

CHARLES STURT

U N I V E R S I T Y



HONOURS PROGRAMS

in the

SCHOOL OF ANIMAL AND VETERINARY SCIENCES

April 2009

INTRODUCTION

This booklet has been produced as a guide for students commencing Honours courses in the School of Animal and Veterinary Sciences. It is designed to provide administrative information about the courses, as well as to offer academic advice to students.

All honours students should obtain and read a copy of the Faculty of Science's Honours Handbook. It contains a great deal of information not repeated in this booklet. Additionally, Veterinary Science Honours students should obtain and read a copy of the subject outline for HRS417 Science Honours Project/Dissertation, as it contains information specific to the Veterinary Science Honours program. The Veterinary Honours program is very different in operation and administration to other honours programs in the School, and as such the information in the HRS417 Subject Outline is the primary source of information for Veterinary Science Honours research projects.

FACULTY STAFF

<i>Dean of Faculty</i>	Professor Nick Klomp
<i>Secretary to the Dean</i>	Maree McClintock
<i>Sub-Dean (Research Students)</i>	Dr Paul Prenzler

SCHOOL STAFF

<i>School Honours Coordinator</i>	Dr Raf Freire
<i>Animal Science Honours</i>	Professor Peter Wynn
<i>Veterinary Science Honours</i>	Dr Helen McGregor
<i>Other staff on Honours Committee</i>	Dr Michael Friend, Professor Nick Sangster

OBJECTIVES AND GOALS OF THE COURSES

Honours courses offered by the Faculty of Science all share the following objectives:

- to attract high quality students to the program - students who have the potential to make significant contributions to scientific research and knowledge in Australia;
- to offer a high quality and well regarded Honours program;
- to ensure on-going relevance of the content and structure of the courses offered in the program;
- to produce high quality graduates;
- to facilitate the completion of high quality research and research training; and
- to facilitate high employment rates of graduates

The primary educational objective is research training. The key goals of honours courses are:

1. to provide knowledge and skills relevant to conducting research, especially for entry to higher degree courses;
2. to develop an advanced level of knowledge in the area of specialisation;
3. to further develop verbal and written skills relevant to advanced studies.

WHY DO HONOURS?

For students in integrated programs, undertaking the Honours stream means they undertake less discipline-based subjects than students undertaking the pass stream. It can also be argued that the Honours stream will require considerably more work than undertaking the pass stream. For students undertaking add-on Honours, obtaining an Honours degree requires an additional year to a pass degree, thus potentially resulting in forgone income and potentially an increased HECS debt (although see later information on scholarships regarding HECS waivers). Completion of an Honours degree, however, gives graduates a number of advantages over students with a pass degree. These include:

- Having an honours degree has the potential to make your application for a job stand out;
- Many public-sector positions are required to pay Honours graduates a higher rate than pass graduates;
- Employers are often looking for research skills – Honours graduates have these to a much greater extent than pass degree graduates. This can be particularly important if you are working for an employer who undertakes any research and development activities. However, even if the employer doesn't undertake these activities the greater analytical skills gained through an Honours program is highly valued;
- Students graduating with Honours Class 1 or Honours Class 2 Division 1 are eligible to enrol directly in a PhD. Students with Class 1 Honours are highly likely to be offered a postgraduate scholarship (either government or industry funded), while students with Class 2, Division 1 Honours have a good chance of being awarded an industry funded scholarship.

THE COURSES

1. Add-on Honours programs

These programs are designed for students who have completed a 3 year science-based degree and wish to gain an Honours degree based on completing a significant research project supervised by staff within the School of Animal and Veterinary Sciences. Prior degrees include, but are not limited to, the Bachelor of Equine Science (or Studies), BSc (Agriculture, Livestock Production or other specialisation), BSc or BMedSc degrees; either studied at CSU or elsewhere. Students will normally apply for admission into these programs through the CSU Admissions Office after having discussed and agreed on a research project with a supervisor(s). The two courses which students can enrol in are:

i) Bachelor of Applied Science (Honours)

Admissions code for internal is KSUZ, for distance is ESUZ

ii) Bachelor of Science (Honours)

Admissions code for internal is KSSZ, for distance is ESSZ

Students can enrol full-time (32 points or 4 subjects per session) and complete honours over one year or part time (16 points or 2 subjects per session) and complete honours over two years. Students can commence honours in any session (subject to project availability and admission approval), but must submit their dissertation on or before the last teaching day (before the exam period) of the following session (full-time students) or the last teaching day of their final session of enrolment (part-time students). Students must complete 64 credit points (8 subjects) for either course, a minimum of 3 and maximum of 6 subjects must be made up of your research project. Students must also complete STA404 (Statistical Reasoning) in Session 1 (or alternate research methods subject, eg SRM500 (Social Research Methods), if deemed by the Honours Coordinator to be more appropriate for the student's area of research) and either ASC307 (Critical Reviews in Animal Science; Session 1 Internal only) or AGR402 (Reading in Science and Agriculture; either session). The subject codes for the research project are as follows:

HRS408	Honours Research	8 points
HRS416	Honours Research	16 points
HRS424	Honours Research	24 points
HRS432	Honours Research	32 points

These can be taken in any session so that the required number of credit points (32 for full time students) are completed each session. For example, for a student completing Honours over one year and whose project will account for 6 subjects, the enrolment pattern may be:

Session 1	Session 2
ASC307 Critical Reviews in Animal Science	HRS432 Honours Research
STA404 Statistical Reasoning	
HRS416 Honours Research	

Up to 24 credit points may be completed through other subjects, depending on the size of the Research Program. Satisfaction of the requirements of this component may be via the completion of:

- any level four subjects;
- any level five subjects;
- some level two and three subjects, providing that such subjects have not been previously completed in the undergraduate award and that subject points at this level do not exceed 16.

Directed readings subjects can also be taken. These subjects are designed to expand your knowledge/skills in a given area. For example, a subject may comprise the student writing a paper for submission to a conference/journal based on their work, presentation of a seminar based on their work, and writing a grant proposal for additional research work required based on the results obtained in their research. Assessments for these subjects may be set by their supervisor(s), but may not be marked by their supervisor(s). Directed readings subjects include:

SCI401	Honours Special Topics 1	8 points
SCI402	Honours Special Topics 2	8 points

2. Integrated Honours programs

These programs are designed for students who have performed academically well in either Animal Science or Veterinary Science and who wish to gain an honours degree through completion of a research project. The expectation is that only students with a Grade Point Average (GPA) of 5 or better (across all years for animal science, across years 2-4 for veterinary science) will enter the honours stream.

i) Bachelor of Animal Science (Honours)

Students will complete ASC307 and STA404 in session 1, along with HRS416. In session 2 students will complete HRS432. That is, the research project will account for 48 credit points in the final year, or 6 subject equivalents. A substitute subject for STA404 may be approved by the School Honours coordinator if a case is made. For example, a student completing a project in the area of qualitative inquiry (eg survey work) may be permitted to enrol in a qualitative data analysis in place of STA404 (which is a quantitative data analysis subject).

ii) Bachelor of Veterinary Science (Honours)

Students will complete HRS417 (Science Honours Project/Dissertation) in either session 2 of year 5 or session 1 of year 6. Students will also complete either VSC 464 (rotation 7, Livestock industries) OR VSC 465 (rotation 6, Specialisation) at the same time. As HRS417 is a 16 point subject, the Honours project accounts for 2 subject equivalents. Preliminary training in research approaches will be provided to honours students in VSC455, Transition to Practice.

RESEARCH PROJECT SUBJECTS (HRS408, 416, 417, 424 and 432)

These subjects are the principal vehicle for honours research and research training. Students will define a problem, design and conduct experiments and/or surveys, and write a dissertation. The research should be original and rigorous, resulting in a well-written dissertation that contributes to the current knowledge in the field of study and/or critically reviews a substantial component of a field of knowledge. As a rough guide, the dissertation will normally be about 5000 words for each subject equivalent. This word limits do not include appendices.

Although Animal Science and add-on honours students may be enrolled in the research subjects for two or more (part-time) sessions, no substantive grade will be awarded until the dissertation is submitted and examined. Each student must submit three copies of his/her dissertation to the school honours coordinator by the due date, otherwise penalties will apply (see the Faculty Honours Handbook). Two will be sent for examination, one will be retained in case of the need for arbitration or appointment of a third examiner.

The final mark awarded for the subject will be the average of the percentage marks awarded by the two examiners, unless these marks differ by 15 percentage points or more. In the latter case, the third copy will be sent to the Sub-Dean (Research Students) who will appoint a third examiner or convene a meeting of the Faculty Honours Committee for arbitration of the result. This final mark for the dissertation will contribute 100% of the grade for the research project (i.e. Honours Research subjects).

HONOURS PROPOSAL AND INTERVIEW

Honours students are expected to submit a two-page proposal and discuss their proposed research in an interview. For add-on and Animal Science students, this will normally occur within the first few weeks of their first session of honours. For Veterinary Science students, this will occur during session 1 of year 5. Interview panels will comprise of the School honours coordinator, and two other members of staff. Interviews will take approximately 20-30 minutes. For the first part of the interview, only the honours student is permitted, while for the last part supervisors are encouraged to participate. The research proposals must be submitted to the School honours coordinator at least three days prior to the scheduled interview time, and should be brief, yet should contain sufficient details to allow the proposed research methodology and data analyses to be evaluated by the interview panel. Standard proposal proformas are included at the end of this document and also at the end of the Faculty Honours Handbook. The principal purposes of the interview are to ensure students have ownership of the proposed project, are aware of the requirements and have set achievable timelines; and also to ensure that the project is sound, sufficiently resourced and achievable within the timeframe available.

HONOURS STUDENT SEMINARS

Honours students will be required to present seminars during their program, the timing and audience will depend on the course they are enrolled in. All students will be required to give a presentation on their results towards the end of their project. This will be scheduled prior to the dissertation submission date, and will provide the student with important feedback (from members of the School) on their results and conclusions which will aid in finalising the dissertation. In addition, add-on and Animal Science honours students will be required to give a seminar at the Faculty of Science Honours day. This will normally be scheduled mid-year, and will provide an opportunity for students to present either their proposed project and progress to date or the results of their work, depending on their progress through the project. Students and staff from across the Faculty will participate in this day.

Seminars are intended to give honours students essential practice in oral presentation and defence of their work. Students should remember that their audience will be a general one, so their presentation should be understandable to non-specialists. Students are strongly advised to discuss their seminar presentation with their supervisor and to practise their seminar prior to presentation. Most students use Microsoft Powerpoint to present their presentation.

GRADING OF HONOURS

Students will be graded in their honours research subject on a scale from Class 1 to Class 3 as follows:

H1	Class 1 (greater than 80%)
H2a	Class 2, Division 1 (70-80%)
H2b	Class 2, Division 2 (60-69.99%)
H3	Class 3 (50-59.99%)
Fail	Less than 50%

This grade will appear on transcripts next to the appropriate HRS subject(s). Grading will be based on the average of the marks awarded by examiners as described earlier. In the event a fail grade is received for the research subject, add-on Honours students will be ineligible for an award. Integrated Honours students will be required to resubmit the dissertation until a pass grade is achieved, once achieved students will then be eligible to graduate with a pass rather than honours degree.

Honours level awarded for the degree for add-on and Animal Science students will be on the same scale, based on weighted performance in the research subject and other subjects. The level of award will be determined on the weighted average of all 8 subjects taken during the honours year. For example, a student undertaking a 48 point research project (6 subject equivalents) and 16 points of other subjects (2 subject equivalents) will have their mark determined by multiplying their mark in their research subject by 75% and their mark in other subjects by 12.5% each, the sum of these marks will determine the grade awarded.

BVSc Honours level will be determined by a formula:

- The mean mark for 14 subjects in Years 4 and 5 (VSC415, VSC416, VSC417, VSC418, VSC425, VSC426, VSC427, VSC428, VSC451, VSC452, VSC453, VSC454, VSC455, VSC458). These will be weighted 10% higher to account for the difficulty of sustaining high marks in the senior years.
 - A 4 fold weighted mark for HRS417.
- The level of BVSc (Hons) will then be awarded against the following scale:

Honours degree	description	Mark range
BVSc(Hons 1)	First class honours	>78
BVSc(Hons 2,1)	Second class honours division 1	73-77
BVSc(Hons 2,2)	Second class honours division 2	68-72
BVSc(Hons 3)	Third class honours	<67

HEALTH AND SAFETY

It is a policy of the School that students work only in a safe and healthy environment. To achieve this policy, the Head of School and staff make every effort in the areas of accident prevention, hazard control and removal, injury protection and health promotion.

- **All students must submit completed Occupation Health and Safety Risk Assessment forms, signed by the Head of School, before undertaking any field work or laboratory work.**
- **All students must complete the on-line Occupational Health and Safety modules, which can be accessed at:**
 - <http://www.csu.edu.au/division/healsafe/> and follow the link to OHS online induction.

All students should be familiar with the school's safety rules for field work and laboratory work, and should act in a safe and responsible manner when performing research of any kind.

HONOURS RESEARCH BUDGET

Students should ensure that supervisors have sufficient research funds to support the project. The School may provide some limited funding for honours research projects, which are available on a competitive basis upon application. Details of current School funding can be found at:

<http://www.csu.edu.au/faculty/science/savs/honours/>

Some scholarships provide not only a stipend for the student but also an operating budget to support the purchase of consumables etc. Check with the individual scholarship provider and your supervisor(s).

Students should not incur research expenses without first consulting their principal supervisor, as supervisors will normally be the signatory on accounts that expenditure can be acquitted against.

SCHOOL FACILITIES

Students should discuss with their supervisors how they can best use the facilities offered by the School. The School has a good range of laboratories, animal houses and field equipment, as well as other facilities. Students should ask their supervisors in the first instance regarding the availability of specific resources, equipment or consumables required. Students borrowing any items from the School must accept responsibility for the care and proper use of the equipment, and are asked to sign a register for the items borrowed. Some specialist items of equipment are used regularly by staff for teaching and/or research purposes. Such equipment can only be used or borrowed with the express permission of the staff member concerned.

Computing facilities. In addition to the computers provided in the laboratories, limited computing facilities are available for honours students in the shared School of Animal and Veterinary Sciences/ School of Agricultural and Wine Sciences postgraduate room. Should you require access to this facility, discuss with your supervisor and the School's honours coordinator.

Keys. Students requiring a key-card access to a building and/or a key to other facilities after hours or on weekends should contact the School Office. A refundable deposit will be charged for any keys issued. Students must report lost or stolen keys to the school immediately. In no circumstances should keys or cards be lent to other students, even other research students. Students must return their keys and cards to the school secretary upon completion of their course.

Security. When leaving buildings, please ensure that all doors are locked and lights, computers and other equipment are turned off. Students should carry their student cards at all times and must present their cards to security staff upon request. Students requiring assistance from security staff outside office hours should not hesitate to contact *Campus Watch* (security) on the Wagga campus by dialling 32288 on any university telephone.

Please note that any personal property brought on campus by staff or students is not covered by the university's insurance.

Photocopying. Small amounts of photocopying can be done on the school's photocopier. Students should see the School Office who will issue a code for the photocopier so that copy charges can be made against the school's honours budget. Photocopying facilities are also available in the library at the student's own expense. Large photocopying jobs should not be performed on the school's photocopier without prior permission from the school secretary.

Mail. On-campus research students may have mail delivered to the school upon request. Off-campus students should arrange for any official correspondence (permits, survey returns, etc.) to be directed to their supervisors, as appropriate.

Facsimile. The school's fax machine is located in the school office. Any student wishing to send a Fax should see staff in the School Office. Students or the school's honours budget will be charged for facsimile transmissions, as appropriate. Honours students may receive incoming facsimile transmissions on the number:

02 6933 2991

SCHOLARSHIPS

There are a number of scholarships available for honours students. The closing dates for these vary, but are generally in October/November. Students not commencing honours until session 2 may still be eligible to apply.

In 2009 CSU offered two types of scholarship. The first is a stipend of \$3000, paid to the student in tax-free instalments. The second is an SCF (or HECS) fee waiver. Successful applicants will not accrue and SCF (HECS) debt for their honours year. Check each year to see whether these are available and the conditions. Details of these scholarships can be found at:

<http://www.csu.edu.au/study/honours/>

CSU Research Centres also offer honours scholarships. Information regarding these can be found at the respective centre websites. The two most relevant centres websites are:

<http://www.csu.edu.au/research/grahamcentre/> (for animal production-based projects)

and

<http://www.csu.edu.au/research/ilws/index.htm> (for ecology based projects).

A number of external agencies also offer scholarships. For example, the Australian Wool Education Trust offers scholarships for students undertaking projects of relevance to the Australian Wool Industry. Other organisations offering scholarships include the Grains Research and Development Corporation, The Leukaemia Foundation, the Medical Advances Without Animals Trust, Australian Pork Limited, and some Co-operative Research Centres (CRC). Interested students should check scholarship availability and discuss with their supervisors.

LIBRARY FACILITIES

The library offers a range of resources and facilities for research students. At the beginning of their honours program, students should ensure that they are familiar with all the services the library offers, including inter-library loans, catalogues, databases, online journals and reciprocal borrowing arrangements. The resources and facilities offered by the library described on the CSU Library homepage. Some services involve a charge (*eg.* photocopies of some inter-library loans), in which case students should be prepared to meet such costs themselves, or ask their supervisor if the costs can be absorbed by a research budget.

PREPARING AND PRESENTING THE DISSERTATION

Preparing an honours dissertation can be a daunting task. The dissertation is a major part of the assessment for the final grade awarded to an honours student. It will be marked by 2 examiners in most cases. Thus, it is important for students to present a dissertation that reports a piece of original, rigorous research, clearly written and presented in a simple, logical format.

The University has set rules for the presentation of dissertations, as described in the Faculty Honours Handbook. In addition, rules specific to the School of Animal and Veterinary Sciences have been formulated. These rules should be followed by all students unless expressly advised otherwise by the school honours coordinator or supervisor concerned.

Typing and preparation costs

Students are responsible for preparing their own dissertations. The admin assistant/school secretary cannot do any typing for research students. The costs of printing and ring binding a dissertation (for submission for examination) must be met by each student (or their honours budget, if allocated), unless the supervisor has agreed to pay for these costs out of a research budget.

Drafts

Whilst students are strongly encouraged to write up parts of their dissertation as their research proceeds (such as their literature review, methodology, references, acknowledgments, etc), much of the writing will necessarily occur toward the end of their program. Soon after the presentation of their seminar, students should provide their supervisors with drafts of each chapter as they are completed. Supervisors will return these drafts to the students as soon as possible, and will offer suggestions, criticisms and advice, as appropriate. A copy of each draft should be retained by the student in case of loss. Some supervisors may also wish to make final comments on a complete draft of the dissertation. This final draft should be completed well before the final submission date, to allow sufficient time for changes, printing and binding.

Submission

Students must submit three copies of their dissertation to the Honours coordinator by the due date and time. These should be presented bound, using black spiral binders and standard covers (normally black backing sheet and transparent cover).

After examination of the dissertation, the school's honours coordinator will return the theses with examiners comments to the student. Students must then make corrections as appropriate and submit three, unbound copies to the School Honours coordinator for professional binding. The School will pay for binding these – which will be distributed to the CSU library, the School bookcase, and to your principal supervisor. Should you require any additional copies, other unbound manuscripts can be submitted, but the binding of these will be at your expense.

Format

Please refer to the Faculty Honours Handbook for details of formatting for your honours dissertation. Students should seek advice on referencing standards and styles from their supervisor – it is most important a consistent approach is adopted throughout the dissertation. Use of referencing software (eg Endnote) is highly recommended in this regard.

Personal Confirmation

In order to help ensure that the expectations and responsibilities of project supervisors and you, the student, are clearly understood we request completion of this page. Please return it to the school honours coordinator.

Name: _____

Address: _____

Telephone: _____(Work) _____(Home)

Tick appropriate boxes.

- I have read and understood the contents of this booklet and the Faculty Honours Handbook, and where provided, individual research subject outlines (ie HRS417).
- I have completed the Occupational Health and Safety Online Induction Course, at <http://www.csu.edu.au/division/healsafe/>
- I must submit my dissertation and complete the requirements of the honours program on or before the specified date (the last teaching day of the final semester of my program), or incur a penalty of 1% per day or part thereof.
- I have contacted my supervisor and discussed my proposed area of research and enrolment details. My proposed area of research is:

- I have discussed authorship and other publication arrangements with my supervisor and we are both clear how my research will be published.
- I have arranged to contact my supervisor at set times and at regular intervals to discuss my progress.
- I understand that I will be required to present two seminars and two progress reports during the course of my research, the first of each probably being required in the first session of the program.

Signed: _____

Date: _____