



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

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Honours Handbook 2024

Bachelor of Science (Hons) Biomedical Science,
Bachelor of Biomedical Science (Hons)
Bachelor of Advanced Science (Hons)
Biomedical Science

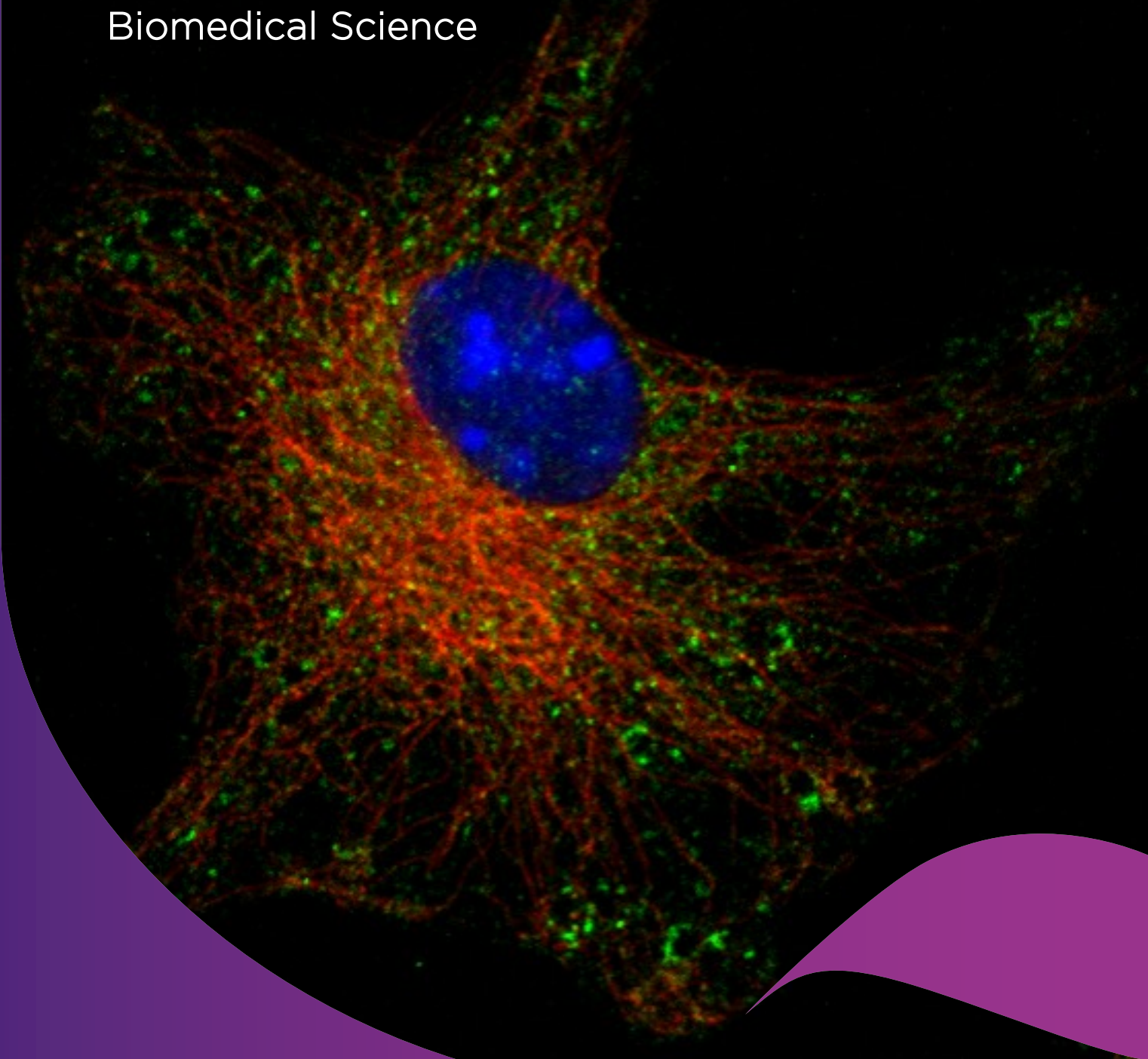


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This handbook is intended to give information on the Honours program in the School of Biomedical Sciences. This information is advisory and does not in any way supersede The University of Queensland Calendar and electronic Course Profile.

INTRODUCTION

After completing your Bachelors or equivalent degree, Honours will be the most intensive – and for many the first – real 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 becoming an expert in your chosen field of research, as well as frustrations when things do not go as planned, how to problem-solve and communicate 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 steppingstone to a Masters or PhD, and then onto a more independent career as a researcher, or as a vital research experience that gives you credibility in science and research-associated careers, you will find the course will add significantly to your overall training and skillset as a UQ graduate.

This guide summarises the requirements for assessment items, and also outlines the assessment criteria that will be applied to your work. Please refer to the electronic Course Profile (eCP) for a timetable of key deadlines and due dates. *You are expected to follow these guidelines and meet the deadlines listed here and/or in the eCP without having to be reminded of them.* You should therefore carefully read both this guide and the eCP, diarise important due dates for assessment items, and ensure that your supervisor does the same.

Any queries should be directed to the Honours Coordinators:

BBiomedSc Hons: Prof Marc Ruitenberg, (07) 3346 7602, m.ruitenberg@uq.edu.au

BSc (Biomed) Hons & BAdvSc Hons: A/Prof Rohan Teasdale, (07) 3365 2319, r.teasdale@uq.edu.au.

HONOURS ENROLMENT DETAILS

The course codes for all Honours in Biomedical Sciences are as follows:

Course Code	Course Title	Credit Unit
BIOM6191 or BIOM6192	Research Project in Biomedical Sciences	16

Bachelor of Biomedical Science and Bachelor of Science (Biomed) graduates wishing to pursue an Honours degree should enrol into BIOM6191 (students commencing in Semester 1) or BIOM6192 (students commencing in Semester 2).

Bachelor of Advanced Science (Biomed) students should similarly enrol into BIOM6191 (students commencing in Semester 1) or BIOM6192 (students commencing in Semester 2).

Commencement of Study

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

2024 Semester 1 enrolments (can vary by a week)

Start Date: Monday 5 February 2024

2024 Semester 2 enrolments (can vary by a week)

Start Date: Monday 08 July 2024

PROGRAM DESCRIPTION

General Information

- The Honours program consists of a research project with associated research proposal, research report, seminars and evaluation of laboratory performance.
- It is required that at least one of the primary and/or co-supervisor(s) be a SBMS academic or SBMS affiliate. An academic can otherwise be supervisor of *no more than five Honours students* (primary and co-supervision combined). Any change in the supervisor team or project will require a new signed Biomedical Sciences Honours application form to be completed and submitted to sbms@enquire.uq.edu.au
- 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 written communication skills.
- Students should also be aware that time management and project planning is a key learning objective of the Honours program.
- Please ensure that the electronic Course Profile is referred to for official due dates, assessment information/requirements and the relevant associated UQ policies.

Assessment Items

- **Research Proposal:** Submitted as a document of 4,000 words, outlining and justifying the proposed project and introducing the background literature (i.e. current status of the field).
- **Proposal Seminar:** Students will give a 10-minute oral presentation (with an additional 5 minutes for questions) on the background and rationale for their study. This will include a statement of aims and hypotheses, along with the research plan used to address these.
- **Research Report:** Submitted as a document of 8,000 words, describing and critically appraising the research work undertaken during the Honours year.
- **Seminar Diary:** Students will attend Honours student presentations and at least 12 seminars given by academic/research staff and/or invited speakers across UQ and affiliated institutions.
- **Supervisor's Report:** Supervisors will provide a report on the student's day-to-day performance over the course of the Honours year.
- **Research Outcomes Seminar:** Oral presentation of key project outcomes (15-minute talk & 10 minutes of question time).

Assessment Marking

- Two examiners are invited by the SBMS Honours Coordinators to assess the research proposal and research report. Their feedback will be made available to the students, although examiners have the option to remain anonymous. Where appropriate, examiners may be from another department or institution. Supervisors are also expected to actively participate in the assessment of students' work during the year, as directed.
- Research proposal seminars will be examined by the primary supervisor of the students presenting within that session. Each supervisor will examine *all* speakers within that session, i.e. including their own. A suitable proxy can be recruited, provided they have > 3 years post-PhD research experience.
- Research Outcomes Seminars are assessed by two invited examiners.
- Templates of marking sheets used by examiners for assessable items of work can be found in the Assessment section of the Blackboard site.
- Students will be informed of the grading of any item as soon as possible. Students should direct any queries in relation to their marks to the Honours Coordinators.

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

Assessment Summary BSc, BBiomedSc and BAdvSc Honours

Assessment Task	Weighting
<i>Seminar</i> Research Proposal Seminar	5%
<i>Report</i> Research Proposal	10%*
<i>Diary</i> <i>Seminar Diary</i>	5%
<i>Report</i> Research Report	55%*, ^h
<i>Report</i> Supervisor's Report	5%
<i>Seminar</i> Research Outcomes Seminar	20%

* submission of final version via Turnitin, ^h there is an assessment hurdle on this task

Classes of Honours

Please ensure that the electronic Course Profile is referred to for official due dates, assessment information/requirements and the relevant associated policies; the below are guidelines only.

For BBiomedSc and BSc (Biomed) students, the final grade will be accredited in the form of Classes of Honours. This is not applicable to Bachelor of Advanced Science (Honours) students – please consult the relevant program rules for how outcomes are calculated here. The minimum overall performance 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 – Honours Class IIIB

Grade 4 – a cumulative score of 50%-59% and at least 50% for the research report 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.

Scientific Integrity and Ethics

Scientific integrity and research ethics apply to a broad range of topics and/or issues. Professional conduct is expected from all students in all areas, which includes 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 integrity and/or ethics before commencing the research work for your degree. More information can be found at: https://research-integrity.uq.edu.au/researcher_responsibilities. Students must discuss training requirements with their primary supervisor to ensure they are compliant with the various regulatory frameworks relevant to type of biomedical research activities that are to be performed.

Plagiarism & Artificial Intelligence (AI)

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. The use of AI outputs without attribution, and contrary to any direction by teaching staff, is also considered a form of plagiarism and constitutes academic misconduct.

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.

All students are required to complete the Academic Integrity Module (AIM), available via mySI-net, prior to submission of the first assessment item.

Late Submission Penalties, Extensions and Attendance

Late submission of intra-semester assessment items, that is, after the official due date and/or time, and without a prior authorised extension, will see a penalty being applied by a deduction of marks from the assessment item in question at a 'per day rate of 10%' of the maximum marks attainable.

[Application for Extension of Progressive Assessment Forms](#) are to be submitted online.

It is typical and/or expected that students will have around 2-3 weeks of non-attendance during their Honours year, which includes time away for personal leave, recreation leave, minor sick leave (incl. short COVID-related absences). These are all considered a normal part of life circumstances and hence not a justification for an extension. Extensions should be limited to instances where a student is incapable of performing aspects of their project due to circumstances that are beyond their control. Examples of these would be a serious illness or long-term impact due to e.g. catastrophic equipment failure in the lab (or core facility) and/or incapacitating illness at or close to (<30 days) any major assessment deadline, which prevented the student's progress.

Students are otherwise expected to take full responsibility for managing the time commitments required to complete the various assessment tasks throughout the year. The capacity to do this represents a key learning objective of the Honours year, and hence forms part of the assessment. Last-minute crises that occur due to a lack of planning are not grounds for an extension, and they are best

mitigated or avoided by advanced scheduling of time commitments for the year ahead, and by taking on board advice provided by the course coordinators, supervisors, etc. Students are also expected to advise their supervisors of any extensions awarded and the resulting changes in submission deadlines.

Commercial-in-confidence projects

Please ensure the SBMS Honours Course Coordinators and administrative staff are aware of confidentiality requirements in advance. Your primary supervisor is exclusively responsible to manage any “commercial-in-confidence” conditions required for your research project. Consult with your primary supervisor on how to manage “commercial-in-confidence” issues around your Proposal and Research Outcomes Seminars, as these are given in a public forum. Where a project is confidential, the written reports should be clearly marked on the front page as “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. You must also provide the Hons Admin Team with any documentation associated with this (i.e. “commercial-in-confidence agreement” for examiners to agree to).

Student Health and Wellbeing

Honours can be stressful at the best of times - there is help available through the UQ Health and Well-being program: <https://my.uq.edu.au/information-and-services/student-support/health-wellbeing>.

Available student support includes a confidential counselling service, which is there to assist with your overall health and mental well-being: <https://my.uq.edu.au/information-and-services/student-support/health-and-wellbeing/mental-health-and-emotional-support/counselling>

STUDENT – SUPERVISOR RESPONSIBILITIES

The role of your supervisor is to provide you with advice, guidance, and constructive criticism to assist you in the successful completion of the course. The assessment items should ultimately be your own work and, as such, you must take responsibility for the planning and organisation of the research performed, and its presentation throughout the year.

To help guide you in your interactions with your supervisor, here are some of the expectations as to what the student-supervisor relationship should entail, and the roles and responsibilities for each:

Responsibilities of the Supervisor

- Assist in the development of a study plan for the year's thesis work, setting goals and monitoring progress; this includes advising the student when progress is unsatisfactory.
- Provide guidance in the selection and application of appropriate literature, research methods, data collection and analysis procedures.
- Foster scientific writing skills by way of constructive commentary.
- Meet regularly with your Honours student to discuss progress and assessment items.
- Provide prompt feedback on drafts (no line-editing), and to read and provide feedback on the entire thesis prior to it being prepared for final submission.
- Participate in the examination of supervised students through preparation of a Supervisor's Report. In addition, primary supervisors will be expected to examine other students' work, including Proposal Seminars and they may also be recruited to examine multiple written individual Research Proposals and/or Reports.

Responsibilities of the Student

- Work with the supervisor in the development of a study plan which is suitable to both parties. Ultimately, the student will need to "defend" the experiments performed. Therefore, the student needs to fully understand the motivation for the research questions and the rationale for the experimental design of individual experiments.
- Consider advice seriously and respond positively to any directions/instructions given.
- 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 and professional.
- Carefully proof-read any written material before submitting this to your supervisor. If the supervisor is forewarned well in advance that their input is required, then this will lessen delays in receiving feedback.
- Write your own proposal and thesis, including drafts. Supervisors are not expected to and/or *must not* write or re-write your written work.
- If you experience any difficulties, you should first attempt to resolve these 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 Honours Course Coordinator. If the matter remains unresolved you can 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.

The University otherwise recognises that an effective complaints management system will not only improve customer service, but also assist with identifying systemic and re-occurring administrative problems. UQ welcomes all forms of feedback, including complaints, on its services and products. <https://ppl.app.uq.edu.au/content/1.60.09-complaints-management>
<https://www.uq.edu.au/complaints-appeals/>

Effective Communication Workshop

During your Honours year we will run a single Effective Communication (EC) workshop, which is to be held before your written research proposal and proposal seminar are due. While attendance is not mandatory, this workshop provides some useful insights into the elements of good research proposal writing, along with insights for improving your research proposal seminar.

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

1. You present a short (5 min) verbal introduction of your project to a small group of your peers. This will help you identify what your key messages are, and how you can convey these as clearly as possible to a non-specialist audience
2. You also will be provided with a sample written research proposal that you will “mark” using the assessment criteria sheet. This will then be followed by a group discussion, analysis of the assessment, a comparison of your own assessment relative to what the examiners gave, and a discussion on how to best structure an effectively written research proposal.
3. A discussion on what makes a “good” and “bad” oral presentation, where and how these characteristics fit in with the assessment criteria, and what the key elements are that an examiner will be looking for in your seminar. This discussion will help you to optimally prepare for your proposal (and final) 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 on the current state of the field, identified knowledge gaps, major experimental aims/hypotheses for your project to address (some of) these, along with 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 a research plan, justify the suitability of the proposed experimental methodologies relative to both previous research in the area and the specific aims of your project, and also how you plan to analyse the data. 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 research topic of your choosing, and not simply be a summary of the literature. Put differently, you should illustrate that you have a personal insight into the area of your research project, what the knowledge gaps are and where your project fits in. Your proposal should otherwise be written in such a way that the content is intelligible to a non-specialist reader. Use of jargon should thus be avoided and all abbreviations must be defined.

The scope of the project, that is, what is going to be explored, does NOT directly contribute to assessment of the report, with the major focus being the evaluation of the student's displayed depth of understanding and the effectiveness in which they communicate their proposed research project.

Written Proposal Format

- The Research Proposal contains the following sections:
 - Title Page
 - Declaration, using the pro forma Declaration page provided (see Appendix 1 of this handbook and assessment section of the Blackboard site) to state that the submitted work is yours except as acknowledged, the total word count of the written text (note limits provided elsewhere), your signature and the date. All original work prepared by others (or any of your own work previously used for academic credit) included in the document submitted for assessment is required to be itemised within this declaration.
 - Table of Contents
 - List of abbreviations
 - Proposal Summary, capturing the key aspects of your project and what it is setting out to achieve (200 words max). We highly recommend the inclusion of a single illustration in the style of a graphical abstract.
 - Introduction (accessible for the non-specialist and/or educated lay reader)
 - Various sections as appropriate to the topic including:
 - a critical review of relevant literature (~60% of length of report)
 - the specific aims and hypotheses of your research proposal
 - the research plan outlining the experimental strategies and approaches to be used as part of this research project. If appropriate, include anticipated data analysis approaches and a proposed timeline (e.g. Gantt chart)
 - *protocols and detailed descriptions of the mechanics of how individual experiments will be performed are not to be included and/or needed*
 - data from outside your project, including any unpublished data from the host laboratory, can only be included if it is required to justify your project aims
 - expected outcomes and significance of the project
 - references
- The research proposal is to be presented as a written assignment, which must be typed and submitted as described overleaf.

- The word count includes all text (including in-text citations, figure and table legends). The word count of your Research Proposal should *not* be greater than 4,000 words; a 5% penalty will be applied if exceeded, and additional 5% penalties will be applied for every multiple of 400 words that your report is over the limit. *The title page, declaration, table of contents, list of abbreviations, proposal summary, text within the body of tables or figures (but not figure legends), and reference bibliography are excluded from the total word count.*
- The report should be on A4 paper with 2.5 cm margins and in 12-point font.
- Tables and Figures should have clear legends that are 'stand-alone' (i.e. they should 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.
- Reference to any literature sources and/or materials used in the proposal, where relevant, should be cited in the text, at the end of a (sub-) phrase or sentence, using a format from a well-known journal in your field of study. All references in the List of References must include the full title and list of authors of each paper. Published statements and/or sources quoted verbatim in the main text must be placed within quotation marks and cited appropriately.
- Students are encouraged to prepare citations and reference lists with the aid of a referencing database, such as Endnote, (which is supplied free of charge by the UQ Library) to avoid both a time-consuming task and the inevitable errors. The UQ Library regularly offers courses in the use of Endnote, and you can register for these at the following site:
<https://web.library.uq.edu.au/library-services/training>.
- Students are required to use the software program Turnitin for submission of all written assessable work to avoid plagiarism. Students are able to view the output from Turnitin prior to the relevant due dates, and submission of draft versions is therefore encouraged.

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 that the examiners of your Research Proposal will have in mind as they read your document. You should use these questions as a guide when you write:
 - Is the topic clearly explained and put into context?
 - Are the scope and aims of the literature review clearly defined and 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?
 - Has the student linked the literature review to the need for their research?
 - Has the student established a clear hypothesis for the intended research to answer?
 - Has the student identified major research methods that are to be developed/used?
 - Has the student clearly justified the rationale underlying the planned experiments? How do the planned experiments address the set aims and hypotheses?
 - Has the student assessed the amount of time that is required to complete the suggested work, and is the timeline realistic?
 - Is the proposal written clearly and concisely? Is it intelligible to non-specialists?
 - 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 2:00pm on the specified date as per the electronic Course Profile.
- Any candidate who submits their report late, and without a formally approved extension as required by UQ Policy, 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 100MB. If your internet connection is poor or slow, a smaller file size is recommended.

Research Proposal Seminar

The research proposal seminar is scheduled approximately 2 weeks after the due date for the written research proposal. It is likely to be your first-ever official seminar, so good preparation for and practicing of your talk 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, both during the seminar and in response to any questions from the audience.

Proposal Seminar Format

- The structure of the seminar is a 10-minute presentation, followed by 5 minutes of questions/discussion.
- Typically, the seminar should comprise a 3-5-minute summary of the background to your project, including a justification for your set aims and hypotheses. The remaining 5-7 minutes should deal with the practical aspects of the project: key 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 flash drive that is compatible with Windows/PC program. You must be ready to load your presentation onto the supplied PC/Laptop at least 10 minutes prior to your seminar session commencing. Failing to do this may result in the assessment being considered as late and with penalties therefore applied.
- Data already generated in your project MUST NOT be presented in this seminar; it should be reserved for the research outcomes seminar.
- Speaker order within each session will be allocated randomly on the day by the session chair.
- All research proposal seminars will be recorded. Recording exemptions may be provided where requested in advance, i.e. for 'commercial-in-confidence' projects, or those involving sensitive human anatomy projects as per state and/or federal legislation.
- You are required to attend multiple Honours seminar symposiums throughout the day, both to support your peers and for completing the first part of your seminar diary assessment task.
- Presentation via video-conference may be required and is considered an acceptable alternative if demanded by circumstances.

Assessment by Examiners

The assessment criteria sheet for the research proposal seminar 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, while quality of the presentation [timing, use of overheads, audibility, style] contributes 20% to the mark.

Some of the questions your examiners will have in mind are:

- Did the introduction clearly state the problem being investigated?
- How well was the problem put into context with the background information?
- Was the need for the research work clearly justified?
- Were the aims and hypotheses clear? Was the whole presentation built around these?
- 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 any other 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?

The scope of the project does NOT contribute to assessment of the seminar as this has usually been set by the supervisor. We are judging the student's displayed depth of understanding and their ability to communicate and defend the outlined approach they have designed.

Research Report

This report is the main piece of work comprising the presentation of all aspects of your research. This is reflected in its high weighting relative to other assessment items for Honours. Experimental results and/or data generated from your project are to be prepared and presented in the form of a formal research report.

Research Report Format

- The Research Report contains the following sections:
 - Title Page
 - Declaration, using the pro forma Declaration page provided (see Appendix 1 of this handbook and assessment section of the Blackboard site) to state that the submitted work is yours except as acknowledged, the total word count of the written text (note limits provided elsewhere), your signature and the date. All original work prepared by others (or any of your own work previously used for academic credit) included in the document submitted for assessment is required to be itemised within this declaration.
 - Table of contents
 - List of abbreviations
 - Abstract (a summary of the project, not more than 1 page, focusing on what you achieved).
 - Acknowledgments
 - Introduction (concise summary of the key literature leading up to the rationale of the experiments, and a statement of the (revised) aims and hypotheses).
 - Methods (succinct description of techniques you personally performed, and sources of materials used). If relevant methods were performed by collaborators and/or service providers, then these should be included within the Appendix.
For projects involving the use of animals, we recommend that your reporting of experiments and outcomes conforms with the ARRIVE “Essential 10” guidelines: <https://arriveguidelines.org/arrive-guidelines>
A Key Resources Table is required within the methods section of your report. This represents a structured description of key resources and reagents used and/or

generated by you as part of your project. Instructions and a template are outlined on the course Blackboard site.

- Results (experimental data with sufficient explanation to make the data in figures and tables comprehensible; appropriate statistical analysis of data; *student contribution to any experimental data shown must also be precisely described in figure legends*).
 - Discussion (interpretation of results and a critical review of these results in terms of their limitations, and in relation to the published body of knowledge)
 - References
 - Appendices (large amounts of data that are supportive but not critical to key findings should be included in Appendices, with a brief reference and/or summary tables in the main text). Relevant research outputs or methods performed by collaborators or service providers should also be included as an Appendix. Details of preliminary experiments optimising conditions may similarly be included as an Appendix. These could include drug dose-response curves, optimisation of cell culture conditions, etc.
- The word count includes all text (including in-text citations, figure and table legends). The word count of your Research Report should *not* be greater than 8,000 words; a 5% penalty will be applied if exceeded, and additional 5% penalties will be applied for every multiple of 800 words that your report is over the limit. *The title page, declaration, table of contents, list of abbreviations, abstract, text within the body of tables or figures (but not figure legends), and reference bibliography are excluded from the total word count.*
 - The report should be on A4 paper with 2.5 cm margins and in 12-point font.
 - Tables and Figures should have clear legends that are ‘stand-alone’ (i.e. they should not require referral to the main body of text for their interpretation).
 - If you include data in your written report that was generated by and/or with others, then this should be declared in the ‘Statement of Authorship’ (see above) as well as in the relevant Figure legend(s). *Specifically, you should indicate here which part of the experiment and/or aspect of data analysis relative to what is shown was performed directly by you and acknowledge the contributions of others as needed / appropriate.*
 - If you wish to describe work that is fully not your own to provide context for the results and/or discussion (e.g. data generated by another member of the laboratory working on the same project), then these must be included 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 and/or (re-) writing.
 - References to the sources of any material used in the research report, where relevant, should be cited in the text at the end of the relevant (sub-) phrase or sentence, using a format that is 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. We strongly encourage you to prepare the citations and references list through a referencing database (e.g. 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 published work in the area, the research report introduction can 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 when double-spaced are:

- Methods 5-10 pages
- Results 10 pages
- Discussion 5-10 pages

- To avoid Plagiarism issues, even if unintentional, students are encouraged to timely submit a draft copy of their near-final thesis via the software program Turnitin prior to the due date.
- Students will be required to submit a final version of their report in both Word and pdf formats via the software program Turnitin to verify authenticity of the submitted work.
- For the overall format and presentation style/standard, it is highly recommended that you peruse some recent successful Honours theses from your host lab. Other examples of high-quality research reports should be available via the Blackboard site (see 'Sample Assessments' under 'Learning Resources').
- Material and/or data 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 a reference made to this Appendix in the report. As alluded to earlier, any results obtained by others, or with the help of others in terms of data generation and collection must be specifically and clearly acknowledged in the Declaration and the relevant Figure legend(s).

Submission of Draft Final Research Report

Approximately two weeks prior to the final submission date, students are required to submit a well-advanced draft version of the final research report directly to their supervisors. An identical electronic copy (both Word and pdf versions) of this draft report must also be submitted to Turnitin by 2.00pm on the specified date as per the electronic Course Profile. Assessment of the quality of this draft report will be performed by your principal supervisor as part of their Supervisor's Report. It is anticipated that students will have, as a minimum, a complete first draft of the results section, including figures and a content plan for the remaining sections. Submission of this draft will prepare you for the final submission and enable timely feedback from your supervisor. Of note, Turnitin will identify a high level of similarity between the submitted draft and the final submitted report but this will be excluded in plagiarism reviews performed on the final research report at the time of assessment.

Final Submission Deadline and Copies

- An electronic copy (both Word and pdf versions) of the report must be submitted to Turnitin by 2.00pm on the specified due date as per the electronic Course Profile.
- Please be aware that Turnitin has a maximum file upload size of 100MB. If your internet connection is poor or slow, a smaller file size is recommended.
- Any candidate who submits their report late without an official pre-approved extension, as required by UQ Policy, will be penalised. The Course Coordinator will only consider the rare cases where unpredictable external events did significantly impact on the progression of the research plan throughout the year. 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 in the electronic Course Profile, section 5.4 "Other Assessment Information". Please remember that extensions can only be granted in exceptional circumstances, as outlined earlier.

Assessment by Examiners

The assessment criteria marking 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 again use these questions to guide you as you write:

- Does the short introduction to the report adequately summarise the relevant information and provide a clear rationale for the experiments?
- Are the aims and hypotheses clearly stated? Do they logically extend from the introduction?
- 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 (keeping in mind type of research involved)
 - quality of image data presented, etc
 - degree of difficulty of techniques in relation to quantification; quality of results
 - Is any assistance the student received appropriately acknowledged?
- Are the data presented in the most appropriate and organised form?
- Have appropriate statistical analyses been carried out? Do the data indicate mean, SD (or SE), number of animals/experiments? Are the statistical methods used appropriate for the data?
- 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 to address these?
- Are the work and ideas of others adequately acknowledged and/or referenced?
- Has the student demonstrated intellectual originality, and the ability to think critically and clearly about their research and project findings?

Laboratory Performance Evaluation

This component of your assessment will be performed by your principal supervisor as part of their Supervisor's Report. On completion of your Honours project, your supervisor will assess your performance as per the criteria marking sheet, and this score will contribute to your overall mark.

Laboratory Notebooks

All experiments must be adequately recorded in an official laboratory notebook and in a manner appropriate for experimental science, that is, others should be able to find and interpret data and/or repeat experiments in your absence. 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 Honours Course Coordinators during the examining process. The assessment of quality of the notebooks will be performed by your principal supervisor as part of their Supervisor's Report. In addition to the notebook, primary data generated during the project should be documented and archived, as required, by the direction of your supervisor. This will include all electronic data. Your supervisor may be asked to provide this data during the examination period.

Research Outcomes 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, using a presentation format and style that is used frequently at scientific conferences.

This item is independent of the research report. Therefore, students may be directed to present this seminar before submission of their written research reports, e.g. under conditions where an extension was granted. If this occurs, students should present the research completed to date in the seminar.

Seminar Format

The final seminar allows for 15 minutes of presentation time and 10 minutes for questions and/or discussion afterwards. The time will not permit you to cover all aspects of your research. You should focus therefore on key outcomes and explain any limitation in your talk's scope in the introduction.

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

The seminar audience will be a mix of other students in the course as well as UQ staff and RHD students. You should therefore consider the audience as intelligent but ignorant of the research area.

You should be able to:

- demonstrate understanding of methodology used, and any limitations of that methodology
- demonstrate an ability to summarise, analyse and describe your own results [this is of paramount importance]
- demonstrate awareness of the limitations of your experiments and any factors which might have influenced the results
- demonstrate ability to critically discuss the significance of your results. Do they support the original hypothesis--if not, why not? Would you now suggest alternative hypotheses?
- adequately 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 flash drive, compatible with Windows/PC program. You must load your presentation onto the supplied PC/Laptop *prior* to your seminar session commencing.

Speaker order within each session will be allocated randomly on the day by the session chair.

All research outcomes seminars will be recorded. Recording exemptions may be provided where needed but must be requested in advance, e.g. for commercial-in-confidence projects, or those involving sensitive human anatomy projects as per state and/or federal legislation.

You are otherwise required to attend multiple Honours research outcomes seminars / symposiums throughout the day, to both to support your peers and as part of your seminar diary assessment task.

Presentation via video-teleconference may be required and is considered an acceptable alternative.

Assessment by Examiners

The assessment criteria marking sheet for the research outcomes seminar will be uploaded to the course blackboard site well in advance of the seminar dates.

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

Some of the questions your markers will have in mind are :

- 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 and/or conclusions from the research?
- 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 other 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 presentation and answers to questions?

Seminar Diary

Throughout the year, Honours students are required to attend:

- 1) at least 12 research seminars
- 2) multiple sessions of Honours students research proposal seminars*
- 3) multiple sessions of Honours students research outcomes seminars*

* Each student must attend the maximum number of presentations possible.

We recommend the use of a dedicated standard UQ lab book. Digital diaries or scanned documents are acceptable, provided they represent an evidenced real-time record of the seminar (e.g. digital signature or time stamp). *Digital diaries must be a single document; submission of multiple files for this assessment item is not permitted.* For each research seminar attended by the student, the following documentation is required:

- The date, title of the seminar, the speaker's name and affiliation
- Notes made during the seminar. A minimum of 1 page is required for each research seminar. These notes will include 1) a section that states the objectives of the speaker's work (i.e. what were they trying to show) and what was achieved; 2) Reflection by the students on the value of the seminar material, or part(s) of it for the student's own research project, perceived career direction and/or general interests; 3) a record of questions the student would like to ask the speaker (with strong encouragement that you to actually ask them), or aspects of the seminar which you want to consider / research further after the seminar.
- Material copied directly from the speaker's abstract is not acceptable.
- The seminar diary will be co-signed by your supervisor and you should discuss it during your regular meetings.

Eligible seminars 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. Of note, your diary should contain formal seminars given by UQ academic and research staff and/or invited external speakers only. Informal seminars, presentations

made at lab group meetings and/or PhD student seminars are not acceptable for this part of the course, although you are still encouraged to attend these.

- Eligible seminars must be a minimum of 30 minutes in length.
- Seminars may be outside of SBMS, although it is expected that students attend seminars in SBMS as a priority. Seminars delivered online are acceptable.
- Most Schools, Centres and Institutes maintain a seminar schedule on their websites (for example, <https://biomedical-sciences.uq.edu.au/events>).
- A useful source for finding out what seminars are on around campus is also the IMB newsletter email. To subscribe to this weekly seminar email, please email seminars-on@imb.uq.edu.au

As per the above, for each Honours research proposal and research outcomes seminars attended, the following documentation is required within the diary:

- The date, title of the seminar and the speakers name and affiliation
- Notes made during the seminar. A minimum number of 4 points are to be made for each talk, summarising the key aspects of the presentation in your own words.

The seminar diary must be submitted by 10.00am on the specified date in the electronic Course Profile. Hard copies of your diaries should be submitted to the SBMS Teaching and Assessment Office; electronic versions can be submitted to Turnitin. These will normally be due the day after the last Honours research outcomes seminars.

PRIZES

Prizes are subject to annual SBMS Head of School review and financial approval.

The Douglas H.K. Lee Honours Prize is offered only to Honours students 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 only to Honours students 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 who 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) / Bachelor of Advanced 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, except for any aspects listed and appropriately acknowledged below.

{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 of others 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}