Australian Geomechanics Society
ENGINEERING GEOLOGY COURSE

Saturday 25th September to Sunday 3rd October 2010

Who should attend and enquiries

This course is designed for engineering geologists and geotechnical engineers involved in civil and mining projects who have some knowledge of geology. It is envisaged that students will have 3 or 4 years industry experience and will be familiar with making geological observations, and wish to enhance and develop their engineering geological skills. This course is similar to the AGS Geology for Engineers course based in Adelaide, which is aimed at teaching geology to geotechnical engineers with a limited geological background. However the Engineering Geology Course based in Wollongong places more emphasis on logging, mapping and developing models for engineering projects and evaluating the engineering characteristics of the ground through field observations.

Please contact Phil Flentje to discuss whether the Engineering Geology Course to be held in Wollongong is suitable for you.
Telephone: (02) 4221 3056 Email: pflentje@uow.edu.au
Website: http://www.australiangeomechanics.org/w10

Aims of the course

The principal objective of this course is to teach students how to apply geological skills in the field to help solve engineering problems. This will be carried out by using guided field exercises, in which the students learn by carrying out realistic project related work in the field whilst being supervised by very experienced practitioners

Students who complete the course should be able to:

- Understand the engineering geological environment as the product of the total geological, geomorphological and anthropogenic history of the area.
- Observe and understand geo-features, record them on logs and on maps and present them in geological models.
- Describe geo-materials in standardized form using calibrated, field based, quantitative descriptive systems.
- Understand geo-processes and process rates and estimate the probability of geo-processes occurring.
- Interpret aerial photos and other images.
- Use stereographic projection methods to analyse and understand geological structures.
- Understand the nature of geological information and how it should be managed and applied in the project environment.
- Understand the role of the engineering geologist in investigation, design, construction and throughout the life of the project.
- Communicate more successfully with other geotechnical professionals, designers and constructors involved in ground engineering.

Accreditation and Presenters

The course is approved by the Australian Geomechanics Society. Application is being made to have the course recognized by Engineers Australia as equivalent to two years of CPD requirement.

Subject to program rules, The University of New South Wales, will offer up to 6UOC to their Master of Engineering Science in Geotechnical Engineering and Engineering Geology for students successfully completing either the Australian Geomechanics Courses 'Geology for Engineers' in Adelaide or 'Engineering Geology' in Wollongong.

Engineering geologists Fred Baynes, Phil Flentje and Mark Eggers have developed and will present the course on behalf of the Australian Geomechanics Society. A teacher to student ratio of 1 to 6 will be maintained throughout this course.

Course outline

Day 0 – Saturday 25 September 2010
Registration, Welcome and Course Overview
(4 – 5pm registration, Lecture 5 – 6pm)

Day 1 - Sunday 26 September 2010
Lecture – Introduction to engineering geology, logging & mapping, quantification from observations and interpretations
Workshop - Rock and soil identification and description
Field Exercise – Shoreline mapping and logging of bedrock stratigraphy, mapping a coastal/estuarine complex:

Day 2 - Monday 27 September 2010
Field Exercise - Mapping and logging a coastal quarry in basalt
Field Exercise - Guided tour of major landslides, remedial works and monitoring systems

Day 3 - Tuesday 28 September 2010
Lecture – Surface Processes geohazards, and risk management
Workshop - Aerial photo and image interpretation - dipping strata and rockslides, fluvial studies, karst topography, deeply weathered igneous rock, Tertiary sediments
Workshop – Desk study of a large coastal slope complex

Day 4 - Wednesday 29 September 2010
Field Exercise - Mapping of potential damsite and decline locations, inspection of Shoalhaven River system, alluvial deposits and Quaternary embayment infill.

Day 5 - Thursday 30 September 2010
Field Exercise - Mapping spillway cut in weathered igneous rocks.
Field Exercise - Inspection of karst limestones and weathered metamorphic rocks

Day 6, Friday 1 October 2010
Field Exercise - geological and geomorphological mapping in a large coastal slope complex

Day 7 - Saturday 2 October 2010
Workshop – Coastal slope complex desktop compilation
Workshop – Excavation in weathered granite

Day 8 - Sunday 3 October 2010
Award of certificates, discussion, comments by participants. Finish before lunch for flights interstate.

(REGISTRATION FORM ON SECOND PAGE)

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Saturday 25th September to Sunday 3rd October 2010

When

Saturday 25th September to Sunday 3rd October 2010.

Where

University of Wollongong, Wollongong and NSW south coast field sites.

Enquiries

For further information about the course contact:

Phil Flentje
Phone: (02) 4221 3056
Email: pflentje@uow.edu.au
Website: http://www.australiangeomechanics.org/w10

Registration fee

The registration fee is $4,400 inclusive of GST. The fee includes course notes, transport for field trips and morning/afternoon tea while on campus. All accommodation and meal costs are additional to these course fees.

Numbers

The course will be limited to a maximum of 18 students. Places will be allocated on a first come, first served basis.

Accommodation

Information on accommodation will be provided on the website as arrangements develop. We will suggest several Wollongong motels which are close to one another to facilitate transport options. This accommodation will be maintained for the duration of the course. Booking the Wollongong accommodation will be your own responsibility.

Cancellation policy

Fees will not be refundable if a participant is unable to attend. However, a nominated person may attend in your place. If at any time the course is cancelled, fees will be refunded in full.

Registration Form And Tax Invoice

To register for this course, please complete the form below and fax (02 4221 3143) post or e-mail to:
Australian Geomechanics Society
C/o Phil Flentje
Faculty of Engineering
University of Wollongong
Wollongong, NSW 2522
Telephone: (02) 4221 3056 Email: pflentje@uow.edu.au

Family Name First Name Title (Mr Ms Mrs Dr)

Preferred name for name tag Organisation

Company address

Phone Fax Email

Payment

I enclose a cheque for $4,400 inc GST payable to
The Australian Geomechanics Society OR charge my credit card:

☐ BANKCARD ☐ VISA ☐ MASTERCARD

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Expiry Date Cardholder's signature

Amount $4,400 Cardholder's name (please print) Date

Registration forms and cheques will be passed on to the Australian Geomechanics Society who will issue a tax invoice/receipt
We will suggest several motels for Wollongong accommodation at a later time.