 nights full board + van park fees), transport. **Masters by coursework:** \$2000 + \$240 (incl. 4 nights full board + van park fees), transport.

### **HGC - Introduction to Hydrogeochemistry (Honours/MSc course)** **16-20 April 2007, Australian National University, Canberra ACT**

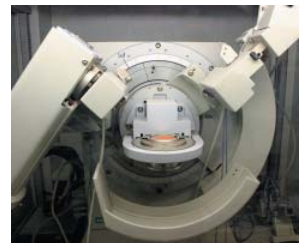
The foremost reasons for studying hydrogeochemistry relate to its application to dryland salinity, pollution and mineral exploration. This course provides a framework for the use of hydrogeochemistry in practical applications to address these and other problems. The course is designed to follow the **Introduction to Hydrogeology (HYG)** VIEPS course.

#### **Costs:**

**MTEC\* Student:** \$nil tuition + accommodation and meals. **Other student:** \$275 + transport, accommodation and meals. **Industry:** \$1100 + transport, accommodation and meals. **Masters by coursework:** \$2000 + transp., accom. & meals.



### **EMN - Environmental Mineralogy (Honours/MSc course)** **18-22 June 2007, Australian National University, ACT**



The minerals of the regolith are the primary materials that influence mineral exploration, engineering structures, environmental degradation, the mine environment, minesite rehabilitation and agriculture. Anyone considering a career in any of these disciplines must first have a reasonable understanding of regolith mineralogy. Learn first-hand the skills involved in determining qualitative and quantitative regolith mineralogy by X-Ray Diffraction analysis, scanning electron microscopy, infra-red spectroscopy and other methods.

#### **Costs:**

**MTEC\* Student:** \$nil tuition + accommodation and meals. **Other Student:** \$275 + transport, accommodation and meals. **Industry:** \$1100 + transport, accommodation and meals. **Masters by coursework:** \$2000 + transport. accommodation and meals.

### **Regolith Geology and Mineral Exploration (MSc course)** **12-23 March (offered subject to enrollment numbers)**

11 days of intense lectures and field work. Course can be used as an industry extension course, as credit towards the G3-MCA Masters in Economic Geology (at CODES, JCU and UWA) or as credit towards an MSc in regolith geoscience within the CRC LEME core party universities (ANU, CUT, UA). Note that the second week of this course is combined with the RMF course.

#### **Costs:**

**Industry and Masters by coursework:** \$2000 tuition fee + transport + \$550 for 11 nights full board at Fowlers Gap + some additional accommodation and meals in Broken Hill. Reasonable transport (i.e. best fare on the day) for MTEC\* students is subsidised.



### **Postgraduate Regolith Training**

CRC LEME core party universities offer postgraduate regolith training to professionals and recent graduates in the minerals and natural resources industries. A range of HECS-supported research degrees at MSc and PhD level, and fee-paying coursework degrees at MSc level (including the courses in this brochure), are offered at ANU, CUT and UA.

Degree choices can include:

- Regolith Geology for Mineral Exploration or Regolith Hydrology (ANU)
- Biogeochemical Mineral Exploration and Regolith Geophysics (UA)
- Regolith Geology for Mineral Exploration (CUT)

Learn more about these degrees at:

- The Australian National University (ANU) - <http://www.anu.edu.au/>
- Curtin University of Technology (CUT) - <http://www.curtin.edu.au/>
- The University of Adelaide (UA) - <http://www.adelaide.edu.au/>