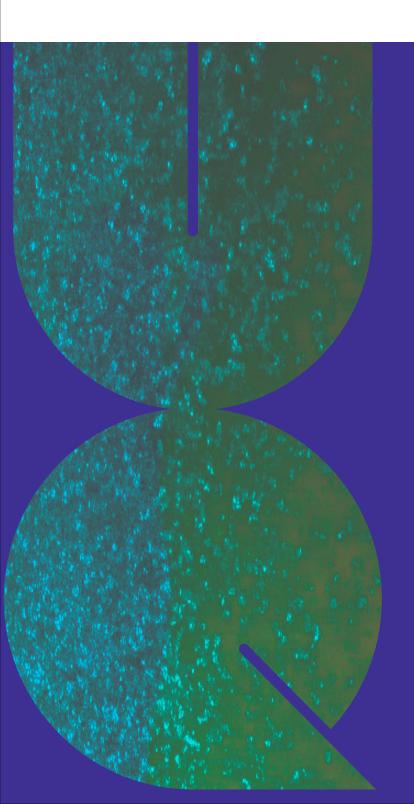


SCHOOL OF MATHEMATICS AND PHYSICS

Handbook for Honours Students

www.smp.uq.edu.au



Honours Handbook

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The information provided in this handbook supplements, but does not replace, the information on rules and procedures published in the University's official Program Information. The <u>UQ Policy and Procedures Library</u> (PPL) contains information on the University's academic policies and procedures. The official rules and procedures are also contained on the UQ website. Students are expected to familiarise themselves with these.

Full descriptions of courses are available on the Courses and Programs website www.ug.edu.au/study. As policies are amended, this website is updated.

Whilst all due care has been taken in compiling this publication, in the event of any conflict between the information provided in this handbook and the information provided in official University of Queensland publications, the latter will take precedence.

Welcome

Welcome to your Honours year in the School of Mathematics and Physics. We hope that you will find your studies in the School challenging and rewarding. This handbook has been written to provide additional information for prospective and current Honours students in the School of Mathematics and Physics, supplementary to material available on relevant University websites.

Honours and Postgraduate students are held in high regard throughout the School as they impart knowledge and contribute to the rich array of events, research, tutoring, and general life within the School. Many Honours students have distinguished themselves with University medals and awards, and have gone on to rewarding careers in a wide variety of occupations, with many holding university appointments here in Australia and abroad.

Students from within undergraduate programs at the University are encouraged to apply for entry into the Honours year. The School also welcomes applications from students with the relevant qualifications from outside the University.

The Honours program requires hard work and commitment. We hope that you find the experience to be both rewarding and enjoyable.

School of Mathematics and Physics

The School of Mathematics and Physics comprises the disciplines of **Mathematics** (which includes **Statistics**) and **Physics**, and is responsible for managing the related academic programs.

Academic staff are involved in many areas of fundamental and applied research. The School supports a strong research interaction with many other university schools and research centres, plus off-campus organisations and industries.

Further information about the School, including areas of research, can be found on our website at https://www.smp.uq.edu.au.

Honours Degree

The Honours year consists of two main components: (1) research conducted under the supervision of an Academic staff member and (2) advanced course work. The research component is primarily evaluated through submission of an Honours thesis, while the course work is evaluated similar to your undergraduate courses. The balance between time spent on research and time spent on course work depends on the degree that you are completing.

Honours as a further year of study

The structure of the Honours programs and the list of courses are provided on relevant University of Queensland websites. Depending on your degree and major, refer to:

- Bachelor of Science (Honours) (Mathematics, Physics and Statistics)
- Bachelor of Mathematics (Honours)
- Bachelor of Arts (Honours) (Mathematics)

Honours Application Form

- It is important that you find a supervisor and decide on a project area before you complete the application form. So,you are strongly encouraged to start looking for a supervisor before the end of your third year.
- Complete the School of Mathematics and Physics Honours application form, available from http://smp.uq.edu.au/content/honours-studies, after the results for your last semester of third year are released. If you are starting Honours in second semester, it is recommended that you submit your application very soon after the release of results.

Honours as part of the Bachelor of Advanced Science (Honours)

To enrol in the mathematics or physics honours research project, students approaching their fourth year of the Bachelor of Advanced Science (Honours) program email smp.student@uq.edu.au with the following information:

Name and student number Supervisor's name Project title and project course code Field of study in the BAdvSc(Hons).

Students are then added to a permission list to enrol in their project.

The Honours Thesis

The aim of the Honours thesis is to provide students with the opportunity to carry out a set piece of research in an environment and in a way that develops their research skills. Skills developed include the ability to identify a research opportunity and to define and refine a research question, to demonstrate how the question is related to existing knowledge, to identify the research tools needed to investigate the question, to prosecute the research and to analyse and write up the results in appropriate language in a coherent, logically structured report.

Your Honours thesis will consume a significant fraction of the available time for the full academic year. The thesis must be submitted at the end of two full semesters and assessment will be on the basis of this thesis, a brief seminar on the thesis topic, and an oral examination of the thesis material. Projects are restricted to problems on which one or more staff members have the expertise and interest necessary to give detailed supervision and for which facilities are immediately available. In practice, this means that the projects are closely tied to the on-going research in the discipline.

Honours Supervisor

Choosing a topic and your supervisor

Choosing a supervisor and a thesis topic is a critical step in the successful completion of the Honours program. The selection of an appropriate topic and supervisor are the responsibility of the student.

As a starting point in choosing your supervisor and thesis topic, visit the following website which describes currently available projects:

https://smp.uq.edu.au/smp-research-projects?tid=All&level=Honours+Project.

This is not necessarily an exclusive list; intending Honours students may wish to suggest different projects or approach staff members not listed as project supervisors. You can find information about research currently happening in the School by visiting our website at https://smp.uq.edu.au/research.

The following steps offer some further guidance in this process:

- To assist with choosing a specialised area of interest, review reports and theses of
 previous students (Honours, PhD & MPhil), examine the research profiles of the
 School's academic staff, talk with other students and also review the work assignments
 from your undergraduate studies.
- Identify proposed course areas well before the first semester of commencing your Honours program, so that a suitable supervisor may be approached.
- Select two or three academics whose research interests coincide with your proposed thesis topic. Approach and discuss your proposed topic with each of the academics you have identified.
- If you are having difficulties selecting the topic or supervisor, discuss the issues with the Discipline Honours Coordinator.

The role of your Supervisor

The role of the supervisor is to:

- assist in the development of a study plan ensuring that it is scientifically sound and possible to implement with the resources likely to be available;
- be available for consultation on a regular basis for an appropriate period of time;
- encourage completion of the thesis;
- regularly discuss progress and assist in the development of appropriate research habits;
- read drafts of the thesis as each section is produced and read the entire thesis before it is prepared for submission;
- provide appropriate feedback on work throughout the year;
- help you choose and refine your topic and field area;
- provide advice about the scope of the thesis;
- help locate and identify appropriate reading;
- help set goals and monitor progress;
- guide your field and laboratory work if appropriate;
- ensure that your work is satisfactorily written up and presented.

You should arrange periodic meetings with your supervisor to discuss the progress and direction of your work. It is not the supervisor's role to pursue you in order to monitor your progress.

Although your supervisor will assist you with style and the initial editing of your thesis, providing prompt feedback on drafts of submitted work, you should not expect him or her to read thesis material that you have not already edited. Remember that your supervisor has other students and duties and cannot be expected to read a thesis draft at short notice. You should attempt to get a draft of your introductory chapters to your supervisor well ahead of the deadline for submission, so that problems with style and grammar can be identified and rectified at an early stage.

Role of the student

An Honours student is expected to:

- formulate, with the help of the supervisor, a concise statement of the aims of the project, and layout a rough timetable for the work required. This is part of the process of learning to conduct research;
- work out with their supervisor a preferred timetable and method of working which is suitable to both. Of course the timetable may need to alter as pressures mount or recede during the year, or as other commitments must be taken into account. But a regular schedule of meetings with supervisors is as critical to success as a schedule for lectures in a lecture-driven course;
- write their own thesis, including drafts. Learning to write an extended report in clear concise language in an appropriate professional style forms a fundamental part of research training;
- proof read written material before submitting it to their supervisor and keep scheduled meetings.

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

Honours is a demanding year. Success requires a high level of dedication. It is important to achieve a balance between time spent on your thesis and time spent on your coursework. At the same time, it is important to participate in the broader intellectual life of the School and of the University. Honours students are expected to attend not only the seminars presented by their peers, but also the Research Seminars held in their areas as well as the School Colloquia on a regular basis. These talks form an integral part of your training as a research scholar and attendance is expected. It is also important to participate in other activities that occur within the School, such as outreach events, recruitment activities, lead positions in clubs and societies and the annual School Postgraduate Poster Day.

Class of Honours

The class of honours is calculated according to the rules of your program (searchable from the <u>Courses and Programs</u> website). Information relating to the award of honours is published under the "Procedures" tab of PPL 3.50.12 Bachelor Honours Degrees (https://ppl.app.uq.edu.au/content/3.50.12-bachelor-honours-degrees).

Other Information

Honours Coordinator

The Honours Coordinator in each discipline is responsible for the overall management and administration of their Discipline's Honours program. The coordinator monitors program requirements, provides academic counselling, appoints examiners, and schedules Honours seminars.

Occupational Health and Safety

The School takes a very serious interest in ensuring that all aspects of your Honours program are conducted in a healthy and safe manner. Before starting your Honours program, you will be required to complete a number of inductions including General Workplace Safety and Fire Safety. Students using specialist equipment may be required to undertake further training. You should consult with your supervisor and/or the School Workplace Health and Safety Coordinator to ensure that all relevant training is completed.

Administration, Equipment and Facilities

Please contact the Administration Officer in your relevant discipline for information on:

- after-hours building access;
- common rooms;
- · computer accounts;
- desk allocation and furniture;
- keys and swipecards;
- mail:
- stationery;
- photocopying;
- · telephones.

Accommodation and Building Access

Desk space will be arranged by the Honours Coordinators in conjunction with the discipline Administration Officers. Keys to Honours offices are available from the secretary in each discipline on a refundable deposit. Out of hours access is also negotiated through the discipline Administration Officer in consultation with your supervisor.

Honours offices are intended as quiet rooms and in particular should not be used for food. Please use the designated tea rooms.

Photocopying

As an Honours student you have access to a photocopier and printer. Access is also provided by the discipline Administration Officer. Note that these facilities are provided for use only as part of your Honours studies.

Mailbox

University and other notices directed toward Honours students, telephone messages and regular mail will be placed in the appropriate marked mailbox areas of your discipline.

Computing

Computers, scanners and printers are available for student use in the computer laboratories of the disciplines.

Students will be allocated an account and details of printing allocation and other administrative matters will be provided at the start of their Honours year. Students are reminded that their computer usage is governed by PPL 6.20.01 Acceptable Use of UQ ICT Resources https://ppl.app.uq.edu.au/content/6.20.01-acceptable-use-uq-ict-resources. All software must be legal and students must conform to the University of Queensland bylaws regarding computer and internet use.

Tutoring

If you wish to be considered for appointment to casual tutoring to first year classes, please see the School's website for information http://smp.uq.edu.au/casual-tutoring. The application process is different depending on whether you wish to tutor in mathematics or physics. It is never clear until shortly before semester begins how much tutoring will be available for Honours students, but there are generally at least a few positions.

Library

The Dorothy Hill Engineering & Sciences Library contains the most extensive science collection in the southern hemisphere.

my.UQ

Students should refer to the my.UQ website (https://my.uq.edu.au), as a primary source of information about a range of student-related matters, including information relating to enrolment, assessment, changing your program, as well as the relevant forms associated with a variety of administrative process.

Accidents on Campus

In the event of an injury or accident on campus, once the person is removed from danger (if safe to do so), phone Security on 3365 3333 immediately. UQ Security are equipped with emergency equipment and will make an assessment of the situation on arrival. The patient may then be taken either to the University Health Service for treatment, or in the case of a particularly serious injury, to hospital. The phone number of the Health Service is 3365 6210. You may phone this number for immediate advice over the phone in the case of an emergency.

If you sustain an injury while participating in a class, in particular while tutoring, you should inform the lecturer in charge immediately and attend the University Health Service for treatment. An incident report available from the Occupational Health & Safety Division website (http://www.ug.edu.au/ohs) should be completed.

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