

ENGINEERING GEOLOGY

COURSE 2010 · 2012 · 2015 · 2017 · **2019**

australiangeomechanics.org/courses/ags.engineering-geology-course/

WOLLONGONG NSW, NOVEMBER 2019

Aims of the course

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

The exercises the participants will complete are related to:

- Coastal erosion and shore protection
- Dams
- Bridges
- Underground caverns
- Construction material assessment and reserve estimation
- Assessing landslide terrain with respect to hazards and construction

The engineering geological skills that participants will develop include:

- Geotechnical mapping for a range of purposes.
- The systematic description of geo-materials.
- Rock defect identification and measurement.
- Rock defect kinematic stability analysis using stereonet.
- Terrain evaluation using aerial photographs.
- 3D geological evaluation by structure contouring.

During the course, participants will develop an understanding of:

- The engineering geological environment as a product of the total geology geomorphological and anthropogenic history of an area.

When:

Saturday 2 November –
Sunday 10 November

Where:

University of Wollongong
Northfields Avenue,
Wollongong NSW

Cost:

AGS Member:

A\$4,950.00 inc GST

Non-members:

A\$5,170.00 inc GST

- Geological processes and process rates.
- The different engineering implications of sedimentary, igneous and metamorphic environments.
- The role of the engineering geologist in the investigation, design and construction of a project.
- How to communicate successfully with other geotechnical professionals, designers and constructors involved in ground engineering.

Who should attend?

The course is designed primarily for engineering geologists involved in civil and mining projects, and also for geotechnical engineers with a sound understanding of geological principals.

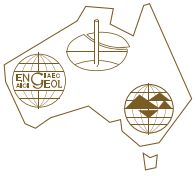
It is envisaged that participants will have at least 3 or 4 years industry experience and will be familiar with making geological observations, and wish to enhance and develop their engineering geological skills. This course is similar to the AGS Geology for Engineers course based in Adelaide, which is aimed at teaching geology to geotechnical engineers with a limited geological background. However this Engineering Geology Course 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 is suitable for you.

Phone: (02) 4221 3056

Email: pflentje@uow.edu.au

Web: <https://australiangeomechanics.org/courses/ags-engineering-geology-course>



AUSTRALIAN GEOMECHANICS SOCIETY

A technical society of



ENGINEERS
AUSTRALIA

Accreditation and Presenters

This course is approved by the Australian Geomechanics Society. The course is recognized by Engineers Australia as equivalent to 80 hours 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, Mark Eggers, Anthony Bowden and Ian Shipway have developed and will present the course on behalf of the Australian Geomechanics Society. A teacher to participant ratio of 1 to 6, or better will be maintained throughout this course.

When and Where

Saturday 2 November to Sunday 10 November 2019, at the University of Wollongong, and field sites on the south coast of New South Wales.

Enquiries

For further information about the course contact Dr. Phil Flentje:

Phone: (02) 4221 3056

Email: pflentje@uow.edu.au

Web: australiangeomechanics.org/weg

Numbers

This course will be limited to a maximum of 24 students. Places will be allocated on a first come, first served basis or as per the waiting list managed by Dr Flentje.

Registration Fee

The registration fee for AGS members is A\$4,950 inclusive of GST. For non AGS members the registration fee is A\$5,170 inclusive of GST. The fee includes course notes and transport for field trips. All transport to and from Wollongong before and after the course, accommodation and meal costs are additional to these course fees.

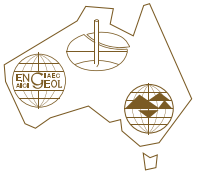
Accommodation

Participants are responsible for booking accommodation during the course. It is recommended that this be done immediately after registration to secure appropriate accommodation. Suggestions for suitable accommodation will be posted on the course website in February.

Cancellation Policy

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





DRAFT ENGINEERING GEOLOGY COURSE OUTLINE 2019

DAY 1 – SATURDAY 2 NOVEMBER: WOLLONGONG

12.00pm Registration and course start.
Introductory lectures.
Field trip to observe major landslide protection measures at Mount Ousley.
Group dinner.

DAY 2 – SUNDAY 3 NOVEMBER: WOLLONGONG

Field exercises: Engineering geological mapping to support a coastal erosion and shoreline protection project.

DAY 3 – MONDAY 4 NOVEMBER: WOLLONGONG

Lectures: Surface processes, geohazards and risk management.

Workshop: Terrain evaluation using air photos to support rail and dam projects in fluvial, karstic and deeply weathered igneous terrain.

Workshop: Desk top study to support the development of an underground cavern in granitic rock. (Field assessment to be completed on day 5).

Workshop: Desk top study to support the development of landslide prone land. (Field assessment to be completed on day 7)

DAY 4 – TUESDAY 5 NOVEMBER: WOLLONGONG - BATEMANS BAY

Field exercise: Engineering geological mapping and construction material assessment for a proposed dam site on the Shoalhaven River.

Field exercise: Geotechnical assessment of a bridge site on the Shoalhaven River.

DAY 5 – WEDNESDAY 6 NOVEMBER: BATEMANS BAY

Field exercise: Engineering geological mapping of two granitic headland sites and assessment of the most suitable conditions for a proposed underground cavern.

DAY 6 – THURSDAY 7 NOVEMBER: BATEMANS BAY - WOLLONGONG

Field exercise: Evaluation of the suitability of using a basalt quarry to supply construction materials for a breakwater and the estimation of potential material reserves.

Student team presentations: Report and recommendations for the site of a proposed cavern.

DAY 7 – FRIDAY 8 NOVEMBER: WOLLONGONG

Field trip to observe major rockfall and landslide protection measures above Lawrence Hargrave Drive.

Field exercise: Engineering geological mapping of a major landslide complex at Bald Hill to support the planning of a proposed development.

DAY 8 – SATURDAY 9 NOVEMBER: WOLLONGONG

Workshop: Evaluation of information from the desk top study (Day 3) and field mapping (Day 7) to identify hazards and to develop an engineering geological model to support the development of landslide prone land at Bald Hill.

Workshop: Analysis of structural geological data collected in the field on Day 5 to support the evaluation of design implications and construction considerations to reduce risk, for a proposed underground cavern.

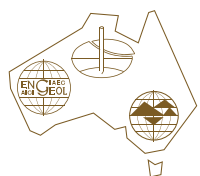
DAY 9 – SUNDAY 10 NOVEMBER: WOLLONGONG

Award of certificates; group discussion; comments from participants and closing.

12pm end of course.

DISCLAIMER:

This outline is subject to review and may change.



ENGINEERING GEOLOGY WOLLONGONG NSW, NOVEMBER 2019

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ABN: 89 615 696 393

REGISTRATION FORM & TAX INVOICE

When: Saturday 2 November – Sunday 10 November 2019

Where: University of Wollongong Northfields Avenue, Wollongong NSW

Please return one registration form per delegate.

FORM SUBMISSION

After discussing and confirming with Dr. Flentje, please complete the registration form and return to Peter Robinson via:

secretary@australiangeomechanics.org



PERSONAL INFORMATION

Title:	First Name:	Organisation:
		Surname:
Address:		Suburb:
State:	Post Code:	Country:
Ph/Mob:	Email:	
Are you a member of the Australian Geomechanics Society?	Yes No	Member No:

Please advise of any dietary requirements:

EMERGENCY	Name:	Surname:	Relationship:
CONTACT DETAILS		Ph/Mob 1:	Ph/Mob 2:

REGISTRATION FEES & PAYMENT

Payment (including GST)

AGS Member: **A\$4,950.00**

Total Payable:

Non AGS Member: **A\$5,170.00**

\$

* The cost of AGS membership is \$220 annually, please refer to: <http://australiangeomechanics.org/membership/> All prices quoted are in Australian Dollars (AUD) and inclusive of Goods and Services Tax (GST). Please complete one form per person.

I enclose my Cheque/Money Order payable to:

**Australian Geomechanics Society
PO Box 955, St Ives NSW 2075**

Electronic funds transfer (EFT):

CBA Bank, BSB No.: 062 910 Account No.: 1001 3510

Please quote your name in the comment space, (eg: **AGS EGW 2019-name**) and email the remittance advice with this registration form to:

secretary@australiangeomechanics.org

Please ensure your full name is included in the email.

Please charge my credit card: (Diners and AMEX are not accepted)

VISA MASTERCARD

Name on card:

Card Number:

Expiry:

/

Signature:

CCV:

Date: