

**ANU College of Medicine, Biology and Environment**  
**ANU College of Physical and Mathematical Sciences**

## **Honours Handbook**

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## 1. Introduction to Honours

Honours programs in CMBE/CPMS take one academic year (full time). Honours aims to build on the knowledge and skills that you have learned in your undergraduate career. In doing so, Honours continues and rounds out a process begun in the study of your chosen field at an undergraduate level. However, Honours is much more than this. It is a time of social, professional and intellectual development in which students become better acquainted with some of the central features of academic life: seminars, workshops, presentation of work to colleagues, research design and communication of scientific findings.

Accordingly, students are generally given much more autonomy and responsibility for their own intellectual development during this year than previously. All Honours degrees at ANU are based on the model of developing your skills, under supervision, as an independent researcher and innovative thinker. Honours will also test your organisational skills; in particular, your ability to prepare, define, plan, carry out and report on research. As an Honours student in science, you will undertake your own empirical research on a topic you choose to study and your research should involve the creation of 'new' information and knowledge in your chosen field. You will prepare a thesis that presents the background for, and describes and explains, your research findings. Some Honours specialisations also involve a coursework component.

Therefore, Honours offers the opportunity to develop a level of learning and a suite of skills that add significant value to those gained during a Pass (Bachelor) degree. Consistent with this, the learning outcomes for honours describe the knowledge and skills to:

1. Plan and engage in an independent and sustained critical investigation of a chosen research topic to generate new knowledge.
2. Systematically evaluate relevant theory and concepts, relate these to appropriate methodologies and evidence and draw appropriate conclusions.
3. Analyse and interpret original research data with statistical or other evaluative processes where appropriate.
4. Demonstrate sufficient mastery to understand and apply relevant experimental techniques and methods to collect original research data.
5. Communicate and justify complex concepts and results clearly and effectively to a variety of audiences.

Your year as an Honours student will probably be the most testing, but also the most rewarding, of your undergraduate career.

## 2. Application and Enrolment Information

2.1. The first step in gaining entry to Honours is to meet the entry requirements.

The minimum requirement for admission to an Honours specialisation is as follows:

- An AQF Level 7 Bachelor Degree, (or 144 units of a 4 year Bachelor degree), completed within the last two years
- a weighted average mark equivalent to an ANU 70 per cent calculated from the 36 units (i.e. 0.75 EFTSL) of courses in the discipline cognate to the honours specialisation, excluding 1000-level courses (i.e. introductory undergraduate courses), with the highest marks.
- the recommendation of the relevant honours convener, in light of availability of resources and appropriate supervision.

2.2. If an Honours specialisation has requirements additional to those set out in 2.1, due publicity of these requirements is as set out on the relevant Programs and Courses web-page (<http://programsandcourses.anu.edu.au>).

2.3. The time limit between completion of the pass degree and commencement of the Honours year is a maximum of two years. A longer period requires the approval of the Delegated Authority on advice from the academic area, who will take into account the relevance of work experience subsequent to completion of the undergraduate degree.

2.4 Graduates of other universities may be accepted for admission to Honours provided that the undergraduate program and performance in that program are of a standard comparable to that applying in the relevant Honours specialisation.

The process for application for admission and enrolment in Honours depends on your degree program, your student status and your relationship with ANU. Details of the requirements can be found here: <http://science.anu.edu.au/study/how-apply/honours-year-application>

It is advised (and considered essential in some areas) that you prepare for the particular topic you choose to study. You may consult Conveners and potential supervisors about the suitability of your courses and your research interests as you proceed towards Honours. When talking about your research interests with potential supervisors, you may wish to discuss:

- Their research interests and research plans for the coming year;
- Your own interests and ideas;
- Their preferred supervisory style (How often do they like to meet? Exactly how independent do they expect a student to be? Do they already have a specific project in mind?);
- What they expect of an Honours student.

Your application will be considered together with others, and you will be advised of the outcome as soon as possible. This will not be before outstanding examination results are available.

### **3. General Guidelines**

#### **3.1 Student Information**

An information document must be made available by Schools to prospective Honours students in their third year outlining aspects of the Honours specialisation. This might include information on entry requirements, admission procedures, the role of the Honours convener, student rights, coursework requirements, availability of equipment and support, availability of mid-year courses and details of program assessment and due dates.

## **3.2 Procedure**

3.2.1 The Head of School will appoint an Honours convener to be responsible for the co-ordination of the Honours program.

3.2.2 The name of the Honours convener for the following year must be reported to the Secretary of the Honours Committee in November each year.

3.2.3 There is an Honours Committee that consists of the Honours Conveners and a Chair appointed by the Deputy Dean.

3.2.4 Each Honours specialisation should provide a website and/or handbook advising students of the details of any specific requirements for that specialisation.

3.2.5 Students should be advised of their right to approach the Honours convener where difficulties arise, for instance, regarding supervision.

3.2.6 In accordance with the Rules of the University, a Chair of Examiners and at least one other examiner will be appointed by the Convener for each calendar year.

## **3.3 Program Duration**

3.3.1 The precise duration of full-time Honours candidature is set by the Honours Committee and will not exceed a period of eleven months. Specified requirements should be strictly observed.

3.3.2 Extension of time to submit beyond two weeks after the nominated completion date will be subject to the approval of the Deputy Dean and should be granted only when there are factors clearly beyond the control of a student.

3.3.3 Suspension of Honours candidature will be subject to the approval of the Deputy Dean.

## **3.4 Outside Supervision**

Subject to approval by the Honours convener, thesis supervision may be provided by a person outside the School provided that this supervisor is substantially involved in the Honours specialisation and is responsible to the Head of the School for the supervision of the student.

## **3.5 Part-time Candidature**

Part-time candidature is subject to the approval of the Delegated Authority (CMBE/CPMS SubDean) on the recommendation of the Honours convener; confirmation will be required that the workload and the time allocated to complete the work are comparable to the requirements for full-time students. Contact [science.enquiries@anu.edu.au](mailto:science.enquiries@anu.edu.au)

### 3.6 Combined Honours

Honours in science may be pursued in two specialisations under the following conditions:

(a) enrolment in each Honours specialisation will depend on the student satisfying the minimum requirements for admission to the specialisation;

(b) the Honours years will be undertaken sequentially not simultaneously.

### 3.7 Expectations of Students and Supervisors

As an Honours student, you are at a stage intermediate between undergraduate and graduate work. Formally, the University classifies you as an undergraduate. However, your work is more like that of a graduate student. In practice, Honours combines the best of both worlds. Honours is about training you as an independent researcher and you will experience some of the independence and self-direction required of higher degree research students, but you also have close contact and direction from your supervisor(s).

All Honours students have a supervisor (in some areas, it may be possible for a student to be jointly supervised by two people). The relationship between supervisor and student involves obligations for both parties. Your supervisor will assist you with advice, guidance and feedback, and help you to achieve your personal academic goals. The supervisor is there to help you choose and design the research project, guide the research in a practical and productive way, and advise you on writing the best thesis of which you are capable. At the same time, your supervisor can only guide your efforts, and then only if you are receptive to advice. You must take the responsibility for the final results of your work.

We expect that you will:

- Maintain a close dialogue and constructive working relationship with your supervisor(s);
- Plan your research program and budget with your supervisor(s);
- Consider advice seriously. If advice is not taken, the supervisor should be informed and given the reasons for the decision;
- Consult regularly with your supervisor. Students should prepare in advance for consultations, by determining the help they require and the areas in which advice would be useful;
- Interact with other students and staff in accordance with the relevant University policies;
- Contribute to the academic life of the School and Honours specialisation by attending all relevant seminars;
- Treat School and University facilities and resources with respect and care, and follow Occupational Health and Safety requirements;
- Observe the relevant University and School rules and regulations;
- Complete the formal requirements for Honours, as described in this handbook;
- Complete, to the best of your ability, a well written, thorough and competent thesis of the highest standard.

Early in the year you need to establish an understanding of your skills and ability to carry out your research. Your supervisor is crucial in this process. In the early series of meetings with your supervisor you need to establish:

- An appreciation of your skills and competency for the project you propose to study (e.g. IT literacy and fluency, data analysis, your oral and written communication skills);

- Your work schedule and meeting times, including any times of absence from campus for you and supervisors;
- Resources and technical support available to you for the project;
- How to gain clearance of study with ethics committees;
- 'Terms of engagement'. Your supervisor(s), even if they already know you, will be developing a deeper understanding of who you are through the close relationships that develop in the course of a research project. You will also need to talk about how you will organise your year and arrange a schedule for your research (note that extensions *cannot* be granted for failure to plan in this way).

Throughout the year, your supervisor will expect to see drafts of your work as the project progresses. It is your responsibility to provide work to your supervisor(s) at mutually convenient times so that full consideration can be given in time for submission by the due date. In some Schools and Departments, there is a limit on how many times a supervisor can read sections of a student's thesis.

Students who encounter difficulties should first attempt to resolve them with their supervisor. If this does not produce satisfactory results, they should then consult the Honours convener and then, if the matter remains unresolved, the Associate Director Science Education for the School, the Head of School, the Delegated Authority or the Dean of Students.

Your supervisor also has responsibilities. These are to:

- Assist you in selecting and defining the scope of a suitable thesis topic or problem; assist you in devising a schedule for the year's thesis work;
- Guide you in the selection and application of appropriate data collection and analysis procedures and advise on the solution of any difficulties that arise;
- Advise on matters of thesis content, organisation and writing, including the timely provision of comments, written and oral, on drafts or portions of the thesis;
- Meet frequently with you to discuss and evaluate each stage of the thesis project.
- Monitor your progress and advise you when progress is unsatisfactory;
- Assist you in gaining clearance from the ethics committee (see *Ethics in Research* below).

## 4. Scholarships

Information regarding Scholarships open to Honours students can be found on the ANU Scholarships website <http://www.anu.edu.au/study/scholarships-fees>. Additional scholarships may be offered by individual Schools. Please contact the relevant Honours convener for more information.

## 5. Ethics in Research

At the ANU, two research Ethics Committees oversee research on humans and other animals – the Human Research Ethics Committee and the Animal Experimentation Ethics Committee. All research projects involving humans and other animals must be approved by the relevant ANU Ethics Committee and data gathering cannot begin until approval is given.

Before undertaking research on humans or animals you must be familiar with the policies and guidelines for responsible practice of research available from the Office of Research Integrity website <https://researchservices.anu.edu.au/ori/index.php>. Application procedures for ethics approval for work on humans and animals are also available from this site.

Research involving recombinant DNA must also be approved by the Office of the Gene Technology

Regulator (OGTR) and the Institutional Biosafety Committee (IBC). Further information and procedures are available from <https://researchservices.anu.edu.au/ori/rdna/index.php>.

You will need to know quite a bit about your research project before you can fill in an ethics application. However, you should aim to get your ethics application in as early as you can in the year, as approval can take over a month. All ethics applications must be looked at by your supervisor and must be approved by your Head of School/Department before being submitted.

Once you have received approval and begin your research, the onus is on you to behave in a way that is consistent with ethical research practice. Included in this is your behaviour towards your fellow researchers (other students and staff) as well as your human or animal participants. Failure to conduct your research in an ethical manner may jeopardise the university's entire research effort, as the university is bound by the bodies that fund its research to ensure that ethical practice is maintained at all times.

## **6. Occupational Health and Safety**

The University will provide a workplace that is, as far as reasonably practicable: safe and healthy for staff, students, and visitors; and without risk to the environment, in compliance with the Occupational Health and Safety (Commonwealth Employment) Act 1991, other relevant legislation, national standards and codes of practice. Staff, students and visitors are required to do all that is reasonably practicable to ensure that their actions or omissions do not create or increase a risk to the health and safety of themselves or others. Safe work procedures must be observed at all times and equipment must be used in accordance with safe work instructions. Any incidents, exposures, hazards or OHS concerns within the workplace must be reported.

Occupational Health and Safety workshops are available for Honours students and may be compulsory in some areas.

For more information about Occupational Health and Safety go to: <https://services.anu.edu.au/human-resources/health-safety>.

## **7. Intellectual Property**

The ANU does not, in general, claim ownership of the intellectual property (IP) that Honours students generate. However, under some (rarely seen) circumstances it will ask individual students to sign an agreement assigning their ownership rights. These circumstances include where:

- The generation of this IP has required substantial use of University resources and/or services beyond that which is ordinarily provided to students; or
- The generation of IP has resulted from the use of pre-existing IP owned by, or existing within, the University; or
- The IP belongs to a body of IP generated by a team including members of staff of which the student is also a member; or
- The IP results from collaboration, either formal or informal, in a research project with staff; or
- The IP has been generated as a result of funding provided by or obtained through the University.

Where a student is involved in research that is likely to lead to the generation of IP, the University will take reasonable steps to protect students' rights to include their research in their thesis and to be able to publish papers and theses. For more information about the University's policy on IP, go to: [https://policies.anu.edu.au/ppl/document/ANUP\\_003603](https://policies.anu.edu.au/ppl/document/ANUP_003603)

## 8. Thesis Writing Guide

The process of writing your thesis is an exercise in scientific communication. Your thesis must 'tell a story', in the sense that it must have a beginning, middle and an end. The information you present must be logically structured and must give the reader the sense that they are progressing towards a greater understanding of the topic in general, and of your own research in particular. Your thesis must be analytical and critical in nature, not just descriptive. Your thesis must stand as evidence that you are a competent researcher and that you understand your field and identify strengths, weaknesses and gaps in knowledge or explanation or theory. Your study (hypotheses, design and method) must follow logically from your introduction. The questions you are asking in your research and the measures you are using must make sense in the context of what has gone before in the introduction. In general, your report should start out at a broad level, become narrower and focused in the presentation of your research, and then broaden out again by the end of your discussion.

Your thesis will be written according to a word limit and style that is defined by your School. The limit is a maximum and you must not go above it. Excessive length will be penalised. In some Schools, theses that exceed the word limit are returned to the student for condensing, and late penalties apply.

The style of thesis will also be defined by your School – it may be a standard thesis, or prepared more in the form of one or more manuscripts for example.

When you are writing your thesis, it is advisable that you look at theses written by previous Honours students in your area. Most Schools have a library of past theses that you are able to borrow for short periods.

## 9. Data Fabrication & Plagiarism

The falsification of results gained during the course of your Honours work is a serious offence and will not be tolerated. It is essential that students maintain a careful written record of experimental procedures and results. The copying or summarising of another person's results or ideas as if they were one's own is a form of theft and will not be tolerated. The source of such material must always be cited in the text and bibliographies of your written work.

University rules concerning data falsification and plagiarism are covered by the Academic Misconduct Rules (<https://www.legislation.gov.au/Details/F2015L02025>).

Penalties for such offences may include suspension or termination of a student's course of study.

## 10. Extensions Policy

Extensions to thesis (and assignment) deadlines will only be granted for health reasons or for unforeseen circumstances (i.e. that arose due to factors beyond the student's control). Extensions will not be granted for work reasons or due to circumstances that should have been anticipated by you, the student. Extensions to thesis deadlines require careful and complete documentation of the causes and demonstration that the circumstances were beyond the control of the student. Such applications should be discussed with the supervisor, and, following this, with the Honours Convener. The Convener must approve any extension of up to two weeks. Extension of time to submit beyond two weeks after the completion date will be subject to the approval of the Deputy Dean on the recommendation of the Honours convener. Note: No application for an extension will be considered unless the Milestone Completion Form is submitted by the required due date. The Milestone Completion Form has to be submitted by the Monday prior to the thesis submission date.

## 11. Minimum Requirements for Assessment

- A minimum of 25% of the summative assessment items, or a combination of 15% summative assessment and formative feedback must be completed within the first half of the honours year.
- There should be at least two examiners, the examining panel, for every thesis;
- The examining panel should not include a supervisor (except in cases where the Deputy Dean has approved the inclusion of a supervisor as failure to do so could affect the expertise of the assessment);
- At least one examiner should not be a specialist in the topic of the thesis;
- The course outlines and assessment criteria including grading descriptors and deadlines must be available to students by the second week of enrollment;
- Examiners must use the relevant College grade descriptors (or an approved alternative) in providing a mark;
- There must be a clear and objective link between the written descriptors and the grades assigned;
- The examining panel will construct a brief written report on each thesis;
- Supervisors will be consulted by the examiners, so that the supervisor can describe their view of the student's performance during the honours year.
- The recommendation on a grade by the examiners should be made without the supervisor present (except in cases where the Deputy Dean has approved the inclusion of a supervisor as failure to do so could affect the expertise of the assessment);
- Once the examiners recommended mark(s) have been received, the final marks for an overall Honours grade and the components are arrived at in an examiners meeting to which all examiners and supervisors are invited;
- Special consideration of individual student circumstances is undertaken and documented according to University and College policy (<http://www.anu.edu.au/students/program-administration/assessments-exams/special-assessment-consideration>)

## 12. Classifying Honours Performance

The class of Honours awarded is based on the performance in the Honours year.

## 13. Grading Criteria

The following criteria are used to assess the quality of theses and to assign grades. The examiners will ask the supervisors to comment on whether the students have demonstrated some of these characteristics; while the judgement on other characteristics will rely purely on the thesis.

### 13.1 Honours III 50-59:

The student:

- has demonstrated some knowledge of the relevant background literature, but with serious gaps, and limited understanding;
- applied relevant techniques and carried out research work, but needed considerable assistance and showed limited understanding of the procedures employed;
- presented their results, though in a somewhat muddled and/or incomplete way.

### 13.2 Honours IIB 60-69:

As for Honours III, but in addition the student:

- has demonstrated a reasonable knowledge of the relevant background literature, with only a few gaps, albeit in a somewhat uncritical way;

- demonstrated that they had learned many of the relevant skills (which might include laboratory techniques, computer programming and statistical analysis);
- presented their results in an appropriate format, and communicated them effectively.

### **13.3 Honours IIA 70-79%:**

As for Honours IIB, but in addition the student:

- has demonstrated a thorough knowledge of the relevant background literature, though still with limited critical appreciation;
- demonstrated reasonable technical mastery of all the relevant skills;
- worked hard, efficiently and carefully;
- presented their results and/or data clearly and succinctly.

### **13.4 Honours I 80-89%:**

As for Honours IIA, but in addition the student:

- has critically analysed the relevant background literature rather than merely summarising it;
- produced a thesis that demonstrates a clear appreciation of how their work fits in to the larger field of research;
- demonstrated considerable technical mastery of all the relevant skills;
- showed some appreciation of the limitations of the experimental design or techniques used and have outlined future research directions that are feasible;
- put forward their own useful and valid ideas relating to the project;
- further demonstrated the ability to see, and take, the logical next step without excessive 'prodding', the ability to act independently of the supervisor's immediate direction and presence, but the maturity to know when the supervisor's help is necessary;
- demonstrated the persistence and ability to carry on under difficulty;
- picked up new concepts and skills rapidly;
- showed the ability to work effectively in the presence of others.

### **13.5 Honours I >90:**

As above, but in addition the student:

- obtained concepts and procedures independently and at least discussed a use for them in the study;
- demonstrated impressive technical mastery of all the relevant skills;
- demonstrated a good understanding not only of the techniques they employed, but other alternative techniques and the reasons for choosing between them;
- have outlined possible future directions which are not merely feasible but which show considerable originality;
- not only put forward useful and valid ideas relating to the project, but also demonstrated the ability to critically evaluate and act upon such ideas.

## **14. Minimum Allocation of Resources**

The ANU College of Medicine, Biology and Environment (CMBE) and the ANU College of Physical and Mathematical Sciences (CPMS) are committed to providing a research environment for Honours students that is unparalleled anywhere else in Australia. As part of this commitment, both colleges aim to maintain and improve research resources for students undertaking Honours. This document

outlines the responsibilities of schools within the two colleges that are offering Honours projects and the minimum level of support that is to be provided to students enrolled in Honours.

### **14.1 Principles**

The acceptance of an Honours student into a school within CMBE or CPMS implies that the school accepts responsibility to provide a level of support sufficient to enable the completion of the student's initially agreed Honours project and any agreed variation; such support will include adequate supervision, the provision of adequate resources and appropriate research accommodation.

### **14.2 Responsibilities of Supervisor(s), Conveners and Directors**

Primary responsibility for oversight of an Honours candidate's work rests with the supervisor(s), including advice on the availability of resources needed to complete the thesis on time (e.g. school resources, computing, library, fieldwork).

The Honours convener's functions include informing new students of resources and providing or arranging pastoral support for students enrolled in Honours, in particular to assist in the resolution of problems that may arise between students and supervisors.

It is the responsibility of Directors, through each supervisor, to provide a level of resources sufficient to enable the completion of the student's initially agreed Honours project and any agreed variation. Information on minimum resource support for Honours projects should be conveyed to both commencing and continuing Honours students. Different Honours student projects may have different costs even within the same discipline, and the area in which the student is located is responsible for determining and providing sufficient resources.

### **14.3 Minimum School Resources**

Students specifically enrolled in a program of research and related activities leading to the award of Honours in CMBE or CPMS are assured that the sponsoring area undertakes to provide the following minimum resources:

Sufficient laboratory or office space, infrastructural equipment and facilities to complete the Honours project, these items to be available during the research component of the course, in particular:

- Normal University standards of accommodation, including a desk and chair, located in an area which is secure, within reasonable proximity of the host school; and with internal access to toilets and wash room.
- A lockable filing cabinet or locker/drawer.
- Reasonable access to computing and relevant software facilities.
- Reasonable provision for stationery, postage and receipt of mail; access to photocopying facilities and fax; and use of a telephone (the terms of such provision to be clearly defined at the time of induction).

### **14.4 Honours Committee Review and Student Grievances**

The Honours Convener should from time to time review the provision of resources for students enrolled in Honours, and recommend the provision of such additional resources as may appear necessary for the particular discipline concerned. When uncertainty arises concerning the meaning of "sufficient" and "reasonable", the Honours Committee should adjudicate.

When agreement about resources cannot be reached within the school, including after being reviewed by the relevant Director, an appeal may be lodged with the Deputy Dean.