FNAS
Research Projects
SCIE 4501-4504

A Guide for Students and Supervisors

2010

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OVERVIEW

The Faculty of Natural and Agricultural Science Research Projects are divided into 4 parts, which together make up 24 points. The Research Projects will contribute towards a calculation for your eligibility for an honours ranking in a four-year degree program or a four year End on Honours. Students taking the project as part of a Graduate Diploma do not receive an honours ranking, but the research project will contribute 50 per cent to the final weighted average mark for the Graduate Diploma.

Calculation of honours
The honours calculation is based on a student's mark in the relevant research project and a student's weighted average over the relevant research project (24 points) and the highest scoring Level 3 units with a total value of 24 points.

Classification of honours
Honours are awarded as follows:

<table>
<thead>
<tr>
<th>CLASSIFICATION</th>
<th>WEIGHTED AVERAGE</th>
<th>MINIMUM MARK FOR RESEARCH PROJECT</th>
</tr>
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<tbody>
<tr>
<td>H1</td>
<td>80% to 100%</td>
<td>80%</td>
</tr>
<tr>
<td>2A</td>
<td>70% to 79%</td>
<td>70%</td>
</tr>
<tr>
<td>2B</td>
<td>65% to 69%</td>
<td>65%</td>
</tr>
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</table>

You will be examined on the results of an independent, but supervised, research project within the Faculty of Natural and Agricultural Sciences. You will define your own project and, in consultation with your supervisor/s, set your objectives, develop hypotheses, plan and execute the research, interpret the results and present them in oral and written forms. Two assessors nominated by the Heads of School will assess your work. As they might not be necessarily in your discipline, it is very important, that you write your work in such a way that a knowledgeable person can understand it even if it is outside of their discipline. The Academic Coordinator will not assess any of your work.

Read this booklet carefully as it covers most aspects of the Research Project.

Questions
Please direct all questions to the Administrative Coordinator, Ms Marjan Heibloem (marjan.heibloem@uwa.edu.au) who will either reply or forward the query to the Academic Coordinator as appropriate.

Please do not forward questions to the Academic Coordinator, you will not receive a response. All questions should be directed to the Administrative Coordinator.
REQUIREMENTS AND ASSESSMENT

Meetings
All students in Research Projects are required to attend seven Lectures (Table 1) held throughout the academic year. These lectures are designed to provide guidelines for successful completion of the required project activities. Your participation is essential but the talks will also be recorded on Lectopia for revision.

Table 1. Lecture dates and topics for students enrolled in SCIE 4501-4504 Research Projects in 2010. Each lecture will be held in Arts Fox Lecture theatre at 1 pm.

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-Feb</td>
<td>Introduction</td>
<td>Roberta Bencini and Marjan Heibloem</td>
</tr>
<tr>
<td>9-Mar</td>
<td>Designing and analysing your experiment</td>
<td>Michael-Saam Renton</td>
</tr>
<tr>
<td>25-Mar</td>
<td>Literature Review</td>
<td>Dominique Blache</td>
</tr>
<tr>
<td>8-Apr</td>
<td>Seminars</td>
<td>Roberta Bencini</td>
</tr>
<tr>
<td>19-Aug</td>
<td>Research Articles I</td>
<td>David Lindsay</td>
</tr>
<tr>
<td>26-Aug</td>
<td>Research Articles II</td>
<td>David Lindsay</td>
</tr>
<tr>
<td>9-Sep</td>
<td>Final Meeting</td>
<td>Roberta Bencini and Marjan Heibloem</td>
</tr>
</tbody>
</table>

Students commencing their projects in second semester 2010 are only required to attend the last three lectures and can view the previous lectures using the Lectopia link on the WebCT. Please ensure that you read every email and the announcements posted on the WebCT.

Assignments
You are required to complete the assignments outlined in Table 2. Some assignments will not be allocated a mark but are required in order for the unit to be properly administered and ensure you are making progress.

Table 2. Required assignments, the assessed value of the assignment, and the due date for students enrolled in SCIE 4501-4504 FNAS Research Projects in 2010.

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Page</th>
<th>Value</th>
<th>Due dates1</th>
</tr>
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<tr>
<td>Registration survey (on the WebCT)</td>
<td>13</td>
<td></td>
<td>March 12, 2010</td>
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<tr>
<td>Project proposal</td>
<td>13</td>
<td></td>
<td>March 26, 2010</td>
</tr>
<tr>
<td>Proposal Seminar</td>
<td>13</td>
<td></td>
<td>April 19-23, 2010</td>
</tr>
<tr>
<td>Literature Review</td>
<td>14</td>
<td>20%</td>
<td>May 28, 2010</td>
</tr>
<tr>
<td>Research Article2</td>
<td>20</td>
<td>70%</td>
<td>October 18, 2010</td>
</tr>
<tr>
<td>Abstract submission</td>
<td>32</td>
<td>**3</td>
<td>October 22, 2010</td>
</tr>
<tr>
<td>PowerPoint File</td>
<td>32</td>
<td>**3</td>
<td>October 29, 2010</td>
</tr>
<tr>
<td>Research Seminar (given in the Research Conference)</td>
<td>32</td>
<td>10%</td>
<td>November 2 &amp;-3, 2010</td>
</tr>
<tr>
<td>Oral Interview</td>
<td>36</td>
<td></td>
<td>November 8 &amp; 9, 2010 (TBC)</td>
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</table>

1 All submissions are due by 4.30 pm on the submission date.
2 It is a requirement that the Literature Review also be attached to the Research Article, but the Literature Review is not assessed further.
3 Late submission of the Abstracts or PowerPoint files will be penalised by a 5% reduction in the mark allocated to the Research Seminar for each day, including Saturdays and Sundays, that the Abstracts or PowerPoint files are late, in line with Faculty Policy.
4. (TBC) Dates to be confirmed.
IMPORTANT WARNING

It will be necessary for you to be **extremely organized** in completing the assignments to your satisfaction as you will also probably have other assignments throughout the semester.

It is essential to allow enough time for supervisors to read drafts and provide comments. It is recommended that you provide your supervisor(s) with a draft at least one month before due date for all of the assignments but especially for the Literature Review and Research Article.

Your supervisor(s) will provide feedback to the assessors on your progress during the project.

STEPS TO SUCCESS

As academia is not a 9-5 job, we don’t expect you to be a 9-5 student. Hence you may find yourself doing research in the evenings and/or weekends. This is very true when it comes to working with plants or animals that require daily maintenance.

You should have a deep commitment to your project. You should feel excited and passionate about it as it will ultimately be your project. To be successful you need to have initiative, **enthusiasm** and a desire to discover more about your chosen research topic.

You are expected to follow all university and laboratory rules, which include but are not limited to: safety training, ethical use of animals, keeping a lab notebook with entries for all tasks and experiments. Please check these requirements with your supervisor because they may vary between schools.

**Choosing a supervisor**

First choose the area in which you wish to undertake your research project in, the choice of supervisor is more or less up to you. Staff in the Faculty do enjoy supervising research projects, so do not feel reticent about approaching someone. Within any School most staff can supervise most topics, but all have their specialties. The advantage of working in a field in which your supervisor is familiar is that he/she can guide you to the literature and already knows the issues and previous results. However, you should certainly not limit yourself to working within a staff member's specialty. Approach the staff member and make it known that you wish to work in his or her field. If you have a preference it is a good idea to make your approach early in case of overloading. The exception would be where one of the staff is overloaded with supervision, or where your choice of topic is relevant to another staff member.

Sometimes students seek help and supervision from people outside the Faculty of Natural and Agricultural Sciences, or the University. This is fine academically, and may help you develop contacts in other organisations. We have excellent working relationships with the Western Australian Department of Agriculture and Food, CLIMA, CSIRO, the Department of Environment and Conservation, Kings Park Research Laboratories, and other organisations. If you decide to choose a supervisor from outside the Faculty of Natural and Agricultural Sciences, you will need another supervisor from within the Faculty. This is to ensure that the Faculty requirements are met. Many good projects are supervised externally.

In the past some students have found difficulty in deciding what to do and who should supervise them. As a result some students were unable to name a supervisor until well into the first semester which made it difficult for these students to achieve a good result. To alleviate this problem, the Academic Coordinator will help you by holding Lectures in the
first weeks of the semester. By the second week you should have had discussions with a
supervisor and be able to provide the Administrative Coordinator with the details by filling in
the on-line registration survey by the due date (See Table 2).

Key questions you should ask a potential supervisor are:

1. Will you be away for an extended period during the year?
2. How often are you available to meet?
3. What is the best way to contact you?
4. What are your expectations of a student engaged in a research project?

**The role of a supervisor: what to expect?**

Supervision is a two-way relationship. Staff in the Faculty enjoy supervising students
particularly when students are enthusiastic about the project. Like any relationship the more
you contribute the more you will gain. At each stage of the process, deciding on a topic,
developing ideas and designing experiments, analysing and interpreting results, and
integrating your results with current thinking, your supervisor will give you considerable help.
But remember that to obtain the best from your supervisor you need to think clearly about the
issues involved. A supervisor should be a guide and help you develop your thought
processes, offering encouragement for ideas and well-developed thoughts but criticising
where appropriate. To do this well a supervisor must be a good listener. Beware of a
supervisor who feeds you with all the ideas. Initially this may be easy but at some stage you
must take over because the Research Project is yours and not your supervisor’s.

The Research Project is hard work. It is your responsibility to get the work done. Take heed
of your supervisor’s advice on the time required to complete each stage of the project.

Hopefully you will enjoy the relationship that you build with your supervisor. However, if
you feel that the relationship is not working and you feel that you cannot discuss this with
your supervisor seek help from the Administrative Coordinator.

It is advised that students and supervisors complete with in the first four weeks the Student
Perception of Research Supervision survey. You will find information at the following
website [http://www.catl.uwa.edu.au/etu/spors](http://www.catl.uwa.edu.au/etu/spors). This survey is completed by both the student
and the supervisor who then meet to discuss their respective responses to the questions,
particularly if these turn out to be completely different. In this case you and your supervisor
need to come to an agreement on how these differences in perception can be addressed.

**Choosing a topic**

Within reason, the choice of topic is up to you. Staff will often make suggestions about the
general area, and they will almost certainly need to help you to define and refine the problem.
They will also help you to device a methodology to analyse the problem. But the first
definition of the problem should be yours; this is an important part of being able to conduct
research.

We encourage interdisciplinary studies. For example, many problems in plant nutrition
require knowledge of plant physiology. Land and water management often involves the use
of plants. Rhizobia need to be studied with a full knowledge of the behaviour of host plants.
Animal nutrition needs to be studied in the context of pasture production. Few horticultural
crops can be considered in isolation from their genetic resources, interaction with weeds, and
nutritional requirements. Many management and policy problems cannot be answered unless
you bring together the biological, technical and economic elements of the problem. Often the
best Research Reports are cross-disciplinary.
**Reading**

In any research it is important to know what similar work has been done. For this you read articles from learned journals and books. Take brief notes, and devise an indexing system, possibly computer based (e.g. EndNote), so that you can rapidly find a particular point. This reading provides the basis of your literature review.

We expect that you will read the relevant literature in your study area. Your supervisor can suggest a list of reading but you should pursue journals relevant to your work and interests and not simply rely on your supervisor(s) to point you to all the relevant articles.

A literature review is not a summary of what you have read. Interpret the literature *in terms that fit your problem*. The best literature reviews uncover things in the literature that the original authors overlooked or could not see because of subsequent research. This is being "critical" and commands a high grade. No review is satisfactory unless it *interprets the literature, reaches certain conclusions, and provides a framework for the experimental work* that follows. To explain why you subsequently did what you did is most important.

In reviewing the literature (or writing anything else) be honest and transparent. Plagiarism (the taking of another person's ideas or data and calling them your own) is a serious offence in the Faculty and the University. Acknowledge the ideas and workings of others by citing references in the text. If you lift words from another source (try not to do so), place them in quotation marks and give the page number in your citation.

Read one or two Research Reports from previous years it will give you a good idea about what is in store. Read a minimum of one Research Report; two is better. Make sure you look at a Research Report that scored a reasonable mark. Copies are available in the School in which you decide to work.

In your preliminary reading you might accidentally miss relevant work so that your research may address the same problem in the same way as a previous researcher. This unlikely event would probably rule you out of publishing the results in a journal, but the Faculty recognises that no student can know all the literature, and would sympathetically view your predicament. You need not read everything written about your topic. Indeed, it would be impossible.

**Formulating hypotheses, ideas, models**

The hypothesis (idea, model) is central to all good experimentation (Lindsay, 1995, “A Guide to Scientific Writing”, Longman). It is a statement of what you could logically expect to find when you carry out your experiment. This applies equally to surveys and economic studies as well as it does to controlled experiments. To create a sensible hypothesis you need to find out a lot about the field in which you will be working. This means that it will take you some time - and even frustration - to set up your hypotheses. But when you do so, you will have the basis for a top-class Research Project.

You will frame your hypotheses and on completion should seek feedback from your supervisor. You should get the widest possible comments on your hypotheses and the experimental design or analytical framework needed to test them. We have already mentioned that your School will ask you to present a seminar at this stage to explain how you developed your hypotheses and how you will test them.

Some would argue that not all projects require hypotheses. All, however, have ideas you want to test. It is for students, in consultation with their supervisor/s, to identify methods to be used to investigate their ideas about the resolution of the problem.
Resources
Each School will have a policy and procedure on budgets, so you should check first with the school in which you are conducting your research about the budget for your project. If there are not sufficient funds for your project, then you may have to obtain additional funds. Many students apply for additional funding to support their research project. You should consult with your supervisor to obtain a copy of the relevant school policy and speak with the School Manager as each school has a different policy and process of accessing the funds. If you do use personal funds towards your project you must keep receipts in order to be reimbursed.

The Faculty encourages you to use facilities such as the Shenton Park Field Station and the other state-of-the-art facilities available at the university for a wide range of technical and diagnostic work. The Faculty also has a fleet of vehicles that may be used for fieldwork. Schools will often provide access to vehicles for you to complete your research project. However, despite the resources available on campus, it may be necessary to collaborate with scientists from other organizations if UWA does not have the equipment you need. Speak to your supervisor and School Manager about how best to access the resources you need.

Some Schools provide short courses in analytical methods that you must attend if you intend to use these methods. You may also be required to get ethics approval, take first aid training, or 4 wheel drive training in order to gain access to the resources and equipment you need. If you have fieldwork off campus you will be required to fill out a risk assessment form beforehand and have this approved by your supervisor and Head of School.

You are encouraged to use the reference software EndNote, which is available free to all staff and students within the university. There are training workshops offered at the library to help you to use this powerful tool effectively.

Statistics
Whatever your experimental design or analytical framework, it is important that you analyse your data statistically where appropriate. It is assumed that, with the help of your supervisor, you are able to develop a robust design and to analyse statistically your own work. You should discuss the methods of analysis with your supervisor before you begin your project and when you are analysing your results.

Occasionally you may need help from a professional statistician. The Faculty's statisticians are under a great deal of pressure from Research Project students. Please approach them through your supervisor; that is, ask your supervisor to ask them for help. In that way we can be sure that you have exhausted other means of solving your statistical problem. You might also consider doing courses offered by the UWA statistics consulting group http://scg.maths.uwa.edu.au/

Conducting the research
You will be expected to carry out the research yourself. Your supervisor will guide you, and you may also get help at crunch points from technicians, other Research Project students, and postgraduate students. They will not do the routine work for you. That would destroy one of the benefits of doing your own project; that is, learning to cope with practical problems as they arise.

Students will receive credit for independence of thought and action. However, the Research Project units are apprenticeships in scientific investigation and reporting and collaboration with supervisors and others are encouraged. Encouragement of independence should not jeopardise the achievements of a successful apprenticeship. Low-quality work will not be rated highly because of a high-level of independence. Rather, it may be seen as a lack of initiative by the student to consult adequately with experienced colleagues.
Important
While conducting your research and collecting the data it is essential that you make frequent back-ups of all your data and any work you have written and keep these in a safe place. If possible keep a copy at home and one with your supervisor. A student had her laptop stolen from her car and it contained the whole project. Having a backup in this case would have made the difference between a disaster and a nuisance.

Leave time for writing
Writing is an integral part of the research process because it crystallises your ideas and understanding. Many students find that this is the most difficult part of the Research Project and often do not leave themselves enough time to do themselves justice. Plan your time carefully. The quality of your written Article determines your initial mark. Avoid errors such as spelling or grammatical mistakes or errors of fact. Keep notes during experiments so that you do not forget when an experimental plot was sown, what the weather was like, how the plot was harvested, and other observations that will help you interpret your results.

For a high-quality review and article give the first draft to others (especially your supervisor/s) to read and comment upon so that you can produce a polished final version. Normally your supervisors will read and give you feedback on two drafts. So it is in your interest to give them a well-polished first draft, not something cobbled together in a few hours. When you write a draft set it aside for a few days, then print a hard copy of it and revise it: you will find that you can make considerable improvements to your draft even before receiving feedback from others.

Give these people time to read and think about your work. You should aim to submit work in draft form at least one month before the relevant due date to give time for comments and redrafting.

It is recommended that you do not make changes to your draft after you have handed it over to a supervisors for comments: wait for their feedback before making more changes or you might find that the comments you receive may no longer apply because you have changed the document.

You will receive lots of comments on these early drafts. Remember it is a valuable part of research to have critical comment on its progress; so do not despair over criticism. This is part of the peer review process – an essential component of scientific communication - and we should be grateful that our colleagues take time to help us with it. Have good reasons for rejecting the comments of others. Ultimately, you take responsibility for work that you present.

In your Literature Review and Research Article you should report (logically, clearly and concisely) how you:

- Made use of literature to identify a research objective, developed the research program, interpreted observations and recognised the significance of your findings.
- Analysed the problem conceptually and, through logical argument, reduced its complexity to a number of simpler elements.
- Questioned the meaning of these elements.
- Made judgments about the importance of these elements.
- Developed plausible and testable hypotheses, models and ideas about relationships between important elements that would lead to a resolution of the problem.
- Designed methods to examine, through some combination of experiments, literature, models and observations, relationships between the important elements.
• **Gathered evidence** to support, or refute, the hypothesised relationships.

• **Interpreted the evidence** in the light of:
  – the hypotheses (ideas) under test and underlying assumptions,
  – the methods used to obtain the evidence, and
  – the prevailing body of knowledge.

• **Identified needs and methods for further research.**

Note that this approach contrasts with one which simply describes and summarises.

Investigation of your problem may involve experiments with plants, soils or animals, collection of data in a survey, comparisons of a number of field-sites or formulation and testing of simulation models. However, you should all follow this process of critical, creative and quantitative thinking to resolve the problem(s) and communicate progress. Your findings may not be conclusive or substantial – but they could be.
REGISTRATION SURVEY

Please complete the Registration Survey on line using WebCT indicating your project title/topic, supervisor(s) and other project information required by the due date (Table 2). It is your responsibility to provide correct details (especially the emails) of your supervisors, so pay attention when completing the survey.

Submit your Registration Survey using the submission box on the Web CT.

Submitted surveys cannot be edited!

Make sure you notify the Administrative Coordinator and your supervisors of any changes in contact details that may occur throughout the year and of course update your details using Student Connect.

PROJECT PROPOSAL

You will also need to submit a one to two page proposal using WebCT by the due date (Table 2). The proposal should include background information leading to the hypotheses that you are planning to test, the methodology you propose to use to test these hypotheses, and a plan for completion for your research project including a timeline. You may, if necessary, change your topic later.

Submit your Project proposal using the submission box on the WebCT.

The proposal will be given to the assessors to inform them of your intended research but it will not be assessed.

PROPOSAL SEMINAR

You will present your project proposal in a 15 minutes seminar followed by 5 minutes of questions. Although not formally assessed, the first seminar is compulsory. The seminars will be organised during the week of April 19 to 23. Details will be posted on WebCT.

This will provide your supervisors and members of your school with the opportunity to participate and provide constructive comments.

In your talk you should outline the problem that you propose to investigate, the hypotheses you will be testing and the methods you intend to use. A Powerpoint presentation on how to give oral presentations is posted on the WebCT.

The spirit of these seminars is one of active interchange between participants. You should be well prepared for them. The feedback from the seminars can be very helpful in focusing your thinking. These seminars are the best opportunity to get constructive comments on your ideas from experienced minds.

Further information will be posted on the WebCT closer to the date.
LITERATURE REVIEW

Your Literature Review should be a focused review of the literature relevant to your project. It is not intended that you present a comprehensive background to the subject, but rather a critical analysis of the literature to demonstrate understanding of central concepts in your field of study, establish the relevance for your study and identify gaps in current knowledge. It should be a critical synthesis of the literature, not a catalogue. The Literature Review should lead into your research project by explaining how the research will contribute to an increased understanding of, or solution to unresolved problems or gaps in knowledge.

Many websites provide advice on how to write a Literature Review but the book by David R. Lindsay (1994) “A guide to scientific writing”, Longman, is by far the most useful resource to undertake this task.

Guidelines developed by the faculty’s teaching and learning committee have also been posted on the WebCT.

Submission requirements
Submit two printed and stapled copies and an electronic version (PDF file via WebCT) of your typed Literature Review by the due date (Table 2).

Submit the two printed copies (with a FNAS assignment cover sheet) to the reception in the Faculty of Natural and Agricultural Sciences office, Ground Floor Agriculture Central Wing.  

AND

Submit your electronic version of the Literature Review using the submission box on the WebCT.

You may submit your Literature Review earlier than the due date. However, those that are submitted late, without written permission from the Administrative Coordinator will be penalised five marks (percentage points) for each day late.

Formatting instructions
Text: use Times New Roman, 12 point, 1.5 spacing
Pages: double sided A4 pages. Number the pages.
Margins: Left side 3 cm, Right side 2 cm, Top 2 cm, Bottom 3 cm (including page number). Use ‘mirror margins’ setting to achieve this on double-sided printouts.
Page limit: Maximum of 15 pages of text and figures or tables and minimum of 12 pages, for full credit for the Literature Review. References are additional.
If you exceed the page limit assessors may decide not to assess the excess pages: so you will do so at your own risk!

Research topics differ in the amount of prior research that has been performed and therefore the amount of literature available to each student. For this reason a flexible page limit has been set. Refer to the Literature Review Guidelines and Marking Scale below for more detail about organization, expectations and assessment of this assignment. You will also find a copy of the feedback sheet template.

The Literature Review will be resubmitted with the Research Article and a bound copy will be held by the University. It is not required that the literature review be corrected or revised.
from its previous submission for inclusion in the final bound copy. It will not be assessed again. However, it is strongly recommended that any errors be corrected for the final permanent record held by the University.

We aim to return written feedback on your Literature Review approximately four (4) weeks after you submit it. Feedback sheets will be in individual envelopes and will be available to collect from the Faculty of Natural and Agricultural Sciences office, Ground Floor Agriculture Central Wing. The Administrative coordinator will notify you when the feedback sheets are ready for collection. Please note that hard copies of the Literature Review will be returned only if assessors have made comments on the printed copies of your work.

Assessors are expected to return the following documents
1. Literature Review
2. Assessors Marking Sheet
3. Assessors Feedback Form for Students

Assessors will follow the following assessment criteria, with a weighting of 80% content and 20% presentation. Note that referencing errors attract significant penalties.

**Assessment criteria for the Literature Review**

1. Establishment of relevance for the study
2. Demonstration of understanding of central concepts in the field of study
3. Integration and synthesis of information, emphasis on important points and critical evaluation of the literature
4. Documented support for the approach or framework of the proposed study
5. Identification of gaps in current knowledge
6. Formulation of hypotheses based on current knowledge and identified gaps
7. Accurate referencing and citations which follow content and format expectations for a publication in your discipline
8. Clear and logical presentation of text
9. Self explanatory and appropriately referenced figures and tables
10. General writing style to be free of formatting, spelling and grammatical errors
Assessment Guide for Assessors – Literature Review

General:

- Logical, clear and concise style of writing
- Free of typographical and spelling mistakes
- Free of colloquial expressions and jargon
- No unsupported assertions of fact beyond broad common knowledge
- Text is rewritten, not plagiarised
- Formatting instructions (e.g. page length) adhered to

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<td>Concluding section</td>
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Abstract:
- Clear, concise and logical in organisation
- Summarises the content of the body of the Literature review
- No citations or extra information
- Maximum 200-250 words

Introduction:
- Establishes relevance of the topic by providing a brief contextual backdrop
- Identification of the scientific, technical or social needs of the topic
- Outline structure of paper – signal to the reader the issues/topics that you WILL cover in your paper; this will also help keep you focused in writing up the literature review

Body
- Demonstration of understanding of central concepts in the field of study
- Integration and synthesis of information and emphasis on important points
- Identification of gaps in current knowledge
- Logical development of the ideas to be tested based on these gaps
- Documented support for the approach or framework of the proposed study
- Figures and tables to be self explanatory and well referenced
- Evidence of critical evaluation of the literature

Concluding section:
- Clear summary of the major points raised in the literature review
- Formulation of hypotheses or approach based on current knowledge
- May include discussion of implications
- No new factual information
Marking Scale for the Literature Review

The Literature Review (20% overall mark) will be assigned to one of the groupings below. Descriptors in the groupings are written as generically as possible to cover variations in style that might be reasonably expected in the breadth of possible research topics.

90–100: An outstanding document, demonstrating excellence in terms of conceptualisation, theoretical framework or coverage of previous experimental research leading to derivation of hypotheses or aims of the research project. Integrated presentation of the literature describing the core concepts in the field of research in a concise yet comprehensive manner with critical assessment of the methodology, framework or outcomes of previous work, and articulating gaps in knowledge. Alignment of the research topic to at least one knowledge gap and appropriate supporting documentation of the methodology/approach to be followed in the research project. Excellent written expression, organisation and format.

80–89: As for 90-100 but with some trivial weakness, such as in the presentation or structure, or some minor inconsistency or oversight in the arguments, or research aims or hypotheses that do not fully exploit the links with theory or previous empirical research.

70–79: For a document showing excellence in one or two aspects of conceptualization, coverage of concepts, hypothesis development, supporting documentation for proposed methodology, which offset some weaknesses or flaws. Very good written expression, organisation and format.

65–69: For a good piece of work with reasonably comprehensive and concise coverage of concepts and gaps leading to structured development of hypotheses or aims with appropriate methodology, but lacking excellence in any of the parts.

60–64: For a generally sound document with minor misconceptions, inconsistencies or omissions in one or more areas, or poor organisation or incorrect interpretation of one element of the literature, or an inability to recognise the limitations of the approach.

50–59: For an adequate document but one that contains a number of misconceptions, inconsistencies or omissions, or lack of integration with theoretical or empirical framework, or inadequate coverage of core concepts. Poorly organized.

<50: For a document with major problems in conceptualisation or content coverage, and inability to present information coherently and with clarity. Does not demonstrate a clear, concise writing style.
Marking Sheet for Assessors – Literature Review

Examiner: …………………………………………………

Student: …………………………………………………

Title:
...........................................................................
...........................................................................
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General Comments:

Abstract:

Introduction:

Body

Concluding section:

References:

Questions for the Student:

Comments for the Student:

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<td>Concluding section</td>
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Literature Review Assessors Feedback Form for Students

Student: ………………………………………………………

Title: ………………………………………………………

Mark: /100

General Comments:

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<td>References</td>
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RESEARCH ARTICLE

The final assignment for your Research Project is the submission of a Research Article. The Research Article should demonstrate your ability to prepare an article comparable to those found in a peer-reviewed scientific journal. Guidelines for the preparation of the Research Article will be posted on WedCT. These are essentially a succinct version of DR Lindsay’s 1994 book “A guide to scientific writing”, Longmann.

The purpose of the Research Article

1. Present the problem in a logical way in relation to background information.

2. Present a research plan that will address the problem.

3. Present methodology and methods so that the research can be reproduced.

4. Demonstrate an ability to research materials, analyse data and interpret results.

5. Summarise results and place them within the context of other work, future studies, policy and management as appropriate.

Submission requirements

Submit two bound copies and an electronic version (PDF file via WebCT) of your typed Research Article by the due date (Table 2).

Schools will allow you to access facilities to print your thesis. Please find out individual school arrangements from your supervisor(s).

Submit the two printed copies (with a FNAS assignment cover sheet) to reception in the Faculty of Natural and Agricultural Sciences office, Ground Floor Agriculture Central Wing.

AND

Submit your electronic version of the Research Article using the submission box on the Web CT.

You may submit your Research Article earlier than the due date. Research Articles that are submitted late, without written permission from the Administrative Coordinator, will be penalised five marks (percentage points) for each day late.

Extensions, which are not normally given, will be granted in exceptional circumstances only, and students must apply in writing to the Administrative Coordinator.

Formatting instructions

The literature review and the research article are to be formatted together in a single document.

Text: Times New Roman, 12 point, 1.5 spacing.

Pages: A4 pages. Number the pages.

Page limit: Maximum of 25 pages of text for the Research Article; figures, tables and references are additional.
Maximum of 15 pages of text and figures or tables for the Literature review; references are additional.

**Assessors will not read pages that are in excess of these limits.**

Margins: Left side 3 cm, Right side 2 cm, Top 2 cm, Bottom 3 cm (including page number); mirror margins.

**Order of Elements:**

1. **Title page:** include the title of the Research Project, your full name, names of the supervisors, and the statement:
   
   “This thesis is submitted in partial fulfillment of the requirements for a Bachelor of Science (Agriculture) (Geology and Resource Economics) etc.
   
   Research Project SCIE4501-4504
   
   Faculty of Natural and Agricultural Sciences
   
   The University of Western Australia.”

   Include the month & year of submission. Do not include a picture on the title page.

2. **Table of contents.**

3. **Acknowledgments:** e.g. thank your supervisors and any others who have assisted you with financial support, in your fieldwork, statistical analyses etc..

4. **Research Article:** this document should be written to stand alone as a research article prepared in a similar format to that required for submission to a journal in the relevant discipline. Some Research Articles such as those in biometrics, economics, some ecological research, and extension research may normally be submitted to a different journal and take a slightly different structure to those in natural sciences. Seek advice from your supervisor about which journal would be most appropriate to follow. There is no single 'correct' structure; students should identify a structure that best accommodates their research and is easy to read.

   This usually includes for a Natural Science article:
   
   - Title (and Journal used for formatting)
   - Abstract
   - Introduction
   - Materials and methods
   - Results
   - Discussion
   - References

   This usually includes for a Social Sciences or Economics article:
   
   - Title (and Journal used for formatting)
   - Abstract
   - Introduction
   - Theoretical framework
   - Methodology and methods
   - Results and discussion
   - Conclusion
   - References
The journals listed below are possible formats you may use for the research article. Select one of these or another one that is relevant to your discipline and follow the format used in that journal. You must specify on the Title page of your research article which journal you have used for formatting. The web link below should take you to the home page of the Journals published by CSIRO Publishing. These span many different disciplines, most of which are practiced in our Faculty. All you need to do is choose a relevant journal and follow the guidelines for authors.


The following links will take you to journals in others disciplines that might be relevant to your research topic.
Australian Journal of Agricultural and Resource Economics

Geographical Research
http://www.blackwellpublishing.com/submit.asp?ref=1745-5863&site=1

Urban Policy and Research
http://www.tandf.co.uk/journals/journal.asp?issn=0811-1146&linktype=44

**Figures and tables** can be included in the document. Each figure and table should be numbered and should be placed after it is referred to in the text. Tables and figures should have a caption and be self-supporting, so that they can be interpreted without a need to refer back to the text. Figures are usually in a sans serif font, e.g. Arial or similar. Generally journals require black and white figures but some accept colour images so you may choose. If you choose to include colour images, you will need to organize to have these printed in colour as most schools will not print colour images.

5. Literature review: This should contain a brief introduction, body of the document and its own reference list. The page limit is 15 pages of text and references can be additional. While it is not REQUIRED that the literature review be corrected or revised from its previous submission, it is strongly recommended that any errors be corrected for the final permanent record held by the University.

6. Appendices – generally not required. Experimental data and other bulky information may be contained in appendices.

**Students are required to retain their data and submit them to their supervisor, if requested, within one year of completing their course.**

The assessment guide for the research article and the feedback form that you will receive following assessment can be found on the following pages. Your final mark on the Research Article will not be released until after the Board of Examiners meeting. Written feedback after the assessment is completed will be available from the Faculty of Natural and Agricultural Sciences office, Agriculture Central Wing. The Administrative Coordinator will notify you when the feedback is ready for collection.
RESEARCH PROJECT

Supervisor Statement

This statement shall be provided to each assessor of the Research Article. If there are multiple supervisors then this form should be filled out by the Coordinating university supervisor in consultation with the other supervisors.

Please DO NOT include comments about the mark or grade you believe the student ought to receive for their work. Any statements that include such comments will be returned to the supervisor for revision.

Student:

Project:

As the supervisor(s) of the above student I/we make the following comments about the:

1. Student’s level of independence including data analysis

2. Any external factors hampering progress (illness, equipment failure, supervisor availability, etc.)

Additional comments

Coordinating Supervisor Name: _____________________________________________

Coordinating Supervisor Signature: __________________________________________

Name of Co Supervisor: _________________________________________________

Name of Co Supervisor: _________________________________________________

All supervisors were consulted in the preparation of this statement. □ Yes □ No
If not, please explain.
Assessment Guidelines for Research Articles in Natural Sciences

Presentation:
- Logical, clear and concise style of writing
- Free of typographical and spelling mistakes, colloquial expressions and jargon
- Statements beyond broad common knowledge supported by evidence (references)
- Text is rewritten, not plagiarised
- Formatting instructions (e.g. page length) adhered to
- Adequate acknowledgement of intellectual, physical and financial assistance
- Title is informative without verbosity
- Journal followed for style is indicated as a byline or footnote to the Title

Abstract:
- Covers the purpose of the investigation, its methods, results and implications in a clear and concise manner

Introduction:
- A concise background to the problem with well-chosen literature to support the development of the aims and hypotheses
- A clear statement of the purpose (ideas, hypotheses) of the investigation which follows (concludes) logically from the background
- Identification of the scientific, technical or social needs of the investigation
- A plan and anticipated outcomes of the investigation

Materials and Methods:
- Fully documented and referenced
- Clearly described such that the method can be followed by another investigator
- Methods used are appropriate to test the hypotheses
- Clear description of the statistical tools used and how they were used (if appropriate)

Results:
- Cover the information anticipated from the introduction and methods
- Logical order of presentation of results
- Best choice of alternatives for depiction of results (figures and tables)
- Figures and tables can be interpreted (read) on their own without reference to text
- Emphasis on important findings
- High quality figures and tables (e.g. easy to view, include all necessary elements)
- Figures and tables formatted consistently throughout and free of errors
- Non-repetitive methods of presentation (e.g. does not repeat in words what is already shown in good Figures or Tables, but describes results quantitatively)
• Adequate level of expertise in techniques (chemical, physical, biological, environmental), data gathering instruments (e.g. surveys) and numerical and statistical analyses
• Presents but does not discuss results; prepares for discussion of results

Discussion:
• Interprets results presented in the previous section in relation to the stated hypotheses or aims
• Does not repeat results but may give reference to the results
• Integrates new findings with existing information
• Makes strong statements and conclusions
• Recognises the limitations of the investigation
• Addresses the management implications, relevance of the work to industry or the scientific community
• May make suggestion for further research

References:
• Complete and up-to-date, accurate, relevant
• Sourced from the primary peer-reviewed literature or published reports
• Without substantial reliance on web-based references
• Consistently formatted as found in the peer-reviewed scientific journal of choice
• All in-text citation included in the reference list and vice versa
Examiners Marking Sheet – Research Articles in Natural Sciences

Examiner: …………………………………………………………………
Student: ………………………………………………………………..
Title: …………………………………………………………………
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General Comments:

Abstract:

Introduction:

Methods:

Results:

Discussion:

References:

Questions for the Student:

Comments for the Student:

Examiners complete this form ‘Examiners Marking Sheet – Research Articles in Natural Sciences’ and along with ‘Examiners Research Article Feedback Form for Student’ return to the Administrative Coordinator in the Faculty office.
Assessment Guidelines for Research Articles in Social Science/Economics

**Presentation:**
- Title is informative without verbosity
- Logical, clear, concise and balanced style of writing
- Free of typographical, grammatical and spelling mistakes
- Free of jargon and colloquial expressions
- Statements beyond broad common knowledge supported by evidence (references)
- Proper acknowledgement and citation of sources (no plagiarism)
- Formatting instructions (e.g. page length) adhered to
- Adequate acknowledgement of intellectual, physical and financial assistance
- Journal followed for style is indicated as a byline or footnote to the Title

**Abstract:**
- Covers the purpose of the investigation, its methods, results and implications in a clear and concise manner

**Introduction:**
- A concise background to the problem with well-chosen literature to support the development of the aims and hypothesis of the research
- A clear statement of the purpose (ideas, hypotheses) of the investigation which follows logically from the background
- Identification of the scientific, technical or social significance of the investigation
- A plan and anticipated outcomes of the investigation

**Theoretical Framework or Economic Model:**
- Demonstration of an adequate understanding of the theoretical background or framework
- A review of alternative approaches to addressing the issue being investigated
- A justification and detailed development of the model/methodology of the approach taken

**Methodology and Methods:**
- A clear statement of the resources used, including secondary and primary data collected
- Clear description so that the method can be followed and results replicated by another investigator
- Methods used should be appropriate for the hypotheses being tested
- Fully documented and referenced

**Results and Discussion**
- Covers the information anticipated from the introduction and methods
- Presents a clear description of the statistical tools used and how they were used (if appropriate)

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<td>Results</td>
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<tr>
<td>Discussion and Conclusion</td>
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• Presents alternative analyses of a particular issue, including sensitivity analysis when appropriate
• Follows a logical order of presentation of results, in particular if there are multiple components to model development
• Emphasis on important findings
• Demonstrates an adequate level of expertise in data gathering (e.g. surveys), analysis and interpretation
• Interprets results with reference to the stated hypotheses or aims
• Integrates new findings with existing information
• Recognises the limitations of the investigation
• Employs best choice of alternatives for depiction of results (figures and tables)
• Includes figures and tables that can be interpreted (read) on their own without reference to text, that are properly numbered and captioned and are of a high standard (e.g. easy to view, including legends and all other necessary elements) and are formatted consistently throughout and free of errors
• Follows a non-repetitive method of presentation and does not repeat in words what is already shown in good Figures or Tables but complements the figures and tables by describing, and possibly quantifying, the results.

Conclusion:
• Makes appropriate and strong statements and conclusions that are supported by the analysis
• Addresses the management or policy implications of the findings and interpretations, and identifies relevance of the work to industry, the scientific community or society
• Identifies any limitations of current study and makes suggestion for further research

References:
• Complete, up-to-date, accurate, and relevant
• Sourced from the primary peer-reviewed literature or published reports
• Without substantial reliance on web-based references
• Consistently formatted as found in the peer-reviewed scientific journal of choice
• All in-text citation included in the reference list and vice versa
**Examiners Marking Sheet – Research Articles in Social Science/Economics**

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General Comments:

Abstract:

Introduction:

Methods:

Results:

Discussion:

References:

Questions for the Student:

Comments for the Student:

Examiners complete this form ‘Examiners Marking Sheet – Social Science/Economics’ and along with ‘Examiners Research Article Feedback Form for the Student’ return to the Administrative Coordinator in the Faculty office.
Marking Scale for the Research Article

The Research Article (70% overall mark) will be assigned to one of the groupings below.

90–100: An outstanding document demonstrating excellence in terms of conceptualisation, theoretical framework or previous experimental research leading to derivation of hypotheses as described in the introduction, the use of rigorous or innovative methodology, a mastery of statistical methods and presentation of results, the capacity to discuss the results in an analytic manner, skilful treatment of unexpected or inconsistent results, or a recognition of some limitation of the methodology, and integration of the findings within the theoretical framework or empirical background outlined in the introduction or an alternative framework if appropriate. Excellent written expression, organisation and format.

80–89: As for 90-100 but with some trivial weakness, such as in the presentation or structure, or some minor inconsistency or oversight in the arguments, or a discussion that does not fully exploit the findings or links with theory or previous empirical research.

70–79: For a document showing excellence in one or two aspects of conceptualization, hypothesis development, methodology, statistical analysis or discussion, but no particular strengths elsewhere, or for a generally good document with some weaknesses or flaws which are offset by some excellent features. Very good written expression, organisation and format.

65–69: For a good piece of work with structured arguments leading to the development of hypotheses, appropriate methodology and statistical treatments and an accurate interpretation of the results, but lacking excellence in any of the parts.

60–64: For a generally sound document with minor misconceptions, inconsistencies or omissions in one or more areas, or poor organisation or incorrect interpretation of the results, or an inability to recognise the limitations of the methodology, or limited evidence of independent thought or execution.

50–59: For an adequate document but one that contains a number of misconceptions, inconsistencies or omissions, or unrecognised deficiencies in methodology, misinterpretation of the statistical analysis, lack of integration with theoretical or empirical framework, or inadequate evidence of independent thought or effort. Poorly organized.

<50: For a document with major problems in conceptualisation or execution, or inability to present arguments coherently and with clarity. Clear evidence of plagiarism in written content.
Examiners Research Article Feedback Form for Students

Student: ……………………………………………………………………………………………
Title: ……………………………………………………………………………………………

General Comments:

EXAMINERS COMPLETE THIS FORM,
A COPY OF THIS FORM WILL BE GIVEN TO THE STUDENT!

Examiners complete this form ‘Examiners Research Article Feedback Form for the Student’ and along with ‘Examiners Marking Sheet – Research Articles in Natural Sciences or Social Science/Economics’ return to the Administrative Coordinator in the Faculty office
RESEARCH SEMINAR

You will present a research talk in the FNAS Research Conference, which will be held towards the end of Semester 2 (Table 2). You must submit two items prior to the conference.

1. Submission of Abstract

Prior to the conference, you will submit an abstract (see examples posted on WebCT and also example below) on WebCT by the due date (see Table 2).

The Abstract will be printed in the FNAS Research Conference program and abstracts book.

Submit your electronic version of the Abstract using the submission box on the Web CT.

Formatting instructions for the abstract
Text: use Times New Roman, 12 point, single spacing.
Margins: Left side 3 cm, Right side 2 cm, Top 2 cm, Bottom 3 cm.
Use the following headings:
- Presentation title
- Authors (presenting author should be in bold)
- Abstract (350 words maximum)
- Keywords (list up to six keywords)

Select from the list of research areas (remove items from the list that are NOT applicable)
Save form as “yourlastnameabstract.doc” and upload on to WebCT

2. Submission of Power Point

You will also need to submit your PowerPoint files so that they can be uploaded on computers and be ready for the conference by the due date (see Table 2).

Late submission of the Abstracts or PowerPoint files will be penalized by a 5% reduction in the mark allocated to the Research Seminar for each day, including Saturdays and Sundays, that the Abstracts or PowerPoint files are late, in line with Faculty Policy.

The research seminars will be 15 minutes in length with an additional 5 minutes for questions and discussion. These talks will be assessed. The presentation is worth 10% of the overall mark for the project. The assessment criteria can be found on the following pages. The Marking Sheets will be returned to the students as feedback.
Presentation title: Using remote sensing to find lost lambs

Authors (presenting author should be in bold): Bo Peep, Boy Blue, and Mary Contrary

Abstract (350 word limit):

One of the critical problems in sheep production is the retention of young lambs in the flock. Young lambs wander from their mothers and become lost. We used remote sensing to locate lost lambs. Through the use of this technique we were able to recover 90% of lost lambs and successfully reunite them with their mothers. The remains of the other lambs were also located by remote sensing. While the cause of death was not confirmed, it is suspected that predators such as foxes were responsible.

Keywords (list up to six keywords): Merino sheep, GIS, lamb survival, maternal care, animal production

Select from the following list of research areas (remove items from the list that are NOT applicable)

- Animal production
- Animal behaviour

Save form as “yourlastnameabstract.doc” and upload on to WebCT
### Assessment Guide for Assessors – Research Seminar

#### 1. Attributes of the speaker

<table>
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<tr>
<th>Voice</th>
<th>Maximum Marks</th>
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<tr>
<td>Volume (Can they be heard at the back of the room?)</td>
<td>10</td>
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<tr>
<td>Speed (neither too slow nor too fast)</td>
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<tr>
<th>Appearance and Stance</th>
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<tr>
<td>Relaxed, not nervous or agitated</td>
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</tr>
<tr>
<td>Confident and apparently knows subject</td>
<td></td>
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</table>

#### 2. Audience contact

<table>
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<tr>
<th>Eye contact</th>
<th>Maximum Marks</th>
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<tbody>
<tr>
<td>General eye contact rather than selective eye contact for certain people in audience or no eye contact (i.e. looking at ceiling or notes only)</td>
<td>10</td>
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</table>

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<tr>
<th>Voice contact</th>
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<tbody>
<tr>
<td>Minimal use of “Umm” and other distracting habits</td>
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<tr>
<td>Involving the audience by the use of “You”</td>
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<tr>
<td>Timing to allow audience to absorb important messages</td>
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</table>

#### 3. Structure and Content of the talk

| • Opening - setting the scene by describing the content, but particularly the main message of the seminar | 50 |
| • Logical development with clear and frequent summaries of the material | |
| • Knowledge of the topic | |
| • Conclusion and summing up to relate to the opening | |
| • The student keeps to time | |

#### 4. Use and quality of visual aids

| • Effective use of "dead time" (when audience is absorbed in the overhead) | 20 |
| • Smooth transition from text to screen and back | |
| • Clear indication of the parts of the screen to which the speaker is referring | |
| • Timing of visual aids and length of time that they are visible | |
| • Annoying distractions like unwanted shadows, poor centering, overly busy | |
| • Clarity and size (can they easily be seen from the back of the room?) | |
| • Quantity of material to be absorbed | |
| • Did they complement the talk? | |

#### 5. Questions

| • Clarity and correctness of answers | 10 |
| • Confidence in answering | |
| • Ability to say "no" or "I don't know" without losing face | |
Marking Sheet for Assessors - Research Seminar

STUDENT’S NAME………………………………………………………………………………..

ASSESSOR’S NAME………………………………………………………………………

<table>
<thead>
<tr>
<th>Marks</th>
<th>Please see the reverse for more detailed criteria</th>
<th>Max Mark</th>
<th>Allocated Mark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Attributes of the speaker</td>
<td>Voice, appearance and stance</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>2. Audience contact</td>
<td>Eye contact, voice contact</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>3. Structure and Content of the talk</td>
<td>Opening, logical development, knowledge of topic, conclusion, timing</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>4. Visual aids</td>
<td>Effective use of visual aids and their quality</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>6. Questions</td>
<td>Clarity, confidence, ability to say “I don’t know”</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Instructions for the Assessor:

Please return this Marking Sheet to the Administrative Coordinator
ORAL INTERVIEW

You will participate in an oral interview during the period indicated in Table 2. The interviews will be scheduled during this time and the Administrative coordinator will let you know your scheduled time. Ensure you are available; place these dates in your diary! At the interview, you will meet with your assessors who by then will have read and examined your Research Article and your supervisor(s). You may request to have a member of academic staff of your own sex present during the oral interview. This person would act as an observer and not participate in the assessment or ask questions.

The purpose of the interview is for the examiners to ask questions or points of clarification on your work and to agree upon a mark for the Research Article. The interview clarifies points that may not be clear in your Research Article and determines whether you have a good knowledge and understanding of your research and its context. The interview has three further objectives that are concerned more with learning than with assessment, i.e. to give:

- feedback on your research and Research Article,
- an experience before an interview panel; this should be a valuable experience for you with respect to interviews for jobs or for grant applications, and
- the opportunity to comment on your experience and opinions of the unit and overall degree.

There are several common core questions, which may be asked. They include:

a. Briefly describe what you did for your project, what hypotheses did you test, what were the main results and what are the implications from these results.

b. Design of project - e.g. Why this design? With hindsight would you alter anything?

c. Results - e.g. Interpret a table or graph; anything missing? Are there better ways to present these data? Are alternative interpretations possible?

d. How do your data and interpretations relate to the literature?

e. Where to from here? - e.g. What have you learned and what would you do next?

The Assessors will decide on a preliminary mark before the interview. At the interview you may improve your mark, but it will not go down from the preliminary mark. After all students have been interviewed and before a final mark is assigned, the marks may be adjusted to achieve consistency of assessment across Schools within the Faculty. On average, Faculty expects that 10% of the Research Reports will be worthy of a high distinction although marks are not scaled to achieve these proportions.

Your final mark for the project will be based upon the quality of your work and how it is communicated – rather than on the substance of your findings.
FACULTY POLICY ON PLAGIARISM

Cooperation in the creation and pursuit of knowledge is encouraged and often necessary. However, cooperation must be distinguished from plagiarism. Plagiarism is taking someone else’s thought, writing or invention and claiming it as your own. The work of people in the university is the creation and pursuit of knowledge. Therefore, plagiarism is the theft of someone else’s work.

Plagiarism is viewed as serious misconduct by this university and this document should be read with other university guidelines and policies. The policy of the Faculty of Natural and Agricultural Sciences is to ensure that students and staff are aware of the nature of plagiarism, of how to prevent it, and of the penalties that can result from acts of plagiarism.

All forms of cheating, plagiarism and copying are condemned by the University as unacceptable behaviour. The Faculty’s policy is to ensure that no student profits from such behaviour. Generally a failure will be recorded for the subject in which the cheating has occurred. Serious cases shall be referred to the University’s Board of Discipline. All students should note that cases of copying are automatically reported to the Dean and documentary evidence along with associated correspondence is placed on the student’s permanent record.

Examples of Plagiarism

Examples of the most common types of plagiarism follow. These are examples only, not regulations. Nor are these examples an exhaustive list and other types of plagiarism may occur and must be dealt with.

General
1. Failing to cite published or unpublished work of other people.
2. Copying text verbatim without quoting the original work and attributing the work to its rightful author.

Students
3. Two or more students cooperating to complete an exercise or assignment but then handing in identical answers, unless the exercise or assignment is a group project.
4. One student copying another student’s assignment.
5. Using the ideas of a supervisor or peer without proper acknowledgment.
6. Omitting supervisors as co-authors in publications arising from your supervised study where supervisors have contributed in a substantial way to the conception, execution or interpretation of the work.

Supervisors and Academic Staff
7. Publishing the essay or thesis of a student except as a co-author.
8. Publishing the ideas, methods, data or writings of peers without either obtaining their permission or including them as co-authors.
9. Being an “honorary author” of an article without contributing in a substantial way to the conception, execution or interpretation of the work.

Remedies
Plagiarism by students will be penalised under University Statute 17. Section 2(2)g which defines misconduct as acting dishonestly or unfairly on examinations and test, or in the preparation and presentation of a thesis, essay, exercise or other work. Section 9(1)c empowers the Dean of the Faculty to deprive a student of credit if he or she acts dishonestly or unfairly. In practice, the Dean will delegate responsibility to instructors who must detect and penalise plagiarism.

1. Plagiarism by students and staff in a publication will be taken up directly with the Editor of the book or article in question.

2. Two or more students who hand in identical assignments will have the mark split between them. For example, if three students hand in identical assignments, the assignment will be marked and each student will receive one third of the marks.

3. A student who copies another student’s assignment will receive a mark of zero. Further infractions by the student will result in disciplinary action by the Dean.

4. A student who fails to give proper credit to other work will receive lower marks at the discretion of the instructor.

5. Honorary authors may be deleted from a published work, even after publication. Likewise, omitted authors may be included.

Appeals against academic assessment

Full regulations governing appeals procedures are available in the University Handbook, available online at http://www.publishing.uwa.edu.au/handbooks/interfaculty/PFAAAA.html

Charter of student rights


Guild student centre contact details