

FACULTY OF SCIENCE

School of Biological, Earth & Environmental Sciences (BEES)

**HONOURS HANDBOOK,**  
**BIOS, ENVS, GEOG, GEOL, MSCI**  
**Biology, Genetics, Geology, Physical Geography,**  
**Human Geography, Botany, Ecology, Zoology,**  
**Marine Science & Environmental Science**

**Includes course notes for:**

- **BEES4511 - Professional Skills**
- **BEES4521 - Literature Review**
- **BEES9011 - Essential Skills for Research Students**



Session 1 and 2, 2009



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# Section A: Faculty of Science Course Outline

## 1. Information about the Course

NB: Some of this information is available on the [UNSW Virtual Handbook](#)<sup>1</sup>

<b>Year of Delivery</b>	2009			
<b>Course Code</b>	BEES4511, BEES4521, BEES9011			
<b>Course Name</b>	Professional Skills, Literature Review, Essential Skills for Research Students			
<b>Academic Unit</b>	School of Biological Earth & Environmental Sciences (BEES)			
<b>Level of Course</b>	Level 4			
<b>Units of Credit</b>	6 UOC each			
<b>Session(s) Offered</b>	Session 1 and 2			
<b>Assumed Knowledge, Prerequisites or Co-requisites</b>	Acceptance into the BEES honours program/post-graduate program			
<b>Hours per Week</b>	On average 5			
<b>Number of Weeks</b>	12 weeks			
<b>Commencement Date</b>	Week Zero of session			
<b>Summary of Course Structure (for details see 'Course Schedule')</b>				
<b>Component</b>	<b>HPW</b>	<b>Time</b>	<b>Day</b>	<b>Location</b>
Lecture 1	Up to 3	2 – 5 pm	Tuesday	Room 456
Lecture 2	Up to 3	10 am – 1pm	Wednesday	Room 456
Laboratory	0			
Tutorials	Up to 6	2 – 5 pm 10 am – 1pm	Tuesday Wednesday	Room 456
Online				
Other activities, e.g., field trips				
<b>TOTAL</b>	60			
<b>Special Details</b>	Courses offered in both sessions, but some modules of BEES4511 are only offered in Session 1, so that students taking BEES 4511 in S2 will receive a WD grade and must return in S1 to complete the remaining modules.			

## 2. Staff Involved in the Course

Staff	Name	Contact Details	Consultation Times
<b>Course Convenors</b>	David Edwards <a href="mailto:D.Edwards@unsw.edu.au">D.Edwards@unsw.edu.au</a>	9385 8064	Use email for personal questions, or consult during advertised staff consultation times
<b>Additional Teaching Staff</b>			
<b>Other Support Staff</b>	Matthew Hunt <a href="mailto:M.Hunt@unsw.edu.au">M.Hunt@unsw.edu.au</a>	9385 2961	Use email for administrative questions, or consult during office hours

<sup>1</sup> UNSW Virtual Handbook: <http://www.handbook.unsw.edu.au/2008/index.html>

### 3. Course Details

<p><b>Course Descriptions<sup>2</sup></b> (Handbook Entry)</p>	<p><b>BEES4511-Professional Skills.</b> The course provides training in skills needed for the Honours project and any subsequent degree as well as in outside employment. Principal topics covered include occupational health and safety, presentation skills (written, oral and audiovisual, including computer-aided presentations), professional ethics and issues of scientific fraud, database and library usage, information retrieval, overview of quantitative skills, as well as more specific research or professional skills which may be tailored to particular interest groups.</p> <p><b>BEES4521-Literature Review.</b> Literature research and its presentation in review format covering a defined disciplinary area in either biology, ecology, botany, zoology, physical geography, geology or environmental science. The course will be taken in conjunction with an Honours research project in the School and the topic area will be decided in consultation with an Honours supervisor and will be related to the topic area of the research project.</p> <p><b>BEES9011.</b> The course covers essential skills needed in biological research and subsequent employment. Principal topics covered include presentation skills (written, oral, and audiovisual including computer-aided presentations), database and library usage, information retrieval and usage of major computer packages as well as more specific research skills which may be tailored to particular interest groups. The course must be taken by all commencing postgraduate students in the School of Biological Science unless they have already passed BEES4511.</p> <p><b>Note:</b> Available to students enrolled in an Honours program offered by the School of BEES, and other Honours students as approved by the Honours Co-ordinators.</p>
<p><b>Course Aims<sup>3</sup></b></p>	<p>To provide writing and speaking skills for honours and post-graduate students; To provide an overview of scientific and personal ethics; To provide specialist skills in particular fields of the school.</p>
<p><b>Student Learning Outcomes<sup>4</sup></b></p>	<p>At the end of the course you can expect:</p> <ol style="list-style-type: none"> <li>1) to have skills in scientific communication;</li> <li>2) to recognize and deal with unethical behaviour in the sciences;</li> <li>3) to have confidence in the practical and specialist skills for your research area</li> </ol>

### 4. Graduate Attributes Developed in this Course<sup>5</sup>

<p><b>Science Graduate Attributes<sup>5</sup></b> (maybe replaced by UNSW, School or professional attributes)</p>	<p><b>Level of FOCUS</b> 0 = NO FOCUS 1 = MINIMAL 2 = MINOR 3 = MAJOR</p>	<p><b>Activities / Assessment</b></p>
<p><b>Research, inquiry and analytical thinking abilities</b></p>	<p>3</p>	<p>Seminars and specialist modules / test</p>
<p><b>Capability and motivation for intellectual development</b></p>	<p>3</p>	<p>Seminars, Literature Review, Research thesis</p>

<sup>2</sup> UNSW Virtual Handbook: <http://www.handbook.unsw.edu.au/2008/index.html>

<sup>3</sup> Learning and Teaching Unit: <http://www.ltu.unsw.edu.au>

<sup>4</sup> Learning and Teaching Unit – Learning Outcomes: [http://www.ltu.unsw.edu.au/content/course\\_prog\\_support/outcomes.cfm?ss=0](http://www.ltu.unsw.edu.au/content/course_prog_support/outcomes.cfm?ss=0)

<sup>5</sup> Access the contextualised Science Graduate Attributes and your mapped courses at: <http://www2.science.unsw.edu.au/guide/slatig/sciga.html>

<b>Ethical, social and professional understanding</b>	3	Ethics component / short test
<b>Communication</b>	3	Presentation and Writing Skills Workshops, Final Seminar and Literature review
<b>Teamwork, collaborative and management skills</b>	3	Seminars and research project
<b>Information literacy</b>	3	Research Skills Workshop Literature review
<b>Major Topics (Syllabus Outline)</b>	<ol style="list-style-type: none"> <li>1) Occupational, Health and Safety; Library Skills;</li> <li>2) Writing and presentation skills;</li> <li>3) Speaking skills;</li> <li>4) Ethics in research and occupation;</li> <li>5) Specific research skills of the field and review</li> </ol>	
<b>Relationship to Other Courses within the Program</b>	<p>Completion of 144 units of credit and the particulars of each undergraduate program including the general studies requirement.</p> <p>There are no other equivalent Level IV or postgraduate courses offered in any program.</p>	

## 5. Rationale and Strategies Underpinning the Course

<b>Teaching Strategies</b>	<p>This course brings the disparate BEES honours year cohort (and new post-graduate students) into a single group, to provide some unity and mutual support. The course trains writing and speaking skills by peer assessment. Through lectures and examples and discussion, the course provides what is ethical behaviour in research and in business. We exploit the individual's own sense of what is right to resolve daily dilemmas and how to approach potential outright fraud. Finally, there are many research approaches (approaches to agencies or NGOs to statistics) that are shared among the cohort.</p>
<b>Rationale for learning and teaching in this course<sup>6</sup>,</b>	<p>The course is designed to make students think independently, and prepare them for professional careers or further research.</p> <p>BEES science requires a wide range of skills, from recognising experimental design or statistics, to chatting with the public and industry, to constructively dealing with bureaucrats. Therefore many of the discussions are open ended.</p>

<sup>6</sup> LTU – Teaching Philosophy: [http://www.ltu.unsw.edu.au/content/teaching\\_support/teaching\\_portfolio.cfm?ss=0#putting](http://www.ltu.unsw.edu.au/content/teaching_support/teaching_portfolio.cfm?ss=0#putting)

## 6. Course Schedule

Some of this information is available on the [Virtual Handbook](#)<sup>7</sup> and the [UNSW Timetable](#)<sup>8</sup>.

Week	Day / Date	MODULE	Topic	Staff	Assignment and Submission dates (see also 'Assessment Tasks & Feedback')
Zero	Tues 3 <sup>rd</sup> March	A	Introduction Occupational Health and Safety	David Edwards, David Hair	
	Wed 4 <sup>th</sup> March	B	Library Research Skills Workshop	Rachel Lawson (UNSW Library)	
	Thurs 5 <sup>th</sup> March	C	Presentation/Speaking Skills	David Edwards	
	Fri 6 <sup>th</sup> March	C	Presentation/Powerpoint Skills	David Edwards	
1	Tues 10 <sup>th</sup> March	C	Presentation Skills: Trial Seminars	David Edwards	Assessment and peer review of trial seminar
	Wed 11 <sup>th</sup> March				
2	Tues 17 <sup>th</sup> March		No Classes: Introductory Seminar Preparation		
	Wed 18 <sup>th</sup> March				
3	Tues 24 <sup>th</sup> March	C	Introductory Seminars (Schedule announced in Week 2)		Trial Risk Assessment Due
	Wed 25 <sup>th</sup> March				Assessment of Introductory Seminar
4	Tues 31 <sup>st</sup> March	D	Writing Skills Workshop 1	Pam Mort (UNSW Learning Centre)	
	Wed 1 <sup>st</sup> April	D	Writing Skills Workshop 2	Pam Mort (UNSW Learning Centre)	

<sup>7</sup> UNSW Virtual Handbook: <http://www.handbook.unsw.edu.au/2008/index.html>

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

5	Tues 7 <sup>th</sup> April		No Class		
	Wed 8 <sup>th</sup> April	D	Writing Skills Workshop 3	Pam Mort (UNSW Learning Centre)	
Mid Session Break					
6	Tues 21 <sup>st</sup> April	E	Quantitative Methods 1	Peter Banks, Iain Suthers	
	Wed 22 <sup>nd</sup> April	E	Quantitative Methods 2	Alistair Poore, Iain Suthers	
7	Tues 28 <sup>th</sup> April	E	Quantitative Methods 3	Shawn Laffan, David Cohen	
	Wed 29 <sup>th</sup> April	E	Quantitative Methods 4	Dan Ramp	
8	Tues 5 <sup>th</sup> May	E	Quantitative Methods 5	Kim Jenkins	
	Wed 6 <sup>th</sup> May	E	Quantitative Methods 6	Bryce Kelly	
9	Tues 12 <sup>th</sup> May	E	Quantitative Methods Exam	David Edwards	1 hour exam
	Wed 13 <sup>th</sup> May	F	Ethics 1	Anthony Corones (History and Philosophy of Science.) Iain Suthers	
10	Tues 19 <sup>th</sup> May	F	Ethics 2	Wendy Shaw, David Cohen	Literature Review/Proposal due 12 noon Monday 18 <sup>th</sup> May
	Wed 20 <sup>th</sup> May	F	Ethics 3	Margaret Rose (POW Hospital)	
11	Tues 26 <sup>th</sup> May	F	Ethics 4	Tracy Wilcox (UNSW Business School)	
	Wed 27 <sup>th</sup> May	F			

12	Tues 2 <sup>nd</sup> June	F	Ethics Exam	David Edwards	1 hour exam
12	Wed 3 <sup>rd</sup> June	I	Careers Workshop	Eva Chan (UNSW Careers Centre)	
“13”	Tues 9 <sup>th</sup> June		Final Seminars for mid year completing Honours students Post-graduate forum		Literature Reviews can be collected from School Office

## 7. Assessment Tasks and Feedback

### i) BEES 4511 Professional Skills

Task	Knowledge & abilities assessed	Assessment Criteria	% of total mark	Released	Submit	Feedback (who, when, how)
Module A Risk Assessment	OH&S.	Completing a trial risk assessment	10	Week 0	Week 3	David Hair, Wk 5 WebCT and verbal
Module C Trial seminar and Introductory Seminar	See module notes	Trial and Introductory Seminar	20	Week 1	Week 3	David Edwards, Wk 2, 4 WebCT and verbal
Module F Ethics	See module notes	1 hour test	20		Week 12	David Edwards, Wk 13 WebCT
Module I Seminars	See module notes	Attend 5 BEES seminars and Careers Seminar	10	Week 1	Week 12	Matt Hunt, David Edwards, Week 12
Module E Quantitative Methods Elective	See module notes	90 min test	40		Week 9	Edwards; Wk 12 WebCT
Module G or H Geology or Geography Elective	See module notes	2 h test or assignments		End of module	See module	Crouch; Shaw; See module WebCT

### i) BEES 4521 Literature Review / Research Proposal

Task	Knowledge & abilities assessed	Assessment Criteria	% of total mark	Released	Submit	Feedback (who, when, how)
Literature Review or Research Proposal	Scientific writing skills Critical reading of scientific literature – see these notes	See notes	100	Week 0	Week 10	Supervisor, Wk 13 Written comments on work made by supervisor and examiners

## 8. Additional Resources and Support

<b>Text Books</b>	None
<b>Course Manual</b>	Available both in print and online.
<b>Required Readings</b>	See honours manual for each module
<b>Additional Readings</b>	See honours manual for each module
<b>Recommended Internet Sites</b>	Students should consult with their thesis supervisor
<b>Societies</b>	Students should consult with their thesis supervisor
<b>Computer Laboratories or Study Spaces</b>	Students should consult with their thesis supervisor

## 9. Required Equipment, Training and Enabling Skills

<b>Equipment Required</b>	<i>e.g., personal protection equipment (PPE) such as safety glasses, lab coat</i> Students should consult with their thesis supervisor
<b>Enabling Skills Training Required to Complete this Course</b>	Outlined in this manual as relevant for various course components

## 10. Course Evaluation and Development

Student feedback is gathered periodically by various means. Such feedback is considered carefully with a view to acting on it constructively wherever possible. This course outline conveys how feedback has helped to shape and develop this course.

<b>Mechanisms of Review</b>	<b>Last Review Date</b>	<b>Comments or Changes Resulting from Reviews</b>
<b>Major Course Review</b>	<i>July 2008</i>	<i>Review of Honours Structure by Honours Committee Significant changes made to component weightings and subject requirements</i>
<b><a href="#">CATEI</a><sup>9</sup></b>		
<b>Student Feedback Workshop</b>	<i>November 2008</i>	<i>Significant restructuring of course especially in relation to workloads and timetabling</i>

<sup>9</sup> Science CATEI procedure: <http://www2.science.unsw.edu.au/guide/slatig/catei.html>

## 11. Administrative Matters

*Information about each of the following matters is best presented in a generic School handout or webpage. Reference should be made in every course handout to where the information can be found, and the importance of being familiar with the information.*

<p><b>Expectations of Students</b></p>	<p><i>Link to school policy including attendance at lectures and tutorials/laboratory classes/seminars; and computer use, such as, the use of email and online discussion forums. Generally the attendance requirement is 80% however this may differ between Schools.</i></p>
<p><b>Assignment Submissions</b></p>	<p><i>Procedures for submission of assignments, a link to the School's Assignment Cover Sheet and link to the School's policy concerning late submission. Add Link to the School URL.</i></p> <p>Hand in to the undergrad office by the due date and time. Cover sheet in this manual or the honours web site.</p>
<p><b><u>Occupational Health and Safety</u></b></p>	<p>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 Occupational Health and Safety Policy (2001) and the UNSW OH&amp;S Responsibility and Accountability Document (2001). 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.</p> <p>As part of this chain of responsibility and accountability, the Course Authority is responsible for ensuring all activities associated with this course are safe. The Course Authority 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.</p> <p>It is the student's responsibility to prepare for all practical work. Students should be familiar with the written procedures scheduled for the practical class and identify all personal protection requirements needed to complete the exercise in a safe manner. Students must comply with all safety instructions given by the Course Authority and/or Laboratory / Field Demonstrator, and observe the Safety Information located outside or within teaching rooms. If you are unsure of any safe operating procedures or written instruction regarding safety, you should seek further information from the Course Authority and/or Laboratory / Field Demonstrator before attempting the task.</p> <p>Failure to comply with safety instructions may, in the first instance, be considered as a form of academic misconduct. If the outcome of a student's failure to comply with safety instructions results in personal injury, or endangers the health and safety of others, then the matter may be dealt with by WorkCover as a breach of the NSW OH&amp;S Act (2000).</p> <p>For more information on OHS and Safety see the UNSW Risk Management website : <a href="http://www.riskman.unsw.edu.au/ohs/ohs.shtml">www.riskman.unsw.edu.au/ohs/ohs.shtml</a> or the relevant pages on the BEES website at: <a href="http://www.bees.unsw.edu.au/ohs/indexohs.html">http://www.bees.unsw.edu.au/ohs/indexohs.html</a>.</p>

<p><b>Assessment Procedures</b> (Including advice concerning illness or misadventure)</p>	<p><b>Deadlines:</b> All written work is to be typed and <b>submitted to the BEES Student Office (Rm G27) by 12 noon on the due date.</b> A receipt will be issued; do not leave your work without a receipt.</p> <p>It is important to learn to organise your work and prepare to meet deadlines. Deadlines for seminars, literature review and thesis must be met. <b><u>A penalty of 2.5% of the mark (for the component which is late) per calendar day or part thereof</u></b> will be applied in cases where work is accepted after the deadline, up to a maximum of 10% after which the case will be reviewed by the Honours Co-ordinator and the Head of School.</p> <p>Extensions would only be considered in exceptional circumstances (e.g. serious illness supported by a medical certificate) and when application has been made before expiry of the deadline. If you suffer a period of extended illness or disruption during the honours year, please advise the Honours Coordinator as well as your supervisor, so that we may consider how best to deal with your problem.</p> <p>Fieldwork that goes wrong (through weather, breakdowns etc) is no reason on its own for an extension, particularly if it occurs early or very late in a project. If your lap-top computer is stolen – which is a serious matter for anyone let alone an honours student – it is still no reason on its own for an extension. See the section on Backing Up Your Data.</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.equity.unsw.edu.au/disabil.html">www.equity.unsw.edu.au/disabil.html</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. Information on designing courses and course outlines that take into account the needs of students with disabilities can be found at: <a href="http://www.secretariat.unsw.edu.au/acboardcom/minutes/coe/disabilityguidelines.pdf">www.secretariat.unsw.edu.au/acboardcom/minutes/coe/disabilityguidelines.pdf</a></p>		
<p><b>Grievance Policy</b><sup>10</sup></p>	<p><b>School Contact</b></p> <p>Dr. Jes Sammut (BEES School Grievance Officer) <a href="mailto:J.Sammut@unsw.edu.au">J.Sammut@unsw.edu.au</a> 9385 8281</p>	<p><b>Faculty Contact</b></p> <p>Dr Noel Whitaker Associate Dean (Education) <a href="mailto:n.whitaker@unsw.edu.au">n.whitaker@unsw.edu.au</a> Tel: 9385 2041 or Dr Scott Mooney Associate Dean (Student Affairs) <a href="mailto:s.mooney@unsw.edu.au">s.mooney@unsw.edu.au</a> Tel: 9385 6125</p>	<p><b>University Contact</b></p> <p>Graduate Research School Tel: 9385 2969</p> <p>Compass University Counselling Services<sup>11</sup> Tel: 9385 5418</p>

<sup>10</sup> UNSW Grievance Policy: [http://www.infonet.unsw.edu.au/poldoc/student\\_grievance\\_resolution.pdf](http://www.infonet.unsw.edu.au/poldoc/student_grievance_resolution.pdf)

<sup>11</sup> Compass – University Counselling Service [http://www.counselling.unsw.edu.au/compass\\_programs/](http://www.counselling.unsw.edu.au/compass_programs/)

## 12. UNSW Academic Honesty and Plagiarism

*The following information should appear in all course outlines or be available on the web in unaltered form. It is recommended, however, that additional discipline-specific advice and/or material be added to assist students wherever possible. Faculty of Science has information on the website<sup>12</sup>:*

### 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](http://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.

<sup>12</sup> Faculty of Science – Academic Misconduct: <http://www2.science.unsw.edu.au/guide/slatig/acadmisc.html>

**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.

## **Section B: General Honours Program Information**

### **1. History, nature and expectations of the honours course**

At the end of 2001 the Schools of Biological Science, Geography and Geology were disestablished and from the beginning of 2002 were amalgamated in a new school of Biological, Earth and Environmental Sciences (BEES), with a new format of honours. Honours can be taken in BEES in the following disciplines: Biological Science, Botany, Ecology, Environmental Science, Human or Physical Geography, Geography, Geology, Marine Science, and Zoology. The Centre of Marine & Coastal Studies was disestablished in 2003 and now administered via BEES.

The Honours program provides a final undergraduate year that is a very different experience to earlier years. There are fewer formal classes and more individual work. The honours year provides an opportunity to specialise in an area of particular interest. It is designed to develop a range of skills that are widely applicable outside the particular research specialty: e.g., conducting literature searches, critical evaluation of the literature, and written and oral communication.

The School of BEES offers Honours courses to students in the following programs who meet requirements for entry to the Honours Year. You may enter the Honours Year at the beginning of either Session 1 or Session 2, and take it either full-time (for 2 sessions, 24 UOC per session) or part-time (12 UOC per session, over 4 sessions), or partial part-time (over 3 sessions; any combination of 12, 18, 24 UOC per session).

Science Degree Majors in:

- Biological Science
- Ecology
- Environmental Systems
- Genetics
- Physical Geography
- Human Geography
- Geology
- Marine Science

Advanced Science Study Plans in:

- Biological Science
- Ecology
- Geoscience
- Marine Science

Environmental Science with specialisations in:

- Biology
- Marine
- Geography
- Earth Science

Honours years for students with majors or Study Plans in Marine Science are also organised by the School of BEES. Students in the Genetics Major must have their program and supervision approved by the coordinator of the Genetics Major (see Bill Sherwin).

Honours in Advanced Science and Environmental Science (ENVS). Students in Advanced Science (Program 3990) and ENVS (3988) have automatic entry to the honours year, providing that they maintain the credit average required in the Advanced Science stream. Students in this stream will still need to organise a supervisor by the end of the third year, and complete the application form (i.e. admission to honours is not automatic, even in a 4 year degree).

Honours in Science. Students in the Science Course (program 3970) may apply for admission to the Honours year towards the end of their 3 year degree. Entry requires 36UOC at level III with at least a credit average, and the agreement of a supervisor.

Combined Degrees. In some combined degrees e.g. B. Env.Sci/BA, you will just do the 24 UOC project without BEES4511 Professional Skills and BEES4521 Literature Review.

The format of honours is outlined later, or available at:  
<http://www.bees.unsw.edu.au/current/year4/honours.html>

## **2. Coordinators**

Tables 1 and 2 outline the staff involved with the various components of the BEES Honours program:

**Table 1: Contacts for BEES Staff involved in Honours Program**

<b>Name</b>	<b>Role</b>	<b>Room</b>	<b>Email</b>	<b>Phone Extension</b>
David Edwards	Honours Program Coordinator	543C	D.Edwards@unsw.edu.au	58064
Matt Hunt	Administrative Guru	G27	m.hunt@unsw.edu.au	52691
David Hair	School Lab Manager	503	d.hair@unsw.edu.au	52192
<b>Honours Stream Coordinators</b>				
Paul Lennox	Geology	623	p.lennox@unsw.edu.au	58096
Paul Adam	Environmental Science	567	p.adam@unsw.edu.au	51684
Wendy Shaw	Human Geography	613	w.shaw@unsw.edu.au	53715
David Edwards	Physical Geography	543C	D.Edwards@unsw.edu.au	58064
Iain Suthers	Marine Science	410	I.Suthers@unsw.edu.au	52065

**Table 2: BEES 4511 Module Coordinators**

Name	Role	Room	Email	Phone Extension
David Edwards	Modules A, B, C, D, E, F, I	543C	D.Edwards@unsw.edu.au	58064
Anton Crouch	Module G	628	a.crouch@unsw.edu.au	58098
Wendy Shaw	Module H	613	w.shaw@unsw.edu.au	53715

### **3. Course Structure and Requirements**

Students must enroll in person at the Science Student Centre (Room 128 Robert Webster Building) before the start of Week Zero, (late enrolments are still accepted in Week 1). The normal online enrolment system is not possible as school consent is required, in the form of a letter from the honours co-coordinator.

The variety of honours programs offered by BEES means that there is no single honours enrolment model and so your honours course structure may seem to be complicated. In essence you must complete 24 Units of Credit (UOC) per session (12 UOC per session if part time) to total 48 UOC. Table 3 summarises these enrolment requirements for honours in the Biology, Botany, Ecology, Genetics, Physical Geography, Geology, Spatial Information Science and Zoology programs – the ENVS program may have a slightly different assessment depending on your School.

**Table 3: Course Requirements for Honours Year**

Course	UOC
Project/Thesis	30
BEES4511 (Professional Skills)	6
BEES4521 (Literature Review)#	6
Elective Course (Level 2-4)*	6
TOTAL	48

# You may substitute another Level 3 course for this with permission of the Honours coordinator

\* These courses must be approved by your thesis supervisor and the Honours Coordinator (and must be stipulated on the Project Information Sheet, due in Week 1).

**NOTE: The transitional implementation of this structure in 2009 may mean some students may have to take different courses depending on their academic record**

A typical honours enrolment will include:

- 1) BEES4511 Professional Skills - this is a compulsory course that should be taken in the first session of your Honours Year (Note that some components/modules may only be offered in Session 1 or 2);
- 2) BEES4521 Literature Review – normally also taken in the first session of your Honours Year; and,
- 3) One other Faculty of Science subject from Levels II, III or IV - preferably in your first session.

In addition students must enroll in the appropriate Honours Thesis Course Code(s) to the value of 30 UOC across the whole year. The thesis course codes you select depend on the “flavour” of your honours thesis project and the partition of the UOC for your thesis between S1 and S2. For example if you were completing a thesis in Botany and were taking 3 x 6UOC courses in S1, then you would enroll in another 6 UOC for your thesis in S1 under the code BIOS4528, and the remaining 24 UOC for your thesis in S2 under the code BIOS4524. See Tables 4 and 5 for the various course codes for the Thesis/Project for different UOC and discipline areas.

Despite the unequal allocation of the 30 UOC for your thesis across S1 and S2, it is expected that you work on your thesis over the entire academic year. Many students will have completed a large proportion of their thesis research before the start of S1.

**Table 4: Table of subject codes for the honours project component in School of BEES Program 3970, 3972, 3990, 3000, 3010 (take any combination for S1 & S2 so that they total 24 UOC for the year)**

UOC	Geology	Ecology	BioScience	Botany	Zoology	Phys Geog/ Human Geog	Marine, Bio/Phys.O
24	GEOL4204	BIOS4544	BIOS4514	BIOS4524	BIOS4534	GEOS4418 GEOH4415	MSCI4404 /4504
18	GEOL4205	BIOS4545	BIOS4515	BIOS4525	BIOS4535	GEOS4413 GEOH4413	MSCI4403 /4503
12	GEOL4206	BIOS4546	BIOS4516	BIOS4526	BIOS4536	GEOS4412 GEOH4412	MSCI4402 /4502
6	GEOL4207	BIOS4548	BIOS4518	BIOS4528	BIOS4538	GEOS4411 GEOH4411	MSCI4401 /4501

**Table 5: Course Codes for ENV5xxxx honours, Program 3988, FT (PT) in BEES (take any combination for S1 & S2 so that they total 24 UOC for the year)**

UOC	Biology	Marine	Geology	Human Geog	Phys. Geog
24	ENVS4104	ENVS4204	ENVS4604	ENVS4515	ENVS4504
18	ENVS4103	ENVS4203	ENVS4603	ENVS4513	ENVS4503
12	ENVS4102	ENVS4202	ENVS4605	ENVS4512	ENVS4502
6	ENVS4101	ENVS4201	ENVS4601	ENVS4511	ENVS4501

## **4. Assessment and Reporting of Grades**

The weighting of the assessment tasks for Honours is outlined in Table 6 below.

**Table 6: Honours Assessment Weighting**

<b>ASSESSMENT</b>	<b>Value (%)</b>
Thesis (9,000 words*+final seminar 5%)	70
BEES4511 (Professional Skills)**	10
BEES4521 (4,500 word Literature Review)***	10
Best Level III or IV subject (not including the above)	10
TOTAL	100%

\* the thesis word limit for Geology and Physical Geography theses may be relaxed – see thesis guidelines

\*\*BEES4511 may be replaced in certain double degree programs with relevant course.

\*\*\*BEES4521 may be swapped for any relevant Level III or IV course.

The literature review and the final thesis will both be marked by an Examining Committee composed of your supervisor and 2 independent examiners. Your final seminar will be marked by another two BEES academics that are not part of your Examining Committee.

### **Please note the following very carefully.**

Your academic transcript will list your marks in each of the components in Table 3, including the elective Level II-IV course that you completed in your Honours Year.. However, as shown in Table 6, your **best** Level III or IV mark will be used to calculate your overall honours pass (“TOTAL”), but this “TOTAL” does not appear on your transcript. The “TOTAL” as determined in Table 6 is your overall honours mark, and classifies the level of honours pass according to the following ranges of marks:

1 <sup>st</sup> Class	≥85%;
2 <sup>nd</sup> Class Div I	= 75-84%;
2 <sup>nd</sup> Class Div II	= 65-74%;
3rd Class or Pass	= 50-64%

The score that BEES will submit to the Australian Postgraduate Award (APA) scholarship committee (or committees at UNSW and elsewhere), will be based **only** on the mark awarded for the 30 UOC thesis-project. However your overall honours pass at graduation will be determined from the formula in Table 6 above. The awarding of APAs at UNSW is determined by a formula based on your thesis mark (67%), the average of your Level III marks (33%), plus a further score out of 20 based on research experience, publications, referees reports and if your project fits the school/laboratory profile.

For more information on Australian Post-graduate Awards, see Section F.

## **5. Submission of Work and Deadlines**

All written work is to be typed and **submitted to the BEES Student Office (Rm G27) by 12 noon on the due date.** A generic schedule of assessment deadlines is outlined in Table 7 . A receipt will be issued for your thesis and literature review; do not leave your work without a receipt.

**Table 7: Generic schedule of assessment deadlines**

<b>Item</b>	<b>Date</b>
Project Information sheet	Week 1
Trial Risk Assessment	Week 3
Introductory Seminar	Week 3 (schedule TBA)
Literature Review	Week 10 of your 1 <sup>st</sup> session
Thesis	Week 12 of your 2 <sup>nd</sup> session
Final Seminar	Week “13” of your 2 <sup>nd</sup> session

**Note:** Unless stated otherwise all items due on Monday of week shown at 12 noon, BEES Student Office

It is important to learn to organise your work and prepare to meet deadlines. Deadlines for seminars, literature review and thesis must be met. **A penalty of 2.5% of the mark (for the component which is late) per calendar day or part thereof** will be applied in cases where work is accepted after the deadline, up to a maximum of 10% after which the case will be reviewed by the Honours Co-ordinator and the Head of School.

Extensions would only be considered in exceptional circumstances (e.g. serious illness supported by a medical certificate) and when application has been made before expiry of the deadline. If you suffer a period of extended illness or disruption during the honours year, please advise the Honours Coordinator as well as your supervisor, so that we may consider how best to deal with your problem.

Fieldwork that goes wrong (through weather, breakdowns etc) is no reason on its own for an extension, particularly if it occurs early or very late in a project. If your lap-top computer or PC is stolen – which is a serious matter for anyone let alone an honours student – it is still no reason on its own for an extension. See the section on Backing Up Your Data.

## **6. Other General Information for Honours Year**

1) **School Seminars.** Students are required to attend the school seminars during both sessions, and we require that you attend at least 5 (five) full school seminars (ie not a 20 min. intro honours seminar) plus the careers workshop seminar. You must have your seminar attendance sheet signed off by any BEES academic for each seminar. Any bona fide academic from another school or university’s seminar is also acceptable. Seminar

attendance is worth 10% of your grade in BEES4511.

These are held at 4 pm on most Thursdays (staff and external speakers) and at lunchtime on some Tuesdays (postgraduates and honours students) in Room 456. The programs will be displayed on the 4th floor School notice board and web site. This is also a good time to see how seminars should be done (and sometimes how they should not be done). Some students seem puzzled about our insistence on attending seminars outside their narrow research area. One answer is that we are encouraging you to learn and think broadly that may assist in unanticipated ways with your thesis or your future employment. Another answer is that you are graduating with honours from the School of Biological, Earth and Environmental Sciences, and we want you to have a broad experience of biology, earth and environmental sciences.

- 2) **Mail/Information.** There is a section of the **notice board** opposite the western lifts in the 4th floor corridor that is devoted to honours matters. The **Honours snail-mail box** is located in the photocopy/mail room on the 5th floor opposite the lifts.
- 3) Check the Web-CT BEES4511 notice board and mail box regularly.
- 4) **Email address.** Please ensure that the Coordinator has your correct email address. Important information will be disseminated this way using your university e-mail address which is written as ZstudentID. If you use a non-UNSW account (e.g. hotmail) you will need to redirect this e-mail at this site:  
<https://wombos.unsw.edu.au/cgi-diy/showmboxes.pl>
- 5) **Accommodation.** You will be assigned work space in your supervisor's laboratory or in other areas as arranged by your supervisor and with the agreement of the academic staff member responsible for general school facilities. Please consult the Honours Coordinator if you have problems.
- 6) **Security.** This is a constant problem in this building, especially during February-March when there are many strangers wandering the building. **Do not leave purses, wallets or bags containing valuables unattended.** Your supervisor should provide a lockable drawer or cupboard for valuables. It is good practice to lock rooms when they are unoccupied. The building should also be kept locked after 10pm or at weekends. If you find the outside door open, please lock it. Be aware of potential security risks when you work late at night. Use the Security Shuttle Buses that will take you to the main bus routes, or contact Unibeat for an escort. Further information and timetables are available from the Undergraduate Office (Room G27) or from Unibeat (ext. 6000).
- 7) **Access.** The honours program is not a 9 to 5 job. If you start in Session 1, you may wish to start a pilot study in January (depending on your supervisor and completion of Risk Assessments and other OHS documents), and obtaining necessary permits/approval (see section on Permits). If you are starting in Session 2, you are expected to start work by early July, and not to take vacations as holidays. Once you have completed enrolment and have a student card, contact the Undergraduate Office (Room G27) to arrange for out-of-hours access to the building and see Francine Cox for keys for specific rooms. You are responsible for these keys, and must not pass them on to anyone else. A charge is made for all keys, refundable on return. Make certain you return them at the end of the year, or else your supervisor must pay the \$20 fee (not a good career move).

- 8) Going Part Time.** Some students start their first session full time, but for financial or personal reasons go to their second session part time, making an 18 month honours year. You should first discuss this with your supervisor. This should not be done to increase the scope of the research project from the introductory seminar, and this must be stated in your e-mail to the honours coordinator(s), informing them of your decision. You then need to visit the Student Science Office. You can be completely part time (12 UOC per session for 4 sessions), or partially part time (over 3 sessions, any combination of 12, 18, 18 UOC).
- 9) Starting in Session 2?** No problem, but your enrollment in S1 the next year is not automatic – you’ll need to re-enroll in Jan/Feb in person with the student science office, and a letter from the honours coordinator saying that you have been diligently working last session.
- 10) Photocopying, faxes.** There is a photocopier and fax in Room 529 and Room 630, and charge rates are lower than in the library. A PIN number is needed to operate the photocopier; see your supervisor about this. Journals cannot be removed from the library and must be copied there – but UNSW has a host of electronic journals that you may access over the web.
- 11) Computing and word processing facilities.** You should discuss your needs with your supervisor. Normally students use the facilities in their supervisor's laboratory or the various computing laboratories in the building when these are not used by classes. Access to computing lab G07, when they are not booked for teaching, can be arranged with Ann Lonergan. You must observe the regulations concerning limits on continuous use (no more than 4 hours at a stretch) so as to avoid RSI. There is currently no school printer yet.
- 12) Software.** Access to software must be arranged through your supervisor. The University has site licenses for a range of packages such as Minitab and Microsoft Office, which reduce the cost of software, but a charge must still be met. UNSW has a site license for Endnote which makes referencing much easier and will be part of the Library tutorials.
- 13) Anti-virus software.** Essential. The University now has the site license for Symantec Anti-virus software that has automatic updates via the web, or many students use public domain programs.
- 14) Assistance.** Supervisors are for help, advice and encouragement. The honours program is a training operation. Make certain that you communicate well with your supervisor, and seek help as soon as problems arise. It is important that you do not work in isolation. The academic community (staff and students) of the school is a valuable source of advice and assistance. A mark of an educated person is that they can recognise when they need help and can seek out those most likely to be able to provide it. If you find it difficult to approach people, you must work on overcoming this barrier during your honours year. Develop the habit of talking to others in the school about your project; you can start by talking to other honours students. Get to know them during the Essential Skills seminars.
- 15) Occupational Health and Safety, Risk Assessment.** Risk assessments will be discussed and introduced in BEES4511 during Week 0 by David Hair. The necessary forms are attached to this guide and need to be completed by all students early in your first session and submitted in the usual way. Form updates are provided on the School web site and updated regularly.  
*It is the student’s and academic supervisor’s responsibility to ensure that the risk assessments are appropriate and responsibly adhered to, and that any potential hazards*

*are identified and ameliorated. This must cover all areas of risk from deskwork and use of a computer, to laboratory and field work (especially driving and working in isolated locations).*

- 16) Permits.** Research on any vertebrate requires an Animal Care and Ethics approval. Usually your supervisor would already have that organized as it can take up to 3 months for approval. Research in any National Park or on threatened species requires a permit. Research on fish or seagrass or rock platform – particularly if it involves collecting - requires a permit from NSW Fisheries.
- 17) Postgraduates** have recently been honours students, and will probably know much about the facilities you need, and have experienced some of the problems you face. Get to know them through the Postgraduate Research Forum held during Week 13, Stu-Vac week.
- 18) Training your supervisor(s).** By this stage you will realise that all staff members lead busy lives, but honours students are amongst the most important responsibilities we have, so you should not be backward in approaching staff you think may be able to help you. E-mail them for an appointment. It is your duty to organise yourself, establish your needs clearly and then communicate them succinctly. It is imperative that you establish good communication with your supervisor from the very beginning. Always make certain that you fully understand their instructions. Ask for clarification, and take notes. Keep your supervisor up-to-date with your progress, or lack of progress. Use every opportunity to talk about how your work is going. After all, they have been instrumental in designing the project and will be keen to hear how it is going. Make certain you have regular "quality time" with them, when they can sit down and look at your results or preparations, and you can discuss the interpretation. With some supervisors you may have to make regular appointments to ensure that such sessions occur. Good planning is the key to success in honours. Discuss your plan with your supervisor regularly. Remember that you also have a panel of examiners who will have some knowledge of the area in which you are working. If you experience problems when your supervisor is unavailable, you should approach one of them.
- 19) Backing up your data.** Data are the stuff of science, and often take many hours to accumulate. Do not put them at risk. Floppy discs are unreliable for storage of data. It is imperative that you quickly establish a routine of backing up your work on a separate disc - preferably on a CD, memory stick or on the hard drive of a second computer. **BACK UP TODAY** is the golden rule. If you are collecting lots of data, you should consider burning them on a CD for more permanent storage. Discuss all this with your supervisor early in your project. Whether using CDs or memory sticks, always make TWO copies, and to keep one at home, one at uni. Sometimes cars get broken into or universities or homes burn down. Every year some student in this School is affected by such a disaster – don't let it be you.

## **7. Honours scholarships in BEES**

There are several scholarships offered each year to students completing their Honours year in the School of BEES. Details are provided below but note that these details may be out of date and you MUST confirm at the site – esp. closing dates, <http://www.scholarships.unsw.edu.au/index.html>

### **The Alton and Neryda Fancourt Chapple Biological Science Scholarship (I,L)**

- \$1,400 , 1 year

The scholarship is available to a student undertaking the Honours year in the School of Biology, Earth and Environmental Science at UNSW. Selection will be based on academic merit. Applications close 30 April

### **The Dean's Honours Year Scholarship (I,L)**

- \$2,500 , 1 year

One Scholarship is available for a student undertaking an Honours Year in the Faculty of Science. Selection will be based on academic merit. The Scholarship cannot be held concurrently with a Faculty of Science Undergraduate Scholarship or a University Honours Year Scholarship. Applications close 31 January.

### **The Fowlers Gap Arid Zone Honours Scholarship (I,L)**

- \$500 , 1 year

This scholarship is available to students undertaking their Honours year with a project relevant to the understanding of the processes in arid rangelands. Applications will be assessed on the basis of academic merit and the students' reasons for undertaking their current, or proposed field of study. Applications close 1 February.

### **The Howard Memorial Scholarship in Science at UNSW (L)**

- HECS liability, \$4,000 living allowance
- 1 year

Applicants must be undertaking a full-time Honours Year in one of the Schools of the Faculty of Science . Students who will not be completing their Pass degree until the end of Session One, in the following year can apply. Benefits for these students will not commence until completion of the Pass degree. Selection is based on academic merit and a demonstrated capacity for research. Applications close 31 October.

### **The John MacIntyre Honours Year Scholarship in Marine Science (L)**

- \$1,500 , 1 year

The Scholarship is established to encourage students to undertake study in the Marine Science Honours program. Applicants must be undertaking an Honours program in the Bachelor of Science with a Marine Science project. Selection will be assessed on academic merit, demonstrated ability and leadership qualities. Applications close 31 March.

### **The Sonja Huddle Memorial Scholarship (L)**

- \$3,000 , 1 year

The scholarship is available for students undertaking a full-time Honours year in the Bachelor of Environmental Science, the Bachelor of Advanced Science or Bachelor of Science program, with a project specialising in earth sciences and the environment. Selection will be based on academic merit and reasons for undertaking the proposed program of study. Consideration may be given to financial need. Applications close 30 September.

## **8. Use of School Vehicles**

See the relevant section of the BEES website for more information on using School vehicles:  
<http://www.bees.unsw.edu.au/current/students.html>

Please be aware that to the general public you represent UNSW. It is expected that you observe the road laws diligently and that you show courtesy to other road users and pedestrians at all times.

### **To use a School Vehicle, you must:**

- Have a current licence. Drivers with a provisional licence must display appropriate P plates.
- Be a member of Staff, a Postgraduate or Honours student or a person otherwise approved by the Head of School.
- Have seen David Hair for your licence details to be recorded, to receive instructions in vehicle use and to learn how to use the vehicle booking system.
- Have made a booking using the vehicle booking system.

### **Keys**

- Keys are kept in a locked safe in Room 551A.
- Keyrings usually hold ignition key, fuel card, roadside assistance contact details and key to Room 551. Sometimes there are other keys, such as one for the glovebox, or for a steering wheel lock.

### **Parking**

- School vehicles may be parked in the Blue Zone (lowest level) in the Botany St Parking station. You may only drop off and pick up at the rear of Biological Sciences, not park. You may park in loading zones but only in accordance with instructions on the signs.
- Vehicles may only be parked off campus overnight with written permission from the Head of School (or David Hair), and only if there is offstreet parking available. When requesting approval for parking at a home address, details must include the date, the number of the vehicle and the address of the driver.

### **Logbook**

- The logbook is usually located in the glovebox of the vehicle.
- Each logsheet covers ONE week of vehicle use.
- Ensure you have the right page. Check the date in the top right hand corner. Write the appropriate date if it is not there.
- Fill out the details of your journey in the appropriate columns of the logsheet - **Driver's Name** (yours, not someone else's) and **Account Number** (in the same column), **Odometer Readings** for Out (when you left), In (when you returned) and Total, **Times Start and Finish**, and **Journey Details** (where you went and the reason for the trip). If you bought fuel, add those details at the bottom of the page (see Fuel below).
- NB. If you use a vehicle for longer than one day, write your departure and return odometer readings, and start and finish times, on the correct days of the correct page(s).

### **Fuel**

- Ensure you know what fuel the vehicle uses (unleaded petrol, diesel or LPG).

- Whenever possible, use **Caltex, Ampol or Woolworths** service station and pay by Caltex fuel card. Note that, if you do not use these outlets, you will have to pay for the fuel yourself and claim the money back from LeasePlan.
- When paying with the fuel card, give the odometer reading when you are asked for it because that information is needed in order to calculate the cost per kilometre of running the vehicle.
- After paying for fuel, fill out the details (litres bought and docket number) in the appropriate space at the bottom of the logsheet. On a long journey, it may be difficult to fit all the information in the space provided but please try to do so.
- Never return a vehicle with less than half a tank of fuel.

### **Cleaning**

- Ensure any vehicle you return is clean, inside and out.
- Crystal Car Wash near Souths Juniors is the nearest car wash. The school will pay for cleaning costs. You may clean it yourself if you wish.
- For dirty or potentially messy loads, such as SCUBA gear, seawater or animals, make sure you protect the interior of the vehicle. Use of a plastic sheet or a fish box is recommended in these situations.

### **E-Tags**

- All vehicles are fitted with E-Tags. Report any malfunction, loss or misplacement to David Hair.

### **Parking or Traffic Offences**

- These are the responsibility of the driver. Fines will not be paid or reimbursed by UNSW.

### **Problems**

- If anything needs to be fixed while you are using the vehicle, contact LeasePlan on 1300 130 572 for details of the nearest approved supplier. Ensure that the supplier knows that it is a LeasePlan vehicle and to send the invoice to them. If you in an isolated area, still call LeasePlan and ask for advice. It might be that you have to pay for the repair yourself and reclaim the money from LeasePlan.
- For roadside assistance contact the vehicle manufacturer's roadside assistance (details on keyring or in manual) or ring LeasePlan on 1800 257 526.
- Note any problems of a less serious nature on the relevant page of the logbook and report them to the vehicle monitor or to David Hair at the first opportunity.

### **Accidents**

- Do not admit liability even if you think the accident was your fault.
- There is a LeasePlan Accident Management card in the glovebox. Fill in the details on the card and follow all instructions.
- Report the accident to LeasePlan on 1800 64 64 22 within 24 hours.
- If a tow truck is needed, call 1800 64 64 22.
- Even minor damage must be reported to LeasePlan within 48 hours

### **First Aid Kit**

- Each vehicle has a first aid kit. Please report to the vehicle monitor or David Hair if the kit is missing or if you use any item.

## **9. Occupational Health and Safety**

Full details of relevant occupational health and safety issues will be covered by David Hair in Module A. Note that most of the information on OHS is available at either the UNSW Risk Management website : [www.riskman.unsw.edu.au/ohs/ohs.shtml](http://www.riskman.unsw.edu.au/ohs/ohs.shtml) or the relevant pages on the BEES website at: <http://www.bees.unsw.edu.au/ohs/indexohs.html>.

In particular all up to date forms are available from the BEES OHS pages, see <http://www.bees.unsw.edu.au/ohs/forms.html>

Some notes on risk assessments and standard operating procedures are outlined in the following sections.

### **RISK ASSESSMENTS:**

Australian Standard 4630 - 1999

All activities with the potential to cause harm must be the subject of a written risk assessment using the AS/NZS 4630 - 1999.

Risk Assessments are a systematic method for quantifying and evaluating the likelihood of a hazardous event occurring and the resulting consequences. Risk Assessment is based on the following:

Likelihood of exposure to the hazard

Consequences as a result of the event taking place and exposure to the hazard.

Two different forms are available:

i) Risk Assessment Forms (Class, Laboratory and Fieldwork) available on BEES web site in two formats:

[Risk Assessment Form](#) and [Additional Task Pages](#) (.pdf)

[Risk Assessment Form](#) and [Additional Task Pages](#) (.doc)

ii) [Plant Safety Risk Assessment](#).

These must be completed and submitted for checking by the School Safety Officer before the project or class begins. The original risk assessment is retained by the supervisor. A copy is kept by the Safety Officer in a central register. All those subjected to the hazards for which the risk assessment was done must receive a copy of it. All involved must use the control measures nominated in the risk assessment

### **Legal Considerations**

It is a legal requirement (see Chapter 2 of the [NSW Occupational Health and Safety Regulation 2001](#)) that risk assessments are carried out for any hazards identified in the workplace. Risk assessments should be in written form. If charged with a breach of the [NSW OHS Act 2000](#), it is much better if there is written evidence of a risk assessment having been carried out and its control measures adhered to.

## **GENERAL INFORMATION**

It is school policy that risk assessments must be kept for at least five years. They must be reviewed after that time and modified if necessary. They must also be reviewed and modified if an accident occurs in the meanwhile.

Risk assessments do not necessarily have to be done for each hazardous substance used or for each individual fieldwork activity. They can be done for a process or group of processes, or activities, or classes, provided that the hazards are similar. It is obvious that they should be done before a project or activity commences rather than after. This too is a legal requirement.

[Forms](#) are available on the School website.

### **What Happens to the Forms?**

Once an assessment has been done and the control measures decided upon, the following steps occur:

- The original form is kept by the member of staff responsible for the research or teaching activity
- Copies are given to all persons who could be affected by the hazards for which the assessment has been carried out.
- A further copy is sent to the School Safety Officer.
- The Safety Officer reviews the assessment on behalf of the Head of School. If the assessment is not adequate, it will need to be modified. This requires evidence that all hazards have been assessed and adequate control measures put in place. Use the Risk Rating Chart to assess the risk before and after Risk Controls are in place.

### **Consequences of Failing to Assess Risk**

You are taking a serious risk if you do not comply with the legislation of this state. A major accident to a student or staff member whom you supervise could lead to a heavy fine for you personally. It could also lead to fines for any others with line responsibility and for the university itself.

## **RISK REGISTER**

The Risk Register records details of all risks identified within the School, their grading in terms of likelihood of occurrence and risk rating.

This Register is maintained by the School Safety Officer and includes:

- A description of each risk
- An assessment of the likelihood it will occur and the risk rating (low, medium, high);
- Who is responsible for managing the risk;
- What risk controls are in place to reduce the likelihood a risk will occur and/or reduce the seriousness should it occur
- Emergency procedures to reduce the immediate seriousness of the risk should it occur.

## STANDARD OPERATING PROCEDURES

Standard Operating Procedures are written instructions for tasks that outline the preferred and safest method of undertaking a task. Using the previously developed Risk Assessment to assess the task, the SOP should include the potential hazards associated with the task, the risk posed by such hazards and the precautions necessary to eliminate or adequately reduce the risk.

Standard Operating Procedures (SOP) should be developed for all techniques, processes, equipment and machinery where there is risk to health. Standard Operating Procedures should include:

- specific information regarding the hazards and associated risks of the task
- precautions to be undertaken before commencing the task
- personal protective equipment to be worn while undertaking the task
- the environment where the task should be undertaken
- clear instructions for undertaking the task described in a safe manner
- specific instructions regarding ways of minimising the risks of the task
- instructions to ensure that the area is left safe for others to use
- correct waste disposal guidelines.
- 

Supervisors must ensure that SOPs are displayed with all equipment for which they are responsible. Where training is required for users of a piece of equipment, a notice to this effect and a list of those who have been trained must be displayed nearby. Supervisors are responsible for ensuring that this is done.

A step by step procedure prepared by the Risk Management Unit for the development and writing up of a Safe Operating Procedure can be found at:

[Guidelines for the Development of Standard Operating Procedures >>](#)

## FIELDWORK:

Fieldwork probably presents the most serious risks for members of the School of BEES. Therefore all participants must be familiar with and abide by both the [BEES Fieldwork Guidelines](#) and the [UNSW Fieldwork Policy](#).

## DOCUMENTATION

- Before it begins, all fieldwork must be assessed for risk. Such risks might include tick bite and mosquito-borne diseases such as Ross River and Barmah Forest. The [Risk Assessment Form](#) shall be filled out and a copy sent to the School Safety Officer at least 10 days prior to undertaking any fieldwork, if this has not been done previously.
- Where fieldwork is conducted outside the Sydney metropolitan area, an appropriate [Authority to Travel](#) must be completed for each participant and submitted to the School Administrative Officer at least 10 days prior to travel.
- Where possible the [BEES Fieldwork and Notification Form](#) is to be handed into the supervisor, and a copy to the Safety Officer, at least 10 days prior to undertaking any fieldwork. See the following [Fieldwork Notification Notes](#) on how to fill out this form.

- When fieldwork is done on a repetitive basis, it is not necessary to submit a written Fieldwork Plan and Notification Form to your supervisor on each occasion. Note that this provision now also applies to repetitive fieldwork outside Sydney. See [Repetitive Field Trips within Metropolitan Area](#) for correct procedures.
- Prior to a field trip, the staff member in charge must submit a list of the next of kin for all participants to the School Office if this has not been done previously.
- When volunteers will be participating in fieldwork, a [Volunteer Approval Request](#) must be submitted to the Head of School at least 10 days before the intended field trip. Volunteers, as with all other participants, need to receive a [safety induction](#).
- A [Fieldwork Medical Questionnaire](#) may be filled out (optional) by anyone attending field trips to inform supervisors of any medical conditions that may affect their ability to participate safely.

## VEHICLES

- All drivers of vehicles must have a current licence that covers the vehicle type being used for the field operation, such as 4-wheel drive, bus etc. When necessary, RTA logbooks are to be used and mandatory driving hours restrictions adhered to.
- P-plates must be displayed if the driver has a provisional licence.
- It is the responsibility of the field trip leader to ensure vehicles are properly cleaned and refuelled on return.
- Smoking, the consumption of alcohol and the use of non-prescription drugs are not allowed in university vehicles.
- See [BEES Fieldwork Guidelines Section 4.3 >>](#)

## FIRST AID

- The risk assessment should be used to determine the number of trained first aiders that should be present on a trip excursion.
- For more information see [BEES Fieldwork Guidelines Section 4.4.7](#)
- The OHS Regulation 2001 specifies the minimum [contents](#) for each of the three types of first aid kits.

## BOATING

All drivers of water vehicles in NSW, that are mechanically propelled and are capable of 10 (ten) knots or more, must have a current boating licence issued by NSW Maritime. Drivers of vessels in other states must abide by local qualifications.

## **DIVING**

- Diving is under the control of the UNSW Diving Officer.
- All diving must conform to the [UNSW Scuba Diving Operations Manual](#).
- Divers are classified according to levels of training and experience. Section 2.6 of the UNSW Scuba Diving Operations Manual gives details of the minimum certification and experience required for each category within the classification.
- Before a dive, the action plan (Section 3.2) must always be followed. In particular, the following forms must be filled out, and the [Dive Approval Protocol](#) followed:
- [Dive Proposal for SCUBA \(Air Only\)](#)
- [On Site Pre-Dive Plan and Risk Assessment](#).
- After their safety induction, all divers must acknowledge their understanding of their safety obligations by signing the BEES [Dive Safety Acknowledgement Form](#).
- The diving manual is included in the [BEES Fieldwork Guidelines Section 4.5.3](#).

## **ELECTRICAL SAFETY**

- All portable electrical equipment to be used in the field should have been inspected and tagged in the last three months in accordance with AS 3760.
- All field equipment must incorporate a portable residual circuit device (RCD) .

## **COMMUNICATIONS**

- Staff and students must have a suitable system of communication, including an EPIRB if necessary. Please see the Safety Officer for details.
- See [BEES Fieldwork Guidelines Section 4.4.2](#)

## **Section C:**

# **BEES4521 - The Literature Review or a Research Proposal**

For BEES 4521 you have the choice to prepare either a Literature Review or a Research Proposal. The choice of which to prepare is best made in close consultation with your supervisor. Whether you choose the Review or the Proposal, this represents your first major piece of work based on your thesis research. Any effort you put in here (eg getting your reference sources in order) will generally be rewarded down the track when you are writing your actual thesis.

This should be your own work. Your supervisor is required to make detailed comments on one draft only; the more polished the draft, the more valuable the comments are likely to be.

### **i) Preparation of a Research Proposal**

The option to prepare a research proposal was first offered in 2008 and has been immediately popular. The proposal is similar to the literature review in length (4500 words) but with greater focus on what you plan to do and greater structure.

Preparation of your research proposal is based on the ARC – Discovery Project application and the instructions below are adapted from Part A and E of the 2009 Australian Research Council Discovery Grants Applications.

#### **PROPOSAL TITLE**

Provide a short descriptive title. Avoid the use of acronyms, quotation marks and upper case characters.

Word Limit: < 25 words

#### **PROPOSAL SUMMARY**

Focus on the aims, significance and expected outcomes of the Project.

The summary should be written in clear, plain English using the minimum of terminology unique to the area of study. Avoid the use of quotation marks, acronyms and do not use all upper case characters in the text.

Word Limit: < 100 words

#### **AIMS AND BACKGROUND**

Describe the aims and background to the Proposal. Where possible define the problem that your research addresses and develop a clear research question.

Include information about recent international progress in the field of the research, and the relationship of this Proposal to work in the field generally.

Refer only to refereed papers that are widely available to national and international research communities.

Word Limit: No specific limit but generally 2000 – 3000 words

### **APPROACH AND METHODOLOGY**

Outline the conceptual framework, design and methods

Demonstrate that these are adequately developed, well integrated and appropriate to the aims of the Proposal.

Word Limit: No specific limit but generally 1000 – 2000 words

### **SIGNIFICANCE AND INNOVATION**

Describe how the research is significant from a scientific perspective and whether the research addresses an important problem. Describe how the anticipated outcomes will advance the knowledge base of the discipline and why the Proposal aims and concepts are novel and innovative. Detail what new methodologies or technologies will be developed.

Word Limit: < 500 words

### **EXPECTED OUTCOMES AND NATIONAL BENEFIT**

In this section you need to prove that your research is meaningful, and that it will be successful. Describe the expected outcomes and the likely impact of the proposed research. Describe how the proposed research might result in economic, environmental and/or social benefits for Australia. Using plain language, summarise the national/community benefits that are expected to arise from the research.

Word Limit: < 500 words

### **LOGISTICS AND PERSONNEL**

Provide a Timeline for the Project including key dates for task completion.

Summarise the role, responsibilities and contributions of all of the Investigators working on the project. Summarise the roles and levels of involvement of other participants, such as technical staff.

Word Limit: <250 words. This section is best tabulated.

### **REFERENCES**

Include a list of all references. This list may be in 10 point font.

An example of the marking sheet used to assess your Research Proposal is included on the following pages.

**BEES Honours Assessment Sheet for the Research Proposal**

**Student** \_\_\_\_\_ **Supervisor:** \_\_\_\_\_

Please indicate the standard of the various elements of the research proposal by providing a % mark (or a mark range) in the spaces below. Clearly outline critical faults/weaknesses of any of the elements on the back of this sheet. Attach additional sheets if required.

Please ensure you provide comments throughout the Research Proposal (or on a separate sheet) that benefit the student when they adapt this material into their final thesis.

Provide an overall suggested mark on the bottom of this sheet. **Note that no one portion of the assessment should be given overriding importance in determining the final mark**

**Key Elements of the Proposal.**

Award a % mark (or mark range) for each of the following key components of the proposal.

**Summary:** (100 word limit) Is this clear and concise ? Does it adequately reflect the project as portrayed in the rest of the proposal?

Mark \_\_\_\_\_%

**Aims and Background.** Are the topic and problem introduced and defined in a lucid, accurate and succinct manner? Does the student attempt to use appropriate reference sources to support their arguments? Have they provided an insightful and critical review of the relevant literature? Are the aims and any hypotheses clearly stated? Do the aims seem achievable?

Mark \_\_\_\_\_%

**Approach and Methodology.** Has the student clearly outlined the conceptual framework, design and methods? Do these appear appropriate? Are these framed correctly in terms of the hypothesis? Are aspects of experimental design and statistical analysis clearly explained? Have they critically reviewed previous/alternative methods and approaches?

Mark \_\_\_\_\_%

**Significance and Innovation .** The student should attempt to show how this project resolves a problem or improves our understanding of an issue/phenomenon. Are aims and concepts novel and innovative? Are new methodologies or technologies developed?

Mark \_\_\_\_\_%

**Benefits and Outcomes.** These may be scientific, social or policy/management related. Are these valid in the context of the problem and aims? Do these appear valid and genuine? Not trite and trivial? Has the student convinced you that the research is meaningful and likely to succeed?

Mark \_\_\_\_\_%

**Logistics, Personnel and Resources.** Have they listed all people involved and their roles? Do the resources match the information provided in the methods section? Is a timeline set out clearly and have all the elements of the project been included? Does the allocation of time appear appropriate and have any contingency plans been noted?

Mark \_\_\_\_\_%

**References.** Are the references uniformly and correctly cited throughout, without omission and without the inclusion of uncited work? (Note: a smaller font was permitted for references)

Mark \_\_\_\_\_ %

**Elements of structure and presentation**

Mark the proposal on the basis of the following.

Overall **structure.** Are ideas are organized into a coherent sequence, and are there clear links between relevant information in introduction and the methods. Are these ideas presented in a clear and cogent manner?

Mark \_\_\_\_\_ %

Overall **expression.** The expression should be clear and succinct, approximating the style of a published paper, correctly punctuated and virtually without grammatical or typographical errors.

Mark \_\_\_\_\_ %

**Illustrations and Tables.** Are figures clear and accurate? Are they all necessary, or referred to in the text and sufficient?

Mark \_\_\_\_\_ %

**Word Limit.** The limit was 4500 words, including all text and reference list but not including diagrams. You should penalize students that exceed the word limit.

**Additional Comments: (use additional sheets if required)**

Overall suggested mark .

Examiner: Name \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

## **ii) Preparation of a Literature Review**

The review should provide background information on the research project and include critical appraisal of previous contributions in the research area.

- a) **Title.** This does not have to be the same as your thesis title.
- b) **Word limit.** The review must not exceed 4,500 words of text excluding tables, figures and reference list. The review need not cover all previous work in the field, but should cover between 20-40 key references chosen in consultation with the supervisor and clearly indicated in the reference list.
- c) **Format and Style.** The review should be written in a clear and succinct style that would be acceptable to international scientific journals. Your review should contain an abstract. Consult the *Guidelines for preparation of the literature review*, and the *Style Manual for Authors, Editors and Printers of Australian Government Publications*, Canberra, 1978.

This is in all probability the first time you have had to polish up a piece of writing. Make certain you allow sufficient time for your supervisor(s) to read and comment on your draft, and for the necessary rewrite in the light of the criticisms. If you are concerned about the standard of your written expression, give your supervisor your draft work in sections so that you can correct faults in the later parts. The better the draft, the more detailed consideration it will receive from those reading it. Start work early! Do not concentrate on your experimental work to the detriment of assembling and reading the literature and preparing the review.

- **Expression.** Examiners will take into consideration the standard of writing (the clarity and correctness of expression, and the organisation of the content) in arriving at their mark. Make certain that you use spell check to remove as many typographical errors as possible, and proof read the final copy carefully. The hallmark of a poor review is to constantly lead with the author (e.g. “Smith (1970) found this but Jones (1972) found that”). Let the subject lead the sentence and start with keywords, that are linked to the previous sentence (don’t leave the link buried at the end of the sentence such as “While temperature can affect the growth of fish it is the water quality that is paramount....”). If there is no link, then start a new paragraph.
- **Content.** A literature review should summarise the published work in the field of the honours project, so as to provide a background for the thesis. It should demonstrate that you are aware of:
  - the factual knowledge, the interpretations that have been made,
  - the theories developed and the extent to which there is consensus or dispute in these areas of the field;
  - the methods used by various authors, and other available methods, and have an appreciation of their various strengths and weaknesses, and of any assumptions that are inherent in either the methods themselves or the interpretation of the results obtained.

The review should not become simply a list of what people have said. It is appreciated that students at this stage of their course will have a limited ability to evaluate critically the published work, but it is important that you make an effort to do so. Where later workers have disagreed with earlier workers, some assessment of the basis of this disagreement should be given, and a comment as to whether the change in interpretation or conclusion seems (on the face of the published evidence) to be justified. The most recent author is not necessarily right! Note also that a strict chronological

order may not be the most rational way to present developments in the field, and undue emphasis on the dates or authors' names detracts from the presentation of the ideas and observations.

- **Breadth:** The breadth of available literature in some fields is tremendous, and an exhaustive review of it would exceed the word limit. For this reason the review is expected to cover at least the 20-40 publications of most direct relevance to the honours project. Careful consideration to the selection of these 20-40 most relevant references should have been given (in consultation with supervisors). Examiners are then required to argue that a publication omitted from the review is of significantly greater import to the project than one of the 20-40 cited references before the student can be penalised for the omission.
- **Methods:** Students in ecological and physiological areas usually understand the importance of reviewing methods of investigation and types of experimental design available for their type of study. It is essential that the best ones are selected if the most is to be obtained from the project, so this is obviously an essential part of the literature review. Students in all areas should understand that alternative methods of analysis or investigation may exist, and the particular course of action they intend to follow in their project must be justified. Some methods that still appear in current literature may be quickly dismissed as being flawed in certain respects, but it is still important that students do clearly indicate why they have chosen the particular techniques.
- **Format:** Must be printed in a font no smaller than Times 12, double spaced on A4 paper, allowing an ample margin at the left for binding (say 3 cm), and on the other three sides to allow for subsequent trimming (say 2 cm). It must be contained within a secure folder, have a title page (bearing the words "Literature Review", the title of the review and the student's name, and have the student's name on the front outside cover or otherwise visible) and a Declaration page. Students are encouraged to use the spiral binding format that is available at the RAD Department, rather than the expensive and cumbersome spring-back folders.
- **Reference List.** The Literature Review must have reference citation in the text by author and date, in an acceptable and uniform style of a typical journal in your field.
- **Conclusion.** The conclusion of the lit review should spell out the actual experimental approach that the student will follow in their project. The point of the lit review is to lead the reader to the position where they are convinced that the student is addressing significant scientific question, and using a sensible range of methods to do so. Having this as a goal provides a useful criterion for what should and should not be included in the lit review, an otherwise tricky task. Don't focus on your thesis details; focus on the science and issues that your thesis will address.

Much of the following section on thesis preparation applies equally to the literature review.

### **iii) Submission Requirements for Proposal / Review**

- **In your 1<sup>st</sup> or 2<sup>nd</sup> session?** To keep each session balanced in 24/24 UOC, some students may have to enroll in BEES4521 in the 2<sup>nd</sup> session. Nevertheless, we expect that you will complete the literature review in your first session, unless you inform us otherwise. Your 2<sup>nd</sup> session is busy enough without a literature review as well.
- **Timing.** It is important to concentrate on obtaining and digesting the literature on your topic at an early stage. You should submit a plan of your literature review to you

supervisor for discussion and approval by Week 6. Hence, you need to have done most of the reading by the start of week 6; this also helps in the preparation of your introductory seminar. **A draft copy of your review may be submitted to your supervisor(s) by Week 8** to allow sufficient time for detailed criticisms to be provided and for you to act on them, and also for you to correct and proof-read the final copy. Comments may be solicited from other persons (except your examiners) providing it is the same version of the draft in each case.

- **Draft review.** You should get detailed criticism of **one draft** of your written work, but after that the actual writing must be your own work. This does not mean that you should not seek help on specific points or discuss any problems you are having with content, organisation or style. There are also many people (staff and research students) in the School who you will find willing to help you with problems. It is up to you to make certain you get the most out of your honours year. Acknowledge the help you have been given. You can obtain comments from more than one person so long as it is **exactly the same draft** that is being commented on. Your examiners will not comment on the draft of your literature review or thesis. Remember that they are not necessarily expert in your field, but are chosen to provide breadth of expertise and to help maintain uniform standards across the school. Be careful about plagiarism; acknowledge sources.
- **Submission.** See the Course Schedule in Section 6 of the Course Outline. One hard-copy (paper-copy) for each examiner plus supervisor needs to be submitted to Matt Hunt or Ann Lonergan in the BEES Student Office (Rm G27) **by 12 noon on Monday 18<sup>th</sup> May** (start of Week 10). Students must discuss with their supervisor the impact of field work or other specialised requirements of their project on their ability to meet this deadline. Later requests will not be viewed favourably.

Ensure that you have completed, signed and attached a declaration page (see over) to your review/proposal

- **External co-supervisor?** The student is responsible for getting a copy to the external supervisor.
- **Assessment.** Your work will be assessed by two internal examiners and your supervisor(s). You will be notified when this panel has finalised a mark which should be by the end of session.. You should be notified of the panel's agreed mark by your supervisor, and all copies of the review should be returned to you by the end of the Session One exam period, with annotations and a written critique, so that you may benefit from these comments when writing your thesis. Contact the honours coordinator if you do not get this feed-back.

An example of the marking sheet used to assess your Research Proposal is included on the following page.

**BEES Honours Assessment Sheet for the Literature Review**

Please indicate the standard of the thesis by circling the alternatives 10-1 below, and itemise main faults/weaknesses in the margins or on the back of this sheet. A clear failure would be score of  $\leq 3$ .

Student \_\_\_\_\_ suggested mark \_\_\_\_\_. %

1. Overall **structure**: for an excellent score of 10, the thesis should have a consistent and unified argument whereby ideas are organized into a coherent sequence, links between relevant information in methods, results and discussion are clear, and conclusions follow directly from the information presented. Please circle your response:

10    9    8    7    6    5    4    3    2    1

2. Overall **expression**: for an excellent score of 10, the expression should be clear and succinct, approximating the style of a published paper, correctly punctuated and virtually without grammatical or typographical errors.

10    9    8    7    6    5    4    3    2    1

3. Is the **Introduction and definition of the problem** lucid, accurate and succinct?

10    9    8    7    6    5    4    3    2    1

4. Are the **Abstract** and conclusion clearly expressed, complete and fully justified by available data?

10    9    8    7    6    5    4    3    2    1

5. Are the **illustrations** of excellent quality, being clear and accurate? Are they all necessary, or referred to in the text and sufficient?

10    9    8    7    6    5    4    3    2    1

6. **References**: for an excellent score of 10, the references should be uniformly and correctly cited throughout, and the bibliography should list them correctly, uniformly, without omission and without the inclusion of uncited work.

10    9    8    7    6    5    4    3    2    1

Further comments (use other side if additional space required)

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Examiner /Supervisor \_\_\_\_\_ .

Extension. \_\_\_\_\_ .

Agreed Mark \_\_\_\_\_ %



**The University of New South Wales  
Faculty of Science  
School of Biological, Earth and Environmental Sciences**

BEES4521 - Literature Review /Project Proposal  
Declaration page

I hereby declare that this submission is my own work and to the best of my knowledge it contains no plagiarised material. I have a back up copy of this literature review/project proposal

Word count: .....

(Signed).....Date.....

## Section D: THE HONOURS PROGRAM

### 1. Introductory Seminar

This is compulsory for all honours students and is normally completed in Weeks 3 of your first session. The exact dates and times will be announced in Week 2 of session.

The seminar will be a public presentation of **no more than 15 minutes** duration (12 min seminar, plus 3 min questions). It will outline the research project you are undertaking and should set out the aims of the project and detail the methods by which they will be achieved. It is not intended to be an oral presentation of the literature, although reference to previous work will usually be appropriate in setting out the problem that is being addressed. It is intended to produce constructive criticism of your project at a time when you can still implement suggestions.

The seminars are usually held in Room 456. If you wish to use Powerpoint as part of your seminar then you should load the relevant files on to the PC in the seminar room before you give your presentation – your 12 minutes begins when you arrive at the lectern, so don't waste it on uploading. One possible format is to give nearly 50% on the background and needs of your research, then Question 1, Expectation; Method, Question 2, Expectation; Method etc etc.

This seminar forms part of BEES4511 and is marked accordingly. Students will also receive written criticisms of their presentation and content as part of the effort to improve oral skills.

### 2. Final Seminar

This is compulsory for all honours students and is normally completed in Week "13" of your final session. The order of presentations will be determined by the Honours Coordinator and exact dates and times will be advertised in Week 12 of Session.

Students will present to interested members of the School a seminar summarising their project. Particular emphasis should be given to the results of the project and a discussion of their significance. The presentations are **not to exceed 15 minutes**, and will be followed by a period of **5 minutes** of questioning, initially by the examiners and then by other members of the academic staff or research associates. Honours and research students of this school are welcome to attend these orals.

The seminars are usually held in Room 456. If you wish to use Powerpoint as part of your seminar then you should load the relevant files on to the PC in the seminar room before you give your presentation – your 15 minutes begins when you arrive at the lectern, so don't waste it on uploading.

The final seminar is worth 5% of the project/thesis mark.

### **3. The Thesis**

- a) **Format and Style.** The written report on the project should be designed to be read in conjunction with the literature review. It must be written in a clear and succinct style. Your supervisor will provide general guidance on the organisation of the thesis, and will make detailed criticisms of one draft of each section. Make certain you commence writing early enough to allow for considered reading and improvement of your initial draft. See *Other details* (below). In general the format should be that of a manuscript ready for submission to a journal (such as *Austral Ecology*) with Abstract, Introduction, Methods, Results, Discussion, References, Tables and Figures.
- b) **Word Limit.** The general limit of 9,000 words of text applies for most theses, excluding tables, figures, references and the literature review. Shorter theses will be welcomed. Theses in the fields of Geography and Geology, supervisors may wish to relax this limit somewhat, but students should be aware that examiners and modern scientists expect a short terse document rather than a long discussion. A “thesis” is almost an anachronism, and most universities expect postgraduate theses to be a collection of research papers. Honours theses are no exception.
- c) **Submission.** To BEES Student Office (Rm G27) **by 12 noon on Monday 19<sup>th</sup> October (start of Week 12).** **Late submission will incur penalty marks.**  
You are required to submit one hard-copy (paper copy) for each examiner on your panel, plus one extra copy (see below). The literature review should be bound with your thesis but the review will not be re-assessed (though typos and of course major flaws should be corrected). The thesis is meant to be read in conjunction with it, and reference may be made to it in the thesis.
- d) **Number of copies:**
- One copy for each examiner, plus the supervisor(s) – i.e. **3-4 copies**. You may collect the remaining copies from your supervisor the day after the examiners' meeting (supervisor(s) get to keep one!). One copy of a Geology thesis is usually retained by the school, and will be arranged by the supervisor or Geology honours coordinator.
  - **Plus** one digital copy, on CD. You can also re-submit an electronic copy with any revisions after the final seminar. This digital version will be uploaded on to the UNSW digital thesis repository system. This system was being revised in 2008/2009. More information will be made available when it comes to hand.  
Some geology theses may be very difficult to submit digitally, in these cases just lodge the elements of your thesis can be converted easily into CD format (eg text).
  - The student and/or supervisor is responsible for getting a copy to your external co-supervisor by express post, e-mail etc.
  - Thesis submission will be incomplete until the correct number of copies has been received. You will receive a receipt from the School secretary, noting these submissions.
- e) **Raw data in an appendix?** You must include (if possible) the raw data in an appendix for both paper and electronic versions of your thesis. If this is impractical, then leave the raw data only in the electronic (.pdf) version (all of which must be e-mailed to [d.perdriau@unsw.edu.au](mailto:d.perdriau@unsw.edu.au) ). Some thorough students may wish to include data in a more accessible form (.txt, or .xls) and images on a CD that is left in the back cover of two copies

(e.g. their own and the supervisor's) - but this is not compulsory. If room a second electronic copy (.pdf format) is a good idea.

- f) **Thesis typing.** Start with the Methods and Results well in advance of the deadline. Even if you are a speed typist, there are many other things you will need to do, such as illustrations, analyses, proof reading and correcting. DO NOT leave the printing and photocopying of your thesis until the final day. This should be done by the previous Friday. First, it is a lengthy business, and collating and inserting figures takes many hours. Second, laser printers and photocopiers have a habit of going wrong. Third, other people may be using them for large print runs, and you are not the only student. There has been a long line of tearful stressed-out students pleading for an extension because they have been unable to print their thesis in time. This excuse is not viewed sympathetically; penalties for late submission are applied.
- g) **Thesis printing.** If you prepare your written work on one computer (say, at home) and print it from another computer (say, in the lab), this is very likely to cause changes in format so that all the careful spacing and pagination has to be tediously redone. This may be true even when the same word processing program has been used. The problems will be much worse if different programs have been used. Leave the detailed formatting until you are printing, and allow the time required.
- h) **Presentation.** Marks are not awarded for fancy presentation or technicolor figures. Keep it simple. Inserting figures/tables into the text takes time. Print them on a separate unnumbered page so they can be easily inserted between the relevant pages of the text when that has been printed (you may insert figures into the text, but it can jumble up the flow of text across pages, especially with last minute editing). The vast majority of theses (except for some GeoScience theses) will be in the form of a simple manuscript, without chapters, potentially ready for submission to a journal.
- i) **Marks.** After your final seminar, the final marks are determined following consideration by a meeting of all examiners shortly after the final seminars.
- j) **Other details:**
- Print the thesis on single sided and double spaced A4 paper, with adequate margins to allow for binding.
  - The thesis must have the pages numbered (although in rare circumstances each chapter may be numbered separately, in the style 1-1, 1-2, etc.) Figures and tables should also be numbered, but if on separate pages, these need not have a page number.
  - Reference List. The thesis must have reference citation in the text by author and date, in an acceptable and uniform style of a typical journal in your field.
  - **Literature review.** Include the corrected literature review with your thesis and have them bound together.
  - The thesis must be bound, together with the literature review, within a secure binder, and bear the student's name clearly on the outside of the front cover. You are encouraged to use the spiral bindings, rather than cumbersome spring-back folders.
  - There is no need to provide a separate list of figures or tables as in older theses.
  - If you wish, you may insert the figure and caption into the body of the text where appropriate. This may produce difficulties in page formatting, leaving half a blank page etc. Consequently, each figure and caption should be presented on a separate page and inserted as appropriate into the Results section.

- Any of the generally accepted formats of citation by author and date, and referencing, may be used so long as it is consistently applied. Write your thesis like a paper for publication, or like a report to industry or council.
- Include if possible the raw data in an appendix for both paper and electronic versions of your thesis. If this is impractical, then leave the raw data only in the electronic (pdf) version, which must be e-mailed to [d.perdriau@unsw.edu.au](mailto:d.perdriau@unsw.edu.au)
- Appendices may be used to include material that is peripheral to the project, or to present full details of methods used or large assemblages of primary data or in the GeoSciences theses for the systematic description of thin sections. Appendices will not be examined, although examiners may refer to them for evidence that the student has carried out proper techniques, or to examine the primary data. Appendices are not to be used as a way of exceeding the word limit on the thesis. Excessive appendices are discouraged.
- Order of pages (see next page for example):
  - Page 1 project title and student's name, date, etc.;
  - Page 2, Declaration page; (see next pages, or the Web-CT site)
  - Page 3, Table of contents;
  - Page 4, Acknowledgements;
  - Page 5, Abstract;
  - Page 6, Introduction etc.;
  - In geology there is a field thesis directory form, to be inserted before any appendices. See next few pages.

**Examiners will look for:**

- a) a clear definition of a problem;
- b) careful documentation of methods and materials, and a critical assessment/justification of methods used where appropriate;
- c) appropriate analysis of the data;
- d) proper interpretation of results leading to justifiable conclusions;
- e) critical discussion of results in the context of previous work in the field;
- f) evidence of ability to perform experiments, make good quality preparations or accurate observations as appropriate to the field;
- g) ability to write a well organised report in a clear succinct style and prepare good quality illustrations.

# **Title of Biological, Marine, Geographical or Geological honours thesis**

Insert photo or diagram (optional)

**Jane M. Smith**

Supervisor(s):  
Dr Mike Michaels,  
Professor Mary Jones-Smith

---

Submitted in partial fulfillment of the requirements for the degree of Bachelor of xxxxx,  
School of Biological, Earth and Environmental Sciences,  
Faculty of Science,  
The University of New South Wales

**June (or November) 200X**



**The University of New South Wales  
Faculty of Science  
School of Biological, Earth and Environmental Sciences**

Honours thesis project declaration page

I hereby declare that this submission is my own work and to the best of my knowledge it contains no materials previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at UNSW or any other educational institution, except where the acknowledgement is made in the thesis. Any contribution made to the research by others, with whom I have worked at UNSW or elsewhere, is explicitly acknowledged in the thesis.

I also declare that the intellectual content of this thesis is the product of my own work, except to the extent that assistance from others in the project's design and conceptions or in style, presentation and linguistic expression is acknowledged.

I HAVE / HAVE NOT submitted an digital copy of this thesis

Word count excluding references, tables and captions: .....

(Signed).....Date.....

Thesis committee (names, not signatures):

Supervisor.....Co-supervisor.....

Committee:.....

.....  
.....

I am fully aware that the School retains a copy of the thesis and is free to allow them to be consulted or borrowed. The thesis may be restricted for up to 2 years or longer by a written request to the Head of School.

**FIELD THESIS DIRECTORY**  
THE UNIVERSITY OF NEW SOUTH WALES  
SCHOOL OF BIOLOGICAL, EARTH AND ENVIRONMENTAL SCIENCES

FOURTH YEAR APPLIED GEOLOGY FIELD PROJECT  
SCIENCE HONOURS THESIS

Year.....  
*(Strike out whichever does not apply)*

THESIS TITLE.....

.....

AUTHOR: .....

SUPERVISOR (S):.....

ABSTRACT:

CO-ORDINATES OF MAPPED AREA  
NAME OF SHEET

SCALE:

References of map margins:

LATITUDE:  
LONGITUDE:

Area of Map:

SKETCH MAP OF LOCATION: (Showing grid and naming source of grid, or latitude and longitude, plus a few conspicuous geographical features such as towns, main roads, rivers, Etc. and stating any distances in km).

## Section E: BEES4511 – Professional Skills

### 1. Course Overview

This course is offered in both S1 and S2. It will provide you with practical library, writing and speaking skills, plus safety and ethics, necessary for your honours year. This is a one session subject with formal classes on Tuesdays (2 to 5 pm) and Wednesdays (10 am to 1pm) in the School Seminar Room (Room 456). It must be taken during your first session of enrolment and is thus the core components are offered in both sessions. **Students must plan their field work around these times.** Attendance will be recorded. There is no text with this course. Readings specific to each unit will be handed out the week before (e.g. Kingsford and Battershill 1998, or posted as a .pdf document).

The course is broken into five modules, of which Modules A-D, F and I are compulsory, and the fifth is chosen from E, G or H.

### 2. Staff and contact details.

David Edwards is the course co-coordinator. His office is Room 543C and he can be contacted on ext 58064 or email at [D.Edwards@unsw.edu.au](mailto:D.Edwards@unsw.edu.au).

Contact details of other staff involved in the course are shown below:

<u>Name</u>	<u>email</u>	<u>phone ext.</u>	<u>Room</u>
Anton Crouch	<a href="mailto:a.crouch@unsw.edu.au">a.crouch@unsw.edu.au</a>	5-8098	628
David Hair	<a href="mailto:d.hair@unsw.edu.au">d.hair@unsw.edu.au</a>	5-2192	503
Wendy Shaw	<a href="mailto:w.shaw@unsw.edu.au">w.shaw@unsw.edu.au</a>	5-3715	613
Iain Suthers	<a href="mailto:I.Suthers@unsw.edu.au">I.Suthers@unsw.edu.au</a>	5-2065	410

### 3. Assessment:

<u>Module</u>	<u>Value</u>
A) Risk Assessment	10%
C) Presentation Skills	20%
F) Ethics	20%
E, G, H)	40%
J) School seminar attendance	10%
<b>Total</b>	<b>100%</b>

## **Module A - Introduction and OHS**

Conveners:	David Edwards
Other Staff:	David Hair
Session:	1 and 2
Time:	Week "0", Tuesday , Wednesday 10 am-12 noon
Place:	Typically Room 456 but check
Contact hours:	2 hours (max)
Assessment:	Risk Assessment form to David Hair by Monday Week 3 Re-assessment meeting Week 5 (TBA).
Value:	10% of BEES4511

### **CONTENT:**

#### Week 0, Tuesday Room 456

- David Edwards: Introduction and outline of Honours Program and BEES 4511 Modules
- David Hair : Occupational Health and Safety

### **Administrative and Assessment Tasks**

#### **Project Information sheet for Honours due Monday of Week 1**

#### **Trial Risk Assessments for Post Graduates and Honours – due Week 3**

(nb this is a Trial RA – not necessarily the real thing if more complicated than computer modeling). After hearing from the School's risk assessment officer you should fill in your forms (included with this guide, or see BEES web site) and submit it to the BEES Student Office by 4 pm Monday in Week 3.

Re-assessment in Week 5 (probably Wednesday, TBA).

*Sometimes these RA's are being relied upon for the students' theses. That is not the intention of the exercise. What should happen is that at the planning stage, you should have ensured a risk assessment was developed and that it is the one that is used by the student. What they do for Essential Skills is purely an exercise to introduce them to OHS requirements in the real world. Please ensure that the actual, legal RA being used is of a reasonable standard and takes account of the risks to which they are exposed in the production of their theses.*

## BEES Honours Research Project Information Form

Form is to be completed by the honours student in consultation with the supervisor and returned to the honours coordinator by hard copy or e-mail by the end of **Week 1** (in your first session).

1) Name of Student:.....ID number .....

2) Name of UNSW Supervisor(s).....

(Name of external co-supervisor .....Phone.....e-mail: .....)

3) Please circle the appropriate response:

- Honours in: Botany/Ecol/Zool/Biol/Genetics/Bio-Marine/Phys-Marine/Geology/Phys. Geog./ Human Geog/ENVS- \_ \_ \_ \_
- Are you full time or part time? **FT / PT?** If PT, then over **3 sessions** or **4 sessions?**

4) If you are doing the new BEES honours format, please provide the course codes of other 6-UOC subjects to be completed below. Professional Skills is compulsory for virtually all BEES honours students.

i) BEES4511 - Professional Skills **YES or NO?** .....**In S1 ...or.... S2 ?....**

ii) BIOS4521 - Literature Review **YES or NO ?.....In S1 .....or...S2?**

iii) ..... (Level II, III or IV course)

iv) ..... (Level II, III, or IV course)

5) In Professional Skills, which module did you choose? (circle one)

Module E (Quantitative Methods);  
Module G (Geology Professional Practice);  
Module H (Human Geography).

6) Tentative Title of Thesis Project:.....

7) Brief summary of project (4 lines, including aims)

.....  
.....  
.....

8) Funding requirements and sources if >\$500

.....

9) Student signature & date:.....

10) Supervisor signature & date: .....

By signing here, the supervisor(s) acknowledges supervision of the student, AND that they will be on campus for the duration of the project (ie not away for >6 week continuous period). A co-supervisor may be located off campus. The supervisor has ensured that the project is clearly within the expectations of a 24 UOC project and thesis.

## **Module B – Library Research Skills**

Conveners: David Edwards  
Other Staff: Rachel Lawson UNSW Library  
Session: 1 and 2  
Time: Week 0 Wednesday 10 am -12 noon  
Place: Typically Room 456 but check  
Contact hours: 2 hours (max)  
Assessment: Nil

### **CONTENT**

#### **Week 1, Wednesday: Room 456**

10 am. Library skills I and II Room 456

Convener: John Elias . Provides training in searching electronic data bases and software for storing and handling literature citations.

Students will need to complete a workshop task on using databases from UNSW library to find research material.

## **Module C - Seminar Presentation Skills**

Conveners S1/S2: David Edwards ...

Session 1 and 2

Time: Week 0 Thursday 1 pm – 3 pm and Friday 10 am 12 noon

Week 1, Tuesday 2 pm - 5 pm and Wednesday 10 am 1 pm

Place: Room 456

Contact hours: 10 hours (max)

Assessment: Based on contribution to discussion, attendance etc, but not on presentation. Notes on your performance will be linked to Intro and Final Seminars.

Value: 20% (10% participation and peer assessment of trial seminars, 10% on Intro-proposal seminar)

### **CONTENT:**

Students will be required to investigate an assigned topic and present a 10 minute trial seminar on it to the group. Topics and times of presentations will be allocated in Week 0. The trial presentations will be critically reviewed by David Edwards and also peer assessed.

The Introductory Honours Seminar will usually be held in Week 3 ( but check depending on Public Holidays and mid session breaks) and this will be marked by 2 BEES academics (one of which is usually David Edwards)

**Honours Seminar Marking Sheet**

**Student:** ..... **Examiner:** .....

*Our ideal seminar is a free, enthusiastic and confident presentation that guides us through some interesting work. The main points are explained with the aid of suitable visual aids. Audience questions are answers with in courteous and considered responses.*

Under the following headings, ticks mean things done particularly well and crosses indicate problems or room for improvement.

<b>Structure of talk</b>	<b>Skills</b>	<b>Proposal</b>	<b>Final</b>
Introduction of topic / problem			
Elaboration of topic / problem (& hypotheses)			
Description of methods			
Interpretation and resolution of topic / problem			
Conclusion			
<b>Manner and delivery</b>			
Clear audible and flowing delivery			
Calm, collected and erect posture			
Addresses and makes contact with audience			
Enthusiastic tone			
No distracting mannerisms			
Not unduly bound to notes or projections			
Free flowing, not stumbling / ums and errs			
Time			
<b>Visuals</b>			
Unified and well chosen style			
Size and clarity of lettering			
Size and clarity of graphics			
Not too much text or crowded slides			
Left on long enough to make point			
Setup and control of equipment			
Use of pointer			
<b>Question time</b>			
Attention to questions			
Positive and civil attempt to respond			
<b>MARK</b>			

## **Module D - Writing Skills**

Convener: David Edwards

Other staff: Pam Mort UNSW Learning Centre

Session 1 and 2

Time: Weeks 4 and 5, Tuesday pm and Wednesday am

Place: Room 456

Contact hours: 8 hours (max)

Assessment: No written assignment

### **CONTENT:**

Technical writing skills. Provides instruction which will assist you, directly or indirectly, in a variety of writing tasks, including the writing of literature reviews, theses, abstracts, grant proposals, job applications, reports, scientific papers and CVs.

These workshops are essential for completion of your thesis. We shall be looking at a selection of students theses submitted over the past 20 years.

A variety of workshop tasks will be completed that provide you with self assessment of your writing skills.

Detailed information about the format and structure of your Literature Review/Project proposal and thesis will also be provided.

## **Module E - Quantitative Methods**

Convener: David Edwards

Other Staff: Alistair Poore

Peter Banks

Dan Ramp

David Cohen

Shawn Laffan,

Bryce Kelly,

Iain Suthers,

Kim Jenkins

Session 1 only

Time: Weeks 6 - 9; Tuesday pm and Wednesday am

Place: Room 456

Contact hours: 18 hours (max)

Assessment: a 90 min test in Week 9

Value: 40% (to be scaled with other modules)

### **This module is Optional**

#### **CONTENT:**

This module is designed to provide an overview of advanced topics in quantitative methods including:

- Experimental design – terrestrial/floristic
- Patterns in Multivariate data
- Multivariate analyses: MDS, ANOSIM and PERMANOVA (Alistair
- Use/abuse of Null Hypothesis testing and tips for alternate modelling approaches.
- ANCOVA, Multivariate analyses, time series, graphing the third dimension, SI units
- Mixed model ANOVAs and their application to ecological problems
- Spatial Data Analysis
- Data visualization techniques

## **Module F - Professional Ethics**

Convener: David Edwards

Session 1 only (students starting in Session 2 will complete this module next year or sit in on the classes at the end of their 3<sup>rd</sup> year )

Time: Weeks 9, 10 and 11: Tuesday pm and Wednesday am

Place: Room 456

Contact hours: 12 hours (max)

Assessment: One hour test Wednesday in Week 12

Value: 20%

**This module is Compulsory.**

### **CONTENT:**

**This module draws on a variety of staff from UNSW and associated institutions.**

#### **Topics covered include**

- Business of Fraud (Dr David Cohen),
- Animal Care & Ethics (Prof. Margaret Rose),
- Human Ethics (Dr Wendy Shaw), [w.shaw@unsw.edu.au](mailto:w.shaw@unsw.edu.au) OK08
- Interesting case studies of fraud (Iain Suthers)

#### **Other speakers include**

Dr Anthony Coronas, History & Philosophy of Science1

Tracy Wilcox, School of Organisation and Management, Australian School of Business

**Course Assessment** will be a 1 hour test (10 short answer questions, 6 min each) to be held in Week 12.

## **Module G - Geoscience Professional Practice, 2008**

Convener: Anton Crouch

### Session 1 only

Time: 10 am, Mondays and/or Tuesdays or Wednesdays, Weeks 8 to 10  
(4 May to 20 May 2009)  
Place: Biological Sciences Room 608 (Conference room)  
Limit: 10 students  
Contact hours: 15 hours (max)  
Assessment: Project budgeting (20%); resource estimation (20%)  
Value: 40% (to be scaled with other modules)

### **This module is Optional**

### **Content**

- Project management and budgeting
- Environmental guidelines and land access
- Introduction to metrology
- Evaluating and reporting of resources and reserves
- Geoscience professionalism

### **References**

- Australian Institute of Geoscientists  
<http://www.aig.org.au/>
- Australasian Institute of Mining and Metallurgy  
<http://www.ausimm.com.au/>
- Australasian Institute of Mining and Metallurgy, 2001. *Field geologists' manual*. Monograph 9, 4<sup>th</sup> edition, AusIMM, Melbourne.  
UNSW library has 3<sup>rd</sup> (1995) edition, P550.202/1 E
- Australasian Institute of Mining and Metallurgy, 2007. *Field guide for geoscientists and technicians*. CD-ROM, 2<sup>nd</sup> edition, AusIMM, Melbourne.  
UNSW library has 1<sup>st</sup> (2004) edition on CD-ROM, S 550/201
- Coalfield Geology Council of NSW, 2003. *Australian guidelines for the estimating and reporting of inventory coal, coal resources and coal reserves*  
<http://nla.gov.au/nla.arc-45302>
- Hand, DJ, 2004. *Measurement theory and practice*. Arnold, London.(UNSW library P519.5/171)
- Hartley, JS, 1994. *Drilling: tools and programme management*. AA Balkema, Rotterdam. UNSW library P622.23/63
- Joint Ore Reserves Committee (JORC), 2004. *Australasian code for reporting of exploration results, mineral resources and ore reserves + updates*  
<http://www.jorc.org>

## **Module H: 'Geographical Practice'**

Convener: Dr Wendy Shaw,

Session 1 only

Time: TBA

Place:

Limit: 20 students

Contact hours: 18 hours (max)

Assessment: See below

Value: 40% (to be scaled with other modules)

This course provides context for Geographers, and those interested in the wide terrains covered by the discipline. The three topic areas are:

1. Geographical paradigms -- this topic considers the history of geographical thought and consists of one two hour lecture and a workshop on current trends in Geography, based on readings from 'Progress in (Human or Physical) Geography'.
2. Qualitative methods -- this topic (re)introduces the use of Qualitative methods in Geography. Specifically, it is concerned with the use of discourse/text, as data, and the ways of organising and analysing that data. There will be a two hour lecture, and a workshop in Discourse Analysis.
3. NSW Geographical Society Annual Honours Conference in November. This one-day conference provides a forum for Geography Honours students from all over NSW to showcase their thesis. Therefore, the third topic in Module H consists of attendance and presentation of Honours thesis work (in progress or final summation), which will be assessed.

Assessment for Module H.

1. 1000 word essay on the evolution of geographical thought (30%)
2. Short assignment on Discourse Analysis (30%)
3. Attendance and presentation at NSW Geographical Society Annual Honours Conference (40%)

NB Those students starting in S2 and wish to take this module should liaise with Wendy Shaw by Week 4. You will re-present your Introduction seminar at the Annual Honours Conference in November, and complete the rest of the module (lectures, assignments) in S1 next year.

## **Module I: BEES Seminars** **(including Careers Seminar for BEES Graduates)**

Students are required to attend the school seminars during both sessions, we require that you attend at least 5 (five) full school seminars (ie not a 20 min. intro honours seminar) and have a form signed off by any BEES academic. Any bona fide academic from another school or university's seminar is also acceptable. Attendance in past years by students (and academics) has been abysmal.

These are held at 4 pm on most Thursdays (staff and external speakers) and at lunchtime on some Tuesdays (postgraduates and honours students) in Room 456. The programs will be displayed on the School web site. This is also a good time to see how seminars should be done (and sometimes how they should not be done).

Some students seem puzzled about our insistence on attending seminars outside their narrow research area. One answer is that we are encouraging you to learn and think broadly that may assist in unanticipated ways with your thesis or your future employment. Another answer is that you are graduating with honours from the School of Biological, Earth and Environmental Sciences, and we want you to have a broad experience of biology, earth and environmental sciences.

### **Careers Seminar**

**Presented by Eva Chan from UNSW Careers and Employment**

Contact Details:      [Eva Chan, e.chan@unsw.edu.au](mailto:e.chan@unsw.edu.au)  
Careers Consultant  
Careers and Employment  
University of New South Wales  
Tel: 02 9385 5430  
Fax: 02 9385 6145

Session 1 and 2

Time: Week 12

Place: Room 456

This is a compulsory seminar and workshop for all honours students. Post Grad students are also welcome to attend.

This workshop is designed to assist BEES students in exploring their career options, finding a job and developing their career management skills. Topics to be covered include:

- career options and recourses available to BEES graduates
- effective job search strategies for tapping into the hidden job market
- job analysis how to read between the lines of a job ad
- applying for a job including writing a cover letter and preparing a resume
- how to differentiate yourself from other applicants.

There will be plenty of opportunity to ask questions and work through specific examples of job applications.

## UNSW School of BEES weekly seminars:

**Student name:** \_\_\_\_\_

Please hand this completed sheet to the Undergrad Office by Week 12 of your first session (or in your 2<sup>nd</sup> session). Worth 10% of BEES4511

Date	Seminar speaker and approximate title	BEES Academic's name:	BEES Academic's initials:
	Careers Workshop with Eva Chan		

Students are required to attend the school seminars during both sessions, we require that you attend at least 5 (five) full school seminars (ie not a 20 min. intro honours seminar) and have a form signed off by any BEES academic. Any bona fide academic from another school or university's seminar is also acceptable. Attendance in past years by students (and academics) has been abysmal.

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## Section F : Beyond Honours

After completing your honours year you may seek employment or decide to pursue post graduate qualification.

### 1. Letters of reference

The School cannot provide unsolicited letters of reference for past honours students (legal reasons). The student must give us written authority. So do not use any of us as referees unless you make a written (e-mailed) request, including details of the position.

### 2. Postgraduate Studies

Again talk to your supervisor and write to other universities as well. Australians tend not to travel between their BSc and PhD which is most unfortunate, and in fact academically unhealthy. You should apply for an Australian Postgraduate Award (APA, ~\$20,000 pa tax free, full time, for Australian and NZ citizens and residents only) by late October (or late April for Session 2 start). University Postgraduate Awards are identical in all ways, but funded from a separate pot. I realize that October is a busy time for you, but it is worth the investment (see dot points below).

See <http://www.scholarships.unsw.edu.au/> for application form, conditions and details.

- You will have to apply to other universities separately for an APA, and you can apply to as many as you wish. E-mail possible supervisors there, visit them if you can or await an offer and then visit their lab. Other universities may have a lower cut-off mark for an APA. Remember that graduate students are the life blood of a university – they do the hard and insightful work, and bring in considerable funds to the school. So if you get an APA offer, you are often courted and flattered!
- There are Commonwealth Traveling Scholarships for overseas travel (NZ, Canada, UK), but are very competitive. Study in the US is difficult and expensive.
- There are APA(Industry) scholarships at around \$23,000 pa, with at least \$5,000 pa research costs, and don't require a first class honours pass. These are advertised individually in the major newspapers and by e-mail.
- For an APA you need at least 86% in your overall honours mark (leave that section of the form blank as your mark won't be known until November, when the School forwards the information), supplemented by nice letters of recommendation from your supervisor and one other referee. A publication and or work experience would also help. A brief general abstract is also required, but does not form part of the assessment (ie they won't hold you to it).
- **APAs at UNSW will be assessed by a formula based on your thesis mark (67%), the average of your Level III marks (33%), plus a further score out of 20 based on research experience, publications, referees reports and if your project fits the laboratory. Most universities use a similar formula.**
- You also need to apply to do a post graduate degree on a separate form with your nominated supervisor. Even if unsure, apply anyway, or apply to a couple of universities and you can always decline without prejudice.
- You need a separate application to apply for APAs at other universities – go to their web site.
- If successful you will be told by mail in usually late December. But don't panic if no letter – there is a second and third round of offers later on. You are required to take up

the scholarship within 6 months of the offer (in special cases your supervisor can plead and guarantee you will take it up in 8 or 9 months, otherwise the University loses your declined scholarship to Canberra).

- It makes your CV look great to be offered an APA, even if you decide to turn it down for a year and travel or work etc. If you do decline, you will have to reapply again and re-enter the competition the next year.
- You can hold only one APA in your life (ie can't have one for an MSc here, and a PhD there). If you accept and use more than 3 months of an APA, then you are ineligible to apply for another later on.

## **Section G: BEES 9011**

### **Professional Skills for Postgraduate Students**

**Times:** Starts Tuesday Week 0 10 am-12 noon  
Then mostly Tuesday 2 – 5 pm and Wednesday 10 am – 1 pm

**Venue :** Typically Room 456 but may vary in some weeks.

Newly enrolled postgraduate students are required to attend the Professional Skills for Postgraduates BEES9011 course, which is presented in both sessions. This is a similar course to BEES4511-Professional Skills for the honours program, and is divided into seven modules (A to G). Students are required to attend the course in either Session 1 or 2 of the first year of their enrolment. Because the schedule may change slightly from year to year, new students should consult the BEES website for dates (or the Course Coordinator, David Edwards).

The first class of Module A will be held from 10 am to 12.00 noon on the Tuesday of Week Zero. It is especially important as the Safety-OH&S lecture is given, and it is at this time that the course coordinator can meet with you. The venue is Room 456, Biological Sciences Building. All new postgraduate students are required to attend the Safety lecture of Module A in Professional Skills (Wednesday, Week 0) regardless of whether you completed UNSW Honours recently or not. It is recommended, but not compulsory to attend the Library Skills workshop in Week 0.

Students who have already completed the Professional Skills course (BEES4511) of the School's Honours Program, or an equivalent from a related institution may be exempted from the rest of the course. Exemption will be discussed after the first class meeting in Week 0.

All other new postgraduate students must attend the four core modules of BEES4511 (Modules A, B, C and D and F), as listed in the assessment table below. For some postgraduates, Modules E (Quantitative Skills), G (Geology Skills) or G (Consultancy & Business) – and their assessment – may be stipulated as necessary by the supervisor or postgraduate coordinator. Details of the course are in the Honours and Professional Skills Handbook which is available from the BEES Student Office (Rm G27) in Week 1, or can be downloaded from the school web site as a pdf, or a hard copy will be available in at the first meeting. (<http://www.bees.unsw.edu.au/current/year4/honours.html>).

*External students:* Special arrangements may be necessary for the attendance of students based off-campus. If you are in that position please see the Postgraduate Studies Coordinator.

#### **Assessment:**

Your performance in BEES9011 will be assessed on a Pass/Fail basis, and recorded in School files. Each student will receive an appraisal of their oral presentation from the conveners. The Introductory seminar may have been done before they do BEES9011, therefore we'll assess the mid term review seminar. Need to get Module Conveners to sign off on the following modules:

<b>Module</b>	<b>Assessment</b>
A) Risk Assessment(s)	Pass/Fail
B) Library Research Skills	Attendance
C) Presentation Skills (seminar)	Pass/Fail
D) Writing Skills	Attendance
E) Ethics	Pass/Fail

**Comment form for BEES4511 Professional Skills and for the honours year in general:**

Please fill in below and add your comments,

We would really appreciate your comments about the honours experience, particularly constructive comments so it can be improved in the future

1) Program: 3970, 3990, 3988, (Pls circle); Other \_\_\_\_\_

2) Honours in Biology, Genetics, Geology, Physical Geography, Botany, Ecology, Zoology, Marine Science & Environmental Science (Pls circle); Other \_\_\_\_\_

3) What are your comments on BEES4511? Satisfactory? Or lacking?

a) Module A?

b) Module B?

c) Module C?

d) Module D?

e) Module F?

f) Module E? or G?? or H??

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4) Are there generic problems with the honours project that we need to know?

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If you would like some feedback please leave me your e-mail address

## **KEY DATES**

### **Session One**

<b>Week Zero:</b>	<b>Introduction and OHS Meeting</b>
<b>Week 1</b>	<b>Trial Seminars Project Information Form due</b>
<b>Week 3</b>	<b>Introductory Seminars Risk Assessment Due</b>
<b>Week 10</b>	<b>Literature Review/Project proposal Due</b>
<b>Week 12</b>	<b>Careers Workshop</b>

### **Session Two**

<b>Week 12</b>	<b>Thesis Due</b>
<b>Week "13"</b>	<b>Final Seminar</b>