

The 2012 AusIMM New Zealand Branch Visiting Lecturer from the northern hemisphere is Jeremy Richards from University of Alberta, Edmonton, Alberta, Canada. Jeremy will present a short course and lectures at several centres during April and May.

Jeremy Richards Biography

Jeremy Richards is a Professor of Economic Geology at the University of Alberta, and is a registered professional geologist in Alberta. He received a BA in geology from Cambridge University in 1983, an MSc from the University of Toronto in 1986, and a PhD from the Australian National University in 1990. He was appointed as Lecturer at the University of Leicester, UK, in 1992, and joined the University of Alberta in 1997. His research interests focus on the genesis of hydrothermal mineral deposits, and in particular regional tectonic and magmatic controls on porphyry and epithermal mineralization. He is also pursuing research in sustainable development as applied to the minerals industry. He is currently an associate editor of the journal *Economic Geology*, and was previously editor of the journal *Exploration & Mining Geology* and associate editor of the *Economic Geology 100th Anniversary Volume*, and *Mineralium Deposita*.

Programme

The following programme for April and May 2012 is tentative and may change. For specific dates, times and venues for events, please refer to notices that will be circulated locally or contact the relevant person listed in the Contacts and further information section at the end of this notice.

Date	Time	Location	Presentations
Monday 30 April	09:00-16:30	University of Auckland	Short course (day 1)
Monday 30 April	17:30-19:00	Venue in Auckland to be notified	Lecture
Tuesday 1 May	09:00-12:00	University of Auckland	Short course (day 2 – half day)
Thursday 3 May	11:00-16:30	GNS Science, Lower Hutt	Short course (1-day)
Thursday 3 May	17:30-19:00	Venue in Wellington to be notified	Lecture
Friday 4 May	17:00-18:30	Golders, Nelson	Lecture
Monday 7 May	09:00-17:00	GNS Science, Dunedin	Short course (1-day)

Short course: Tectonomagmatic controls on porphyry and epithermal mineralisation

This one day (Wellington and Dunedin) and one and one half day (Auckland) short course will examine:

1. Arc Magmatism. Petrogenetic and metallogenic processes in arc magmatism are reviewed, and the suggested role of adakites (slab melts) in porphyry Cu genesis is critically examined. Alternative models of crustal interaction (e.g., MASH processes) are presented in the context of northern Chilean magmatism and porphyry Cu formation.

2. Arc Tectonics and Magma Emplacement. Magma buoyancy and tectonic stress conditions constrain the way in which arc magmas first pool at the base of the crust and then rise towards the surface. Pre-existing structures may localize the ascent and emplacement of magmas in the upper crust under transpressional (or transtensional) stress fields. Examples from Chile and Argentina are reviewed.

3. Upper Crustal Magmatic Processes. Mid-to-upper crustal magma chamber processes that result in formation of shallow-level apophyses and the focusing of volatile release are reviewed. The scale of magmatism required to supply metal to large porphyry Cu deposits is examined, and compared with observations from active and fossil magmatic systems. The role of volcanism is considered.

4. Porphyry Cu-forming Processes. Processes of volatile exsolution and release in the cupola zone are reviewed, and the resultant processes of hydrothermal alteration and mineral deposition are examined.

5. Epithermal and Post-Subduction Deposits. The link between porphyries and shallow-level epithermal and fumarolic systems is explored. Porphyry and epithermal ore formation in post-subduction settings is reviewed as a new exploration target.

Attendance is by registration. A registration fee of \$115 (incl GST) for the 1-day short course and \$172.50 (incl GST) for the 1.5 day short course (Auckland) is payable by non-AusIMM members. AusIMM members and students may register free of charge. Please register with the contact persons as noted below.

Lecture: Sustainable development and the minerals industry

The minerals industry is widely regarded as dirty and exploitative, and interested only in profit. While this may have been true in the last century, the industry has greatly improved its environmental record, and is now working to improve its record of interaction with stakeholders and broader society. It is true that mining of non-renewable resources is in itself an unsustainable activity in the long term (due to resource depletion), but in the short to medium term it can be part of an overall drive towards societal sustainability. The most obvious contribution is the materials the industry produces, upon which modern society is literally built. But it can also contribute by further reducing its environmental impact, and ensuring that the profits from mining activities fairly benefit not only the company, but also all levels of society, from national and provincial governments, to local communities and individual stakeholders. If the industry does not do this voluntarily, it will soon find that the shift towards the requirement for *free and informed prior consent* will force it to.

Attendance at the lectures is free of charge, but please email your intention to attend to the relevant contact person listed below.

Contacts for further information and short course registration

Auckland short course (Monday 30 April and Tuesday 1 May) and **Auckland lecture** (Monday 30 April); contact Tony Christie at GNS Science, t.christie@gns.cri.nz, phone (04) 570-4682

Lower Hutt short course (Thursday 3 May); contact Tony Christie at GNS Science, t.christie@gns.cri.nz, phone (04) 570-4682

Wellington lecture (Thursday 3 May): contact Tony Christie at GNS Science, t.christie@gns.cri.nz, phone (04) 570-4682

Nelson lecture (Friday 4 May): contact Sue Bonham-Carter at Golder Associates (NZ) Ltd, sbonham-carter@golder.co.nz, phone (03) 548-1707

Dunedin short course (Monday 7 April): contact Simon Cox at GNS Science, s.cox@gns.cri.nz, phone (03) 479-9670

Short course registration (send to relevant contact person above)

Name:

Company affiliation:

Postal address:

.....

Email address:

Phone number:

Non-AusIMM members will be invoiced the course fee.