



FACULTY OF SCIENCE

Biological, Earth and Environmental Sciences

BIOS 1101

Evolutionary and Functional Biology

Session 2, 2016

Faculty of Science - Course Outline

1. Information about the Course

NB: Some of this information is available on the [UNSW Handbook](#)¹

Year of Delivery	2016
Course Code	BIOS 1101
Course Name	Evolutionary and Functional Biology
Academic Unit	Biological, Earth and Environmental Sciences (BEES)
Level of Course	Level 1
Units of Credit	6 Units of credit
Session(s) Offered	Session 2
Assumed Knowledge, Prerequisites or Co-requisites	None
Hours per Week	5 hours per week (2 lectures, 1 lab)
Number of Weeks	12 weeks (week 2-13)
Commencement Date	1 st August 2016

Summary of Course Structure (for further details see 'Course Schedule')

Component	HPW	Time	Day	Location
Lectures	2			
Lecture 1		1-2pm	Monday	Law theatre G04
Lecture 1 (repeat)		1-2pm	Tuesday	Ainsworth G03
Lecture 2		1-2pm	Thursday	Ainsworth G03
Lecture 2 (repeat)		9-10am	Friday	Ainsworth G03
Laboratory	3			
Lab Option 1		2-5pm	Monday	G20 and G21
Lab Option 2		10am -1pm	Tuesday	G20 and G21
Lab Option 3		2-5pm	Tuesday	G20 and G21
Lab Option 4		10am -1pm	Wednesday	G20 and G21
Lab Option 5		2-5pm	Wednesday	G20 and G21
Lab Option 6		10am -1pm	Thursday	G20 and G21
Lab Option 7		2-5pm	Thursday	G20 and G21
Lab Option 8		10am -1pm	Friday	G20 and G21
Revision Sessions	non compulsory			
Session 1		1-2pm	Wednesday	G21
Session 2		1-2pm	Thursday	G21
Session 3		1-2pm	Friday	G21

¹ UNSW Online Handbook: <http://www.handbook.unsw.edu.au>

Special Details	<p>Lectures:</p> <p><i>There are two lectures per week. Each lecture is repeated. You either attend the original lecture stream or the repeated lecture stream.</i></p> <p>Labs:</p> <p><i>You can only attend the lab in which you are enrolled. Special consideration may be granted under certain circumstances, if a lab is missed. Make-up labs can only take place in the same week as the missed lab. All make-up labs have to be approved. If you have missed a laboratory and would like to apply to sit a make-up lab please send an email to BIOS1101@unsw.edu.au</i></p>
------------------------	--

2. Staff Involved in the Course

Staff	Role	Name	Contact Details	Consultation Times
Course Convenor		Stephen Bonser	Room 433, Biological Sciences building s.bonser@unsw.edu.au (though please use the course email) BIOS1101@unsw.edu.au	By appointment
Additional Teaching Staff	Course Administrator	Hayley Bates	Rm G23A, Biological Sciences building h.bates@unsw.edu.au BIOS1101@unsw.edu.au	Wed, Thurs, Fri 1-2pm Rm G21 (Lab B)
	Lecturers	S. Bonser M. Archer T. Rogers H. Bates	BIOS1101@unsw.edu.au	
	Tutors & Supervisors	Timetable available on Moodle	In person during lab	
	Technical & Laboratory Staff	Rosa Ascencio Krystal Keller	Rm G23, Biological Sciences Building	
	Other Support	Moodle Course email BSB office s	https://moodle.telt.unsw.edu.au BIOS1101@unsw.edu.au Rm G27 Biological Sciences Building	Monday- Friday only Monday to Friday 9:00-16:30

3. Course Details

<p>Course Description² (Handbook Entry)</p>	<p>This course examines the evolutionary history of life on earth from origins to humans and the relationship between environment, adaptation and function. Animal (particularly human) and plant physiology are covered with an emphasis placed on adaptation in the Australian context.</p>
<p>Course Aims³</p>	<p>This course provides the basic information (the assumed knowledge) for higher level courses in the Biological Sciences.</p> <p>The aims of the course are:</p> <ul style="list-style-type: none"> • To engender an appreciation of the processes and causes of evolution. • To stimulate an appreciation of the spectacular diversity of living organisms on the planet; a diversity underpinned by a surprising degree of unity of mechanism at the cellular level. • To study the physiology of major organ systems of animals with an emphasis on vertebrates. • To relate structure to growth patterns, development and reproduction in higher plants. • To provide students with a strong foundation of knowledge about the evolutionary and functional biology of animals and plants. • To provide students with the basic practical skills (classification, identification of form and function, dissection, microscope use and slide preparation, stem sectioning and experimental design) needed to move on to the higher level biological science subjects.
<p>Student Learning Outcomes⁴</p>	<p>The course has two streams: lectures and practicals. The various streams re-enforce but do not duplicate each other. The practicals are designed to give you experience in hands-on work. <u>Some of the practicals relate to specific lectures, others stand alone.</u></p> <p>The lectures and practicals are underpinned by a range of other resources:</p> <ul style="list-style-type: none"> • <u>Course textbook</u> as well as various reference books (held on reserve in the Biomedical Library). You are encouraged to explore the textbooks to reinforce what you have learnt in lectures. • <u>Moodle</u> - this contains material related to the lectures and practicals. • <u>Mastering Biology</u> – prelab quiz, e-textbook access and practice exam questions • <u>Revision sessions</u>- non-compulsory revision sessions providing students with free tuition specifically aimed at studying for the practical exam.

² UNSW Handbook: <http://www.handbook.unsw.edu.au>

³ [Learning and Teaching Unit: Course Outlines](#)

⁴ [Learning and Teaching Unit: Learning Outcomes](#)

While we provide guidance to the links between the various components we expect that you will discover them yourself. One of the main differences between school and university is that you have much more responsibility for developing an understanding of the course.

By the end of the course you:

- Will be able to explain the concept of evolution and the importance of the fossil record to the understanding of evolutionary processes using both human and non-human examples.
- Will have had experience with the use of classification keys to identify living organisms.
- Will understand the anatomy and plasticity of plant structures such as roots, stems, and shoots.
- Will understand the role of leaves and leaf structure in the synthesis of sugar through photosynthesis.
- Will be able to describe the reproductive cycle of plants particularly angiosperms, and the role of hormones in reproduction and growth.
- Will be conversant with the general anatomical arrangement of terrestrial vertebrates.
- Will be able to recognize the cell types characteristic of the major animal tissues from their histological appearance.
- Will have a general understanding of the anatomy and physiology of digestive systems and processes; circulatory systems including that of mammals; respiratory gas exchange and transport; osmoregulation; thermoregulation; endocrine systems of invertebrates and vertebrates; asexual and sexual reproduction; mammalian reproductive systems, cycles and their hormonal regulation; animal development including fertilization, cleavage, gastrulation, organogenesis and regulation; central and peripheral nervous systems; and skeletal muscle.
- Will be able to distinguish between innate and learned behaviour and be able to describe how animals acquire these types of behaviour.
- Will have acquired the practical skills to be able to classify different evolutionary groups of animals and plants; identify the main architectural anatomy and function of animals and plants; perform animal dissections; perform stem sections; stain and prepare slides; undertake biological drawings and use a microscope.

Graduate Attributes Developed in this Course ⁵		
Science Graduate Attributes ⁵	Select the level of FOCUS 0 = NO FOCUS 1 = MINIMAL 2 = MINOR 3 = MAJOR	Activities / Assessment
Research, inquiry and analytical thinking abilities	3	Guided laboratory practicals, independent and collaborative lab research and assessment of open ended investigations.
Capability and motivation for intellectual development	3	Ability to take responsibility for and demonstrate a commitment to their own learning, motivated by curiosity and an appreciation of the value of learning. Assessment focused on communicating science, which encourages creativity, critical evaluation, entrepreneurship and independent learning. Revision sessions and module quizzes to motivate intellectual development and review procedural and applied thinking.
Ethical, social and professional understanding	2	Ability to critically reflect upon broad ethical principles and codes of conduct in order to behave consistently with a personal respect and commitment to ethical practice and social responsibility. Understanding of responsibility to contribute to the community. Respect and value social, multicultural, cultural and personal diversity
Communication	2	Effective and appropriate communication in both professional (intra and inter disciplinary) and social (local and international) contexts.
Teamwork, collaborative and management skills	2	Ability to recognise opportunities and contribute positively to collaborative scientific research, and to perceive the potential value of ideas towards practical applications. Demonstrate a capacity for self-management, teamwork, leadership and decision making based on open-mindedness, objectivity and reasoned analysis in order to achieve common goals and further the learning of themselves and others.
Information literacy	3	Ability to make appropriate and effective use of information and information technology relevant to your discipline.

⁵ Contextualised Science Graduate Attributes: <http://www.science.unsw.edu.au/our-faculty/science-graduate-attributes>

**Major Topics
(Course Outline)**

Evolutionary and Functional Biology encompasses four major themes as modules and will be presented in an integrated fashion.

Lectures will be given by academics from the School of Biological, Earth and Environmental Sciences. Not all lectures will be sequential. Although the practicals run as a separate stream from the lecture series, they share the same overarching themes and can be separated with the lecture topics into the four modules.

You will see from this presentation that the modules provide the framework of the course. Please refer to your course timetable on page 1 of your lab manual for the lecture schedule.

Module 1- Introduction: Evolution, diversity and adaptation

Lectures:

What is Evolution and Functional Biology (S. Bonser)
Animal Survival and Adaptation (H. Bates)
Origins and Early Evolution of Life (M. Archer)
Specialised Cells-1 (M. Archer)
Specialised Cells-2 (M. Archer)
Feeding and Digestion (M. Archer)
Evolution and the Evidence for it (M. Archer)
Human Evolution (M. Archer)
Humans Conserving Evolution (M. Archer)

Practicals:

Animal Diversity and Classification 1 (Invertebrates)
Animal Diversity and Classification 2 (Vertebrates)

Module 2- Animal form and function

Lectures:

Animal Reproduction (T. Rogers)
Animal Development (T. Rogers)
Animal Movement and Behaviour (T. Rogers)
Animal Nutrition (T. Rogers)
Circulation and Gas Exchange (T. Rogers)
Control and Integration by the Endocrine System (T. Rogers)
Control and Integration by the Nervous System (T. Rogers)

Practicals:

Animal Structure (Dissections)
Introductory Animal Histology
The Nervous System and Sensory Reception

Module 3- Plant diversity

Lectures:

Plants- Life on land (S. Bonser)

Practicals:

Diversity in Botany

Module 4- Plant form and function

Lectures:

Plant Form and Function (S. Bonser)
Internal Architecture of Plants (S. Bonser)
Transport (S. Bonser)
Plasticity (S. Bonser)
Herbivory (S. Bonser)
Reproduction 1 (S. Bonser)
Reproduction 2 (S. Bonser)

	<p>Practicals: Plasticity of Shoot and Root Systems of Flowering Plants Internal Architecture of Stems and Roots Leaves Flowers and Fruits Developmental Plasticity of the Shoot Systems</p>
Relationship to Other Courses within the Program	<p>This course is a 6 unit credit course in Semester 2 of Stage 1 of your degree. It will provide you with the basic skills and knowledge needed to progress to higher level courses across the broad range of biological sciences (Ecology, Botany, Zoology, Marine Science, Environmental Science, Medical Science, Psychology, Palaeontology, Anatomy, etc.).</p>

4. Rationale and Strategies Underpinning the Course

Teaching Strategies	<p><u>Lectures</u></p> <p>There are two lectures per week, each lecture is repeated. Lectures serve to cover the basic concepts of evolutionary and functional biology. Lecturers are usually active in research and have well-established reputations in the fields in which they teach. At UNSW the people who teach you biology have made significant contributions to your area of study.</p> <p>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.</p> <p><u>Practicals (general information)</u></p> <p>More specific information for each of the practicals can be found in the later sections devoted to these practicals. The practical component of this course is designed to provide an introduction to evolutionary and functional biology. The aim of each practical is to teach you basic hands on skills required for second and third year biological courses.</p> <p>The practical sequence relates <u>broadly</u> to that of the lectures. In such a short time frame it is not possible for all of the material discussed in the lectures to be covered in the practicals. Select material is covered in the practicals to optimise your practical skills.</p> <p>In this course you will learn the practical skills of: classification, identification</p>
----------------------------	--

	<p>form and function, dissection, microscope use, slide preparation, stem sectioning, biological drawing and experimental design.</p> <p>The practical aspect of biology is so important that participation in practical classes is a fundamental requirement for the award of a pass. Should you be unable to attend your practical class for any reason, you should contact Hayley Bates BIOS1101@unsw.edu.au to arrange to sit an alternate class (which must take place in the same week). 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 information on how to apply for Special Consideration.</p> <p>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.</p> <p>You will need to bring equipment to all practicals and ensure that you wear the appropriate foot wear.</p>
<p>Rationale for learning and teaching in this course^{6,7}</p>	<p>Presentation of the concepts of evolutionary and functional biology in lectures by leading researchers and practitioners is intended to build enthusiasm and encourage learning in students. Students are taught the fundamental basic hands on practical skills and background knowledge required to enable them to move onto higher level biological studies.</p>

⁶[Reflecting on your teaching](#)

5. Course Schedule

Some of this information is available on the [Online Handbook](#)⁷ and the [UNSW Timetable](#)⁸.

WEEK	LECTURE 1	LECTURE 2	PRACTICAL	ASSESSMENTS
1 25-31 July	NO LECTURE	NO LECTURE	NO PRACTICAL	
2 1-7 Aug	What is evolutionary and functional biology <i>S. Bonser</i>	Animal survival and adaptation <i>H. Bates</i>	P1 Animal Diversity	
3 8-14 Aug	Origins & early evolution of life <i>M. Archer</i>	Specialised cells 1 (independent cells) <i>M. Archer</i>	P2 Unity in Diversity – The Tree of Life	
4 15-21 Aug	Specialised Cells 2 (tissues) <i>M. Archer</i>	Feeding and digestion in animals <i>M. Archer</i>	P3 Animal Structure (Dissections)	Dissection Assessment 5%
5 22-28 Aug	Evolution & the evidence for it <i>M. Archer</i>	The evolution of humans <i>M. Archer</i>	P4 Histology	
6 29 Aug -4 Sept	Animal reproduction <i>T. Rogers</i>	Animal development <i>T. Rogers</i>	P5 The Nervous System & Sensory Reception	
7 5-11 Sept	Animal movement and behaviour <i>T. Rogers</i>	Animal nutrition <i>T. Rogers</i>	P6 Diversity in Botany	Animal Test 7%
8 12-18 Sept	Circulation and gas exchange <i>T. Rogers</i>	Control and integration by the endocrine system <i>T. Rogers</i>	P7 Plasticity of Shoot & Root systems of Flowering Plants	
9 19-25 Sept	Control and integration by the nervous system <i>H. Bates</i>	Humans conserving evolution <i>M. Archer</i>	P8 Internal Architecture of Stems & Roots	Stem Drawing 5%
<i>MID-SESSION BREAK 24th SEPTEMBER to the 2nd OCTOBER</i>				
10 3-9 Oct	Public Holiday – No Lecture	Plants- Life on land <i>S. Bonser</i>	NO PRACTICAL	Plant/ Animal Video 11%
11 10-16 Oct	Plant form and Internal architecture <i>S. Bonser</i>	Transport <i>S. Bonser</i>	P9 Leaves, Flowers & Fruits	Leaf Function and climate change Report 7%
12 17-23 Oct	Plasticity <i>S. Bonser</i>	Plant communication <i>S. Bonser</i>	P10 Developmental Plasticity of the Shoot System	
13 24-30 Oct	Reproduction I <i>S. Bonser</i>	Reproduction II <i>S. Bonser</i>	PRACTICAL EXAM	Practical exam 15%

⁷ UNSW Virtual Handbook: <http://www.handbook.unsw.edu.au>

⁸ UNSW Timetable: <http://www.timetable.unsw.edu.au/>

6. Assessment Tasks and Feedback

Task	Knowledge & abilities assessed	Assessment Criteria	% of total mark	Date of		Feedback		
				Release	Submission	WHO	WHEN	HOW
Dissection drawing	Vertebrate anatomy, form and function. Dissection and Biological drawing.	Correct information provided. Quality of biological drawing (following instructions given).	5	Week 4	In lab assessment week 4	Lab Demonstrator	Week 5	Via marked assessment and verbally in class
Animal Test (written 20 minute test on the 5 animal practicals)	Background knowledge, content and material from the animal practicals.	Quality of information provided. Right or wrong answers.	7	Week 7	In lab assessment week 7	Lab Demonstrator	Week 8	Verbally in class
Plant/ Animal video	Knowledge of research topic. Creativity, science communication skills, research skills, ability to work as a member of a group.	Quality and presentation of information conveyed. Creativity, ability to work as a member of a team.	11	Week 5	Week 10	Lab Demonstrator	Week 11	In class
Stem Drawing	Internal architecture of stem and roots. Stem sectioning, preparation of slides, microscope use and biological drawing.	Correct information provided. Quality of biological drawing (following instructions given).	5	Week 9	In lab assessment week 10	Lab Demonstrator	Week 11	Via marked assessment and verbally in class
Leaf Function and Climate Change Report	Research skills, group work, data analysis, report writing skills.	Written presentation, analysis, framework for scientific report, references, accuracy of answers and overall conclusions.	7	Week 11	Week 12	Lab Demonstrator	Week 13	Via marked assessment and verbally in class
Practical Exam	Content of all practicals. 30 stations, 2 minutes at each station. Practical skills and material assessed.	Quality of information provided. Right or wrong answers.	15	Week 13	In lab exam week 13	Administrator	Study Week	Moodle
Total Practical Assessments			50	Study week		Administrator		Moodle
Final Exam	Knowledge of course	Content of lectures	50					Final Grade

7. Additional Resources and Support

<p>Text Books</p>	<p>Required Text: Campbell, N.A. & Reece, J.B., et al. (2014). Biology, 10th Edition (Australian Version), Benjamin/Cummings, San Francisco.</p> <p>The textbook is an essential part of this subject, and you may be examined on those portions set as readings for lectures and practical purposes. For assessment, material from lectures, practicals and directed readings (from Campbell & Reece et al. 2014) may be the subject of examination questions. The textbook (indeed any textbook) will cover far more material than can be included in a single course. We direct your attention to particular parts of the textbook - but encourage you to develop your interest by exploring the textbook more widely.</p> <p>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.</p>
<p>Course Manual</p>	<p>BIOS 1101 Evolutionary and Functional Biology. Available in hardcopy from the UNSW Bookshop or as a pdf on Moodle course page.</p>
<p>Required Readings</p>	<p>See text book above</p>
<p>Additional Readings</p>	<p>Provided via the Moodle course page</p>
<p>Recommended Internet Sites</p>	<p>Provided via the Moodle course page</p>
<p>Societies</p>	<p>Provided via the Moodle course page</p>
<p>Laboratories or Study Spaces</p>	<p>Practicals take place in Laboratories G20 and G21 of the Biological Sciences Building.</p>

8. Required Equipment, Training and Enabling Skills

Equipment Required	<p>Before each practical you should:</p> <ol style="list-style-type: none">1. Read the instructions in advance for each practical set out in the Practicals section of this guide.2. Complete the prelab quiz on Moodle (for practicals 2-10), prior to the commencement of the laboratory. <p>For practical work you must have:</p> <ul style="list-style-type: none">• A copy of the BIOS1101 <i>Evolutionary and Functional Biology</i> laboratory manual• A lab coat• Material for recording your observations and findings as appropriate for each class. These items include: a pen, a HB pencil, eraser, ruler, lined paper for written observations and plain paper for drawings.• Optional: A dissection kit for practical 3 (obtainable at newsagent shops on campus) <p>YOU MUST WEAR APPROPRIATE ENCLOSED TOE SHOES (NOT OPEN SANDALS) & A LABORATORY COAT WHILST IN THE LABORATORIES</p>
Enabling Skills Training Required to Complete this Course	N/A

9. Course Evaluation and Development

Mechanisms of Review	Last Review Date	Comments or Changes Resulting from Reviews
Major Course Review	2014-2016	A course update is currently in progress. We will be trialing new assessments and practicals in Session 2, 2015.

CATEI ¹¹	2014	<p>Course feedback provided by students on CATEI has been used to modify this course over the last 2 years.</p> <p>Practicals have become more hands on. iPads have been introduced to the classrooms as teaching aids.</p> <p>Revision Sessions take place allowing student to engage with teachers on a regular 1-1 basis.</p>
Other	<i>Quotes from BIOS1101 students 2014</i>	<p>“I am studying Advanced Science/ Arts and was inspired by many of the lectures in BIOS1101 this semester. I am currently deciding on a major to head towards and am considering archaeology and palaeo-environments and/or biological science (focusing on botany)”- BIOS1101 student 2014</p> <p>“Thanks so much for running a great subject - I learnt a lot, not only about the subject matter but also about myself” – BIOS1101 student 2014</p> <p>https://www.facebook.com/bios1101</p> <p>https://moodle.telt.unsw.edu.au</p>

¹¹ CATEI process: <http://www.science.unsw.edu.au/our-faculty/course-and-teaching-evaluation-and-improvement-catei>

10. Administration Matters

Expectations of Students	<p>It is up to you to attend and learn. The Practicals are your best point of contact to obtain help</p> <p>Practicals are compulsory and the roll will be marked. More specific information for each of the practicals can be found in the later sections devoted to these practicals. All practical sessions are for three hours. A practical attendance of more than 80% is required to receive a pass mark for this course.</p> <p>Where to go for help</p> <p>You should always check for course information provided on the internet (Moodle). Please check this first and constantly check for updates on changes to times for laboratories, upcoming assessment tasks and when they are due.</p> <p>The BSB Student Office (Ground Floor Biological Sciences Building, room G27) is where to go for help with any administrative matters to do with BIOS1101, alternatively you can contact the course administrator Hayley Bates via the course email Bios1101@unsw.edu.au</p> <p>Information of interest to students enrolled in courses within BEES is posted from time to time on the Student Office screen. This information will include notice of various meetings and seminars. As a university student you are encouraged to attend any of the various research seminars held in the Faculty of Science and you should not hesitate to take advantage of such opportunities. Please check the notice board every week.</p> <p>There is also a wealth of information for students on the School's web site http://www.bees.unsw.edu.au/. Depending on your interest, you can find out about courses, future postgraduate opportunities and even the research areas of your lecturers.</p> <p>Academic matters</p> <p>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. There is a demonstrator for each bench in the laboratory. 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. Outside of class time all BIOS110 enquires should be directed to bios1101@unsw.edu.au.</p> <p>Absence</p> <p>If, due to sickness or some equally compelling reason, you must miss a practical the first thing you should do is contact Hayley Bates in the BSB Student Office (room G23A Biological Sciences Building) 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</p>
---------------------------------	---

	<p>unless a medical certificate covering that day is submitted to the Student Office. 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 Hayley Bates or e-mail Bios1101@unsw.edu.au. Most problems are easily solved with timely notice.</p> <p>Deadlines Deadlines are all clearly set out in this guide (see assessment). Only in exceptional circumstances will extensions be granted, and that must be arranged with your practical supervisor, and the class record annotated appropriately.</p> <p>If all else fails The academic responsible for BIOS1101 Evolutionary and Functional Biology is Stephen Bonser. To make an appointment to see him, inquire at bios1101@unsw.edu.au.</p>
<p>Assignment Submissions</p>	<p>There are three assessments which will be completed during class: Dissection, Animal Test and Stem drawing, these assessments will be collected for marking at some time during the practical in which they are undertaken.</p> <p>The plant video will need to be uploaded either to moodle or a school laptop in week 10. Information regarding the submission of this assessment will be provided on Moodle, closer to submission date.</p> <p>The Leaf Climate Change report will need to be submitted at the start of your practical in week 12.</p> <p>You should be aware that there is a 10% reduction for every week day that any assignment is late unless covered by a medical certificate and special consideration claim (lodged via myUNSW).</p>

<p>Work Health and Safety¹²</p>	<p>UNSW takes matters of Work Health and Safety policies very seriously. You should be aware of your responsibilities (http://www.safety.unsw.edu.au/).</p> <p>General conduct 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</p>
---	---

¹² [UNSW OHS Home page](#)

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.

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 labeled 'sharps' or 'contaminated sharps'.

Secure all gas cylinders to walls or benches. They should not stand free or lie on the floor. Cylinders that have to be moved from place to place should be held in non-topple frames.

Laboratory and protective clothing

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.

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.

Fire hazards

Preventing fires

Most fires in laboratories can be prevented by adequate precautions and forethought. Never use flames near volatile, inflammable solvents. If any inflammable solvents are spilled on the floor they should be mopped up and the room well ventilated. Never use a fan to disperse the vapour. Most fans make sparks and are a potential source of ignition.

Students with long hair should tie it up while working in the laboratory, since long, loose-hanging hair can be a nuisance and a serious fire hazard.

Use of fire extinguishers

Electrical fires must not be fought with liquid-foam extinguishers dry powder, CO₂ or BCF (Bromochlorodifluoromethane) types are more suitable. Fires caused by **sodium** should not be fought with liquid-foam or CO₂. Use solid powder or BCF.

Report any use of a fire extinguisher so that the cylinder can be refilled. After using BCF or CO₂ extinguishers, ventilate the area thoroughly to remove vapours.

If clothes catch fire

1. If your own clothing catches fire

Do not run. If there is no one to help you, promptly lie on the floor and roll over and over to smother the flames.

2. If another person's clothing catches fire

Force the person to lie down on the floor immediately. This prevents the flames from reaching the eyes and entering the nose. Roll the person over and over on the floor to smother the flames. A fire blanket or laboratory coat may be used to smother the flames. **Never** use a chemical fire extinguisher.

Evacuation

If there is a fire, explosion or other major calamity an alarm will sound.

Follow the instructions from your lecturer or demonstrator. Close all the doors and windows if possible. Quickly check to see that everyone is out of the room. Move steadily to the nearest stair well and out of the building. **Do not use the lifts.** Assemble in the grassy area in front of the Biological Science Building. Supervisors should bring the class roll and check that everyone has left the building.

Accidents

Fire or serious injury

Telephone 56666 and then describe carefully:

- The location of the emergency, giving the name of the building, the floor and the room number.
- The type of emergency.
- Your name and extension number.

Minor injuries

Telephone the University Health Service on 55425 or 55426 or 55427.

First Aid

First Aid may be obtained by phoning:

Ms Rosa Ascencio	9385 2016
Mr Chris Myers	9385 8031
Ms Kate Stuart	9385 2192
Mr Frank Hemmings	9385 3274
Ms Rochelle Johnston	9385 3257
Ms Penny McCracken	9385 8054
Ms Shinoo Swapnil	9385 1647
Ms Joanne Wilde	9385 3257
Mr Geoff McDonnell	9385 2077

Acid splashes on skin should be washed well with water. If they are painful, advise the lab supervisor immediately.

In case of an electric shock, shout for help. Disconnect the current or remove the person from the current using some **insulated** material. If there is no pulse and no breathing, start external cardiac compression and mouth to mouth artificial respiration. When the pulse and breathing have been restored get medical aid immediately. If high voltage current is involved, **do not** attempt to assist the person until the current has been disconnected at the mains.

	<p>(FOR ADDITIONAL INFORMATION SEE THE COPY OF THE UNIVERSITY'S SAFETY MANUAL IN THE LECTERN IN EACH LABORATORY)</p>						
<p>Assessment Procedures</p> <p>UNSW Assessment Policy¹³</p>	<p>Assessment</p> <p>A. Breakdown</p> <table data-bbox="571 409 919 521"> <tr> <td>Practical exercises</td> <td>35%</td> </tr> <tr> <td>Practical exam</td> <td>15%</td> </tr> <tr> <td>Final exam</td> <td>50%</td> </tr> </table> <p>The time at which the above assessments are held or are due is included with the master timetable for Evolutionary and Functional Biology provided on the inner front cover of this manual.</p> <p>B. Practical Assessments</p> <p>Practical assessments account for 35% of your final BIOS1101 grade. These lab assessments take on different forms: class worksheets, drawing assessments, group videos, scientific reports, in class tests and take home assignments. For further breakdown and details see the timetable in the cover of this manual and the practical notes throughout the manual. In addition to these direct assessments, ALL material and information provided in the labs can be assessed in the final practical exam. To prepare for the practical exam it is important that all students make accurate and understandable notes to study from during each practical.</p> <p>C. Practical Exam</p> <p>The practical exam takes place in the final practical session of the semester (Week 13) and is worth 15% of your final BIOS1101 grade. This exam covers material from ALL practicals and can come from any aspect of any practical class. You must attend this practical exam during the time specified to you during your lab classes in the weeks prior to the exam. There will be no supplementary exams available if you are absent. The test runs for one hour and consists of 30 stations set up around the room, at each of which there is a question relating to material covered in the practical classes. You have two minutes to answer each question before you will be prompted to move to the next station.</p> <p>D. Final Exam</p> <p>The final exam is organized by the UNSW examinations branch and will be held during the examination period (November). You are expected to be available throughout this period. Only in exceptional circumstances will alternatives be offered – booking your holiday to start before the end of the exam period is not an exceptional circumstance. The final exam will be of multiple choice format and will be of 2 hours duration. It will cover all of the material covered in the lectures (and associated readings). Final exam papers are not released, which includes past papers. Some sample questions <i>may</i> be made available as examples on Blackboard. It is important that you are organised as to knowing where your exam venue is, and that you are at the venue at least 15 minutes prior to the commencement of the exam.</p> <p>If necessary, a supplementary exam <i>may</i> be allowed on medical or</p>	Practical exercises	35%	Practical exam	15%	Final exam	50%
Practical exercises	35%						
Practical exam	15%						
Final exam	50%						

¹³ [UNSW Assessment Policy](#)

¹⁴ [Student Complaint Procedure](#)

	<p>compassionate grounds. A claim for special consideration must be lodged on myUNSW and medical certificates and/or any other official documentation must be given to UNSW Student Central (on the lower ground floor of the Chancellery, opposite library lawn) as soon as possible. UNSW Student Central will subsequently inform the BSB Student Office of any special consideration notifications received. It is the responsibility of the student involved to contact the BSB Student Office to ensure necessary arrangements are made.</p> <p>E. Abuse of Microscopes</p> <p>Marks will be deducted for actions which might result in damage to microscopes, such as:</p> <ul style="list-style-type: none"> • taking slides off the stage with the 100X or 40X objectives in place • transferring oil to low power lenses • putting microscopes away with slides on stage <p>Marks are to be deducted at the rate of 1% of total course mark, per offence. If you did not take BABS1201 in semester 1 please advise your demonstrator in the first practical and study Appendix 1 of this manual.</p>
<p>Equity and Diversity</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 http://www.studentequity.unsw.edu.au).</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. Information on designing courses and course outlines that take into account the needs of students with disabilities can be found at: www.secretariat.unsw.edu.au/acboardcom/minutes/coe/disabilityguidelines.pdf</p> <p>Language Difficulties</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 discipline, 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 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</p>

	<p>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 http://www.studentequity.unsw.edu.au/).</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>Student Complaint Procedure¹⁴</p>	<p>School Contact</p>	<p>Faculty Contact</p>	<p>University Contact</p>
	<p>School's Grievance Officer.</p> <p>Dr Jes Sammut j.sammut@unsw.edu.au <u>u</u></p> <p>Tel: 9385 8281</p>	<p>Dr Chris Tisdell Associate Dean (Education) cct@unsw.edu.au Tel: 9385 8223</p> <p>or</p> <p>Dr Gavin Edwards Associate Dean (Undergraduate Programs) g.edwards@unsw.edu.au Tel: 9385 8063</p>	<p>Student Conduct and Appeals Officer (SCAO) within the Office of the Pro-Vice-Chancellor (Students) and Registrar.</p> <p>Telephone 02 9385 8515, email studentcomplaints@unsw.edu.au</p> <p>University Counselling and Psychological Services⁹ Tel: 9385 5418</p>

¹⁵ [University Counselling and Psychological Services](#)

11. UNSW Academic Honesty and Plagiarism

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; and
- 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.

Note that 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.

The Learning Centre website is main repository for resources for staff and students on plagiarism and academic honesty. These resources can be located via:

www.lc.unsw.edu.au/plagiarism

The Learning Centre also provides substantial educational written materials, workshops, and tutorials to aid students, for example, in:

- correct referencing practices;
- paraphrasing, summarising, essay writing, and time management;
- appropriate use of, and attribution for, a range of materials including text, images, formulae and concepts.

Individual assistance is available on request from The Learning Centre.

Students are also reminded that careful time management is an important part of study and one of the identified causes of plagiarism is poor time management. Students should allow sufficient time for research, drafting, and the proper referencing of sources in preparing all assessment items.

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

BEES Academic Honesty and Plagiarism

Please note:

In addition to the UNSW Policy on Academic Honesty and Plagiarism, the School of Biological, Earth and Environmental Sciences (BEES), also considers any work submitted that has been produced outside of a given course in a given year to be plagiarism i.e.:

* Work produced for a third party e.g. your place of employment, is considered intellectual property of the third party, and as such if such work is submitted in place of a required course work, it is deemed plagiarism.

* All work submitted for assessment must be created specifically for the given assessment task in the given year. Work produced in previous years or for other assessments is not acceptable.