THE UNIVERSITY OF QUEENSLAND
AUSTRALIA

School of
Biomedical Sciences

HONOURS HANDBOOK

2018

Bachelor of Sciences (Hons) Biomedical Sciences

Bachelor of Biomedical Sciences (Hons)

TABLE OF CONTENTS

This handbook is intended to give information on the Honours program in the School of Biomedical Sciences. This information is advisory and does not in any way supersede The University of Queensland Calendar & electronic course profile.

INTRODUCTION

After completing your Bachelors or equivalent degree, Honours will be the most intensive – and for many the first - contact with original research. Through Honours you will experience the different facets of research: the excitement of discovering something new, the satisfaction that comes with being an expert in your chosen field as well as frustrations, problem-solving and communication of your findings. You will be part of a research team, learning from more experienced researchers around you, such as your supervisors and other members of the laboratory.

Whether you consider Honours a stepping stone to a Masters or PhD and onto a career as a researcher, or a vital research experience giving you credibility in science and research-associated careers, you will find the course will add significantly to your training as a Science graduate.

This guide summarises the requirements for assessment items, provides a timetable of due dates, and outlines the assessment criteria which will be applied to your work. You are expected to follow these guidelines and meet the deadlines listed without having to be reminded of them. Therefore you should read this guide and the electronic course profile (ECP) carefully now, and ensure that your supervisor does the same. Any queries should be directed to the Honours Coordinators, Dr Richard Clark (BSc Hons co-ordinator), (07) 3365 1527, richard.clark@uq.edu.au or Assoc. Prof. Rohan Teasdale (BBiomedSci Hons co-ordinator), (07) 3365 2319, r.teasedale@uq.edu.au

HONOURS ENROLMENT DETAILS

The course codes are as follows:

Subject Code	Subject Title	Credit Unit
BIOM6191 or BIOM6192	Research Project in Biomedical Sciences	16
BIOM6501 or BIOM6502	Research Project in Biomedical Sciences	16

Bachelor of Science (Honours) students will be enrolled in BIOM6191 (students commencing in February) or BIOM6192 (students commencing in July)

Bachelor of Biomedical Science (Honours) students will be enrolled in BIOM6501 (students commencing in February) or BIOM6502 (students commencing in July)

Commencement of Study

Studies may commence on the following dates: (slight variations are possible if there is any change in the UQ Academic Year).

1st Semester enrolments (can vary by a week)

Start Date: First week in February 2018

2nd Semester enrolments (can vary by a week)

Start Date: Third week in July 2018

PROGRAM DESCRIPTION

General Information

- The Honours program consists of a research project with associated research proposal, research report, seminars, journal clubs and evaluation of laboratory performance.

- It is very important for students and supervisors to be aware that the research report represents the bulk of the year's work and is therefore the primary indicator of the level of the student's research and communication skills.

Assessment Items

- **Journal Club:** This component involves the presentation and contribution to discussion of a research paper amongst your peers.

- **Research Proposal**: Submitted as a document of 4000 words outlining and justifying the proposed project and introducing the background literature.

- **Proposal Seminar:** Students will give a 10 minute oral presentation (with 5 minutes of questions) on the background and rationale for their study. This will include a statement of aims and hypotheses along with research methods to be used.

- **Research Report**: Submitted as a document of 7500 words describing and critically appraising the research work undertaken during the Honours year.

- **Seminar Diary**: Students will attend at least 12 seminars (these can be external to SBMS) given by academic/research staff or invited speakers.

- **Supervisor's Report:** Supervisors will provide a report based on the student's performance over the course of the Honours year.

- **Final Research Seminar**: This component includes the final seminar presented at the end of the year (15 minute talk & 10 minutes for questions).

Assessment Marking

- Two examiners are invited by the SBMS Honours Committee to assess the research proposal and research report. Their feedback will be made available to the students, although examiners have the option of remaining anonymous. If appropriate, examiners may be from another department or institution.

- Seminars are examined by two members of the SBMS Honours Committee or appropriate proxies.

- Templates of marking sheets used by examiners for the assessment of items of work can be found in the learning resources section of the Blackboard site.

- Students will be informed of the grading of any item's assessment as soon as possible. Students should direct any queries in relation to marks to the Honours Coordinators.

- Final results are recommended by the SBMS Honours Committee to the Head of School, who advises the Executive Dean. The award of various classes of Honours is also made by the Head of School and relevant Executive Dean.

Assessment Summary BSc and BBiomedSc Honours

Assessment Task	Weighting
Journal Journal Club Presentation and Participation	5%
Seminar Research Proposal Seminar	5%
Report Research Proposal	10%*
Diary Seminar Diary	Mandatory
Report Research Report	55%*
Report Supervisor's Report	5%
Seminar Final Research Seminar	20%

** submission of final version via Turnitin*

Classes of Honours

Please ensure that the Electronic Course Profile is referred to for official due dates, assessment information and relevant policies, these are guidelines only.

The final grade will be accredited in the form of *Classes of Honours.* The minimum overall percentage for the various classes of Honours is:

Grade 1 – a cumulative score of less than 30% OR a cumulative score of at least 30% and less than 30% for the research report – Honours Class IIIB

Grade 2 – a cumulative score of 30%-39% and at least 30% for the research report OR a cumulative score of at least 40% and 30%-39% for the research report – Honours Class IIIB

Grade 3 – a cumulative score of 40%-49% and at least 40% for the research report OR a cumulative score of at least 50% and 40%-49% for the research report and does not submit the seminar diary –

Honours Class IIIB

Grade 4 – a cumulative score of 50%-59% and at least 50% for the research report and seminar diary OR a cumulative score of at least 60% and 50%-59% for the research report – Honours Class IIIA

Grade 5 – a cumulative score of 60%-69% and at least 60% for the research report OR a cumulative score of at least 70% and 60%-69% for the research report – Honours Class IIB

Grade 6 – a cumulative score of 70%-79% and at least 70% for the research report OR a cumulative score of at least 80% and 70%-79% for the research report – Honours Class IIA

Grade 7 – a cumulative score of 80%-100% and at least 80% for the research report – Honours Class I

Other requirements: Students must meet the indicated hurdle in the research report assessment, in addition to the required cumulative score, to achieve each grade and class of Honours, as detailed above.

Students must also complete and submit the Seminar Diary in order to pass the course. If a student does not complete and submit the Seminar Diary, they are unable to achieve a grade higher than a 3 (failing grade) for the course and are ineligible to obtain an Honours Class I, IIA, IIB or IIIA.

Scientific Integrity and Ethics

Scientific ethics describes a broad range of issues. Professional conduct is expected from all students and includes all areas from the humane treatment of experimental animals, human subjects, integrity of data collection, presentation, scientific writing, and keeping of due dates. It is very important that you understand various aspects of scientific ethics before commencing the work for your degree. More information can be found at: https://research-integrity.uq.edu.au/researcher_responsibilities.

Students using animals as part of their project must also attend training run by the relevant animal house required for their project.

Plagiarism

The University has adopted the following definition of plagiarism:

> Plagiarism is the act of misrepresenting as one's own original work the ideas, interpretations, words or creative works of another. These include published and unpublished documents, designs, music, sounds, images, photographs, computer codes and ideas gained through working in a group. These ideas, interpretations, words or works may be found in print and/or electronic media.

Students are encouraged to read the UQ Student Integrity and Misconduct policy (http://ppl.app.uq.edu.au/content/3.60.04-student-integrity-and-misconduct) which makes a comprehensive statement about the University's approach to plagiarism, including the approved use

of plagiarism detection software, the consequences of plagiarism and the principles associated with preventing plagiarism.

Extensions

Late submission of intra-semester assessment items (after the due date and time), without a prior authorised extension or beyond the extension date, will result in a penalty by deduction from the marks received for that assessment item at the per day rate of 5% of the maximum marks achievable.

Submission of Application for Extension of Progressive Assessment Forms should be made to Student Services Office, Level 3, Skerman Building 65 or via email to sbms.hons@uq.edu.au.

Commercial-in-confidence projects

Where a project is confidential the written reports should be clearly marked on the front page "Commercial-in- Confidence" and also on each page of the document. Adding this wording to the Header and/or Footer of the main document would achieve this. The SBMS Honours Administrator should be made aware of confidentiality requirement so that the necessary forms can be provided to examiners and at the seminars.

HONOURS ADMINISTRATION

The Honours program is administered by the SBMS Honours Committee, which is comprised of members of academic staff plus PhD student representatives and one administrator.

The SBMS Honours Committee:

- administers the Honours program;
- ensures that the assessment of each candidate is fair and appropriate.
- ensures that candidate and supervisor are aware of all aspects of the program and assessment requirements;
- help and advise students as necessary; and
- adjudicates in any disputes that may arise involving Honours students.

Honours Committee Members Contact Details

Name	Room	Phone	E-mail
Dr Richard Clark (BSc Hons Coordinator and co-Chair)	316 Skerman	3365 1527	richard.clark@uq.edu.au
Assoc. Prof. Rohan Teasedale (BBiomedSci Hons Coordinator and co-Chair)	420 MacGregor	3365 2319	r.teasedale@uq.edu.au
Dr Josephine Bowles		3365 3056	jo.bowles@uq.edu.au
Dr Emma Hamilton-Williams	Diamantina Institute	3443 6989	e.hamiltonwilliams@uq.edu.au
Dr James Hudson	511 MacGregor	3365 2957	j.hudson@uq.edu.au
Dr Mary-Louise Roy Manchadi	421 Skerman	3365 6978	m.roymanchadi@uq.edu.au
Dr Oliver Rawashdeh	Otto Hirschfeld	3365 2706	o.rawashdeh@uq.edu.au
Dr Adam Ewing	Mater Research Institute	3443 7195	adam.ewing@mater.uq.edu.au
Dr Victor Anggono	QBI	3346 6326	v.anggono@uq.edu.au
Sarah Kerwin	Student Rep		sarah.kerwin@uqconnect.edu.au
Christian Than	Student Rep		christian.than@uqconnect.edu.au
Honours Administrator	306B Skerman	3365 1950	sbms.hons@uq.edu.au

Student –supervisor responsibilities

The role of your supervisor is to provide you with advice, guidance and criticism to assist you in the successful completion of your thesis. The thesis should ultimately be your own work for which you must take responsibility for the final results.

To help guide you in your interactions with your supervisor here are some of the expectations of what the student-supervisor roles entail.

Responsibilities of the supervisor

- Assist in the development of a study plan for the year's thesis work setting goals and monitoring progress. Advising student when progress is unsatisfactory.
- Provide guidance in the selection and application of appropriate literature, data collection and analysis procedures.
- Foster writing skills by way of constructive commentary.
- Meet regularly to discuss each stage of the project.
- Provide prompt feedback on drafts (no line-editing) and read the entire thesis before it is prepared for submission.

Responsibilities of the student

- Work with the supervisor in the development of a study plan which is suitable to both parties.
- Consider advice seriously.
- Maintain regular contact with your supervisor as per an agreed timetable. The student and supervisor should be considerate of each other's time and their dealings with one another should be reasonable.
- Proof-read written material before submitting to your supervisor. If the supervisor is forewarned that their input is required, this will lessen delays in receiving feedback.
- Write your own proposal and thesis, including drafts. Supervisors must not write or re-write your written work.
- If you experience difficulties you should first attempt to resolve them with your supervisor/s as quickly as possible to avoid significant time wastage. If this does not work or you feel that you cannot approach your supervisor/s you should consult with the Honours Coordinator. If the matter remains unresolved you should contact the Head of School.

Further information on the student-supervisor relationship can be found at http://www.uq.edu.au/student-services/learning/supervision. While this is primarily for research higher degree students, much of the information is equally applicable to the honours year.

The student charter is available in the UQ Policy and Procedures library at https://ppl.app.uq.edu.au/content/3.60.01-student-charter, and sets out the general rights and responsibilities of students at the University of Queensland.

EFFECTIVE COMMUNICATION WORKSHOPS

During your Honours year we will run two Effective Communication (EC) Workshops, which will be held before your written research proposal and proposal seminar are due. While attendance is not mandatory, these workshops provides some useful insights into the elements of good research proposal writing in EC1, and insights into improving your research proposal seminar in EC2.

Effective Communication 1 Workshop

The aim of EC1 is to help you identify the key concepts of your project and to give you some ideas on the best way to present your project to a non-specialist audience. The EC1 workshop is typically run a few weeks before your written proposal is due. The workshop is divided into three parts:

1. You present a short (5-10 min) introduction to your project to a small group of your peers. This will help you identify what your key messages are and how you make these as clear as possible to a non-specialist audience
2. You will be provided with a sample written research proposal that you will "mark" using the assessment criteria sheet. This will be followed by a group discussion and analysis of the assessment, a comparison of your assessment to what the examiners gave, and a discussion on how to structure an effective written research proposal.
3. A discussion on what makes a "good" and "bad" oral presentation, how these characteristics fit with the assessment criteria, and what are the key elements that an examiner is looking for in a proposal seminar. This last discussion will help you prepare for the EC2 workshop

Effective Communication 2 Workshop

In this workshop you will be divided into small groups to present a practice proposal seminar to your peers and an academic (either a lecturer or postdoc). The key goal of this workshop is for you to get questions and feedback on your seminar from a group of scientists outside of your research lab and field. This will aid in you making sure that your talk will be clear and logical to a non-specialist audience and your examiners.

The EC2 workshop is typically run after your written proposal is due and before your proposal seminar.

ASSESSMENT GUIDELINES

Written Research Proposal

This is the first major piece of work assessed in the honours program. The Research Proposal should provide a comprehensive review of the literature relevant to the project, leading to a statement of the major experimental aims/hypotheses of your project and the rationale underlying the planned experiments. Detailed explanations of the experimental methods are not required, although you must show a general understanding of methods to be used. It is essential that you outline the experiments to be carried out, how the data will be analysed, and show that the experiments are appropriate in the light of both previous research in the area and the aims of your project. Finally, you should address the expected outcomes and significance of your research. The proposal should be an original, learned and critical appraisal of the literature on the topic and not simply a summary of the literature. It should illustrate that you have a personal insight into the area of your research project. It should be written such that the content is intelligible to the non-specialist reader. Jargon should be avoided and all abbreviations must be defined.

Written Proposal Format

- The Research Proposal contains the following sections:
    - Title Page
    - Declaration (as per page 13 of this handbook) which must include
    - a Declaration page (see above template) with a statement that the work is yours except as acknowledged, the word count of the text (note limits provided elsewhere), and your signature and the date
    - Table of Contents
    - List of abbreviations
    - Introduction (which should provide a suitable introduction for the non-specialist reader)
    - Various sections as appropriate to the topic including:
    - a critical review of relevant literature (~60% of length of report)
    - the aims/hypotheses of your research proposal
    - the research plan and methods for the research project (including anticipated data analysis and a timetable)
    - expected outcomes and significance of the project
    - References (a bibliography in alphabetical order)

- The research proposal is to be presented as a written assignment, which must be typed and submitted as described below.
- All text (including in-text citations) with the exception of the declaration, table of contents, list of abbreviations, figure legends, tables, the list of references and any appendices should not be greater than 4,000 words. A word count of more than 10% over this limit (i.e. presenting a Research Proposal of greater than 4400 words) will be penalised. A 5% penalty will be applied to your percentage for the Research Report for every multiple of 400 words that your proposal is over the limit.
- Text should be double-spaced, on A4 page size with 2.5 cm margins and in 12 point font. Tables and Figures should have clear legends that stand alone (i.e. they do not require referral to the main body of text for their interpretation).

- Supervisors and laboratory members are permitted to read and comment on your proposal, however they must not undertake in-depth editing.
- References to the sources of the material in the proposal, where relevant, should be cited in the text at the end of the relevant phrase or sentence using a format from a well known journal in your area of study. The references must include the full title and list of authors of each paper. *Published sources quoted verbatim must be placed within quotation marks and cited appropriately*.
- The citations and references list should be prepared with the aid of a referencing database, such as Endnote, (which is supplied free of charge by the library) to avoid both a time-consuming task and the inevitable errors. UQ Library offer courses in the use of Endnote, you can register for training at the following site: https://www.library.uq.edu.au/training/.
- Students are required to use the software program TURNITIN to avoid plagiarism and for submission.

Assessment by examiners

- The assessment criteria sheet for the written research proposal will be uploaded to the course blackboard site well in advance of the due date.
- Below are some of the questions the examiners of your Research Proposal will have in mind as they read your document. You should use these questions to guide you as you write.
    - Is the topic clearly explained and put into context?
    - Are the scope and aims of the literature review clearly explained?
    - Is it a comprehensive review of the relevant literature?
    - Have gaps, conflicts, inconsistencies and/or errors in the literature been identified?
    - Has the literature been **critically analysed** and discussed in sufficient detail?
    - Is the literature review well-structured and organised?
    - Have you linked the literature review to the need for your research?
    - Have you established a clear hypothesis for your intended research to answer?
    - Have you identified major methods to be developed/used?
    - Have you clearly justified the rationale underlying the planned experiments? How do these address your hypothesis/aims?
    - Have you assessed the time required for the suggested work and is the assigned time realistic?
    - Is the proposal written clearly and concisely? Is it intelligible to a non-specialist reader?
    - Is the writing style good? (grammar, sentence construction, paragraph construction)
    - Does poor presentation divert attention away from the content?
    - Has there been effective use of figures/diagrams/tables to illustrate and reinforce key concepts.

Deadline and copies

An electronic copy (both word and pdf versions) of the report must be submitted to Turnitin by 3.00pm on the specified date as per the electronic course profile. Any candidate who submits their report late without a formal extension granted by the Chair of the Honours Committee will be penalised. Your report (pdf) will be sent electronically to your examiners for marking. You will not be required to submit any hard copies of the report.

Please be aware that Turnitin has a maximum file upload size of 20MB.

Scientific quality of the project should NOT contribute to assessment of the seminar as this has usually been generated by the supervisor. We are judging the student's approach to the project.

Research Proposal Seminar

The research proposal seminar is scheduled 2 weeks after the due date for the research proposal. It is likely to be your first ever seminar, so good preparation and practicing your seminar will go a long way to help with nerves. You should be able to illustrate a thorough understanding of the background literature and the rationale of your experimental approaches in both the seminar and answers to questions.

Proposal Seminar Format

- The structure of the seminar is a 10 minute presentation and 5 minutes of questions/discussion.
- Typically, the seminar should comprise a 3-5 minute summary of the background to the project and justification of the hypothesis/aims. The remaining 5-7 minutes should deal with the practical aspects of the project: methods, experimental design, expected outcomes and their significance
- Any student running over time by >1 minute will be cut off by the chair and can be penalised.
- On the day of your seminar, you will be required to have your presentation ready on a usb drive, compatible with Windows/PC program. You must load your presentation onto the supplied PC/Laptop prior to your seminar session commencing.
- Data already generated in your project **MUST NOT** be presented in this seminar; it should be reserved for the final seminar.
- You are required to attend ALL Honours seminars (or one set of sessions if there are concurrent talks) to support your peers.

Assessment by examiners

The assessment criteria sheet for the written research proposal will be uploaded to the course blackboard site well in advance of the proposal seminar date.

Intellectual content of the seminar [understanding project and methodology, significance of possible results, organisation of topic, ability to handle discussion] will constitute 80% of the assessment, and quality of the presentation [timing, use of overheads, audibility, style] will contribute 20% to the mark.

Some of the questions your markers will have in mind are outlined below.

- Did the introduction clearly state the problem being investigated?
- How well was the problem put into context with background information?
- Was the need for the research work clearly justified?
- Were the hypothesis/aims clear? Was the whole presentation built around this main message?
- Were the experimental strategies explained at an appropriate level of detail?
- Did the presentation finish clearly and concisely? Or did it meander about towards the end?
- Were there sufficient visual aids?
- Did the speaker enunciate clearly? Was the speaker clearly audible? Did the speaker avoid reading and distracting mannerisms?
- Was the presentation well timed, and presented at an appropriate pace?
- Did the speaker answer questions directly? Did the speaker answer the questions that were asked? Did the speaker seek clarification of what was being asked when appropriate?
- Did the speaker demonstrate a deep understanding of the research area through their answers to questions?

Scientific quality of the project should NOT contribute to assessment of the seminar as this has usually been generated by the supervisor. The examiners are judging your approach to the project.

Journal Club

The Journal Club is intended to provide you with the aim of improving critical review and analysis of scientific papers. The presentation is intended to provide you with the opportunity to communicate scientific research material to an audience, to discuss the findings and conclusions of the material with the members of the audience and to practice some core skills in scientific communication. Although it is not easy, try and relax during your presentation. The atmosphere is meant to be somewhat informal and nobody will be critical if you don't know the answer to a question or you have not fully grasped a concept or a point of view. After all, we all have to learn these skills and the more we practice the easier it becomes and the more we feel comfortable about answering and asking questions. There is no such thing as a dumb question!

The Process

Journal club groups and leaders will be organised by the Honours committee during the honours year (typically around mid-year) and announcements will be made on Blackboard once these groups have been finalised.

- Each Journal Club group leader will be contacting their group members to organise meeting times and rosters. They may suggest that their group meets prior to actually starting the journal clubs to discuss how they will work (logistics), the marking criteria and to set up a roster.
- Meetings are organised to suit your own group and, out of necessity, will need to be a bit flexible.
- Students can select their own article to present, please ensure that it is in one of the leading journals in the field of research to ensure that there is enough content to discuss. A mechanistic paper should be presented instead of a descriptive one. If unsure, please consult with students' supervisor and/or JC leader. They must send it out to all other students and the Journal Club Group Leader one week prior to the journal club meeting.
- The Journal Club groups have 6-8 students.
- All club members will be expected to have read the papers to be presented each week and should be prepared to both ask and answer questions from the presenters and from other members of the club. The club leader CAN ask ANY student to pose a question for any of the group presenters.

Duration: Approx 30 min Questions-Discussion: Approx 10 min

Participation at ALL journal club sessions is compulsory. Participation includes active interaction in the journal club, such as asking questions of other presenters and participating in discussions. Hence this assumes that all members have read the paper before the meeting. If you miss a J Club due to clashes and or sickness you must notify your J Club Leader and the Coordinator. All J Club Leaders will be taking a roll at each session.

Assessment

You will be marked on your presentation and handling of questions by the journal club leader (6 marks, see marking criteria sheet) and also your contribution to the presentations by your peers (4 marks). ALL TOGETHER Assessment + Journal Group = 10 Marks. This score will contribute up to 5% to your final Honours grade.

Some of the questions your journal club will be asking when they assess your presentation and participation include:

- *Introduction & background material, Statement of aims of presentation*

  -Does introduction appropriately explain broader background for presentation ("has the scene been set?")
  - Why is presented work interesting/relevant to field ("why should we care?")
  - What are specific aims of presentation ("what am I/ are we going to talk about?")

- *Accuracy and completeness of content, Clarity and logic of the presentation*

  - Is relevant content of work presented accurately and completely? ("did you get all the important facts and findings and tell us about them!")
  - Are points of presentation being made clearly and in a logical order? ("did your audience get it?")
  - Have you shown that you have personal insight into relevant aspects of work ("what did you think about the work and why?")

- *Quality of oral communication and use of presentation aids*

  - Are you using appropriate language and vocabulary for a scientific presentation to an intelligent but inexpert audience? ("keep it clear and simple, but explain the big words and concepts when needed")
  - Is your language engaging and persuasive ("did you keep your audience awake and interested?")
  - Are you using appropriate text materials, outlines, graphs, pictures, examples etc., and are they legible, visible, interesting, well organized? ("great notes, good pictures!")
  - Does the presentation fall within the time period allowed? ("did you keep to the point?")

- *Handling questions and group interactions (integration and answering questions)*

  - Are the group/individuals responding to questions positively? ("all questions need respect!")
  - Are your responses short, to the point and answering or attempting to answer the question? ("keep it moving")
  - Are you prepared to say you did not know? ("know your limits and acknowledge them")
  - Is there good communication between group members? ("do you know the others exist?")
  - Do you utilize the other presenters in the group if required to answer questions? ("someone may know more than you"

Research Report

This report is the main piece of work comprising the presentation of all aspects of your research. This is reflected in the high weighting it has as one of the assessments for Honours. Results of the research are prepared in the form of a research report.

Research Report Format

- The Research Report contains the following sections
    - Title Page

      Declaration (see Appendix 1 of this handbook) with a statement that the work is yours except as acknowledged; the word count of the text (note limit and rules provided elsewhere); your signature and the date.
    - Table of contents
    - List of abbreviations
    - Abstract (a summary of the project in not more than 2 pages, focusing on what you did)
    - Acknowledgments
    - Introduction (a very brief summary of the key literature which leads up to the rationale of the experiments and a statement of the aims/hypotheses)
    - Methods (succinct description of techniques used and sources of materials)
    - Results (experimental data with sufficient explanation to make the data in figures and tables comprehendible; appropriate statistical analysis of data)
    - Discussion (interpretation of results and a critical review of these results in relation to the published body of knowledge)
    - References (a bibliography in alphabetical order)
    - Appendices (Large amounts of data should be included in Appendices with brief summary tables in Results)
- All text (including in-text citations) with the exception of the title page, declaration, table of contents, list of abbreviations, abstract, acknowledgments, figure legends, tables, the list of references and any appendices should be not greater than 8000 words. A word count of more than 10% over this limit (i.e. presenting a Research Report of greater than 8800 words) will be penalised. A 5% penalty will be applied to your percentage for the Research Report for every multiple of 800 words that your proposal is over the limit.
- Text should be double-spaced, on A4 paper with 2.5 cm margins and in 12 point font.
- Tables, Figures and Diagrams should have clear legends that stand alone (i.e. that do not require referral to the main body of text for their interpretation).
- Should you include data that was jointly generated with another member of the laboratory, this should be declared in the 'Statement of authorship' (see Appendix 1) as well as in the relevant Figure legend(s).
- If you wish to describe work that is not your own (e.g. data generated by another member of the laboratory working on the project) that provides context for the results/discussion, these must be placed as an appendix and appropriately acknowledged.

- Appendices may also be used to provide additional methodological details where appropriate (i.e. such that the examiner can determine whether the methods are robust and appropriate; excessive length is not rewarded).
- Supervisors and laboratory members are permitted to read and comment on your report, however they must not undertake in-depth editing.
- References to the sources of the material in the proposal, where relevant, should be cited in the text at the end of the relevant phrase or sentence using a format used in a well known journal in your area of study. The references must include the full title and list of authors of each paper. The citations and references list should be prepared with the aid of a referencing database, such as Endnote, as for your research proposal.
- As the literature background and research proposal submitted earlier in the year will have already provided an extensive review of the published work in the area, the research report introduction will be much shorter. It is permissible to re-use suitable sections of your proposal for the thesis (i.e. this will not be viewed as plagiarism). The **recommended** lengths of the other report components are:
    - Methods 5-10 pages
    - Results 10 pages
    - Discussion 5-10 pages
- To avoid Plagiarism students are encouraged to submit a draft copy via the software program Turnitin.
- Students will be required to submit the final version of their report in both Word and PDF formats via the software program Turnitin
- For overall format and presentation style/standard, it is highly recommended that you peruse some recent successful Honours theses from your lab. If these are not available you can contact the SBMS Honours Administrator (sbms.hons@uq.edu.au) for an example research report.
- Material from work that has been done, by the student, before commencement of the Honours year cannot be included in the body of the report. However, a short report of such material may be incorporated as an Appendix and reference made to this Appendix in the report. Any results obtained by others or other help must be specifically and clearly acknowledged in the Declaration.

Deadline and copies

An electronic copy (both word and pdf versions) of the report must be submitted to Turnitin by 3.00pm on the specified date as per the electronic course profile.

Please be aware that Turnitin has a maximum file size of 20MB.

Any candidate who submits their report late without a formal extension granted by the Course Co-ordinator will be penalised. Your report will be sent electronically to your examiners for marking. You will not be required to submit any hard copies of the report.

More detailed information about extensions can be found on the electronic course profile. Please note extensions will only be granted in exceptional circumstances.

Assessment by examiners

The assessment criteria sheet for the Research Report will be uploaded to the course blackboard site well in advance of the due date.

Below are some of the questions the examiners of your Research Report will have in mind as they read your document. You should use these questions to guide you as you write:

- Does the short introduction to the report adequately summarise the relevant information and provide a rationale for the experiments?
- Are the aims and hypotheses clearly stated?
- Were methods understood and clearly described?
- Were important controls included?
- Does the student demonstrate awareness of the limitations of methods?
- Technical ability:
    - reproducibility of data
    - scatter of data points (keep in mind type of research involved)
    - quality of micrographs, etc
    - degree of difficulty of techniques in relation to quantity and quality of results
    - Is any assistance the student obtained appropriately acknowledged?
- Are data presented in the most appropriate and organised form
- Have appropriate statistical analyses been carried out? (All data should indicate mean, SD (or SE), number of animals/experiments)
- Are the legends and figures comprehensive?
- Are the important results highlighted and fully explained?
- Are appropriate conclusions drawn? Do the results support the conclusions?
- Are the results analysed in the light of relevant literature?
- Are shortfalls in the work identified and are important conceptual advances recognised?
- Are important unanswered questions identified and are useful future directions and experiments suggested?
- Are the work and ideas of others adequately referenced?
- Have you demonstrated intellectual originality, and the ability to think critically and clearly?

Laboratory Performance Evaluation

This component of your assessment will be based on a report from your principal supervisor. On completion of your Honours project your supervisor will assess your performance and this score will contribute to your mark.

Laboratory notebooks

All experiments must be recorded in an official laboratory notebook and in a manner appropriate for experimental science. These notebooks must be handed in to your supervisor at the time of submission of the Research Report such that they can be readily accessed by the Committee during the examining process.

Final Research Seminar

This seminar is held about 2 weeks after the due date of the research report and gives you a chance to present your research and its results to a wider audience while using a presentation format used frequently in scientific conferences.

Final Seminar Formal

The seminar allows for 15 minutes presentation and 10 minutes of questions/discussion. The time will not permit you to cover all aspects of your research. Any limitation of the scope should be explained in the introduction.

Any student running over time by >1 minutes will be cut off by the chair and can be penalised.

The seminar should regard the audience as intelligent but ignorant of your research area. You should be able to:

- demonstrate understanding of methodology used and any limitations of that methodology
- demonstrate ability to summarise, analyse and describe your own results [this is of paramount importance]
- demonstrate awareness of the limitations of their experiments and factors which might have influenced the results
- demonstrate ability to critically discuss the significance of your results: Do you support the original hypothesis--if not, why not; Do you suggest alternative hypotheses?
- handle discussion and questions from the audience.

On the day of your seminar, you will be required to have your presentation ready on a usb drive, compatible with Windows/PC program. You must load your presentation onto the supplied PC/Laptop prior to your seminar session commencing.

You are required to attend ALL Honours seminars (or one set of sessions if there are concurrent talks) to support your peers.

Assessment by examiners

The assessment criteria sheet for the written research proposal will be uploaded to the course blackboard site well in advance of the proposal seminar date.

Intellectual content of the seminar should contribute 80% and quality of presentation [both defined above] contributes 20%. Running over time by >1 minute will be penalised.

Scientific quality of the project should NOT contribute to assessment of the seminar as this has usually been generated by the supervisor. We are judging the student's approach to the project

Some of the questions your markers will have in mind are outlined below. You should keep these in mind when preparing your seminar:

- Did the introduction clearly state the problem being investigated?
- How well was the problem put into context with background information?
- Was the structure of the talk made clear at the start?

- Was the need for the research work clearly justified?
- Were the experimental strategies explained at an appropriate level of detail?
- Was there an adequate balance between background and results?
- Was a coherent set of important results presented?
- Did the presentation finish clearly and concisely? Or did it meander about towards the end?
- Was the main message of the presentation clear? Was the whole presentation built around this main message?
- Were there sufficient visual aids?
- Did the speaker enunciate clearly? Was the speaker clearly audible?
- Did the speaker engender interest in the topic?
- Did the speaker avoid reading and distracting mannerisms?
- Was the presentation well timed, and presented at an appropriate pace?
- Did the speaker answer questions directly? Did the speaker answer the questions that were asked? Did the speaker seek clarification of what was being asked when appropriate?
- Did the speaker demonstrate a deep understanding of the research area through their answers to questions?

Seminar Diary

- A compulsory component of Honours is attendance of at least 12 seminars and maintain a diary, using a bound notebook (no loose sheets) that shows:
    - The date, title of the seminar and the speakers name and affiliation
    - Notes made during the seminar
    - A paragraph that states the objectives of the speaker's work (i.e. what was she/he trying to show), what was achieved and the value of the seminar material to the student's own research project, perceived career direction or interests. This should be added after the seminar, based on the notes taken. Material copied directly from the speaker's abstract is not acceptable. Seminars that can be attended are not limited to those given in the School or Institution where you are conducting your research. You are encouraged to locate and check regularly, seminar lists put out by appropriate schools and research institutions (see some appropriate web sites at the bottom of the next page).
- Your diary should contain seminars given by academic and research staff, or invited speakers only. Informal seminars or presentations made at research group meetings and PhD student seminars are not acceptable for this part of the course, although you are still encouraged to attend these.
- The seminars must be a minimum of 30 minutes in length.
- The seminars may be outside SBMS but it is expected that students attend seminars in SBMS as a priority.
- **Printed notes are not acceptable**. This notebook must at all times be accessible to your supervisor.
- A useful source for finding out what seminars are on around campus is the IMB newsletter email. To subscribe to this weekly seminar email, please email seminars-on@imb.uq.edu.au
- Alternatively, most Schools, Centres and Institutes maintain a seminar schedule on their websites (For example, https://biomedical-sciences.uq.edu.au/events).

PRIZES

The Douglas H.K. Lee Honours Prize is offered to Honours students only enrolled in the discipline of Physiology or Pharmacology and awarded to the student with the highest overall percentage in their Honours year. This prize was established in 1997 in honour of Emeritus Professor Douglas H.K. Lee who retired from lecturing in the Department of Physiology & Pharmacology in 1999 at the age of 94. This prize is maintained annually by the School of Biomedical Sciences.

Value: $250

The Michael F. Hickey Honours Prize is offered to Honours students only enrolled in Anatomy and Developmental Biology (or equivalent) and awarded to the student with the highest overall percentage in their Honours year. This prize was established in 2005 in honour of Professor Michael Francis Hickey who joined the Department of Anatomy at the University of Queensland in 1942 as a full-time lecturer and was Chair of Anatomy from 1959 until 1968. In 1962 he introduced three Anatomy courses for Science students and in doing so, he paved the way for the enrolment of future postgraduate research students. This prize is maintained annually by the School of Biomedical Sciences.

Value: $250

APPENDIX 1 – STATEMENT OF AUTHORSHIP

Statement of Authorship

{Research Report Title}: {Subtitle}

{Candidate's full name}

A {insert type: Research Report / Research Proposal} submitted for the degree of Bachelor of (Biomedical) Science (Honours) at

The University of Queensland in {month} {year}

School of Biomedical Sciences

Declaration by author

This research report is composed of my original work, and contains no material previously published or written by another person.

{Free text section to insert the contribution of others}

I have clearly stated the contribution of others to my research report as a whole, including statistical assistance, survey design, data analysis, significant technical procedures, professional editorial advice, and any other original research work used or reported in my report. The content of my report is the result of work I have carried out since the commencement of my honours research project.

Acknowledgements

{free text section for you to record your acknowledgment and gratitude for the more general academic input and support of your supervisor and colleagues; financial support from grants and scholarships; and the non-academic support you have received during the course of your candidature.}

Word Count:

Signature of Author: _____ Date: _____

{please note that as part of the supervisor report, your supervisor will be asked whether they read the final report and whether they agree with the student's declaration}