# Honours application and create Change enrolment guide 2019-2020

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



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This handbook is intended to give information on applying and enrolling in 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.

#### **ENROLMENT CHECKLIST**

- 1. Check if you meet the entry requirements. Bachelor of Science graduates can check their eligibility to enrol in Honours by reading the program rules and requirements <a href="here">here</a>. Three year Bachelor of Biomedical Science graduates can check their eligibility to enrol in Honours by reading the program rules and requirements <a href="here">here</a>. Students currently in the four year Bachelor of Biomedical Science (Honours) program can check their eligibility to enrol in the final Honours year by reading the program rules and requirements <a href="here">here</a>. Students currently in the four year Bachelor of Advanced Science (Honours) program can check their eligibility to enrol in the final Honours year by reading the program rules and requirements <a href="here">here</a>.
- 2. Choose a research area you would like to work in and discuss potential projects with a range of possible supervisors. Research profiles of our academics can be found on the SBMS web site (<a href="https://biomedical-sciences.uq.edu.au/research/themes">https://biomedical-sciences.uq.edu.au/research/themes</a>) and UQ websites.
- Select supervisor(s) and project and ensure your supervisor has agreed to enrolment. It is required
  that at least one of the primary or co-supervisors be an SBMS academic or SBMS affiliate. In
  addition, SCMB academics can act as supervisor or co-supervisor for students enrolled in
  BIOM6501/2.
- 4. Return completed School application form to the SBMS Honours administrator (Email: <a href="mailto:sbms@enquire.uq.edu.au">sbms@enquire.uq.edu.au</a> or Level 1, Sir William MacGregor Building (#64)).

Important: All BSc Honours applicants, one year BBiomedSc applicants and new to UQ students must also complete the <u>UQ Online application form</u>.

Deadline: 17th June 2019 for commencement in Semester 2 2019 6th December 2019 for commencement in Semester 1 2020

- 5. We check that you meet the GPA requirements and application details.
- 6. You will receive notification advising which courses you need to add in mySI-net. You need to enrol in these courses before the census date (census dates are indicated on the University calendars). If awaiting results, students are not enrolled until the results are released.
- 7. Official starting date for Honours (can vary by a week):

First week in February for commencement in Semester 1 Third week in July for commencement in Semester 2

- 8. The Honours calendar of events and deadlines will be finalised before commencement of your Honours program. It will be emailed to you as well as posted on the SBMS Honours website (<a href="https://biomedical-sciences.uq.edu.au/study/honours">https://biomedical-sciences.uq.edu.au/study/honours</a>) and the course Blackboard site.
- Steps 1-3 should be completed well before the proposed commencement date

#### GENERAL INFORMATION

After completing your Bachelor of Science 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.

#### Honours with SBMS

The Honours year with SBMS is a hands-on experience in research and associated skills. This includes the development of technical skills in scientific methodology as well as intellectual skills in experimental design, critical appraisal of scientific literature and assessment of the impact of your original data on current knowledge. Research projects are selected by negotiation between you and supervisor(s) and are reviewed by the SBMS Honours Committee. We encourage you to seek contact with staff members to discuss likely research projects early in your Level 3 studies.

In order to find a supervisor and suitable project we advise you identify research areas you are interested in and approach staff working in these areas. Our staff at the School of Biomedical Sciences research and teach in a wide range of areas from the genomic level through to the structure and function of intact humans and other organisms. We have a strong focus on molecular, cellular and structural biology. Students who want to study physiology will focus their research on how organ systems, tissues, cells and molecules function together; those who concentrate on anatomical studies will investigate how structures are created and how they function whilst pharmacology/toxicology students will research how drugs and toxins modify or affect biological functions.

The School and its associated centres and companies are heavily involved in cutting edge biomedical research and most of our academics have an active research program with projects available for Honours students. More details can be found at <a href="https://biomedical-sciences.uq.edu.au/research/themes">https://biomedical-sciences.uq.edu.au/research/themes</a>. The research areas of SBMS staff members are grouped under the following themes:

- Cell Architecture
- Chronic Diseases: cancer, cardiovascular disease, diabetes
- Drug Design and Development
- Functional Morphology
- Innovation in Biomedical Education
- Musculoskeletal and Motor Control
- Neurobiology and Brain Function
- Receptors and Signalling
- Reproduction

Collaborative projects may also be available with several University Institutes including the Queensland Brain Institute (QBI), the Institute for Molecular Bioscience (IMB), The Australian Institute for Bioengineering and Nanotechnology (AIBN), the Diamantina Institute, the UQ Centre for Clinical Research and The Mater Research Institute More information about these institutes and centres can be found on their respective UQ websites.

### Bachelor of Biotechnology (Drug Design and Development)

Laboratories within SBMS frequently host students who are engaged in the Biotechnology degree program. Details regarding this program and its requirements can be obtained from the following website: http://scmb.ug.edu.au/biotech

#### Information for Students of other Faculties

The School is within the Faculty of Medicine and most of our Honours students are enrolled in either Bachelor of Science (Honours), Bachelor of Biomedical Science (Honours) or Bachelor of Advanced Science (Honours). However, there are avenues for students enrolled in Medicine, Veterinary Science, Dentistry and other professional courses to undertake research studies with us. Students enrolled in professional courses may obtain more detailed information from their relevant faculty and discuss their interest with the Chairs of the Honours committee.

The main focus of this handbook is for Honours in Biomedical Science. Students wishing to pursue similar degrees with us should also contact the faculty in which they are enrolled.

#### SBMS-Oxford Honours Scholarships

We have established a program with Oxford University (UK), designed to promote learning in the form of special lectures and Honours scholarships for students in the biomedical sciences. For details on applying for one of these competitive scholarships please see the Honours website: (<a href="https://biomedical-sciences.uq.edu.au/study/honours">https://biomedical-sciences.uq.edu.au/study/honours</a>)

#### SBMS-Ludwig Maximilians University Honours Scholarships

We have established a program with Ludwig Maximilians University (LMU) in Munich, Germany that gives students the opportunity to undertake their Honours research project at this world-leading institution. For details on applying for one of these competitive scholarships please see the Honours website: (https://biomedical-sciences.ug.edu.au/study/honours)

#### Careers

An Honours degree is the qualification most often required for employment in research positions and industry. Numerous career opportunities await students with backgrounds in biomedical science, where universities and research institutions are the major employers. Many students have opted to study biomedical sciences as a prelude to careers in professional disciplines such as medicine, dentistry and speech therapy. Increasingly an Honours degree is a minimum requirement for entry-level employment in industry.

Candidates who obtain Honours I or Honours IIA may proceed directly to studies for the degree of Doctor of Philosophy (PhD). An Honours IIB is the minimum requirement for entry to the degree of Master of Science (MSc). The path for students aspiring to careers as academics or research scientists is usually the PhD.

#### HONOURS ENROLMENT REQUIREMENTS

#### Entry Criteria

For entry into Honours, SBMS requires a satisfactory background in Level 2 and 3 relevant courses. For BSc and BBiomedSc graduates, the minimum requirement is a GPA of at least 4.5 in the "most relevant 8 units of third level (or advanced) study". In addition, an overall GPA of 4 (minimum) for the BSc and BBiomedSc degree (or for the first three years of the BBiomedSc (Hons) and BAdvSc (Hons) degree) is required. In some circumstances, and subject to the approval of the Head of School and Executive Dean, BSc graduates, BBiomedSc graduates, BBiomedSc (Hons) students and BAdvSc (Hons) students who do not fulfil the above requirements may be permitted to enter the Honours program if they have a high GPA in other science courses and if their proposed project fits well with their background.

#### Commencement of Study

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

1<sup>st</sup> Semester enrolments (can vary by a week)

Application Due: Friday 6th December 2019

Start Date: First week in February 2020 (check the eCP for confirmed date)

2<sup>nd</sup> Semester enrolments (can vary by a week)

Application Due: Monday 17th June 2019

Start Date: Third week in July 2019 (check the eCP for confirmed date)

#### 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 required that at least one of the primary or co-supervisor be a SBMS academic or SBMS
  affiliate. In addition, SCMB academics can act as supervisor or co-supervisor for students
  enrolled in BIOM6501/2.
- 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.
- On receiving the application, the Honours committee will evaluate the candidate and the project descriptions. Any questions or concerns will be discussed with the supervisor or candidate before approval is given. Any subsequent major changes to the research project throughout the Honours year will require approval from the SBMS Honours Committee chairperson.

#### Assessment Items

- **Research Proposal**: Submitted as a document of 4000 words (maximum) 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 Honours student presentations and 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.
- Research proposal seminars will be examined by a supervisor of the students presenting within that session. Each supervisor will examine all speakers within that session. A suitable proxy can be recruited provided they have > 3 years post-PhD research experience.
- Final research seminars are examined by two members of the SBMS Honours Committee.

- 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 at the end of each semester. Students should direct any queries in relation to marks to the Honours Coordinators or Committee.
- 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.
- Criteria marking sheets for all Honours assessment items will be posted on Blackboard sites for the courses.

#### Assessment Summary BSc, BBiomedSc and BAdvSc Honours

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

Assessment Task	Weighting	
Seminar	5%	
Research Proposal Seminar		
Report	10%*	
Research Proposal	1070	
Diary	5%	
Seminar Diary		
Report	55%*,h	
Research Report	3370	
Report	5%	
Supervisor's Report	5/0	
Seminar	20%	
Final Research Seminar	2070	

<sup>\*</sup> submission of final version via Turnitin, hindicates a hurdle on the assessment task

# HOW TO FIND AN HONOURS SUPERVISOR/PROJECT

- Decide what broad research field you are interested in
  - Also consider what techniques you would like to learn
- Find a supervisor in that field
  - Lecturer or Researcher
  - Are they actively publishing?
  - Do they have other students/staff (to provide you with extra support)?
- Contact your potential supervisor
  - Don't send a generic email
  - Be familiar with the Supervisor's work
  - Tell them why you want to do an Honours project in their lab
  - Contact them early i.e. NOW!!
  - Meet with them in person will they be supervising you day-to-day or will it be a post-doc? If it is the latter then ask to meet the post-doc.
- It is required that at least one of the primary or co-supervisor be a SBMS academic or SBMS affiliate. In addition, SCMB academics can act as supervisor or co-supervisor for students enrolled in BIOM6501/2.

## WHERE DO I LOOK FOR A SUPERVISOR/PROJECT?

The following pages have information for specific Honours projects that have been submitted by potential supervisors. This is not an exhaustive list and you might also be able to find a project by contacting a researcher directly. Information and contact details for researchers can typically be found on School and Institute web sites, some of which are listed below:

School of Biomedical Science - https://biomedical-sciences.ug.edu.au/research/themes

School of Clinical Medicine - https://medicine-program.ug.edu.au/school-of-clinical-medicine/research

Diamantina Institute - http://www.di.uq.edu.au/study/honours

Mater Research Institute - http://www.materresearch.org.au/students.aspx

UQ Centre for Clinical Research - https://clinical-research.centre.ug.edu.au/honours

UQ Child Health Research Centre - https://child-health-research.centre.uq.edu.au/study-chrc

Queensland Brain Institute - https://gbi.ug.edu.au/study/honours

Institute for Molecular Biosciences - http://postgraduate.imb.uq.edu.au/

QIMR-Berghofer Medical Research Institute - http://www.gimrberghofer.edu.au/student\_projects/

