



**UNSW**  
SYDNEY

## **Course Outline**

# **GEOS1211**

## **Earth & Environmental Science**

**School of Biological, Earth and  
Environmental Sciences**

**Faculty of Science**

**S1, 2019**

# 1. Staff

Position	Name	Email (@unsw.edu.au)	Consultation	Contact Details
Convenor	JT A/Prof John Triantafilis	j.triantafilis	Ling Wing D26, Room 554B	Email
Lecturer	DRC A/Prof David Cohen	d.cohen	By appointment	Email
Lecturer	IG Dr Ian Graham	i.graham	By appointment	Email
Lecturer	ME Dr Malte Ebach	m.ebach	By appointment	Email
Lecturer	MA Prof Michael Archer	m.archer	By appointment	Email
Lecturer	JT Prof Sue Hand	s.hand	By appointment	Email
Lecturer	DC A/Prof Darren Curnoe	d.curnoe	By appointment	Email
Lecturer	AB Prof Andy Baker	a.baker	By appointment	Email
Lab. Prep.	MvdL Mira van der Ley	m.vanderley	By appointment	Email



A/Prof **John** Triantafilis



A/Prof **David** Cohen



Dr **Ian** Graham



Dr **Malte** Ebach



Ms **Mira** Vanderlay



Prof **Sue** Hand



Prof **Michael** Archer



A/Prof **Darren** Curnoe



Prof **Andy** Baker

## 2. Course information

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Units of credit: 6 UOC

Pre-requisite(s): None (first-year course), but any high school science course will help, particularly Earth & Environmental Science

Teaching times and locations:

Lecture 1	Vallentine 121	Monday	12:00 – 13:00
Lecture 2	CLB1	Tuesday	10:00 – 11:00
Lecture 3	CivEng1	Wednesday	09:00 – 10:00
Laboratory 1	E26 Laboratory 5	Thursday	09:00 – 12:00
Laboratory 2	E26 Laboratory 5	Thursday	14:00 – 17:00

Current timetable: <http://timetable.unsw.edu.au/2018/GEOS1211.html>

### **Fieldtrip:**

**Saturday 23 March and Sunday 24 March, 2019**

The fieldtrip involves costs (~\$150-\$200) to students. It involves walking some distance from the bus, often on uneven terrain. You should wear boots and bring suitable gear for fieldwork (sunglasses, rain coat, sun block, hat etc.) as well as your hand lens, camera and notebook. More details are provided in the fieldtrip handout.

The field trip is **compulsory**. If you miss the trip you risk failing the course as it represents 20% of the final mark.

### **Special Consideration**

If illness or other circumstances beyond your control interferes with your ability to complete/attend compulsory work/classes/fieldtrip you will need to apply for special consideration.

The official procedure is described here: <https://student.unsw.edu.au/special-consideration>, but most importantly contact Associate Professor John Triantafilis (Convenor) ASAP to figure out the best way forward together.

### **Mental Health First Aider**

Mira is a certified Mental Health First Aider and can help provide information regarding supports provided by the university and externally.

### **Lab Equipment Needed**

**Covered shoes:** All students must wear covered shoes in practical classes in Lab 449. A lab coat is useful for the soils labs; however, old clothing that you remove before leaving the lab is also fine.

**Hand lens, magnet and pocket knife (recommended) for rocks and minerals labs:** If you are a interested in continuing with the earth sciences, it is recommended you purchase a hand-lens, small pocket knife\* to test the hardness of minerals and rocks and also a strong magnet (\*note that you are only allowed to carry the pocket knife when you are going to the lab). They are available for purchase from the Pharmacy Shop G039, Quadrangle Building (Map Reference E15, Phone 9385 7617).

## 2.1. Course summary

The course focusses on environmental science through an earth science frame. It delves into the lithosphere – how it formed, what it's composed of, the soil that supports life, and the life that is preserved in the rocks.

The origins of the continents and the planet itself are considered. The beginnings of life and evolution of selected fauna and flora are investigated from genetic and fossil evidence.

The relationships between Earth's geological environments and their associated landforms are explored, with particular emphasis on The Sydney Basin and The Lachlan Fold Belt.

The effects of change both natural and induced by humans on soil, water and the landscape are examined from various contexts including adverse environmental damage and management.

The tools required for the investigation of Earth's environments are introduced, including gamma-ray spectrometry and electromagnetic induction with applications in mapping geology and soil.

Skills in environmental earth science will be acquired through problem solving practical laboratory classes and a 2-day field trip across The Sydney Basin and The Lachlan Fold Belt.

The course is delivered by experts from across the range of earth and environmental sciences, including geology, soil, biogeography, anthropology and palaeontology.

Course summaries can be found at the BEES course page (<http://www.bees.unsw.edu.au/geos1211>) or the 2019 Handbook:

(<http://www.handbook.unsw.edu.au/undergraduate/courses/2019/GEOS1211.html>)

## 2.2. Course aims

The overall aim of this course is to enable you to develop and gain further understanding of the natural world through the investigation of earth systems and processes with a direct emphasis of their application to real-world situations in the field of environmental science. You will develop skills in describing and interpreting geological processes, landforms, surface deposits, soils, and palaeo-environments and life through time.

This course provides you with fundamental knowledge essential for most 'GEOS' courses (those where the course code starts with GEOS) in the School of Biological, Earth and Environmental Sciences.

It is complementary with GEOS1701, GEOS1111, BIOS1301, and BIOS1101. GEOS1211 prepares students for GEOS2021, GEOS2721, GEOS2071, GEOS2711, GEOS2181, GEOS2291, GEOS2131, and GEOS2761.

Course details here: <http://www.bees.unsw.edu.au/undergraduate-course-list>. (It is a core compulsory course in the Earth Science majors and the Environmental Management program).

## 2.3. Course learning outcomes (CLO)

At the successful completion of this course you should be able to:

1. Apply fundamental geological and palaeontological principles to environmental issues
2. Analyse and observe fundamental features of a variety of earth materials, landforms, fossils and archaeological material for identification and interpretation of processes.
3. Analyse landscapes and their underlying geology and interpret how this affects human and environmental processes/use.
4. Investigate projects in the natural world using a framework of interconnected earth processes.

## 2.4. Relationship between course and program learning outcomes and assessments

Course Learning Outcome (CLO)	LO Statement	Program Learning Outcome (PLO)	Related Tasks & Assessment
CLO 1	Apply fundamental geological and palaeontological principles to environmental issues	Ethical, social and professional understanding	Lectures
CLO 2	Analyse and observe fundamental features of a variety of earth materials, landforms, fossils and archaeological material for identification and interpretation of processes.	Capability and motivation for intellectual development.  Teamwork, collaborative and management skills	All lab sessions with worksheets.
CLO 3	Analyse landscapes and their underlying geology and interpret how this affects human and environmental processes/use	Teamwork, collaborative and management skills	Fieldtrip
CLO 4	Investigate projects in the natural world using a framework of interconnected earth processes	Research, inquiry and analytical thinking abilities	Fieldtrip, lab sessions



*“Field trip was really well organised and helpful to reinforce everything learnt. I like ongoing assessment tasks...kept me motivated and to do the work regularly.”*



*“Fieldtrip was a valuable resource and allowed for 'hands on' experience that could not be achieved in the lab or lectures.”*

*“Field trip was highlight of semester. The labs and lectures were really and lecturers knowledge in things they talked about and questions asked of them was pretty cool.”*





## 4 Course schedule and structure

	Lecture 1 (Val 121) Monday (12 – 1 PM)			Lecture 2 (CLB 1) Tuesday (10-11 AM)			Lecture 3 (CivEng G1) Wednesday (9-10 AM)			Labs (EG26 Lab 5) Thursday (9 AM-12 PM)		Labs (EG26 Lab 5) Thursday (2 PM-5 PM)		Assessments
Wk 1	18/2	L1: Course Outline and Themes	JT	19/2	L2: The Solar System; Earth and its Place in the Universe	DRC	20/2	L3: Formation of Earth's Crust & Plate tectonics	DRC	21/2	Plate Tectonics	21/2	Plate Tectonics	Plate tectonics exercise - hand in by 4pm Friday
Wk 2	25/2	L4: Anatomy of a volcano: Mt Canobolas	JT	26/2	L5: The wonder of minerals	ITG	27/2	L6: Sedimentary Rocks	ITG	28/2	Minerals	28/2	Minerals	
Wk 3	4/3	L7: The Sydney Basin	ITG	5/3	L8 The Lachlan Fold Belt	ITG	6/3	L9: Anatomy of a batholith: Mt Bathurst	JT	7/3	Igneous Rocks & Sedimentary Rocks of The Sydney Basin and Lachlan Fold Belt	7/3	Igneous Rocks & Sedimentary Rocks of the Sydney Basin and Lachlan Fold Belt	Mineral quiz runs at start of following lab.
Wk 4	11/3	L10: Physical weathering	JT	12/3	L11: Chemical & Biological weathering	JT	13/3	L12: Soil of Sydney Basin and Lachlan Fold Belt	JT	14/3	Soil Morphological Description: Ferrosol	14/3	Soil Morphological Description: Ferrosol	Igneous and sedimentary rock exercise - hand in by 4pm Friday
Wk 5	18/3	L13: Gamma Ray: case study from Lachlan Fold Belt	JT	19/3	L14: EM induction: environmental case studies from Sydney Basin.	JT	20/3	L15: Field Trip Briefing, what you will see, do and experience.	JT	21/3	Soil Morphological Description: Sodosol	21/3	Soil Morphological Description: Sodosol	Soil quiz - runs at the start of lab
Wk 5	23/3	<b>Field Trip</b>	JT DC ME	24/3	<b>Field Trip</b>	JT DC ME								Soil quiz - runs at on first evening of FT along with FT Trivia Quiz
Wk 6	25/3	L16: Palaeontology, early life & invert. palaeo	ME	26/3	L17: Biogeography I	ME	27/3	L18: Biogeography II	ME	28/3	Biogeography	28/3	Biogeography	Biogeography exercise due Friday 4pm
Wk 7	1/4	L19: Geochemistry	DRC	2/4	L20: Exploring the 6 great extinctions	MA	3/4	L21: World Heritage Deposit of Riversleigh	MA	4/4	Vertebrate palaeontology	4/4	Vertebrate palaeontology	Vertebrate palaeontology exercise due 4pm Friday.
Wk 8	8/4	L22: Coal Seam Gas	AB	9/4	L23: Extraordinary creatures from Australia's past	MA	10/4	L24: Development and invertebrate fauna of the Wellington Caves	SH	11/4	Invertebrate palaeontology	11/4	Invertebrate palaeontology	Invertebrate palaeontology exercise due 4pm Friday.
Wk 9	1/4	L25: Intro to Human Origins and Archaeology I	DC	2/4	L26: Intro to Human Origins and Archaeology II	DC	3/4	L27: Course Outline Course Themes	JT	4/4	Human Origins	4/4	Human Origins	Human origins exercise due Friday 4pm
Wk 10		No lecture			No lecture			No lecture			No practical		No practical	

## 5 Assessment

### 5.1 Assessment tasks

Assessment task	Length	Weight	Mark	Due date (normally midnight on due date)
<b>Assessment 1:</b> Laboratory practical work and reports/worksheets or quizzes (1 per lab)	Short answer questions	40% total (8 x 5% worksheets or quiz)	Each lab assessment has different marking criteria	Hard copy – 4pm Friday the same week. Online – midnight Friday the same week as the lab.  The quizzes run at the start of following lab.
<b>Assessment 2:</b> Fieldtrip Quiz	Online quiz + short summary	20%	/100	<b>Saturday, 23 March, 2019.</b>
<b>Final exam</b>	2 hrs: 4 long answer questions	40%	/100	Runs in official exam period. See <a href="https://student.unsw.edu.au/exams">https://student.unsw.edu.au/exams</a>

Assignment submission may be digital or hard copy. All assignment *hard-copies* must be submitted through the BSB office (G27) and must have a signed cover-sheet (available from the office). Digital submission will be via Turnitin through Moodle.

Students are expected to attend all lectures and practicals. If you miss more than 20% of your labs you may be excluded from the exam.

#### **The fieldtrip is compulsory.**

If you are ill or suffer misadventure whilst travelling to university to undertake a test or attend the fieldtrip, you should request special consideration through <https://student.unsw.edu.au/special-consideration>; you should also e-mail the course coordinator, Mira van der Ley ([m.vanderley@unsw.edu.au](mailto:m.vanderley@unsw.edu.au), as soon as possible). Requests should be made at the latest, within three days of any test or assessment, or one week after the final theory exam. Please provide a copy of your medical certificate or other documentation supporting your misadventure as soon as convenient.

An alternative test will be arranged at a mutually convenient time.

Assignments submitted after the due date will be penalised at the rate of 10% per day, unless accompanied by a medical certificate. All outstanding assignments must be handed in by the end of Week 13. Work will only be accepted after this date if accompanied by a medical certificate.

Academic misconduct will not be tolerated in any form and particular attention is drawn to the information about plagiarism included in “Section Academic integrity, referencing and plagiarism”.

#### **Further information**

UNSW grading system: <https://student.unsw.edu.au/grades>

UNSW assessment policy: <https://student.unsw.edu.au/assessment>

## 6 Academic integrity, referencing and plagiarism

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**Referencing** is a way of acknowledging the sources of information that you use to research your assignments. You need to provide a reference whenever you draw on someone else's words, ideas or research. Not referencing other people's work can constitute plagiarism.

Further information about referencing styles can be located at <https://student.unsw.edu.au/referencing>

The preferred referencing style for this course is the APA 6<sup>th</sup> edition format. Details can be found here: [http://www.tandf.co.uk/journals/authors/style/reference/tf\\_APA.pdf](http://www.tandf.co.uk/journals/authors/style/reference/tf_APA.pdf)

**Academic integrity** is fundamental to success at university. Academic integrity can be defined as a commitment to six fundamental values in academic pursuits: honesty, trust, fairness, respect, responsibility and courage.<sup>1</sup> At UNSW, this means that your work must be your own, and others' ideas should be appropriately acknowledged. If you don't follow these rules, plagiarism may be detected in your work.

Further information about academic integrity and **plagiarism** can be located at:

- The *Current Students* site <https://student.unsw.edu.au/plagiarism>, and
- The *ELISE* training site <http://subjectguides.library.unsw.edu.au/elise/presenting>

The *Conduct and Integrity Unit* provides further resources to assist you to understand your conduct obligations as a student: <https://student.unsw.edu.au/conduct>

The UNSW Learning Centre also provides substantial educational written materials, workshops, and tutorials <http://www.lc.unsw.edu.au/services-programs>

### What is Plagiarism? †

Plagiarism is the presentation of the thoughts or work of another as one's own. Examples include:

- direct duplication of the thoughts or work of another, including by copying material, ideas or concepts from a book, article, report or other written document (whether published or unpublished), composition, artwork, design, drawing, circuitry, computer program or software, web site, Internet, other electronic resource, or another person's assignment without appropriate acknowledgement;
- paraphrasing another person's work with very minor changes keeping the meaning, form and/or progression of ideas of the original;
- piecing together sections of the work of others into a new whole;
- presenting an assessment item as independent work when it has been produced in whole or part in collusion with other people, for example, another student or a tutor;
- claiming credit for a proportion a work contributed to a group assessment item that is greater than that actually contributed.
- for the purposes of this policy, submitting an assessment item that has already been submitted for academic credit elsewhere may be considered plagiarism;
- knowingly permitting your work to be copied by another student may also be considered to be plagiarism; and
- an assessment item produced in oral, not written, form, or involving live presentation, may similarly contain plagiarised material.

The inclusion of the thoughts or work of another with attribution appropriate to the academic discipline does not amount to plagiarism.

†Based on that proposed to the University of Newcastle by the St James Ethics Centre. Used with kind permission from the University of Newcastle and adapted with kind permission from the University of Melbourne..

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<sup>1</sup> International Center for Academic Integrity, 'The Fundamental Values of Academic Integrity', T. Fishman (ed), Clemson University, 2013.

## 7 Readings and resources

The following textbooks may be of interest; however, these are NOT PRESCRIBED. The Moodle site details links to resources that are freely accessible for UNSW students and relevant to each topic. Search the library here: <https://www.library.unsw.edu.au/>

Type	Author/Title	Latest Edition	UNSW library hard copy	UNSW library ebook
	Allaby, M. (Ed.). (2013). A dictionary of geology and earth sciences. Oxford University Press.	4th	No	Yes
Introductory earth science	Marshak, S. (2015). Earth Portrait of a Planet.+Geotours Workbook Norton	5th	4th ed. print	No
	Marshak, S. (2016). Essentials of Geology. W.W. Norton and Company, NY	5th	5th ed. print	No
	Lutgens, K. and Tarbuck, E.J. (2018). Essentials of Geology. Prentice Hall.	13th	12th ed. print	No
	Tarbuck, E.J., Lutgens, K. (2016) Earth: An Introduction to Physical Geology. International Edition. Prentice Hall.	12th	9th ed. print	No
Soils	Ashman, M.R., Puri, G (2008) Essential Soil Science: A Clear and Concise Introduction to Soil Science. Blackwell Publishing, Oxford.		1st ed. (Canberra only)	No
	Brady, N.C., Weil R.R. (2016). The nature and properties of soils. Prentice Hall.	15th	11th ed. Print	No
	Charman, P.E.V., Murphy, B.M. (eds.) (2007). Soils, Their Properties and Management, 2nd Edition, Sydney University Press, Sydney.	3rd	2nd ed. print	No
	McKenzie, N.J., Jacquier, D., Isbell, R., Brown, K. (2004). Australian Soils and Landscapes: An Illustrated Compendium. CSIRO, Canberra.	1st	1st ed. print	Yes
Human origins	Henke, W. and Tattersall, I. (2015) Handbook of Paleoanthropology. Springer Berlin Heidelberg.	2nd	No	Yes
Palaeontology	Levin, H. L., & King Jr, D. T. (2016). The Earth Through Time. John Wiley & Sons.	10th	9th ed. print	No
	Merrick, J. R., Archer, M., Hickey, G. M., & Lee, M. S. Y. (2006). Evolution and biogeography of Australasian vertebrates. AuSciPub, Sydney.	1st	1st ed. print	No
Biogeography	Parenti, L.R. & Ebach, M.C. (2009). Comparative Biogeography: Discovering and Classifying Biogeographical Patterns of a Dynamic Earth. University of California Press, Berkeley.	1st	1st ed. print	Yes

## 7.1 Professional societies

Geological Society of Australia: <http://www.gsa.org.au/>

Australian Institute of Geoscientists: <http://www.aig.asn.au/>

Australian Soil Science Society: <http://www.asssi.asn.au/>

The Linnean Society of NSW: <http://linneansocietynsw.org.au/>

## 7.2 Laboratory and study spaces

Room 449 is used for all the labs. You may be able to access this room during normal business hours by requesting assistance from the BSB office (G27). Please ensure the doors are properly closed on leaving as thieves have attempted to steal gear from this room.

Students enrolled in any BEES subjects should have swipe card access to the G029 computer lab, which is accessible at any time of the day (unless a class has the room booked).

The atrium area for the new Biosciences building ("Biosciences South, E26") is an excellent study space.



*"The labs and field excursion allowed interaction between lecturers and students which made the course seem more personal and thus more interactive and interesting. These also allowed for further understanding of topics covered."*

*"The wide variety of geoscience covered was good for an overall introduction. The labs were really helpful for developing a greater understanding. The field trip was actually very helpful for giving a working and practical understanding of what was introduced in lectures and labs."*



*"The lectures were excellent. The use of visual aids in a subject such as this with significant visualisation required is essential and was achieved in the lectures."*



## 8 Administrative matters

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### 8.1 School of BEES Student Office

The School of BEES (<http://www.bees.unsw.edu.au/>) student office is combined with the School of BABS and SOM and is collectively known as the **BSB Student Office**. The Student Office is located in Room G27 on the Ground Floor of Biological Sciences North (D26); the School Administrative Team is located in Room 241 of Biological Sciences North (D26) on the 2nd floor.

The BEES Student Support Officer is currently being renewed – please check Moodle for contacts.

All hard copy assignments should be submitted to the assignment box found outside this office.

### 8.2 Equity and diversity policy

Those students who have a disability that requires some adjustment in their teaching or learning environment are encouraged to discuss their study needs with the course convener (Mira van der Ley) prior to, or at the commencement of, their course, or with the Equity Officer (Disability) in the Equity and Diversity Unit (9385 4734 or <https://student.unsw.edu.au/disability>).

Issues to be discussed may include access to materials, signers or note-takers, the provision of services and additional exam and assessment arrangements. Early notification is essential to enable any necessary adjustments to be made (<https://student.unsw.edu.au/disability>).

The School of Biological, Earth and Environmental Sciences aims to provide a safe, supportive and welcoming environment for all staff and students regardless of their race, sex, age, religion, disability, sexual orientation or gender identification. As such, the School strongly supports UNSW's Equity and Diversity Policy in regard to these matters. <http://www.bees.unsw.edu.au/equity>

Definitions, policies and reporting portals can be found here: <https://student.unsw.edu.au/equity>

### 8.3 Grievance policy

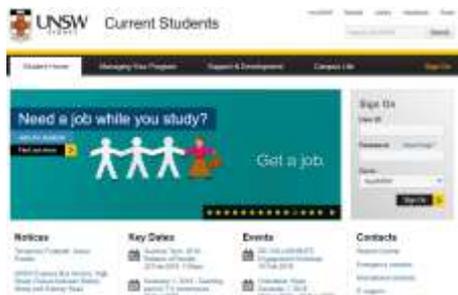
In all cases you should first try to resolve any issues with the course convener (Mira van der Ley, [m.vanderley@unsw.edu.au](mailto:m.vanderley@unsw.edu.au)). If this is unsatisfactory, you should contact the School Student Ethics Officer (A/Prof Stephen Bonser, [s.bonser@unsw.edu.au](mailto:s.bonser@unsw.edu.au)) or the Deputy Head of School (A/Prof Scott Mooney [s.mooney@unsw.edu.au](mailto:s.mooney@unsw.edu.au)) who is the School's Grievance Officer and Designated Officer under the UNSW Plagiarism Procedure. UNSW has formal policies about the resolution of grievances that can be reviewed in myUNSW A to Z Guide (see <https://student.unsw.edu.au/complaints>).

<b>Designated/Grievance Officer</b>	<b>School Student Ethics Officer</b>	<b>University Contact</b>
A/Prof Scott Mooney	A/Prof Stephen Bonser	University Counselling Services
School of BEES	School of BEES	Tel: 9385 5418
<a href="mailto:s.mooney@unsw.edu.au">s.mooney@unsw.edu.au</a>	<a href="mailto:s.bonser@unsw.edu.au">s.bonser@unsw.edu.au</a>	
Tel: 9385 8036	Tel: 9385 3863	

## 9 Additional support for students

### The Current Students Gateway:

<https://student.unsw.edu.au/>



### Academic Skills and Support:

<https://student.unsw.edu.au/academic-skills>



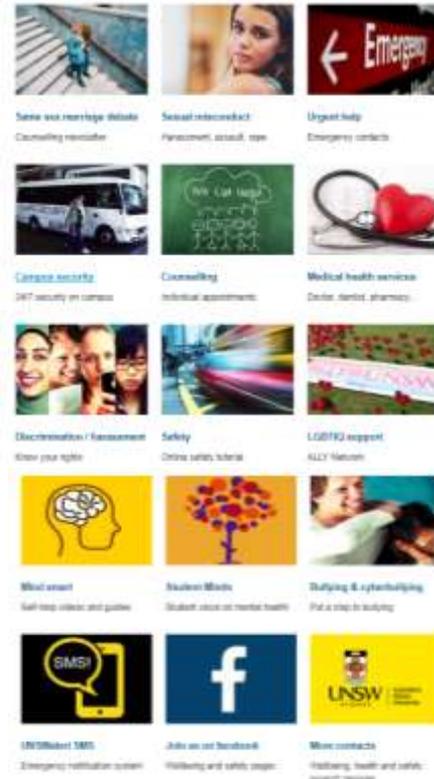
### Disability Support Services:

<https://student.unsw.edu.au/disability-services>



### Student Wellbeing, Health and Safety:

<https://student.unsw.edu.au/wellbeing>



### UNSW IT Service Centre:

[www.it.unsw.edu.au/students/index.html](http://www.it.unsw.edu.au/students/index.html)



# 10 Student Conduct and Health & Safety

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## 10.1 Respectful behaviour

You have a right to feel safe, respected and welcome to fully participate in university life.

This also means that you have an obligation to ensure that your behaviour does not infringe on the enjoyment of these rights for other students or staff.

Behaviour that negatively impacts on others, or is unlawful, can constitute misconduct.

Definitions, policies and reporting portals can be found at these sites:

<https://student.unsw.edu.au/equity>      <https://student.unsw.edu.au/harassment>  
<http://subjectguides.library.unsw.edu.au/elise/respect>

Fieldtrips are academic activities which are fun and are a great way to get to know your classmates. Students and staff are committed to providing a friendly and safe environment for all. To achieve this, participants must follow the following:

- Treat all other field participants and members of the public with courtesy and respect.
- Adopt a responsible attitude whilst on the fieldtrip
- Do not perform duties or functions for the University under the influence of alcohol or drugs
- Comply with instructions and directions issued by fieldtrip supervisors
- Take action to avoid, eliminate or minimize risks

Additionally, behaviour on course fieldtrips must be consistent with the Student Code of Conduct.

There are five primary student responsibilities under this Code:

- A condition of enrolment that students inform themselves of the University's rules and policies affecting them
- An obligation to act with integrity in academic work, to ensure that all academic work is conducted ethically and safely
- An obligation to observe standards of equity and respect in dealing with every member of the University community
- An obligation to use and care for University resources in a lawful and appropriate manner
- An obligation to not diminish the University's reputation in the carrying out of academic and other associated University activities.

UNSW is within its right to terminate participation in a fieldwork activity and may institute academic misconduct proceedings in circumstances where a student wilfully fails to work in a safe manner or fail in the above duties.

## 10.2 H&S

According to the School of BEES policy (<http://www.bees.unsw.edu.au/hs-accountabilities-and-responsibilities>), each student is responsible for:

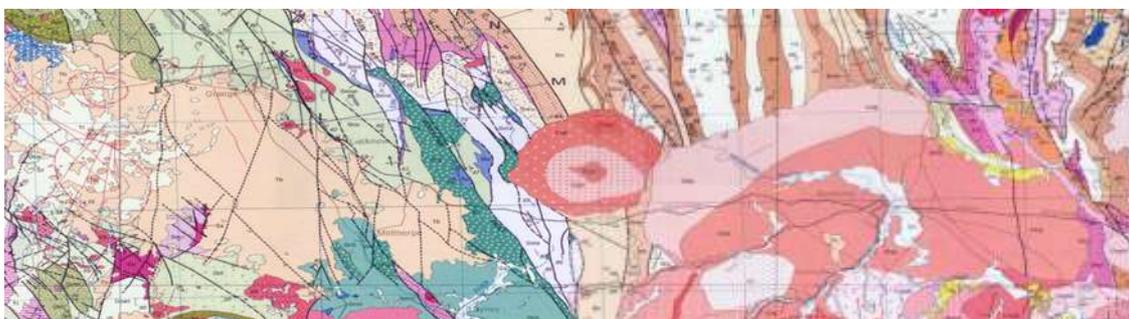
- Taking reasonable care for his or her own health and safety, and
- Taking reasonable care that his or her acts or omissions do not adversely affect the health and safety of other persons, and
- Complying, so far as reasonably able, with any reasonable instruction that is given to ensure UNSW is not in breach of the NSW WHS Act 2011, and
- Complying with UNSW HS policies, procedures and guidelines and BEES HS protocols ,
- Taking action to avoid, eliminate or minimise hazards
- Making proper use of all safety devices and personal protective equipment
- Seeking information or advice regarding hazards and procedures before carrying out new or unfamiliar work
- Being familiar with emergency and evacuation procedures, the location of first aid and emergency personnel and equipment, and if appropriately trained, the use of such equipment.

The School of BEES recognises its obligations to provide a safe working environment for all persons involved in school-related activities. To achieve this goal with regards to teaching and learning, the school adopts the UNSW Health and Safety Policy v4.1 and the H336 HS Responsibility, Authority and Accountability Procedure.

These documents stipulate that everyone attending a UNSW workplace must ensure their actions do not adversely affect the health and safety of others. This outcome is achieved through the establishment of a documented chain of responsibility and accountability for all persons in the workplace, extending from the Head of School through to the students undertaking courses offered by the School of BEES.

As part of this chain of responsibility and accountability, the Course Authority (Mira van der Ley) is responsible for ensuring all activities associated with this course are safe. The Course Convenor has undertaken detailed risk assessments of all course activities and identified all associated potential hazards.

These hazards have been minimised and appropriate steps taken to ensure your health and safety. For each activity, clear written instructions are given and appropriate hazard warnings or risk minimisation procedures included for your protection.



Geological units in The Lachlan Fold Belt.

# GEOS1211 Student Photos (2004-2018)

