BACHELOR OF SCIENCE

With Honours

Honours Handbook

2024

scu.edu.au/science-engineering

CRICOS Provider: 01241G

Southern Cross University

Southern Cross University
Military Road
East Lismore NSW 2480

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Course and Enrolment Information

Introduction and overview

Welcome to the Faculty of Science and Engineering Honours program.

Congratulations on your acceptance into what will be an exciting research journey! This Handbook provides an outline of the course, details of assessment, and other information that will help you throughout your studies.

The Honours degrees are valued highly within the Australian university system. They have a long history in this country, stemming from various models of the British 'Honours' programs of the late 19th century. 'Honours' is interpreted differently at different universities, and even within one institution itself. For some disciplines, Honours may be part of the 4 year undergraduate course. In most cases, however, Honours is an independent, 'add-on' year of undergraduate study. In this model, the Honours student becomes a 'research apprentice' of sorts, learning the trade of rigorous scholarly enquiry and building a bridge between Bachelor level and higher degree studies.

This booklet is intended to provide you with an outline of the course, details of assessment and other information that will help you throughout the year.

In the Faculty of Environment, Science and Engineering, the Bachelor of Science with Honours program is a year of directed independent study based around an individual research project, which is offered to those students who demonstrate a meritorious performance in their undergraduate studies.

There are a number of reasons for undertaking an Honours course:

- The Honours course is designed to develop your research skills under the guidance and supervision of an academic staff member in an area in which you are interested.
- An Honours degree will provide you with a sound foundation for undertaking postgraduate research degree like a PhD, as well as essential skills should you pursue careers involving research, policy or public/private consultancy work.
- Undertaking Honours builds high level skills for managing a project and developing independent research skills.
- The Honours student is introduced to research methodology under the close supervision of a member of staff who possesses expertise in that area. It follows the traditional master/apprentice system and involves a close working relationship, and mutual responsibilities, between supervisor and student.

A member of academic staff appointed as the Honours Coordinator oversees the Honours program. Administrative support and student liaison services are also provided for the Honours program**. However, students are responsible for ensuring that they are correctly enrolled in the units that are specified, and hence should check their enrolment status throughout the year.** You should not hesitate to contact one of these staff members if you have any questions or concerns about the Honours program.

Honours Coordinators

Professor Symon Dworjanyn
Phone: (02) 6659 8109
Email: Symon.dworjanyn@scu.edu.au

Professor Christian Sanders
Phone: (02) 6659 8117
Email: christian.sanders@scu.edu.au

Student Adviser

Faculty of Science and Engineering
Phone: (02) 6626 9774
Email: fse.honours@scu.edu.au

Admission criteria

The criteria for admission to the Honours program is governed by the Rule 5 of the University Rules Relating to Awards.

Admission to Honours is based on a grade point average, usually a 5.00 or above (which equates to a Credit average) throughout your course/degree, or equivalent for students who completed their undergraduate studies elsewhere. However, students who can demonstrate an improved performance and academic record or who have professional experience in the specified area of research may also be eligible, subject to approval by the Executive Dean. If a student does not have a grade point average of 5.00, their prospective supervisor(s) can seek approval from the Executive Dean. This written approval must then be forwarded to the Honours Coordinator(s).

Timing

The Honours Courses are offered in regular full-time, full-time extended, as well as part-time mode (please see page 7 for details).

Students who fail to meet timelines without a satisfactory explanation and approved extension will be deemed to have failed their Honours year. Students must inform the Honours Coordinator of any problems being experienced with their progress well before submission date of the thesis. Please note that extensions will be considered only when circumstances such as illness have significantly impeded the student's progress. (See 'Important Dates & Timelines'.)

Research areas

In the first place you will need to find a supervisor who is an academic in the faculty who is willing to take you on. In the Faculty of Environment, Science and Engineering we offer a range of projects from many disciplines. One place to start is on the Honours project webpage https://www.scu.edu.au/science-and-engineering/honours-information/.

An academic staff member of the Faculty who is an expert in the proposed subject must be available to supervise the study. Some students choose to have a co-supervisor who is involved with research in the related area of the Honours project, in some instances this may be a scientist who is not an academic at SCU.

2024 Information

Bachelor of Science with Honours

The following course structure details may be subject to change. Please contact the University for confirmation of the structure before acting on this information.

Level of Award:	Undergraduate Honours Degree
Academic Organisational Unit:	Faculty of Science and Engineering
Campus:	Lismore, National Marine Science Centre, Distance
Course Mode:	Internal, Online
Duration:	1 year
Total Units:	8 equivalent units

Course structure

The Honours course comprises of seven ungraded and one graded unit. Each unit is offered in each session (Sessions 1, 2 and 3). Students must pass each unit to be eligible for an Honours Class. The Honours Class is based on four assessment items (a Research Proposal; Research Seminar and Abstract; Major Honours thesis; and Minor Honours thesis) that are completed as part of the units (see details in 'Guidelines for preparing and submitting the Honours assessment items'). The eight units are:

SCIN4002 Scientific Research: Context, Perspective and Method 1

SCIN4003 Scientific Research: Context, Perspective and Method 2

SCIN4004 Science Honours Thesis 1

SCIN4005 Science Honours Thesis 2

SCIN4006 Science Honours Thesis 3

SCIN4007 Science Honours Thesis 4

SCIN4008 Science Honours Thesis 5

SCIN4009 Science Honours Thesis 6

The Honours course can be completed as regular full-time, full-time extended, or part-time enrolment. Regardless the mode of study, intake into the Honours program is in Term 1, 3 and 5 each year. For regular full-time enrolment, students will take two units per term. For full-time extended, the first two units are spread over two terms, followed by two units per term for the remaining ones. For part-time enrolment, students take one unit per term (see table below).

How to apply and enrol

Application process

- Consult with academic staff to find a supervisor for your project.
- Once agreement has been reached regarding a supervisor and a suitable topic, apply for admission to the relevant Honours course. Apply online at https://www.scu.edu.au/study-at-scu/how-to-apply/
- Note: Existing SCU students can apply using the Applications tab within MyEnrolment.
- You must provide 1) a brief project proposal, which includes some evidence that you have a supervisor (copy of an email, or supervisors signature on the proposal), 2) your academic transcript, 3) written approval from the Executive Dean if you do not have the required grade point average.
- If you meet the eligibility criteria, you will then be offered a place in the Honours program.
- Please note: A condition of your offer will be the completion of a Supervisor/Candidate Agreement form, see Honours Information – How to apply.

Timing and application deadlines

The Honours program is offered as a regular 4 term full-time course, a 5 term full-time extended course, or an 8 term part-time course. Students have the choice of commencing their Honours studies in Term 1, 3 or 5.

Units to enrol in for full-time Honours

	Year 1					Year 2						
	Term 1	Term 2	Term 3	Term 4	Term 5	ST	Term 1	Term 2	Term 3	Term 4	Term 5	ST
Full-Time Term 1 start	SCIN4002 SCIN4003	SCIN4004 SCIN4005	SCIN4006 SCIN4007	SCIN4008 SCIN4009								
Full-Time Term 3 start			SCIN4002 SCIN4003	SCIN4004 SCIN4005	SCIN4006 SCIN4007	SCIN4008 SCIN4009						
Full-Time Term 5 start					SCIN4002 SCIN4003	SCIN4004 SCIN4005	SCIN4006 SCIN4007	SCIN4008 SCIN4009				
Full-Time Extended Term 1 start	SCIN4002	SCIN4003	SCIN4004 SCIN4005	SCIN4006 SCIN4007	SCIN4008 SCIN4009							
Full-Time Extended Term 3 start			SCIN4002	SCIN4003	SCIN4004 SCIN4005	SCIN4006 SCIN4007	SCIN4008 SCIN4009					
Full-Time Extended Term 5 start					SCIN4002	SCIN4003	SCIN4004 SCIN4005	SCIN4006 SCIN4007	SCIN4008 SCIN4009			
Part-Time Term 5 start	SCIN4002	SCIN4003	SCIN4004	SCIN4005	SCIN4006	SCIN4007	SCIN4008	SCIN4009				
Part-Time Term 5 start			SCIN4002	SCIN4003	SCIN4004	SCIN4005	SCIN4006	SCIN4007	SCIN4008	SCIN4009		
Part-Time Term 5 start					SCIN4002	SCIN4003	SCIN4004	SCIN4005	SCIN4006	SCIN4007	SCIN4008	SCIN4009

Important dates and timelines

The Honours course is a busy program of study in which you will have to balance several activities at the one time. It is critical that you prepare and follow a timeline, in negotiation with your supervisor/s. Below is a brief summary of each of the Honours units. More detailed information can be found in the UIG accessible through Blackboard.

SCIN4002 Scientific Research Context, Perspective and Methods 1

- Ungraded unit (SR)
- Verification from supervisor of satisfactory progress, Friday of Week 7

SCIN4003 Scientific Research Context, Perspective and Methods 2

- Ungraded unit (SR)
- Proposal due Friday of Week 7; require to score mark of 50% to satisfy requirements

SCIN4004 Science Honours Thesis 1

- Ungraded unit (SR)
- Verification from supervisor of satisfactory progress, Friday of Week 7

SCIN4005 Science Honours Thesis 2

- Ungraded unit (SR)
- Verification from supervisor of satisfactory progress, Friday of Week 7

SCIN4006 Science Honours Thesis 3

- Ungraded unit (SR)
- Verification from supervisor of satisfactory progress, Friday of Week 7

SCIN4007 Science Honours Thesis 4

- Ungraded unit (SR)
- Seminar presentation to be delivered Week 7; require to score mark of 50% to satisfy requirements

SCIN4008 Science Honours Thesis 5

- Ungraded unit (SR)
- Verification from supervisor of satisfactory progress, Friday of Week 7

SCIN4009 Science Honours Thesis 6

- Graded unit
- Minor report due Friday of Week 7; require to score mark of 50% to satisfy requirements
- Major report due Friday of Week 7; require to score mark of 50% to satisfy requirements

Support for Honours students

Financial assistance for research purposes

Student budgets of up to a maximum of $1,000 over the duration of their candidature will be available for students to access after successful completion of the Proposal assessment task. Please make sure to discuss your budget needs with your supervisor to ensure you don't apply for unnecessary items.

Students MUST email fsetechs@scu.edu.au regarding any technical-related purchases (e.g. chemicals, fieldwork gear, lab consumables/equipment, etc) BEFORE submitting an online purchase enquiry. Our technical staff have the expertise to assist you with your specific requirements and they will also advise you of any preferred suppliers. In some instances, technical staff need to be made aware of purchases that will be stored on campus (e.g. storing chemicals) to ensure compliance with safe work practices and WH&S. The university has many policies regarding procurement and students must submit a purchase enquiry using the online form at: https://www.scu.edu.au/secure/financial-services/purchases-and-payments/

procurement/enquiries/ to place an order using their budget. Following this process will ensure compliance with university policies. Sonia Weis (Lismore) and Georgia Foley (NMSC) may also be able to assist students with general purchasing or reimbursement queries.

All travel activities (including fieldwork or any overnight stays) are subject to university policies. The requirements are constantly changing and updating so students must contact SCU's Travel Team for assistance BEFORE making ANY arrangements. Students should submit a travel enquiry via the online form at: https://www.scu.edu.au/secure/financial-services/travel-services/enquiries/ and the Travel Team will assist you through the university travel approval and booking processes.

If you are an on-campus student and require access to Faculty printers (including photocopying), please email Sonia (Lismore) or Georgia (NMSC) with your request and student email address and printing/ copying access will be arranged for you.

Students are expected to track their expenditure and ensure the approved budget is not exceeded. Students may need to request a cost of their purchases from Finance when placing their online enquiry order. Student expenditure will be monitored by Sonia and Georgia, however students are responsible for not exceeding the approve budget as per their assessment.

Hire of Faculty equipment

The Faculty has a range of equipment that students are able to hire to assist you with your research. For equipment enquiries please make sure you see the relevant personnel:

Faculty vehicles	Lismore:	Email: fsetechs@scu.edu.au
	NMSC: Lara Reading	Phone: 02 6659 8103 Email: nmsc@scu.edu.au
Field equipment	Lismore:	Email: fsetechs@scu.edu.au
	NMSC:	Email: nmsctech@scu.edu.au

Faculty contacts

Contact	Area	Contact for	Phone	Email
Lismore Campus Technical Staff	Technical	Forestry equipment, workshop access, maps and mapping, surveying, SEM, microscopes, biology equipment, laboratory access, AV resources (posters, cameras, etc), chemistry equipment, boats, trailers, Faculty vehicles, workshop equipment, ecological sampling, traps, marine science equipment (Lismore), engineering equipment, SCGS equipment, SCPS equipment, assistance with ordering items of a technical nature		fsetechs@scu.edu.au
NMSC Campus Technical Staff	Technical	NMSC lab equipment, laboratory access, assistance with ordering items of a technical nature		nmsctech@scu.edu.au
Beasley, Amanda NMSC Technical and Laboratory Team Leader	Technical Team Leader	FSE laboratory and building inductions, fieldwork risk assessments, technical/laboratory enquiries/issues, office space	02 6659 8149	amanda.beasley@scu.edu.au
Lancaster, Graham	Environmental Analysis Lab	Analysis Lab, sample preparation and processing	02 6620 3678	eal@scu.edu.au

Contact	Area	Contact for	Phone	Email
Foley, Georgia NMSC Administrative Coordinator (Research)	Administration	NMSC mailtray and stationery supplies, accessing student grant funds, other administrative queries – can direct you to the right person/ area	02 6659 8102	georgia.foley@scu.edu.au
Weiss, Sonia Lismore Administrative Coordinator (Research)	Administration	Lismore mailtray and stationery supplies, accessing student grant funds, other administrative queries – can direct you to the right person/ area	02 6620 3124	sonia.weiss@scu.edu.au
Hill, Prof Jon	Faculty's Executive Dean	An appointment is essential to see the Executive Dean	02 6620 3557	ExecDeanSci-Eng@scu.edu.au
Cocks, Kristy	Executive Assistant to the Dean	Making an appointment to see the Executive Dean	02 6620 3557	kristy.cocks@scu.edu.au
Symon Dworjanyn (NMSC)	Honours Co-Coordinator	Honours application and enrolment queries, assessment items, Honours seminars, mark collation and grade recommendations	0467 217 666 (business hours only)	symon.dworjanyn@scu.edu.au
Sanders, Christian (NMSC)	Honours Co-Coordinator	Honours application and enrolment queries, assessment items, Honours seminars, mark collation and grade recommendations	02 6659 8117	christian.sanders@scu.edu.au

Other services

The University provides a number of support services for Honours students in addition to those provided by the Faculty, including:

- Personal counselling service
- Learning assistance
- Careers and employment advice
- Assistance through scholarships and bursaries
- Medical and dental services on campus
- Chaplaincy
- Student loans
- Library and research referencing support (e.g. Endnote)
- Technical support (email and network problems)
- Equity and disability support services
- Dispute resolution and grievance procedures

Please see the University Handbook for further details.

Dispute resolution and grievance procedures

In the event that students or supervisors have a difficulty or issue requiring assistance to resolve, the following procedures should be observed. Students should always seek assistance from their supervisor in the first instance. If a matter cannot be resolved satisfactorily, reference should then be made to the Honours Course Coordinator, then to the Executive Dean. Other mechanisms exist for formal appeals. Refer to the University Handbook.

Responsibilities of Honours supervisors

Supervision

The quality of the supervisor/student relationship is important in the satisfactory completion of Honours. Students should consider their compatibility with potential supervisors before a decision is made, and how their research interests or methodological skills match with the Honours proposal in mind. All Honours students work under the supervision and guidance of at least one qualified, research-active academic staff member. Where appropriate, and as approved by the Honours Course Advisory Committee, students may have more than one supervisor who may be able to contribute additional disciplinary or methodological expertise, or act as a 'back-up' for periods while the principal supervisor may be on leave.

Some students may already know which staff member they want to work with. To arrange supervision students should in the first instance contact the Honours Course Coordinator who will advise on academic staff members with appropriate expertise in the student's topic area.

The student should then arrange to meet with these staff to discuss their proposed research and the staff members' willingness to supervise. Once agreement on supervision has been reached between the student and supervisor, the nominated supervisor must be approved by the Honours Course Advisory Committee. The supervisory arrangement follows the traditional master/apprentice system and involves a close working relationship, and mutual responsibilities, between supervisor and student.

The Faculty of Science and Engineering supports SCU Academic Policy on Honours, which states that the academic staff involved in supervising Honours candidates, and the Honours Coordinators, should be active researchers and will normally have a higher degree by research, or at least have a sound background in research. As normal practice, associate supervisors are nominated to provide back-up if a supervisor becomes unable to act.

General responsibilities

Supervisors should:

- familiarise themselves with the 'Honours Courses Development and Administration Policy', available from the SCU Policy Library Honorary Awards and Titles Policy / Document / Policy Library (scu.edu.au)
- attend a Research Supervision Workshop conducted by the Office of Research, or equivalent; and
- advise the Faculty Honours Course Coordinator of any serious concerns or impediments to the student's progress.

There may be times when Honours students will be required to attend functions at SCU campuses other than the campus they are enrolled at. This will vary from year to year, and where possible the Faculty will endeavour to assist with transport. However, there may be occasions when students will need to bear the cost of their own travel. Such events will be kept to a minimum, and every effort will be made to provide a substitute offering (e.g. video conference or other online medium) so as to not disadvantage any student.

Specific responsibilities to students

Supervisors should:

- the supervisor is responsible for ensuring the project is logistically feasible within the available funding, facilities and personnel
- the supervisor should also provide timely feedback on the proposal to ensure the project is scientifically sound
- ensure they invest an appropriate amount of time, interest and commitment to support the student during the program
- complete and discuss with the student the 'Supervisor/ Candidate Agreement Form for Honours Students'

- commit to a weekly or fortnightly meeting with students, and to at least ten meetings during completion of the program
- advise and steer the development of the thesis topic and contents
- check research plans and ensure they are achievable within the times given
- provide assistance in completing ethics approval forms and risk assessments form
- monitor progress
- provide assistance in overcoming problems and impediments
- advise on analysis and interpretation
- check drafts and provide timely feedback on the thesis
- advise the Honours Course Coordinator and Faculty Honours Advisory Committee about suitable Examiners
- advise and work with students on appropriate publishing opportunities either during the Honours year, or directly following submission. Publications are very important in terms of scholarly output for the Faculty, but also for Honours students who wish to enrol in further higher degree research (such as a PhD or Masters by Research), and gain scholarships for that study. Supervisors and students should discuss honestly at the outset their arrangements for first publication and authorship.

Responsibilities of Honours students

Honours students should:

- complete and discuss the Supervisor/Candidate Agreement Form with their supervisor
- maintain regular contact with their supervisor and attend all scheduled meetings
- receive direction, advice and criticism in good faith (you are not bound to comply, but in most cases your supervisor will know when things aren't looking 'right')
- provide drafts of proposals, contents, sections of thesis etc. according to the timetable negotiated with the supervisor
- ensure that all material given to the supervisor is carefully written, typed and grammatically correct (as far as possible)
- abide by the University rules relating to plagiarism and Rules for Bachelors Degrees with Honours
- comply with the University rules and requirements pertaining to research ethics. See http://www.scu.edu.au/research/index.php/40

Appreciate that supervisors have many other commitments and their time is very valuable. Your supervisor is not an editor, though some may take on that role more than others; make sure that all material provided has been carefully written and is grammatically correct. Make a particular effort in your writing. If you think you need assistance in writing, statistics, etc. seek immediate assistance or discuss with your supervisor/s the possibility of a professional editor.

During the Honours program, the ultimate responsibility for the standard and progress of work resides with the student. Moving from undergraduate project work, the expectation is that during an Honours year, students are developing more independence, requiring less structured academic guidance. Therefore, you need to be able to work independently, be self-directed, adhere to self-imposed timelines, demonstrate intellectual maturity, and have appropriate time management skills.

Honours administration

The following staff will administer the Honours course for the Faculty of Science and Engineering in 2024

Staff name	Role	Contact details
Prof. Symon Dworjanyn	Coordinator/ Administrator	Phone: (02) 6659 8109 Email: symon.dworjanyn@scu.edu.au
Prof. Christian Sanders	Co-Coordinator/Administrator	Phone: (02) 6659 8117 Email: christian.sanders@scu.edu.au

Under the Executive Dean, the Bachelor of Science with Honours course is coordinated and administered by the Honours Course Coordinator. The Coordinator is responsible for the general orderly conduct of the Honours program and, particularly, the maintenance of the highest academic standards.

Specific duties are:

- internal promotion of Honours courses
- answering Honours-related inquiries
- coordination of Honours applications and scholarships
- assessment of academic records of Honours applicants and determining eligibility for entry
- assisting students with identifying appropriate supervisors
- preparation of supporting documentation
- arrangement of an orientation program and unit outline/s
- timetabling for assessment items
- arranging formal research colloquia and seminars
- arranging other group meetings with Honours students as required or requested by students
- assistance with identifying examiners, writing to examiners and notifying examiners of thesis outcome (with approval from the FSE Honours Advisory Committee)
- compilation of marks
- making recommendations for grades (to Executive Dean and FSE Honours Adv. C'ttee).

Scholarships

For application information about Honours Scholarships for 2024, please also add the following web address: https://www.scu.edu.au/science-and-engineering/honours-information/

This link includes information about Postgraduate Scholarships for those students interested in undertaking Postgraduate study upon completion of the Honours program.

For all correspondence relating to these Scholarships, or if you require further information email scholarships@scu.edu.au or phone 1800 626 481.

Technical services and safety

The Faculty of Science and Engineering provides a variety of important research facilities and technical services to students. These services are provided in the field and in laboratories. The field environment includes both marine and terrestrial ecosystems. Understandably there is wide variety of materials and equipment involved – from boats and four-wheel drives to precision instruments and toxic chemicals. All of these feature some level of hazard and carry with them varying degrees of risk.

All technical services provided by the Faculty are supported by technical staff who are also responsible for maintenance of a safe and healthy working environment. Southern Cross University is committed to providing a safe and healthy work place in keeping with the University's Workplace Health and Safety Policy.

The procedures that operate within the Faculty to manage hazards are numerous and complex. The University is required by legislation (WH&S Act 2011) to ensure all staff and students are properly trained to undertake the work they are assigned. The technical staff will assist you to ensure you are able to work efficiently while observing risk management requirements.

Before you can commence work, all students are required to complete a compulsory formal induction process. For more details, please visit: https://learn.scu.edu.au/webapps/blackboard/content/listContent.jsp?course_id=_131479_1&content_id=_3411950_1&mode=reset. Students must initially discuss their project and laboratory/office space access requirements with their supervisor before contacting Faculty technical staff to arrange any laboratory inductions as required by WH&S. The University security system will not allow you access to the Faculty's facilities until all required training and induction is completed.

Guidelines for preparing and submitting the Honours assessment items

The following describes in greater detail the assessment items, and provides some guidelines and assistance. The Honours year has now been devised to follow the normal course of developing a research project from funding bodies such as the Australian Research Council or similar.

Proposal

Weight:10%

Timing and content

The proposal represents around 3–4 weeks of solid reading and writing and is the establishment document of your thesis as it proposes what the major thesis will investigate, why the investigation is important, and how the investigation will be achieved. It follows the structure as outlined.

Topic

The topic must be in an area within the professional capability of your supervisor. The aims must be achievable within the prevailing time, and other constraints (e.g. financial, availability of equipment, technical assistance). Clearly a topic that requires sampling over several years to establish baselines is not going to be a viable project, unless data from the supervisor are also present.

Focus

It is better to have a specific research question which is answerable in the time defined than a broad and less definable question. You will learn more on the principles of scientific research through focused aims.

Defining topic, aims and objectives

It may take you several weeks to define the exact topic, aims and objectives, however, some form of aim and objective will need to be developed quickly. Because the year is a research-training year, aims and objectives do develop with time and are subject to change as the project evolves.

Style

Style varies with the subject area or discipline. Adopt a style (of writing, citation, references, etc.) consistent with a high quality journal within your discipline.

Length and content

The proposal of 5–7 pages is a guide only. Do not feel obliged to write the upper limit, as being concise rather than wordy is a better strategy. You must, however, provide a strong substantiation of what the thesis will study and why it is important. This will require a review of appropriate literature to provide sufficient background for the project. You must present a clear and concise argument about what information gaps the project will address, and why the research project is required to address those information gaps.

The proposal should also outline any methods that are to be used to collect data for interpretation, and should include any statistical methods that will be used to compare and contrast data. Statistical methods and sampling regimes should be discussed with the supervisor, as a check to see if data collection and statistical treatment are compatible.

The thesis proposal also needs to contain a budget, including item descriptions, the number of items, the cost per item, a total cost for the items, and the short written justification for an item. It is not enough to say "I want 4 days of car hire", you must spell out clearly why four days are required, would three be sufficient?

Students should also provide a timeline as to when they expect to complete particular tasks, e.g. completion of fieldwork, or lab experiments. Such timelines assist in determining if the project is running well, on time, or whether minor aspects (tasks) can be forfeited because of project delays. Again a visual or tabulated presentation of timelines is a good strategy. A timeline with explanation will probably require 0.5–1 page.

References should be listed and should be sufficient in number to adequately justify the proposal.

Submission of proposal

Submit your Proposal electronically as a PDF document to the appropriate submission portal in the SCIN4003 Blackboard site. Include a cover page with your name, your supervisor's name and the title of your project.

General instructions

1. Write in plain English and comply strictly with the format and submission requirements.
2. Use black type only.
3. Use a single column.
4. Use white A4 size paper with at least 0.5cm margin on each side and at top and bottom.
5. Number all pages in the proposal consecutively in the footer of the document.
6. Use a highly legible 12 point font, except where variants such as mathematical equations are needed, and for references, which can be in 10 point font.
7. Your proposal must provide the detailed information required in these Instructions to Students, using the specified headings in the order listed, starting each Part on a new page and adhering strictly to the stated word and page limits.
8. Your proposal will be assessed against the detailed marking criteria provided in these Instructions to Students.

Detailed information required

Part A – Project summary

Start Part A on a new page.

Provide the information requested below, using the specified headings in the order listed.

Adhere to the stated word limits for each section.

A1 **Project title**

☐ Provide a short descriptive title of no more than 20 words for your project.

A2 **Proposal summary**

☐ Provide a summary of no more than 100 words describing the aims, significance, and expected out comes of the project.

☐ Use plain English, minimise the use of terminology unique to the area of study and avoid the use of quotation marks and acronyms.

A3 **Keywords**

☐ Provide three key words to describe the proposed research.

Part B – Project description

Start Part B on a new page.

Provide the information requested below, using the specified headings in the order listed.

Sections B1 to B5 must be completed in a maximum of 6 pages.

Section B6 (References) may be any length, and is additional to the 6 page limit for sections B1 to B5.

B1 **Aims and background**

- ☐ Describe the aims and background of the project.
- ☐ Include information about progress in this field of research and its relationship to this proposal.
- ☐ Refer only to refereed papers that are accessible to the national and international research communities.

B2 **Project significance**

- ☐ Describe what knowledge gaps will be addressed, and thus how the research is significant.
- ☐ Describe if the research will address an important problem.

B3 **Approach and methodology**

- ☐ Outline the conceptual framework, design and methods, relating them to the aims of the project.
- ☐ Provide a proposed timetable for the work.
- ☐ Outline the feasibility of the project, in terms of design, budget and proposed timetable.

B4 **Personnel, equipment and facilities**

- ☐ Briefly describe the involvement of any other people whose contribution will be essential to successfully complete the project, for example technical staff or other students.
- ☐ Briefly describe there research equipment and facilities you will need to implement your proposed methodology, and how you will access this equipment and facilities.

B5 **Expected outcomes**

- ☐ Describe how the proposed research is expected to contribute to scientific knowledge in the discipline.
- ☐ Outline a plan for publication and communication of your results.

B6 **References**

- ☐ Provide full references for all literature cited.
- ☐ The text for section B6 only may be in 10 point font.
- ☐ There is no page limit for section B6.

Marking criteria

Facet of work			Third	IIB	IIA	I	Outstanding
			Students achieve a minimal number of objectives (50-65)	Students achieve some of the objectives (65-75)	Students achieve majority of the original set of objectives (75-85)	Students achieve the original set of objectives (85-95)	Students achieve beyond the original set of objectives (95+)
Scientific processiong	**A. Students embark on inquiry** and so determine a need for knowledge/ understanding	10%	☐ Aims not clearly stated or inappropriate	☐ Aims present but partially unclear, not focussed or made explicit.	☐ Aims stated, clear but may need more focus.	☐ Aims clear, focussed and academically sound	☐ Aims clear, focussed, academically sound and reads as expected from a professional academic
		5%	☐ Background and relevant context minimally surveyed	☐ Background and relevant context superficially surveyed	☐ Background and relevant context suitably surveyed	☐ Background and relevant context broadly surveyed	☐ Background and relevant context broadly surveyed and analysed
	B. Students find/ generate needed information/ data/ideas using appropriate approach/ method	5%	☐ Technical challenges vaguely identified	☐ Key technical challenges clearly identified	☐ Key technical challenges clearly identified and briefly explained	☐ Key technical challenges clearly identified and comprehensively explained	☐ Key technical challenges clearly identified, comprehensively explained and rationale justified
		10%	☐ No or inappropriate references used to inform project approach	☐ Few appropriate references used to inform project approach	☐ Several appropriate references used to inform project approach	☐ Numerous appropriate references used to inform project approach	☐ Numerous appropriate references from a wide range of sources used to inform project approach
	C. Students critically evaluate information/ data/ideas, their approach, methods and results, and react appropriately	10%	☐ Invalid or no scientific reasoning in proposal	☐ Little valid scientific reasoning in proposal	☐ Mostly valid scientific reasoning in proposal	☐ Comprehensive and valid scientific reasoning in proposal	☐ Comprehensive and valid scientific reasoning with strong insight
		10%	☐ Approach is flawed in conception and is infeasible	☐ Approach has some issues which affects its feasibility	☐ Approach in an effective solution to the identified challenges	☐ Approach is a highly effective solution to the identified challenges	☐ Approach is a highly effective and elegant solution to the identified challenges
		15%	☐ Proposal's significance, and strengths are minimally addressed	☐ Proposal's significance and strengths are partially addressed	☐ Proposal's significance and strengths clearly addressed	☐ Proposal's significance and strengths are comprehensively addressed	☐ Proposal's significance and strengths are comprehensively addressed and circumstantiated

	Facet of work		Third Students achieve a minimal number of objectives (50-65)	IIB Students achieve some of the objectives (65-75)	IIA Students achieve majority of the original set of objectives (75-85)	I Students achieve the original set of objectives (85-95)	Outstanding Students achieve beyond the original set of objectives (95+)
Management	**D. Students perform necessary processes** to meet stated project objectives	10%	☐ No timetable for progress is given	☐ Timetable for progress is given but is unreasonable or lacks detail	☐ Timetable for progress is given and briefly explained	☐ Timetable for progress is given and explained in detail	☐ Timetable for progress is given, explained in detail and is justified
		5%	☐ No plan for communication and publication of results is given	☐ Plan for communication and publication of results is stated	☐ Plan for communication and publication of results is stated and briefly explained	☐ Plan for communication and publication of results is stated and explained in detail	☐ Plan for communication and publication of results is stated, is explained in detail and is realistic
Creativity	E. Students synthesise, apply and analyse new knowledge creatively	10%	☐ Reproduces existing knowledge in prescribed formats with minimal interpretation	☐ Reorganises existing knowledge in standard formats with little interpretation	☐ Synthesises and analyses information to construct emergent knowledge and asks researchable questions	☐ Synthesises, analyses and applies information/data to fill recognised knowledge gaps and asks rigorous, researchable questions	☐ Synthesises, analyses and applies information/ data to fill self-identified gaps or extend knowledge and asks rigorous, researchable questions based on new understandings
Communication	F. Students communicate project objectives, achievements and the process	5%	☐ Document has minimal degree of compliance with required rules and structure	☐ Document has low degree compliance with required rules and structure	☐ Document has moderate degree of compliance with required rules and structure	☐ Document has high degree of compliance with required rules and structure	☐ Document is fully compliant with required rules and structure
		5%	☐ Document contains inappropriate language or many spelling/ grammatical errors	☐ Document uses mostly appropriate language and contains occasional spelling/grammatical errors	☐ Document uses mostly appropriate language including discipline specific characteristics	☐ Document uses appropriate language specific to the discipline	☐ Document uses appropriate language and a style that is of publishable grade

Adapted from "Human Biology Research Grant Proposal" example, University of Adelaide, *Research Skill Development for curriculum design and assessment*, http://www.rsd.edu.au/ under a Creative Commons 3.0 Australia Licence

Research seminar

Weight:10%

Length: A 15-minute presentation

You are required to report on the progress of your research topic in the form of a scientific or professional seminar as if being presented to a learned society or professional body. The research seminar will be assessed by all academic staff in attendance (at least two) and averaged across all assessors. Advise your seminar topic two weeks before your presentation by emailing the Honours Coordinators.

The seminars will be held in Week 7. While we encourage students to present their seminars to an audience, for external students or those who cannot attend, you can give your seminar via Zoom. Please discuss this with your supervisors and the Honours Coordinators. For students enrolled in SCI83013 in Session 3, please note that a physical seminar session will not be held: all seminars are to be submitted as a virtual seminar.

Honours seminar assessment

Student name:

Assessor name:

1. Content (25 marks)

The content of the seminar should demonstrate that:

1. the study aims have been fully achieved using appropriate methods
2. the data are well summarised and analysed using a critical and analytical approach
3. the student has a good knowledge of the subject area and/or current developments
4. convincing results and interpretation have been undertaken
5. results presented clearly support the conclusions drawn.

Fail	Third class	Second class division 2	Second class division 1	First class	Score /25
Very poor, none of the 5 criteria are met	Poor, few of the 5 above criteria are met, and/or they are done in poor manner	Good, some of the above 5 criteria above are met, and done in an above average manner	Very Good, most of the 5 criteria above met, and done in competent manner	Excellent, all of the 5 criteria above are met and done in a very clear and concise manner	
< 12.5	12.5–16.25	16.25–18.75	18.75–21.25	> 21.25	

2. Structure (5 marks)

Seminars should be clearly structured, with an introduction, a main body and conclusions or summary.

1	2	3	4	5	Score /5
Poor, little or no structure, highly confused	Weak, little structure or is confused, seemingly jumping between unrelated things, and/or over emphasis of one section	Good, clear structure or balance, but listener is left unsure where some things fit, or some over emphasis of one section	Very Good, clear structure, and balance but left the listener a little unsure where some things came from or fit	Excellent, clear structure and well balanced that walked the listener through without any doubts	

3. Presentation skills and visual aids (15 marks)

Seminars should be as effective as possible in communicating the nature of the study to the audience. Visual aids should be uncluttered, not attempt to convey too much information on a single overhead or slide, be the right way up and be able to be read at the rear of the theatre. The presenter should be able to be heard clearly throughout the theatre and adapt to the audience. Visual aids should be uncluttered, not attempt to convey too much information on a single slide, and be able to be read easily the presenter should be able to be heard clearly.

Fail	Third class	Second class division 2	Second class division 1	First class	Score /15
Very poor, speaker indistinct, mumbled, could not be understood, slides unreadable, unconstructive, and/or a text fest	Poor, speaker was not clear speech was stilted, or clearly appears read, slides may have problems, be unconstructive, and/or a text fest	Good, speaker was clear but speech stilted, or appears read, slides mostly clear and readable, or some are text packed	Very Good, speaker was clear and reasonably smooth, slides were clear and readable equivalent to a good conference talk	Excellent, speaker was natural, clear and smooth, slides were clear and readable, equivalent to best conference talks	
< 7.5	7.5–9.75	9.75–11.25	11.25–12.75	> 12.75	

4. Questions (5 marks)

Questions should be answered as accurately as possible and in a considered and concise manner.

1	2	3	4	5	Score /5
Poor, many questions could not be answered, or required significant supervisor assistance	Weak, knowledge gaps apparent, some assistance from staff/supervisor required	Good, questions answered, but often with hesitation, or knowledge gaps became apparent	Very Good, clear answers, well supported by subject knowledge	Excellent, clear, concise and considered answers that left little doubt to subject knowledge	

5. Duration (–5 marks) Honours coordinator/ seminar Chair to decide

Presentations are to be no more than 15 minutes, with additional 5 minutes allocated for question time when presented in front of a live audience. One mark will be deducted for each minute that the seminar exceeds the allocated time including grace period.

Total out of/50

Feedback/comments:

Major

Weight:65%

Length: 8,000–25,000 words

Timing and content

The major research project represents around seven months of preparation, reading, research, analysis and writing. Also see below 'Preparation and Presentation of an Honours Thesis'.

Topic

The topic must be in an area within the professional capability of your supervisor. The aims must be achievable within time and other constraints (financial, availability of equipment and technical assistance, etc.).

Ethics/permits

Students should be aware that they will require a research permit if working on native wildlife or in an area that is managed by a government agency. For example, any activity within a Marine Park, National Park or State Forest requires research approval. Students conducting research on vertebrate animals and cephalopods also require approval from the SCU Animal Care & Ethics Committee. Students conducting questionnaires as part of their research project require approval from the SCU Human Research Ethics Committee. Please consult with your supervisor about these permits and approvals and be aware that they may require up to six weeks to obtain. For information on how to apply for approval, please refer to the 'Research Ethics' at https://www.scu.edu.au/research/research-ethics/. **Students should also be aware in addition to the project risk assessment, that an WHS Risk assessment must be made before fieldwork can commence.** Available from the Faculty WHS and Technical Services Blackboard site: https://learn.scu.edu.au/webapps/blackboard/content/listContent.jsp?course_id=_131479_1&content_id=_3442406_1&mode=reset.

Focus

It is better to have a specific research question which is answerable in the time defined, than a broad and less definable question. You will learn more on the principles of scientific research through focused aims.

Defining topic, aims and objectives

It may take you several weeks to define the exact topic, aims and objectives. Allow 3–4 weeks for this, but if this is not completed within six weeks, alert the Honours Coordinator.

Thesis style

Style varies with the subject area or discipline. Adopt a style (of writing, citation, references, etc.) consistent with a high standard journal within your discipline.

Structure

A standard research thesis usually has five chapters consisting of an Introduction, Literature Review, Methodology, Results, and Discussion/Conclusion. However, it may be more appropriate to have a different structure, depending on the type of study undertaken.

Length

The Honours thesis in the Faculty of Science and Engineering should be approximately 8,000–25,000 words in length, with an absolute cap of 25,000 words (counting from the beginning of the Abstract to the end of the reference list).

Length of theses may vary according to the nature of the study. Be concise rather than verbose. It is important that your thesis is not overly large and wordy; you do not want to labour your examiners, who are not expecting a Masters or PhD thesis. The goal is to present your research in a concise, clear and summarised way.

Supervisors must also assume some responsibility for ensuring the thesis is not excessively long.

Turnitin

Submission of the major thesis utilising Turnitin is compulsory. Turnitin is a web-based text-matching system that finds similarities between submitted assignments and other documents. These documents include other student assignments, books, web pages, and articles from newspapers, magazines and academic journals.

Students submit their assignments to Turnitin and Turnitin produces an 'Originality Report', a report identifying sections of text in the submitted assignment which match sections of text in these other documents.

Turnitin as a learning tool

The primary aim in using Turnitin is not to detect and punish plagiarism, but to discourage it, and to help students develop good writing and scholarship skills. To achieve this, Turnitin at SCU is set up so that students can self-check their work. Students can submit draft copies, receive Originality Reports and see for themselves if there are any sections that need better paraphrasing, citation or re-editing before submitting a final copy of their assignment for assessment.

General hints

Watch your timing! Plan the tasks to be completed and plan the thesis with a draft table of contents at the earliest possible stage. You may not know what you will write, but you will have a good idea about what topic areas you need to discuss. Don't leave analysis and writing to the last 4–6 weeks. Be sustained in your efforts. Write up as you go. Progressively give your supervisor chapter drafts in the last three months so they can assess your progress and identify problems before they become major issues. Don't give your supervisor a first draft 2 weeks before completion date and expect a detailed response.

Preparation and presentation of an Honours thesis

The following guidelines are provided for the presentation of Honours theses.

Preparation

The thesis should not be unnecessarily long, as overly verbose theses become a chore to read and mark and markers will mark accordingly. Use a scientific paper in an international peer reviewed journal in the field that you were researching as a guide for length and style.

The candidate must ensure that a thesis provides sufficient information and detail to allow an examiner to conduct an informed critical appraisal of the work, including methodology, data, data analysis, and interpretation. The thesis should make clear what work the candidate has actually undertaken, and where the results obtained by another researcher have been analysed. There should be an appropriate balance between the different parts of the thesis. In particular, the original contribution to knowledge should be clearly distinguishable from the introductory material and the survey of the literature. **It is the responsibility of the candidate to submit drafts of the major sections of the thesis to the supervisor and to discuss them with the supervisor during the program**. The candidate is also required to submit a final draft of the thesis to the supervisor for advice and comment before the thesis is submitted.

Presentation

Before submitting the thesis the candidate should ensure that:

- all typing errors have been corrected
- the spelling, grammar, punctuation, and choice of language are of high quality
- the reference list is thorough and exact, and matches exactly what you have cited in the text of your thesis.

Order and format of contents

The thesis must be preceded by cover and title pages. This should normally be followed by the abstract, the acknowledgments, the table of contents, a list of figures and tables, the main text, the reference list and the appendices.

The recommended structural sequence of a Research Thesis is as follows:

- Title page
- Declaration of originality
- Acknowledgments
- Abstract
- Table of contents
- List of Tables and Figures
- Chapters in sequence
- List of References (or 'Reference List') – not a Bibliography
- Appendix or appendices (if any)

A disclaimer, to be inserted as a separate page, is provided as a sample below:

> I certify that the work presented in the thesis, to the best of my knowledge and belief, is original, except as acknowledged in the text, and that the material has not been submitted, either in whole or part, for a degree at this or any other university.
>
> I acknowledge that I have read and understood the university's rules and requirements relating to the awarding of my honours degree and to my thesis. I certify that I have complied with these.
>
> Candidate Name: ..... Date:

Tables and figures

Tables and figures should be placed within the text of the thesis, where they are referred to and where appropriate. Tables are used for any data or information that is presented in tabular form; whereas the term 'figure' is reserved for any kind of diagram, chart or illustration. The Harvard, Australian Government Style Guide and APA reference manuals have quite strict guidelines about labelling tables and figures, as well as how to sequence them (Figure 1, Table 1 etc.). There should be a list of all figures and tables (usually figures and tables are listed separately), **after** the table of contents.

Full-page diagrams or illustrations should be inserted on a full page at the first opportunity after reference to them in the text, or in an appendix if appropriate. The legend for such a diagram should be below it; i.e. the diagram (or illustration) plus legend should not exceed a full page.

Reference list citation

Style of referencing

Good referencing is a hallmark of an excellent academic research thesis. All sources from which information has been derived, sources of quotations and authorities for statements of fact and opinion must be clearly, concisely and accurately cited in any scholarly work.

There are no standard rules for the citation of references. Choose a style with advice from your supervisor, this will often be a style that is prevalent in many of the journals that you read during your research. Some general styles that you may want to consider include APA (American Psychological Association), AGPS (Australian Government Publishing Service) Style Guide or Harvard Style. Reference list style should be established early in preparation of the thesis (referencing programs like Endnote will help). It is essential that the style adopted is followed consistently.

Content of reference list

A candidate shall cite in the reference list all sources from which information is derived and all works quoted or referred to in the text or notes to the text.

Recommended reading

1. *The Chicago Manual of Style for Authors, Editors and Copywriters.* 13th ed. Rev. Chicago: University of Chicago Press, 1982. (Library reference 808.027/UNIV)
2. *MLA Handbook for Writers of Research Papers.* 2nd ed. New York: Modern Language Association of America, 1984. (Library reference 808.02/80706)
3. *Publication Manual.* 3rd ed. Arlington, Va.: American Psychological Association, 1983. (Library reference 808.02/PUBL)
4. *CBE Style Manual.* 5th ed. Bethesda, Md: Council of Biology Editors, 1983.
5. *American National Standard for Bibliographical References.* ANSI Z39.29–1977 New York: American National Standards Institute, 1977.
6. *Style Manual for Authors, Editors and Printers.* 6th ed. rev. Snooks & Co. Milton, Qld: John Wiley & Sons Australia Ltd, 2002. (Library Reference 808.027/STYL)
7. *General Notes on the Preparation of Scientific Papers*. 3rd ed. London: Royal Society of London, 1974.
8. *Communicating in Geography and the Environmental Sciences*. 3rd ed. Oxford University Press, 2002. (Library Reference 808.066333 HAYI).

Extensions

Extensions will be given only on strong medical or related grounds, as set out under Rule 3 in the University's Rules Relating to Awards. All extension requests must be submitted on a Special Consideration form available from https://www.scu.edu.au/current-students/student-administration/special-consideration/.

Submission of thesis for examination

Once you have finished writing the final draft of your thesis, and your supervisor has read it in full and is satisfied with it, you are now ready to submit the thesis to the academic community for examination.

The thesis must be prepared for examination in the following manner:

- computer-based text processing techniques
- Arial or Times New Roman font
- at least 1.5 line spacing on International Size A4 paper (297mm x 210mm) or a standard size as close to this as possible
- main text not right justified
- text not in two columns
- inside margin must be 3 cm wide (to allow for binding) and the top, bottom and outside margins at least 2 cm wide to allow for trimming by the printer if your supervisor wants a hard copy.

One electronic version (pdf file) of the thesis are to be submitted. The electronic version (pdf file) of the thesis is to be submitted via Blackboard on time.

Examination and grading

The Honours thesis shall be examined by two examiners. Normally, one examiner will be a suitably qualified academic staff member within the Faculty of Science and Engineering (but can be within another Faculty at SCU), the other will be external to the University. In exceptional circumstances, a supervisor may apply to the Honours Coordinator to appoint two examiners external to the University (e.g. where a suitable internal examiner is not available).

For external examiners, Australian-based academics are preferred due to their knowledge of the Australian Honours system. The student's supervisor may not be an examiner. An Honours thesis examiner will have a higher research degree, and be an active researcher. Supervisors must nominate suitable examiners to the Honours Course Coordinator, who will then write formally to them. The examiners will be appointed by the Honours Course Coordinator, with advice from the supervisor, and with approval by the Honours Course Advisory Committee.

For the thesis, examiners will give a mark out of 100. In this context it is worth remembering that it is common in any review process that referees will pick up on different issues, depending on their professional backgrounds, and hence also award different grades. However, in cases where examiners differ in their assessment by more than on grad band, the Honours Coordinator and Co-Coordinator will act as arbitrators and appoint a third examiner. In such instances, the final mark shall be determined by averaging the marks of either two or three of the examiners. In cases of extreme variance between marks awarded by the three examiners, the FSE Honours Advisory Committee will consider the examiners' reports and determine the final mark.

The thesis grade is determined by averaging the two numerical marks given by the thesis examiners. The thesis mark will then be scaled back to 65%, and added to the mark that you received for the research proposal and the Research Seminar Presentation and Honours Minor Thesis.

The final mark will then dictate which class of Honours you will achieve for your final grade, overall, for the Honours year. This final grade will be determined by the Honours Course Coordinator*, and recommended to the FSE Honours Advisory Committee. You will then be notified formally by letter.

* If the student's supervisor is the Honours Course Coordinator, the one other member of the FSE Honours Advisory Committee will oversee and administer the examination process.

Please consult with the Honours Course Administrator for further information about thesis binding.

Guidelines for Honours thesis examiners

Nature of the Honours year in FSE

According to the FSE Honours Handbook, the nature of the Honours year is described as:

> … the Honours courses are an independent year of study offered to those students who demonstrate meritorious performance in their undergraduate studies. There are a number of reasons for undertaking an Honours course:
>
> The Honours course is designed to develop your research skills (under the guidance and supervision of an academic staff member) in an area of environmental science and management/engineering in which you are interested.
>
> An Honours degree will provide you with a sound foundation for undertaking postgraduate study (a Masters or PhD), as well as essential skills should you pursue careers involving research, policy or public/private consultancy work.
>
> Undertaking Honours builds high level skills for managing a project and developing independent research skills.

Expectations of FSE Honours candidates & Honours theses

In terms of effort and quality, the Honours thesis is generally an undergraduate student's first **experience in independent** research, research methodology, problem analysis/solving and thesis writing. Focus in an Honours year is on the candidate gaining experience and competence in the research process. An original, theoretical contribution to knowledge is not a requisite, however, higher quality theses may offer a contribution of this nature. As a thesis examiner, your examination should be consistent with these expectations. If necessary, please offer the candidate constructive feedback that will assist them in understanding where their thesis could have been improved

The Honours thesis is worth 65% of the final grade awarded (the Honours research proposal, minor thesis and seminar presentation makes up the remaining 35%).

Length of the Honours thesis

The Honours thesis in the Faculty of Science and Engineering should be around 8,000–20,000 words in length. Length of theses may vary according to the nature of the study. Length of a thesis is not an indication of quality. Rather the student should focus on producing a piece of writing that is roughly equivalent to a published paper, perhaps with a more extended literature review. Some students may even have more than one scientific paper's worth of work, however if this is not of high quality it does not improve the probability of getting an excellent mark.

Topics

Honours theses may be undertaken on a broad range of topics within the environmental science, engineering and management fields. Usually students will follow a conventional scientific research project in structure (i.e. literature review, development of testable hypotheses, aims and objectives, methods, data collection, statistical analysis and interpretation of data, etc.).

Guidelines for examiners in assessing the Honours thesis

In assessing the thesis, please prepare a report addressing the following general criteria (please also refer to the suggested Honours major marking rubric below). Please note that these are suggested guidelines only; it is not possible to be entirely prescriptive because research topics and methodologies are so variable.

The grading system for Honours is also attached overleaf to assist you in determining a **final mark and grade for the thesis out of 100%.** (Your mark will then be weighted back to 65% by the Honours Course Coordinator.)

Marking rubric for Honours major marking criteria

Student name: ..... Assessor: ..... Date: .....

Marks available/ awarded		Criterion	Fail	Pass	Credit	Distinction	High Distinction
0-5		**Aim, objectives and rationale**	☐ Not clearly stated or inappropriate **<2.5 points**	☐ Unclearly stated, unfocussed or not explicit **2.5+ point**	☐ Clearly stated, focussed and explicit **3.25+ points**	☐ Clearly stated, focussed and innovative **3.75+ points**	☐ Clearly stated, focussed and highly insightful **4.25+ points**
0-15		**Background and context**	☐ Minimal and irrelevant; or inappropriate references **<7.5 points**	☐ Minimal or superficial, and descriptive; appropriate references **7.5+ points**	☐ Reasonably full and descriptive; numerous appropriate references **9.75+ points**	☐ Full, descriptive, interpretive; numerous appropriate references critically engaged **11.25+ points**	☐ Very full and analytical; numerous appropriate references from a wide range of sources, critically engaged and written in a professional manner **12.75+ points**
0-10		**Significance**	☐ Not addressed **<5 points**	☐ Partially and/or uncritically addressed **5+ points**	☐ Clearly addressed with some critical discussion **6.5+ points**	☐ Fully addressed with critical discussion **7.5+ points**	☐ Fully addressed, with insightful critical discussion **8.5+ points**
0-10		**Conceptual and methodological approach**	☐ Conceptual and methodological approach not stated, flawed or unfeasible **<5 points**	☐ Conceptual and/or methodological approach described vaguely, or with some issue that may negatively affect the feasibility of the study **5+ points**	☐ Conceptual and methodological approach both valid and clearly explained **6.5+ points**	☐ Highly effective conceptual and methodological approach, applied with skill **7.5+ points**	☐ Elegant conceptual and methodological approach, applied with skill, demonstrating mastery of skill **8.5+ points**

Marks available/ awarded		Criterion	Fail	Pass	Credit	Distinction	High Distinction
0-10		**Presentation of results**	☐ No results presented **<5 points**	☐ Results presented superficially or minimally; no synthesis, only reporting of raw data, and no description of trends or patterns **5+ points**	☐ Results reasonably detailed; attempt at summarising and synthesising; attempt at using discipline-specific visualisation **6.5+ points**	☐ Results full, well summarised or synthesise; presented in discipline- specific formats; skilful use of visualisation techniques **7.5+ points**	☐ Results full, skilfully and appropriately described, showing evidence of mastery of discipline-specific presentation techniques **8.5+ points**
0-10		**Critical evaluation of the results**	☐ No, minimal or superficial critical evaluation; invalid or no logic or reasoning **<5 points**	☐ Discussion weak, with little use of the literature to compare or support interpretations or substantiate the conclusions; logic and reasoning weak; study significance, strengths and limitations addressed minimally **5+ points**	☐ An attempt made at critical evaluation, with some use of the literature to compare or support interpretations or substantiate the conclusions; logic and reasoning valid, application is moderately successful; study significance, strengths and limitations partially addressed **6.5+ points**	☐ Critical evaluation is strong, clear and successful, with good use of the literature to compare or support interpretations or substantiate the conclusions; logic and reasoning valid, and successfully applied; study significance, strengths and limitations addressed. **7.5+ points**	☐ Critical evaluation is strong, clear and successful, fully support by use of the literature to compare or support interpretations or substantiate the conclusions; logic and reasoning is full, very well applied with insight; study's significance, strengths and limitations very well addressed, with flair **8.5+ points**
0-10		**Conclusions**	☐ No or shallow conclusions reached; conclusions fail to address the study aim **<5 points**	☐ Conclusions partially reached; logic behind conclusions unclear; conclusions partially address the study aim **5+ points**	☐ Conclusions full and are of high quality; logic behind conclusions clear; they mostly address study aim **6.5+ points**	☐ Conclusions are of very high quality, clearly evident, and directly and successfully address study aim **7.5+ points**	☐ Conclusions are of extremely high quality, demonstrating scholarly flair, and directly and successfully address study aim **8.5+ points**

Marks available/ awarded		Criterion	Fail	Pass	Credit	Distinction	High Distinction
0-10		**Extension of conclusions and findings beyond the study**	☐ Reproduces existing knowledge and result with minimal interpretation **<5 points**	☐ Reorganises existing knowledge and results with little interpretation **2 points**	☐ Synthesises and analyses information to create results knowledge and generates researchable questions **6.5+ points**	☐ Synthesises, analyses and applies results to fill knowledge gaps, and generates rigorous, researchable questions; makes a contribution to the discipline **7.5+ points**	☐ Synthesises, analyses and applies results to fill knowledge gaps or extend knowledge, and generates rigorous, innovative researchable questions based on novel insights; makes a significant contribution to the discipline **8.5+ points**
0-20		**Format and style**	☐ Minimal degree of compliance with format requirements; contains inappropriate language, spelling and grammar errors **<10 points**	☐ Low degree compliance with format requirements; mostly appropriate language, some spelling and grammar errors **10+ points**	☐ Moderate compliance with format requirements; uses discipline-specific language; relatively free of spelling, grammar and typographical errors. **13+ points**	☐ High compliance with format requirements; good use of discipline-specific language; largely free of spelling, grammar and typographical errors; flow and readability is good; professional and publishable quality **15+ points**	☐ Fully compliant with format requirements; largely free of spelling, grammar and typographical errors; flow and readability is very good to excellent; professional and publishable quality **17+ points**

Points		Percentage equivalent
0-49	Fail	0% - 49%
50-64	Pass	50% - 64%
65-74	Credit	65% - 74%
75-84	Distinction	75% - 84%
85+	High Distinction	85% - 100%

General criteria for examination

In general, a first class honours would be at a standard whereby an editor of a peer review international journal would send out to review, with a good expectation that the paper would eventually be published. Note this is an undergraduate unit and it is not expected that the student be a fully formed professional scientist.

Abstract. Does the abstract provide a concise summary of the research aims, methods, main findings and conclusions?

Definition of the problem/issue. Has it been established that this is an issue worthy of investigation? Has the issue been placed in a broader theoretical framework?

Aims and objectives. Have clear aims and objectives been established? Are they clearly related to the research problem/issue at hand?

Literature Review. Has relevant literature been reviewed that sets the problem in context and supports the rationale for the study?

Methodology. Have appropriate methods been given and used in the analytical section of the report?

Results. Are the results adequately presented and described and, where appropriate, have clear and concise summary diagrams and tables been used?

Discussion. Is the discussion of results adequate and logical? Is it related to the original aims and objectives? Does the discussion clearly relate back to the literature/theory described earlier in the thesis?

Writing and structure. Is the report well written and correctly referenced? Is English expression, spelling and grammar free from errors? Is the overall thesis readable and does it follow a clear and logical structure?

Presentation. Is the report well laid out/well presented? Are references presented according to an appropriate style, and consistent throughout?

Standard. Does the work generally meet the professional and academic standards of the relevant discipline?

Grading criteria

Honours theses are graded on the following scale:

First Class Honours	≥85%
Second Class Honours Division 1	75–84%
Second Class Honours Division 2	65–74%
Third Class Honours	50–64%
Fail	<50%

As Honours is intended as a foundation for postgraduate studies, and because competition for postgraduate scholarships is fierce, a First Class Honours is the grading most sought after.

The following criteria are indicative of each grade for the Honours thesis:

First Class Honours (Honours 1) (excellence): The key criteria is that thesis should be at a level that if formatted correctly an editor of a peer reviewed international journal would send it out to review with a fair expectation that it would be ultimately published. The topic may have a moderate to high degree of difficulty and is very well investigated; a high level of understanding of literature is evident; critical analysis of information and data has been undertaken; sophisticated use of theoretical models and appropriate conclusions are drawn; a high level of writing skills is displayed; significant development in understanding in the subject area is apparent; the thesis should be publishable (after abbreviation and minor modification) in the relevant literature.

Second Class Honours Division 1 (or 2A Honours) (a high level of competence): The topic may entail a moderate to high level of difficulty and is well investigated, or a very high degree of difficulty but is only adequately investigated; a sound literature review displays that relevant literature has been assimilated; more critical analysis of information and data collected is evident; appropriate methods in analytical component have been used; the thesis is well written, with sound conclusions, related to a broader theoretical framework, and may be publishable in the literature after appropriate revision.

Second Class Honours Division 2 (or 2B Honours) (a reasonable level of competence): The topic may entail some degree of difficulty and is adequately investigated, or a higher degree of difficulty but is only superficially or partly investigated; the thesis may be largely descriptive; it is likely to feature a more thorough literature review; is perhaps based substantially on the review of literature; some analytical component is apparent; the thesis shows understanding of wider implications of the work.

Third Class Honours (or Honours 3) (acceptable): The topic may entail a limited degree of difficulty and is superficially investigated; the project is largely descriptive but shows some comprehension of the overall nature of the problem; it may contain significant errors; little analytical work is evident; the thesis may be typified by a merely adequate literature review, expression and presentation.

Fail (unacceptable): The topic may entail a low degree of difficulty and is only superficially investigated, or may be entirely descriptive in nature; it may contain major errors and incorrect conclusions; it shows little or no comprehension of the overall problem; the literature review is inadequate; limited research effort is apparent; there is little, no or flawed analytical work; the thesis has poor expression and presentation.

Minor report

Weight:15%

Length: 5,000–10,000 words (depending on journal requirements)

The minor is designed to examine the student's ability to convert their thesis into a submission that would be acceptable to an editor of the international peer reviewed journal that is nominated by the student. This task is essentially a formatting exercise but also requires the student to be judicious about what is placed in the submission and what is left out, and examines the ability to write a cover letter with a cogent and convincing case for why the journal should accept the submission for review.

The Minor must be written so it exactly follows the guidelines in the 'Instructions to Authors' of the nominated journal in the area of your discipline. You must include these instructions at the end of each copy of the report. Marks will be allocated as outlined in the minor marking sheet (Appendix D).

Submission of minor report

Submit electronically as a PDF document to the appropriate Blackboard portal. Include a cover sheet with your name, your supervisor's name and article title.

Suggested guidelines for minor thesis examiners

The minor thesis (Major thesis paper extract)

In terms of effort and quality, the Major study is based on six to seven months of research by fourth year university students, and is their first experience in independent research, research methodology, problem analysis/solving and thesis writing.

Length

The minor thesis paper should be around 8,000–10,000 words in length but may be shorter or somewhat longer, according to the nature of the study, and the requirements of the journal it is formatted for.

Guidelines for examiners

The following are suggested guidelines only for marking the Honours Minor thesis. It is not possible to be very prescriptive because the topics are so variable. To assist you to assess the thesis, a criterion-based assessment scheme is outlined below. Please give your final assessment as a category (refer to Criteria-based Assessment) and a percentage mark for grading.

Criteria-based assessment

Honours is criteria-based in its nature, so please read the criteria carefully. However, you should look at the paper in light of the journal requirements, and as a reviewer for the intended journal of submission.

Fail (unacceptable): <50% may contain major errors and incorrect statements; shows little or no comprehension of the overall problem; limited research effort apparent; little, no, or flawed analytical work; poor expression and presentation. As a paper the work would be immediately rejected by the journal, with no revision permissible.

Third Class Honours (acceptable): ≥50% to <65% topic may entail a limited degree of difficulty and is superficially investigated; may contain significant errors; little analytical work; may be typified by inadequate literature review and poor expression and presentation. As a paper the work would be rejected by the journal, but there may be an opportunity to re-submit only after substantial review by the author and the paper would need to go back to referees.

Second Class, Division 2 Honours (a level of competence): ≥65% to <75% topic may entail some degree of difficulty and is adequately investigated, or a higher degree of difficulty but is only superficially investigated; may be largely descriptive; likely to feature a more thorough literature review; perhaps based substantially on the review of literature; some analytical component; shows understanding of wider implications of the work. As a paper the work would be acceptable only after substantial review by the author addressing referee concerns.

Second Class, Division 1 Honours (a high level of competence): ≥75% to <85% the topic entails a moderate to high level of difficulty and is well investigated; or a very high degree of difficulty but is only adequately investigated; sound literature review displaying that relevant literature has been assimilated; more critical analysis of information and data collected; use of appropriate methods in analytical component; well written, sound conclusions; related to broader theoretical framework; may be publishable in the literature after appropriate revision. As a paper the work is acceptable and requires only minor review by the author addressing referee concerns.

First Class Honours (excellence): ≥85% the topic has a moderate to high degree of difficulty and is very well investigated; a high level of understanding of literature evident; originality of experimental design and ideas evident; critical analysis of information and data undertaken; development of interpretive models undertaken and appropriate conclusions drawn; high level of writing skills displayed; significant development in understanding in the subject area; thesis should be publishable (after abbreviation and minor modification) in the relevant literature. As a paper the work would be acceptable as is, or with only very minor changes.

Assessment criteria for the minor (15%)

Learning outcomes

- Demonstrate the ability to distil a publishable paper from a research project
- Demonstrate understanding of the requirements for submission of a manuscript for publication

Assessment criteria

1. Ability to write a **quality cover letter** (explains why the paper is suitable for the journal and how it adds to body of knowledge in that discipline) (5%)
2. Selection of a **suitable journal for publication** (research focus matches the scope of the journal) (10%)
3. **Abstract** (Relevant, impactful, accurate & balanced overview of paper e.g. aim, approach, main outcomes, conclusion) (15%)
4. **Provision of a concise and engaging theme/story** (well focused introduction/background sets the scene, clear aim/objectives, concise methods, discussion relevant to objective and key results) (40%)
5. **Present data in the most appropriate way** to provide evidence to support the story (Quality of Tables and/Figs, selection of publishable datasets) (10%)
6. **Compliance with specific journal style** (attention to detail e.g. overall format, subheading style, units, referencing; instructions for authors provided as appendix) (20%)

Example rubric next page.

Marking rubric for Honours minor marking criteria

Student name: ..... Assessor: ..... Date: .....

Marks available/ awarded		Criterion	Fail	Pass	Credit	Distinction	High Distinction
0-4		**Selection of suitable journal**	☐ Not described or explained **0 points**	☐ Journal named **1 point**	☐ Journal named and choice explained **2 points**	☐ Journal named, its scope described, and choice explained **3 points**	☐ Journal named, its scope described, and choice explained against other options **4 points**
0-8 y		**Cover letter**	☐ Not provided **0 points**	☐ Minimal statement; typographic errors **2 points**	☐ Well written statement of how the paper adds to knowledge or why the paper suits the journal **4 points**	☐ Clear and well written statement of how the paper adds to knowledge and why the paper suits the journal. **6 points**	☐ Very clear, full and well written professional cover letter. Letter is in the style expected for the journal. **8 points**
0-24		**Compliance with the journal style and author guidelines**	☐ No authors guidelines attached **0 points**	☐ Authors' guidelines attached; partial compliance with the guidelines; inconsistencies in style; non-adherence to submission format requirements; poorly proof read **6 points**	☐ Authors' guidelines attached; conforming to authors' guidelines in style and/or format; almost completely typographic error-free. **12 points**	☐ Authors' guidelines attached; completely conforming to authors' guidelines in style and format. Fully proofread and attention to detail clear **18 points**	☐ Authors' guidelines attached; completely conforming to authors' guidelines in style and format. Fully proofread and attention to detail clear **24 points**

Marks available/ awarded		Criterion	Fail	Pass	Credit	Distinction	High Distinction
0-16		**Adaptation of thesis text to journal paper**	☐ Paper style is inconsistent with a typical paper in the journal **0 points**	☐ Paper style is close to a typical paper in the journal **4 points**	☐ Paper style is close to a typical paper in the journal; text is well-balanced, or narrative sequence is clear, or text is concise **8 points**	☐ Paper style is typical of papers in the journal; text is well-balanced, and narrative sequence is clear, and the text is suitably concise **12 points**	☐ Paper is an exemplar of the journal style and would be expected to be sent out to review by an editor **16 points**
0-8		**Quality of non-text components**	☐ Figures are hand drawn or otherwise poorly produced, including direct copies of originals; tables are incoherent; captions are absent or uninformative **0 points**	☐ Some of these are achieved: Figures are well produced; tables are coherent; captions are informative; some figures or tables are unnecessary **2 points**	☐ All figures and tables are relevant; all are of a professional standard; captions are informative **4 points**	☐ All figures and tables are relevant; all are of a professional standard; captions are full and informative **6 points**	☐ All figures and tables are relevant; all are exceptional; captions are detailed; the style figure follows the guidelines to authors scrupulously. **8 points**

Points		Percentage equivalent
0 - 14	Fail	0% - 49%
15 - 28	Pass	50% - 64%
29 - 36	Credit	65% - 74%
37 - 45	Distinction	75% - 84%
46 - 60	High Distinction	85% - 100%

Honours Presentation marking criteria

Student name: ..... Assessor: ..... Date: .....

Marks available/ awarded		Criterion	Fail	Pass	Credit	Distinction	High Distinction
0-4		**Background and significance**	☐ Not stated **0 points**	☐ Brief and descriptive **1 point**	☐ Clearly presented, interpretive **2 points**	☐ Clearly presented, providing solid and critical context for the project **3 points**	☐ Very fully addressed, providing solid and critical context for the project with flair **4 points**
0-4		**Study aims**	☐ Not stated **0 points**	☐ Minimal, not clearly aligned with presentation **1 points**	☐ Clear, aligned with presentation **2 points**	☐ Clearly described and explained, fully aligned with presentation **3 points**	☐ Clearly described and explained, fully aligned with presentation and degree of achievement explained **4 points**
0-4		**Presentation of data**	☐ No data presented **0 points**	☐ Data only briefly described **1 points**	☐ Data clearly described, synthesised and presented in an appropriate format **2 points**	☐ Data clearly described, synthesised presented at publication quality **3 points**	☐ Data presented with flair and in an impactful and professional manner **4 points**
0-4		**Analysis and interpretation of the data**	☐ Not clearly stated or inappropriate **0 points**	☐ Unclear, unfocussed or not explicit **1 points**	☐ Clear, focussed and explicit; engages with the problem with accuracy **2 points**	☐ Clearly stated, focussed, accurate and insightful or innovative; shows mastery of analysis **3 points**	☐ Clearly stated, focussed, correct and highly insightful or innovative; high skill level demonstrated **4 points**
0-4		**Alignment of results, analysis and conclusions**	☐ No alignment **0 points**	☐ Poorly aligned, logic not clear **1 point**	☐ Reasonably aligned, some logic **2 points**	☐ Well aligned, logic clear **3 points**	☐ Very well aligned, logic impeccable **4 points**

Marks available/ awarded		Criterion	Fail	Pass	Credit	Distinction	High Distinction
0-4		**Presentation structure**	☐ Poor, little or weak; confusing **0 points**	☐ Weak; links not clear; little clear direction **1 points**	☐ Reasonable, although doubt about some content relevance **2 points**	☐ Good and strong; presentation content predictable and clearly ordered **3 points**	☐ Very strong and well balanced; no doubt why content is presented **4 points**
0-12		**Presentation skills**	☐ Poor, unclear voice, low quality of slides **0 points**	☐ Poor, voice unclear or reading only, or slides of low quality, including too much text, cluttered, graphics illegible **3 points**	☐ Good, voice clear, slides well produced and tidy **6 points**	☐ Very good, voice clear and interesting, slides clear engaging and informative **9 points**	☐ Excellent, smooth, captivating and professional; equivalent to conference quality **12 points**
0-4		**Timeline**	☐ Completely misjudged the time (±10 minutes) **0 points**	☐ Overly short or long (±6-10 minutes) **1 points**	☐ Close to time (± 4 minutes **2 points**	☐ Almost on time (±2 minutes) **3 points**	☐ Talked to the correct time **4 points**

Points		Percentage equivalent
0 - 9	Fail	0% - 49%
10 - 18	Pass	50% - 64%
19 - 24	Credit	65% - 74%
25 - 30	Distinction	75% - 84%
31 - 40	High Distinction	85% - 100%

Honours Proposal marking criteria

Student name: Assessor: Date:

Marks available/ awarded		Criterion	Fail	Pass	Credit	Distinction	High Distinction
0-4		**Background and context**	☐ Minimal and irrelevant; or inappropriate references **0 points**	☐ Minimal and descriptive; few appropriate references **1 point**	☐ Reasonably full and descriptive; several appropriate references **2 points**	☐ Full, descriptive, interpretive; numerous appropriate references **3 points**	☐ Very full and analytical; numerous appropriate references from a wide range of sources **4 points**
0-8		**Overall approach to content**	☐ Reproduces existing knowledge with minimal interpretation **0 points**	☐ Reorganises existing knowledge with little interpretation **2 points**	☐ Synthesises and analyses information to ask researchable questions **4 points**	☐ Synthesises, analyses and applies information to fill gaps; asks rigorous, researchable questions **6 points**	☐ Analyses and applies information to fill gaps or extend knowledge; asks rigorous, innovative researchable questions **8 points**
0-8		**Significance**	☐ Not addressed **0 points**	☐ Partially addressed **2 points**	☐ Clearly articulated **4 points**	☐ Fully articulated **6 points**	☐ Fully and very convincingly articulated **8 points**
0-8		**Aim and objectives**	☐ Not clearly stated or inappropriate **0 points**	☐ stated but poorly focussed or with little detail **2 points**	☐ Clearly stated, focussed and detailed **4 points**	☐ Clearly stated, focussed, detailed and innovative **6 points**	☐ Clearly stated, focussed, detailed and highly insightful **8points**
0-24		**Scholarly reasoning and conceptualand methodological approach**	☐ Invalid or no reasoning; conceptual and methodological approach flawed or infeasible **0 points**	☐ conceptual and methodological approach lacks detail or has issues which negatively affect its feasibility **6 points**	☐ Mostly valid reasoning; valid conceptual and methodological approach valid **12 points**	☐ Fully valid reasoning; highly effective conceptual and methodological approach **18 points**	☐ Full reasoning with strong insight; elegant conceptual and methodological approach **24 points**

Student name:..... Assessor:..... Date: .....

Marks available/ awarded		Criterion	Fail	Pass	Credit	Distinction	High Distinction
0-8		**Planned schedule**	☐ No timetable **0 points**	☐ Timetable unreasonable or lacks detail **2 point**	☐ Timetable reasonably detailed, briefly explained **4 points**	☐ Timetable full and feasible for achieving the aims of the project within the timeframe available **6 points**	☐ Timetable full, detailed and feasible, demonstrating clarity of planning to achieve the aims of the project within the timeframe available **8 points**
0-4		**Communication and publication of results**	☐ No plan given **0 points**	☐ Brief plan stated **1 points**	☐ Plan stated and briefly explained **2 points**	☐ Plan full and well justified **3 points**	☐ Plan full, innovative and well justified **4 points**
0-8		**Format and style**	☐ Minimal degree of compliance with format requirements; contains inappropriate language, spelling and grammar errors **0 points**	☐ Low degree compliance with with format requirements; mostly appropriate language, occasional spelling and grammar errors **2 points**	☐ Moderate compliance with format requirements; uses discipline-specific language **4 points**	☐ High compliance with format requirements; good use of discipline-specific language **6 points**	☐ Fully compliant with format requirements; publishable quality writing **8 points**

Points		Percentage equivalent
0 - 17	Fail	0% - 49%
18 - 33	Pass	50% - 64%
34 - 44	Credit	65% - 74%
45 - 55	Distinction	75% - 84%
56 - 72	High Distinction	85% - 100%

Appendix

Appendix A: Examples of previous projects

1. Fire management in the Border Ranges national park.
2. An examination of pyrite micromorphology in sandy acid sulphate soils.
3. Mapping changes in *Banksia ericifolia* distribution in northern NSW national parks, utilising aerial photographic techniques.
4. A geomorphometric analysis of the southern flank of the Tweed shield volcano.
5. The development of a methodology for the determination of the recreational carrying capacity of scuba diving sites in the Solitary Island marine reserve.
6. Nutrients and suspended sediments in three near pristine tropical rivers on Cape York Peninsula.
7. Stained streak prints for logging the distribution of carbonates and phosphates.
8. Base metal absorption and desorption by near-shore sediments in a contaminated estuary.
9. Literature analysis of varying sediments within seagrass beds (estuarine and coastal) and the organisms associated with these sediment types.
10. Baseline survey of substrata and marine benthic communities within the seagrass patches at Lennox Head, northern NSW.
11. A review of the methodologies used to assess economic values for the amenity and non-use of trees on rural landholdings.
12. An investigation into pollutant sources affecting water quality in the Belongil Creek and estuary, Byron Bay, New South Wales.
13. Commercial marine based tourism in the Solitary Island marine reserve: patterns of use and recommendations for management.
14. Edge effects on mammalian fauna of Richmond Range national park, north-eastern New South Wales.
15. An assessment of the sustainability of the beef cattle industry in the Richmond River catchment.
16. Aspects of the autecology and life history of *Doryanthes palmeri* W. Hill ex *Genth doryanthaceae*.
17. Molecular phylogenetic relationships of the bilby *Macrotis lagotisi* to the Australian and New Guinean bandicoots.
18. The ecology and management of the pied oystercatcher *Haematopus longirostris* in northern NSW.
19. A preliminary survey of continental shelf habitats of the Solitary Islands marine park, New South Wales.
20. A study of the benthic macro-invertebrate distribution and abundance in the Kangaroo River and the Nymboida River, Clarence River valley, New South Wales.
21. The effect of season, system maturity and peak loading on treatment of school waste water in on-site reed beds.
22. Non-flying mammals as pollinators of banksia species in North-eastern NSW.
23. Integrating GIS and multi criteria analysis to assess suitable species and plantation sites: a case study assessing *Elaeocarpus grandis* and *Grevillea robusta* suitability on the New South Wales north coast.
24. Establishment of the vegetation ecology of a coastal sand swamp, South-eastern Queensland.
25. Processes influencing concentrations of dimethylsulphide and dimethylsulphoniopropionate in the Southern Ocean from 30–80°E during the BROKE-WEST experiment.