



# Course Outline

## **BIOS1301**

### Ecology, Sustainability and Environmental Science

School of BEES

Faculty of Science

T1, 2020

## 1. Staff

Position	Name	Email & contact details	Consultation times and locations
Course Convenors	Professor Richard Kingsford	<a href="mailto:BIOS1301@unsw.edu.au">BIOS1301@unsw.edu.au</a>	By appointment
	Dr Teagan Gale	<a href="mailto:BIOS1301@unsw.edu.au">BIOS1301@unsw.edu.au</a> Level 1, Samuels Building Room 132	By appointment
Guest Lecturers	There are many guest lectures in this course. All guest lecturers are active in research. Some guest lecturers are from the University of New South Wales, others conduct research for other institutions or government agencies. For example, Professor Lesley Hughes will be giving a guest lecture on Australia's changing climate. Lesley is from the University of Macquarie and is a specialist scientist on the Intergovernmental Panel on Climate Change (IPCC). The guest lecturers bring real life experience to the course. This is deliberately done to expose students to a wide range of practitioners working in environmental science.		
Technical & laboratory staff	Rosa Ascensio	Rm G23, Biological Sciences Building (D26) and Teaching Lab 6, (E26)	On site

## 2. Course information

Units of credit: 6UOC

Pre-requisite(s): None

Teaching times and locations:

Component	HPW	Time	Day	Location
<b>Lectures</b>	<b>3</b>			
Lecture 1	1	9-10am	Tuesday	Central Lecture Block 8
Lecture 2	1	9-10am	Thursday	Central Lecture Block 6
Lecture 3	1	4-5pm	Friday	Central Lecture Block 6
<b>Laboratory</b>	<b>3</b>			
Tuesday AM	3	10am-1pm	Tuesday	Varies each week, (see schedule)
Tuesday PM	3	2-5pm	Tuesday	Varies each week, (see schedule)
Wednesday AM	3	10am-1pm	Wednesday	Varies each week, (see schedule)
Wednesday PM	3	2-5pm	Wednesday	Varies each week, (see schedule)
Thursday AM	3	10am-1pm	Thursday	Varies each week, (see schedule)
Thursday PM	3	2-5pm	Thursday	Varies each week, (see schedule)
<b>Revision sessions</b>	<b>1</b>	TBC	Tues, Wed, Thurs	Teaching Lab 6, E26

<http://timetable.unsw.edu.au/2020/BIOS1301.html>

## 2.1 Course summary

This course is designed to introduce students to the topics of ecology, sustainability and environmental science.

- The course develops student skills in critically assessing scientific information, routinely debated by the public and decision-makers. It provides a strong grounding in today's and tomorrow's environmental problems and the role of science in providing solutions.
- You may decide to specialise as an environmental scientist, environmental engineer, ecologist, marine biologist or a river scientist and this course will provide a fundamental base. Even if you are enrolled in a completely different degree (e.g. law, commerce, engineering), you will find this course a useful elective. There are few professions today that can ignore the effects of environmental issues. Of course, your everyday life will also be informed by what you learn.
- This course will give you a good background in the full range of environmental issues affecting the world today and their effects on biodiversity and sustainability.

## 2.2 Course aims

The course develops student skills in critically assessing scientific information, routinely debated by the public and decision-makers. It provides a strong grounding in today's and tomorrow's environmental problems and outlines the role that science plays in providing solutions.

Environmental problems are increasingly a challenge for today's society. There is a rising concern about the effects of climate change, degradation of rivers, clearing of native vegetation, overharvesting of fishing resources and pollution on our world. The issues are often complex, involve major decisions by Governments and communities but are fundamental if we are to deliver a sustainable planet for future generations. Environmental science is a discipline that can address these problems and also provide potential solutions for management and policy decisions.

This course aims to give you a broad understanding of the major environmental problems of the world, encourage critical thought, provide experience in biological observation and measurement and teach you how to make careful and critical observations. Environmental Science is a rigorous discipline that requires logic and critical thinking, in this course you will learn how this is done.

## 2.3 Course learning outcomes (CLO)

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

1. Describe how environmental science is used to: identify, monitor, address and manage ecological problems such as key threatening processes
2. Conduct basic scientific field observations and monitoring techniques (such as, species identification and counts, water quality testing, inputs and outputs and mark recapture)
3. Collect, analyse (spatially and statistically) and interpret results from field and laboratory data
4. Develop skills in written and oral scientific communication
5. Work collaboratively to engage in creative problem solving

## 3. Strategies and approaches to learning

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### 3.1 Learning and teaching activities

There are five major components to this course. The various streams re-enforce but do not duplicate each other:

- 1) Lectures which outline the main elements of the environment, problems of sustainability and ways of addressing these problems with environmental science. Lectures are primarily given by academics from the School of Biological, Earth and Environmental Sciences. However, to expand students' understanding and provide real world examples, guest lecturers (specialist scientists) from Government agencies and outside organizations (are invited in the second half of the course), to give lectures in their areas of expertise. Sometimes lectures will not be sequential as consideration has to be made for some of the guest lecturers who have busy schedules. Always refer to the module to see where lectures fit.
- 2) Practical classes which provide "hands on" experience teaching the basic skills of environmental monitoring and data collection. There are 6 set practicals (1-6) in weeks 1-7 and an additional self-guided practical to Taronga zoo. The self-guided practical incurs an entry fee. You can do this practical at any time, including the designated practical time for which it is designed for in week 8.
- 3) Assessments which are designed to enhance skills such as data collection, analysis, report writing, problem solving and scientific communication.
- 4) Revision sessions which are offered as an optional resource and support for students. The aim of the revision sessions is to reinforce themes learnt throughout the lectures, to encourage deep learning and discussion; and help stage 1 students prepare for the final exam. These sessions will give you an opportunity as a student to discuss many of the issues raised during the lectures.
- 5) Final exam which tests the students' understanding of the course (lecture) content.

### 3.2 Expectations of students

#### Lectures

We do not take the roll at lectures but you would be surprised how much a lecturer notices from the front. It is up to you to attend and learn. There is also a positive relationship between attendance at lectures and final results. We need to make sure that we cater in our lecturing for the range of differences in background knowledge of first year students. So, the lectures will aim to encourage students with little or no background in biology. That means you do not treat lectures as a time to catch up on your social life. There are plenty of other times and places for this. It is also rude to your fellow students who want to follow the lecture and the lecturer. Disruption of lectures by talking, or other inappropriate behaviour, constitutes academic misconduct and we have to deal with those of you who continue to cause problems. Material in lectures may not be covered anywhere else, so you are strongly encouraged to attend lectures. Don't forget to turn your mobile phones off during lectures, practicals and tutorials.

## Practicals

The practical aspect of ecology is so important that participation in practical classes is a fundamental requirement for the award of a pass. You can only attend the lab in which you are enrolled. Should you be unable to attend your practical class for any reason, you should contact Teagan Gale (BIOS1301@unsw.edu.au) to arrange an alternate time in the same week as the missed class. All make-up labs have to be approved. For unavoidable absences from practical classes that cannot be made up at an alternate time, you must apply for special consideration- please refer to Moodle for details on how to do this. Any student who misses more than one practical class and does not provide a medical certificate to cover any such absence may be awarded an unsatisfactory failure (UF) grade for having failed to complete an essential element of the subject.

Attendance is taken during practicals. An 80% attendance record (for practicals) is required to pass this course.

### **For practical classes held in the lab you must bring:**

- BIOS 1301 Ecology and Sustainability Lab Manual. Read the instructions in advance.
- A laboratory coat and closed shoes (not sandals). This is required by Workplace Health and Safety (WHS) regulations, and you will not be permitted to participate in practicals if you are inappropriately clothed.
- Material for recording your observations and findings appropriate for each class. These items include: a HD pencil, eraser and ruler.

### **For practical classes held in the field (Centennial Park and Randwick Environment Park) you must bring:**

- BIOS 1301 Ecology and Sustainability Lab Manual. Read the instructions in advance for each practical.
- Material for recording your observations and findings appropriate for each class. These items include: a HD pencil, eraser and ruler.
- Hat, sunscreen, sunglasses, water bottle and wet weather gear (raincoat, umbrella)
- You must wear appropriate clothing and footwear for field work.
- You are required to make your own way to and from these field sites (both locations are approximately a 20-minute walk from the university)

## 4. Course schedule and structure

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**There are four major modules for the lectures in this course:**

***Module 1- Introduction to Ecology, Sustainability and Environmental Science:***

- Course Introduction (Professor Richard Kingsford)
- Sustainability Issues (Professor Richard Kingsford)
- Definitions of Sustainability (Professor Richard Kingsford)
- Environmental Science (Professor Richard Kingsford)

***Module 2 – Biodiversity and Landscape Processes:***

- Distribution and Abundance of Organisms (Dr Teagan Gale)
- Carbon and Hydrogen Cycles (Professor Richard Kingsford)
- Water, Rivers and River Regulation (Professor Richard Kingsford)
- Land Degradation in Australia (Dr Alan Kwok)

***Module 3 -Disturbance Ecology and impacts of threats:***

- Disturbance Ecology (Professor Richard Kingsford)
- Exotic Animal Species (Professor Richard Kingsford)
- Invasive Plant Species (Dr Tanya Mason)
- Fire and Ecosystems (Dr Mark Ooi)
- Biodiversity in Australia (Dr Teagan Gale)
- Climate Change and Australian Ecosystems (Professor Lesley Hughes)

***Module 4- Management of Ecosystems within the context of Ecologically Sustainable Development:***

- Future of Australian Terrestrial Ecosystems (Professor Mike Archer)
- Role of Zoos in Conservation (Dr David Slip, Taronga Conservation Society)
- Pollution in Marine Ecosystems (Dr Graeme Clarke)
- Biodiversity Management (Dr Teagan Gale)
- Fisheries Management (Professor Iain Suthers)
- Wildlife Harvesting (Professor Richard Kingsford)
- Conservation Policy and Management (Professor Richard Kingsford)
- Protected Area management (Professor Richard Kingsford)

**Course Schedule:**

Week	Lectures <i>Date, Time &amp; Location – Lecturers &amp; Topics - Modules</i>			Practical	Revision sessions	Assessments
Week 1	Tuesday 18/2/20 9am CLB 8	Professor Richard Kingsford (UNSW) <b>Lecture 1: Introduction to Ecology and Sustainability</b>	1	<b>Practical 1: Ice breaker and Assignment 2 group allocation.</b> (Building E26, Teaching Lab 6)		✓ Assessment 1 – Part 1: <b>Complete 2 online Quizzes</b> <b>1. Scientific Literature Quiz &amp; 2. Scientific Report Structure Quiz</b> Available on Moodle (5% total)  <b>DUE: Both quizzes must be completed by 4:30pm Monday 02/03/20 (Week 3)</b>
	Thursday 20/2/20 9am CLB 6	Professor Richard Kingsford <b>Lecture 2: Sustainability Issues</b>	1			
	Friday 21/2/20 4pm CLB 6	Professor Richard Kingsford <b>Lecture 3: Definitions of Sustainability</b>	1			
Week 2	Tuesday 25/2/20 9am CLB 8	Dr Teagan Gale (UNSW) <b>Lecture 4: Distribution and Abundance of Organisms</b>	1	<b>Practical 2: Centennial Park Field Trip</b> (Check lab manual for location map) Time- same as your normal practical class.		
	Thursday 27/2/20 9am CLB 6	Professor Richard Kingsford <b>Lecture 5: Environmental Science</b>	2			
	Friday 28/2/20 4pm CLB 6	Professor Richard Kingsford <b>Lecture 6: Environmental Science II</b>	2			
Week 3	Tuesday 3/3/20 9am CLB 8	Professor Richard Kingsford <b>Lecture 7: Carbon and Nitrogen Cycles</b>	2	<b>Practical 3: Randwick Environment Park</b> (Check lab manual for location map) Time- same as your normal practical class.		
	Thursday 5/3/20 9am CLB 6	Dr Alan Kwok (USYD) <b>Lecture 8: Land Degradation in Australia</b>	2			
	Friday 6/3/20 4pm CLB 6	Dr Tanya Mason (UNSW) <b>Lecture 9: Invasive Plant Species</b>	2			
Week 4	Tuesday 10/3/20 9am CLB 8	Professor Richard Kingsford <b>Lecture 10: Waters, Rivers and River Regulation</b>	3	<b>Practical 4: Biodiversity Measurement &amp; Assessment.</b> Data collection for Assessment 1 part 2. (Building E26, Teaching Lab 6)		
	Thursday 12/3/20 9am CLB 6	Professor Richard Kingsford <b>Lecture 11: Disturbance Ecology</b>	3			
	Friday 12/3/20 4pm CLB 6	Professor Richard Kingsford <b>Lecture 12: Invasive Animal Species</b>	3			
Week 5	<i>No lectures</i>			<i>No lab</i>		✓ Assessment 2: <b>Threats to Global Biodiversity Video</b> (15%) <b>DUE: by 4:30pm Friday 20/03/20 (Week 5).</b> See Moodle for submission details.

Week	Lectures Date, Time & Location – Lecturers & Topics - Modules			Practical	Revision sessions	Assessments				
Week 6	Tuesday 24/3/20 9am CLB 8	Dr Mark Ooi (UNSW) <b>Lecture 13: Fire and Ecosystems</b>	3	<b>Practical 5: Landscape Investigations</b> Data analysis for Assessment 1 part 2 (Building D26, Computer Room G29)	Revision sessions run from weeks 8-10.  The revision sessions are designed to provide a platform for students to engage, discuss and revise the core concepts presented in each lecture module. The revision sessions help students prepare for the final course exam. Attendance is optional. Please see Moodle for further details.	✓ Assessment 1 – Part 2: <b>Biodiversity Measurement and Assessment Report (15%)</b> <b>DUE: by 4:30pm Friday 03/04/20 (Week 7).</b> Submission online (see Moodle for details)				
	Thursday 26/3/20 9am CLB 6	Dr Teagan Gale <b>Lecture 14: Biodiversity in Australia</b>	3							
	Friday 27/3/20 4pm CLB 6	Professor Lesley Hughes (Macquarie and IPCC) <b>Lecture 15: Climate Change in Australia</b>	3							
Week 7	Tuesday 31/3/20 9am CLB 8	Dr Teagan Gale <b>Lecture 16: Biodiversity Management (Vegetation clearing)</b>	4	<b>Practical 6: Measurement Techniques for Environmental Science</b> (Building E26, Teaching Lab 6)			The revision sessions are designed to provide a platform for students to engage, discuss and revise the core concepts presented in each lecture module. The revision sessions help students prepare for the final course exam. Attendance is optional. Please see Moodle for further details.	✓ Assessment 1 – Part 2: <b>Biodiversity Measurement and Assessment Report (15%)</b> <b>DUE: by 4:30pm Friday 03/04/20 (Week 7).</b> Submission online (see Moodle for details)		
	Thursday 2/4/20 9am CLB 6	Dr David Slip (Taronga Zoo) <b>Lecture 17: Role of Zoos in Conservation</b>	4							
	Friday 3/4/20 4pm CLB 6	Dr Graeme Clarke (UNSW) <b>Lecture 18: Pollution in Marine Environments</b>	4							
Week 8	Tuesday 7/4/20 9am CLB 8	Professor Mike Archer (UNSW) <b>Lecture 19: Future of Australian Terrestrial Ecosystems</b>	4	<b>No practicals these weeks. Instead you are given time to work on your Biodiversity Report and or complete the self-guided Taronga Zoo practical 7</b>					The revision sessions are designed to provide a platform for students to engage, discuss and revise the core concepts presented in each lecture module. The revision sessions help students prepare for the final course exam. Attendance is optional. Please see Moodle for further details.	✓ Assessment 3: <b>Two Parts:</b> <b>Part 1: Lab Manual (self-guided Taronga Zoo practical 7 completed)</b> <b>Part 2: Short answer response (15%)</b> <b>DUE: 4:30pm Friday 17/04/20 (Week 9).</b> Submission, see Moodle for details.
	Thursday 9/4/20 9am CLB 6	Professor Iain Suthers <b>Lecture 20: Fisheries Management</b>	4							
	Friday 10/4/20 4pm CLB 6	<b>No lecture due to PUBLIC HOLIDAY (Good Friday)</b>	4							
Week 9	Tuesday 14/4/20 9am CLB 8	Professor Richard Kingsford <b>Lecture 21: Wildlife Harvesting</b>	4			<b>No practicals these weeks. Instead you are given time to work on your Biodiversity Report and or complete the self-guided Taronga Zoo practical 7</b>				
	Thursday 16/4/20 9am CLB 6	Professor Richard Kingsford <b>Lecture 22: Conservation Management and Policy</b>	4							
	Friday 17/4/20 4pm CLB 6	Professor Richard Kingsford <b>Lecture 23: Protected Area Management</b>								
Week 10	Tuesday 21/4/20 9am CLB 8	Professor Richard Kingsford and Dr Teagan Gale <b>Lecture 24: Video Panel and Awards</b>								
<b>Study period 29<sup>th</sup> April to 1<sup>st</sup> May</b>				<b>Exam period 2<sup>nd</sup> May to 15<sup>th</sup> May 2020</b>						

## 5. Assessment

### 5.1 Assessment tasks and feedback

See Moodle for full details of all assessments, including instructions and marking rubrics

Assessment task	Knowledge and abilities assessed	Assessment criteria	% of total mark	Due date	Feedback
<b>Assessment 1:</b> Biodiversity report <u>Part 1</u> – Moodle quizzes (pre-report assessment) <u>Part 2</u> – Biodiversity measurement report	<p>The quizzes test students' understanding of the importance of scientific literature. How to find appropriate peer reviewed articles to use as references for their assessments. Students are also assessed on the structure of a scientific report.</p> <p>Students apply this in the report, which tests research skills, group work, data analysis, report writing skills.</p>	<p>Two Moodle quizzes. Students must select the correct answers from the quiz.</p> <p>Written presentation, analysis, framework for scientific report, references, accuracy of answers and overall conclusions.</p>	<p>5%</p> <p>15%</p>	<p>Week 3 – 4:30pm Monday 02/03/2020</p> <p>Week 7 – 4:30pm Friday 03/04/2020</p>	<p>Week 3 – marks, via Moodle</p> <p>Week 10 – marks and comments, via Moodle</p>
<b>Assessment 2:</b> Threats to global diversity video	<p>Knowledge of research topic. Creativity, science communication skills, research skills, ability to work as a member of a group.</p>	<p>Quality and presentation of information conveyed. Creativity, ability to work as a member of a team.</p>	<p>15%</p>	<p>Week 5 – by 4:30pm Friday 20/03/2020</p>	<p>Week 8 – marks and comments, via Moodle</p>
<b>Assessment 3:</b> Self-guided practical	<p>Independent learning, field skills, data collection, practical skills, data analysis and comparison,</p>	<p>Completion of practical with correct answers.            Ability to answer the comparative short response questions provided on Moodle.</p>	<p>15%</p>	<p>Week 9 – by 4:30pm Friday 17/04/2020</p>	<p>Week 9 – Marks and comments, via Moodle</p>
<b>Assessment 4:</b> Final exam	<p>Understanding of lecture content</p>	<p>Ability to answer questions correctly and provide examples (case studies) where appropriate</p>	<p>50%</p>	<p>Exam period, TBA</p>	<p>Final grade</p>

#### Further information

UNSW grading system: [student.unsw.edu.au/grades](http://student.unsw.edu.au/grades)

UNSW assessment policy: [student.unsw.edu.au/assessment](http://student.unsw.edu.au/assessment)

## 5.3 Submission of assessment tasks

Please see Moodle for detailed instructions for assessment submission. Generally, all written assessments are to be submitted electronically via Moodle. Videos are to be submitted via YouTube link via the course email – see Moodle for detailed instructions closer to submission date.

If, due to sickness or some equally compelling reason, you must miss a practical the first thing you should do is contact Teagan Gale via the course email in the same week as the missed day in order to see if it is possible to slot you in with another class. One day of sickness does not grant an automatic one-week extension. If your absence is on the day of a test or examination, a zero mark will be recorded unless a medical certificate covering that day is submitted via special consideration. If your certified absence is from a test or examination, you must be prepared to do an equivalent assessment in subsequent weeks. Like all rules, these may not fit every situation. If you have a problem that is not covered, please ask Teagan Gale or e-mail [Bios1301@unsw.edu.au](mailto:Bios1301@unsw.edu.au). Most problems are easily solved with timely notice.

Assignments submitted after the due date will be penalised at the rate of 10% per day unless accompanied by a medical certificate and special consideration application. All outstanding assignments must be handed in by the end of Week 10. Work will only be accepted after this date if accompanied by a special consideration application. **(This is School 'policy'.)**

## 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 [student.unsw.edu.au/referencing](http://student.unsw.edu.au/referencing)

**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 [student.unsw.edu.au/plagiarism](http://student.unsw.edu.au/plagiarism), and
- The *ELISE* training site [subjectguides.library.unsw.edu.au/elise](http://subjectguides.library.unsw.edu.au/elise)

The *Conduct and Integrity Unit* provides further resources to assist you to understand your conduct obligations as a student: [student.unsw.edu.au/conduct](http://student.unsw.edu.au/conduct).

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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

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### Course manual

BIOS 1301 Ecology and Sustainability. Available in hardcopy from the UNSW Bookshop or as a pdf on the Moodle course page.

### Textbooks

No textbook is specified for this class but there is a list of suggestions of textbooks that will be held in the library for use throughout the semester by students:

Attiwill, P. & Wilson, B. (2003). Ecology: an Australian perspective. Oxford University Press, Melbourne.

Botkin, D.B. & Keller, E.A. (2011). Environmental Science: Earth as a Living Planet (8th Edition). John Wiley and Sons

Campbell, N. A. & Reece, J. A. (2011). Biology, 9th Edition. Benjamin/Cummings, San Francisco, and Augée, M.L. & Fox, M. (1999). Biology of Australia and New Zealand. Benjamin Cummings, Redwood City (a supplement to Campbell *et al.*)

Keith, D. (2004). Ocean shores to desert dunes. The native vegetation of NSW and the ACT. NSW Department of Environment and Conservation, Sydney.

As well, you will have access to particular scientific papers suggested by individual lecturers.

A biological dictionary can be very useful. The campus book shop usually has several different dictionaries. Highly recommended is "Henderson's Dictionary of Biology 14th edition (2008) Pearson: Benjamin Cummings".

### Other materials

Other useful materials, including additional readings, recommended internet sites, and societies, will be provided via the Moodle page

## 8. Administrative matters

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### Academic matters

The first contact for help with course work is a demonstrator (i.e. the person who is present at one of the practical sessions). Consult the demonstrator if you have any difficulty with the subject material. In some cases, your demonstrator will also be the laboratory supervisor, or alternatively a demonstrator may refer you to the supervisor or the course administrator (T.Gale). Outside of class time all BIOS1301 enquires should be directed to **BIOS1301@unsw.edu.au**

<b>School information</b>	<p>School office – The Biosciences Student Office is where to go for administrative matters relating to BEES courses. It is located on the level 5 of the biological sciences building <a href="mailto:BEESinfo@unsw.edu.au">BEESinfo@unsw.edu.au</a></p> <p>Alternatively you can contact Teagan Gale via the course email <a href="mailto:BIOS1301@unsw.edu.au">BIOS1301@unsw.edu.au</a></p> <p>There is also a wealth of information for students on the School's web site <a href="http://www.bees.unsw.edu.au/">http://www.bees.unsw.edu.au/</a>. Depending on your interest, you can find out</p>
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	<p>about courses, future postgraduate opportunities and even the research areas of your lecturers</p>
<p><b>Occupational Health and Safety</b></p>	<p>UNSW takes matters of Work Health and Safety policies very seriously. You should be aware of your responsibilities (<a href="http://www.safety.unsw.edu.au/">http://www.safety.unsw.edu.au/</a>).</p> <p>General conduct</p> <p>A laboratory is for serious work not horseplay. Eating, drinking or smoking in laboratories is not allowed. Further- no food should be brought into a laboratory. Students must read the instructions to their laboratories carefully beforehand and be aware of all possible hazards.</p> <p>No undergraduate students will be allowed to work in the laboratories outside class hours without permission and some supervision.</p> <p>All accidents and injuries must be reported to the lecturer or demonstrator in charge of the practical class for treatment if necessary. A 'Hazard/Incident' report should be filled in if an accident or incident occurs without causing an injury. With injury, an additional 'Injury/Loss of Time' report is also required.</p> <p>Never dispose of broken glass or other dangerous rubbish in waste paper baskets. Put broken glass into bins marked 'broken glass' and other sharp objects labelled 'sharps' or 'contaminated sharps'.</p> <p><b>Laboratory and protective clothing</b></p> <p>Clothes should protect your body and not be highly inflammable. Laboratory coats are essential in all laboratories. You will be asked to leave if a supervisor feels your attire puts you at risk. Where necessary, safety equipment will be provided and should be used as directed.</p> <p>Closed-in shoes are compulsory so they can give adequate protection against corrosive liquids and cuts. Persons wearing thongs or arriving in bare feet will not be allowed into practical classes.</p> <p><b>YOU MUST WEAR APPROPRIATE ENCLOSED TOE SHOES (NOT OPEN SANDALS) &amp; A LABORATORY COAT WHILST IN THE LABORATORIES.</b></p>
<p><b>Equity and Diversity</b></p>	<p>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 Convenor prior to, or at the commencement of, their course, or with the Equity Officer (Disability) in the Equity and Diversity Unit (9385 4734 or <a href="http://www.studentequity.unsw.edu.au/">http://www.studentequity.unsw.edu.au/</a> ).</p> <p>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.</p> <p><b>Language Difficulties</b></p> <p>Biology deals with many concepts which have to be explained in words. This requires careful and accurate use of English. In addition, biology, as with any disciplines, has its own specialist language which you will need to learn. In some cases particular words have a specialised use in biology which is different from their everyday meaning.</p> <p>The textbook contains an extensive glossary, and most terms are explained when first introduced. In addition lecturers and demonstrating staff will explain</p>

	<p>new terms. We don't expect you to pick up this new vocabulary instantly, but eventually it will become second nature.</p> <p>If you do not have a good command of English you may find the course difficult. UNSW provides a range of opportunities for you to improve your language skills - if you are having difficulty please contact the Learning Centre</p> <p>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 Convenor prior to, or at the commencement of, their course, or with the Equity Officer (Disability) in the Equity and Diversity Unit (9385 4734 or <a href="http://www.studentequity.unsw.edu.au/">http://www.studentequity.unsw.edu.au/</a>).</p> <p>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.</p>		
	<p>In all cases you should first try to resolve any issues with the course convenor.</p> <p>If this is unsatisfactory, you should contact the School Student Ethics Officer (A/Prof Stephen Bonser, <a href="mailto:s.bonser@unsw.edu.au">s.bonser@unsw.edu.au</a>) or the Deputy Head of School (A/Prof Scott Mooney <a href="mailto:s.mooney@unsw.edu.au">s.mooney@unsw.edu.au</a>) who is the School's Grievance Officer and Designated Officer under the UNSW Plagiarism Procedure.</p> <p>UNSW has formal policies about the resolution of complaints that are available online for review (see <a href="https://student.unsw.edu.au/complaints">https://student.unsw.edu.au/complaints</a>).</p>		
<p><b>Student complaint procedure</b></p>	<p><b>School contact</b></p>	<p><b>Faculty Contact</b></p>	<p><b>University contact</b></p>
	<p>Dr S Mooney Deputy Head of School (Undergraduate Programs) <a href="mailto:s.mooney@unsw.edu.au">s.mooney@unsw.edu.au</a> Tel: 9385 8063</p> <p>Dr Stephen Bonser Director of Teaching (BEES) <a href="mailto:s.bonser@unsw.edu.au">s.bonser@unsw.edu.au</a></p>	<p>Dr Chris Tisdell Associate Dean (Education) <a href="mailto:cct@unsw.edu.au">cct@unsw.edu.au</a> Tel: 9385 6792</p> <p>or</p> <p>Dr S Mooney Associate Dean (Undergraduate Programs) <a href="mailto:s.mooney@unsw.edu.au">s.mooney@unsw.edu.au</a> Tel: 9385 8063</p>	<p>Student Administration in the Office of the Pro-ViceChancellor (Students). <a href="mailto:clare.jones@unsw.edu.au">clare.jones@unsw.edu.au</a> Tel: 9385 3087</p> <p>University Counselling and Psychological Services3 Tel: 9385 5418 <a href="mailto:counselling@unsw.edu.au">counselling@unsw.edu.au</a></p>

## 9. Additional support for students

- The *Current Students* Gateway: [student.unsw.edu.au](http://student.unsw.edu.au)
- Academic Skills and Support: [student.unsw.edu.au/skills](http://student.unsw.edu.au/skills)
- Student Wellbeing, Health and Safety: [student.unsw.edu.au/wellbeing](http://student.unsw.edu.au/wellbeing)
- Disability Support Services: [student.unsw.edu.au/disability](http://student.unsw.edu.au/disability)
- UNSW IT Service Centre: [www.it.unsw.edu.au/students](http://www.it.unsw.edu.au/students)