The University of Sydney

Faculty of Veterinary Science

Handbook

1995-96

Faculty of Veterinary Science Handbook 1995-96

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Semester and vacation dates 1995-96*

Semester	Day	1995	1996	1997	1998	1999
First Semester and lectures begin	Monday	27 February	26 February	3 March	2 March	1 March
Easter recess						
Last day of lectures	Thursday	13 April	4 April	27 March	9 April	1 April
Lectures resume	Monday	24 April	15 April	7 April	20 April	12 April
Study vacation—1 week beginning	Monday	12 June	10 June	16 June	15 June	14 June
Examinations commence	Monday	19 June	17June	23 June	22 June	21 June
Second Semester and lectures begin	Monday	24 July	22 July	28 July	27 July	26 July
Mid-semester recess						
Last day of lectures	Friday	22 September	27 September	26 September	25 September	24 September
Lectures resume	Tuesday	3 October	8 October	7 October	6 October	5 October
Study vacation—1 week beginning	Monday	6 November	4 November	10 November	2 November	8 November
Examinations commence	Monday	13 November	11 November	17 November	9 November	15 November

* There may be variations to the semester dates for some courses.

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Contents

Preface

Getting the most from your Handbook

In this, the *Faculty of Veterinary Science Handbook,* you should find most of what you need to know about the Faculty.

The first four chapters will help you identify the people in your Faculty and determine the requirements for bachelor's degrees. They contain outlines of the **undergraduate** courses offered and lists of recommended books, as well as sources of further information. Chapter 5 provides specific information on enrolment and details of under-graduate scholarships and prizes.

Information on **postgraduate** degrees, diplomas and scholarships may be found in Chapter 6. Chapter 7 provides information on the University farms at Camden and on Nepean Hall, the University hall of residence. Chapter 8 describes the foundations of the Faculty.

Further information relating to the University generally may be found in the University's *Statutes and Regulations 1994-95* and in the *University of Sydney Diary* (available free from the Student Centre or from University of Sydney Union outlets).

Faculty Office

Room 218, J.D. Stewart Building

Contact the Faculty Office for questions or advice about:

- interpretation of by-laws and resolutions (i.e. the official rules and regulations)
- general administrative problems
- variation of enrolment
- extramural course work
- University counselling services
- booklists and Faculty timetables.

Message from the Dean

Congratulations on your success in being selected from the many applicants seeking enrolment in the Faculty of Veterinary Science. I hope your experience here, in study and learning, will be enjoyable and rewarding. Members of the Faculty are eager to assist you in all aspects of your university education. Please do not hesitate to consult us on any matter where we may be able to help. The University also provides many services for assisting students with medical, financial, emotional and learning difficulties. The Sub-Dean for Undergraduates or the Faculty Secretary are able to help you make contact with these central services.

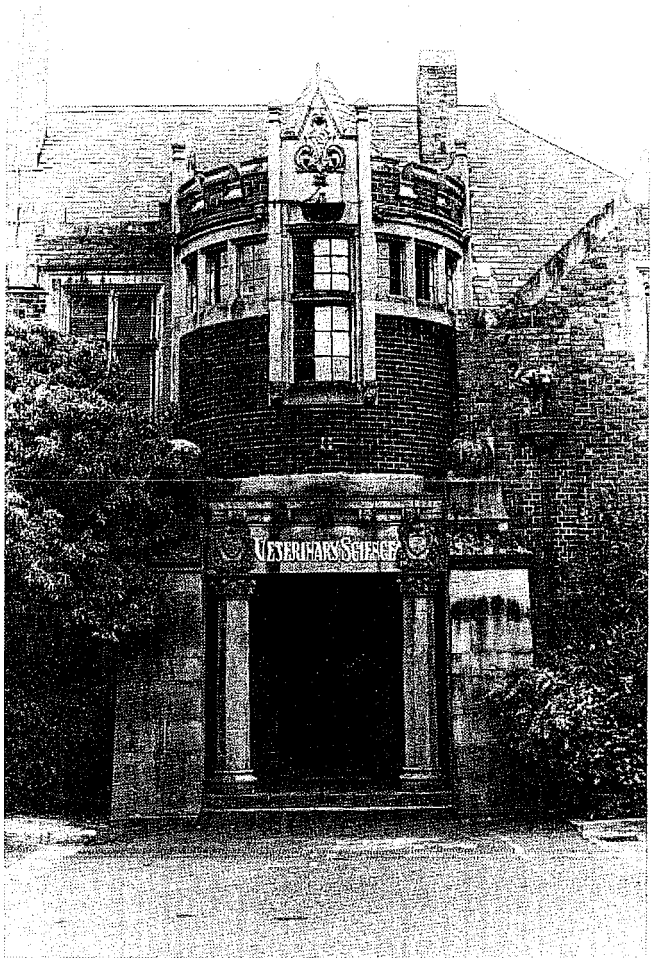
Those of us who study, teach or practisein veterinary science are privileged to work with animals. We should be mindful of the obligations and responsibilities this imposes on us. Veterinary students and scientists naturally have a humane and respectful attitude to the animals we care for and study. The privilege of working with animals in education and research is an immensely valuable one. To justify and maintain that privilege we need to ensure that the care of animals in our charge is of the highest standard.

In this handbook you will find descriptions of the study requirements for the BVSc degree as well as for postgraduate degrees in the Faculty. The program of study for the BVSc degree covers many topics in basic and applied animal biology. Graduates find that the specialised knowledge and skills they acquire over five years opens up a wide range of career paths. Nevertheless, the Faculty is aware that courses in veterinary science can always be improved. A review of the undergraduate curriculum is currently in progress and the modifications in course design that will follow will aim to enhance the efficiency of teaching and learning.

During your time as an undergraduate, you may become very interested in some aspect of veterinary science. The Faculty provides an opportunity for students to interrupt their studies with a year of supervised research in a particular field, leading to the award of the BSc(Vet) degree. The requirements for this one-year research degree are also described in this handbook.

On behalf of all the staff I extend a very warm welcome to those entering the Faculty of Veterinary Science and wish you every success and enjoyment in your studies

D.R. Fraser
Dean



J.D. Stewart Building

Round House —former large animal surgery

Evelyn Williams Building — Veterinary Teaching Hospital

1 Staff[1]

FACULTY

Dean
Professor David Ross Fraser, PhD *Camb.* BVSc

Pro-Dean
Professor Michael MacLaren Bryden, BVSc *Qld* DScVM *Cornell* PhD DSc, FAIBiol

Associate Deans

Animal Welfare
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Camden Campus
Dr Garry M. Cross, MVSc PhD

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Postgraduate Education
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Professional and Community Relations
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Sub-Dean Student Welfare
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Secretary to the Faculty
Mary Haswell, BA

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Finance Officer

DEPARTMENTS

Animal Health

Professor
*JohnRoss Egerton, BVSc *Qld* DVSc DipBact *hand.,* MACVSc MASM
Appointed 1972

Associate Professor
Robert J. Love, MVSc PhD *Brun.,* FACVSc

Associate Professor and Superintendent of the Rural Veterinary Centre
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Senior Veterinary Registrars
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Eileen Risby

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Julie Bennetts
Deanna Rickard

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Barry Gray
Barry Hall
Ron Henderson

[1]As known at October 1994
(* = Head of Department)

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Andy Scherer

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David Palmer

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J.I. Rood BSc PhD *Monash*

Animal Science

Sydney

Professor
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Appointed 1986

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Don Slade

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Daria N. Love, PhD DVSc, FRCPath MASM FACBS
Terence L.W. Rothwell, PhD DVSc, MACVSc

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Professional Officer Grade III
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Research Officer
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George Tsoukalas, PTHC

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Karen L. Wadwell, PTHC BAppSc(MedLabSci) C. *Sturt*
John T. Williams

Laboratory Attendant
Bronwyn Barratt

Administrative Assistant
Lyndell M. Tollefsen

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D.L. Emery, BSc(Vet) BVSc PhD
P.A.W. Harper, BVSc PhD
C.R. Howlett, BVSc PhD
E. Lacey, BPharm MSc PhD
T.K. Mukkur, BVSc AH *Punjab* MVSc *I.V.R.I.* PhD *Flor.,* FASM
J.W. Steel, BSc PhD
J.M.Whalley,BScPhD

OTHER UNITS

Laboratory Animal Services

Acting Director

Robert C.C. Ratcliffe, BVSc, MRCVS MACVSc

TEACHING STAFF FROM OTHER FACULTIES

Biochemistry

Associate Professor

Michael B. Slaytor, MSc PhD

Biology

Director of First Year Biology

Mary Peat, BSc *Birm.* PhD *Brist.*

Biometry

Lecturer

Peter C. Thomson, MSc MAppStat *Macq.* BSc

Chemistry

Director of First Year Studies

Raymond K. Pierens, MSc PhD, MRSChem MRACI CChem

Crop Sciences

Senior Lecturer

Dennis R. de Kantzow, BScAgr DipAgrEc, FAIAS

Anatomy and Histology

1995 First Year

Reader

Johnston W. McAvoy, BSc *Belf.* PhD *Flin.*

Pharmacology

Senior Lecturer

Jill E. Maddison, BVSc PhD DipVetClinShid, FACVSc

Physics

Lecturer in charge of First Year courses

Rosemary Millar

2 The Faculty of Veterinary Science

History of the Faculty

Veterinary education in New South Wales began in the 1880s when the Sydney Technical College established the two-year course of instruction, Elementary Veterinary Science. In 1909 the University of Sydney, with the support of the New South Wales Government, established a veterinary school and appointed James Douglas Stewart, MRCVS, the Director and Professor. The School officially opened in 1910 when sixteen students enrolled in the first year of a five-year course leading to the degree of Bachelor of Veterinary Science. Initially the students were accommodated in the basement of the then Fisher Library in the southwest corner of the Main Quadrangle, but towards the end of 1913 they were moved completely into the present main building (J.D. Stewart Building).

The First World War delayed the development of the School with many graduates and under-graduates volunteering for active service. Even after the war recovery of the School was slow and it took the full resources of Professor J. D. Stewart to justify the continuing existence of the Veterinary School. Gradually the numbers of enrolled students increased, while the graduates of the School enhanced its reputation. By 1928 there were 25 undergraduates, which increased to over 100 in 1935. In 1930 the Veterinary School of the University of Melbourne ceased its undergraduate training and the Sydney School became solely responsible for veterinary trainginAustralia—until the Queensland Veterinary School opened in 1936 and the Melbourne Veterinary School reopened in the 1960s.

In 1936 the University, in association with the McGarvie Smith Institute, purchased and developed a 160 hectare property atBadgery's Creek, to be used for the training of veterinary students in animal husbandry. The purchase coincided with the reintroduction, in 1937, of a five-year course of studies and training for the BVSc degree—the course had been reduced to four years in 1914. In 1939 Professor Stewart retired. From the opening of the School he had been the Director, which he remained until 1920 when the Veterinary School was given full status as a faculty and he became Dean of Veterinary Science. It was his energy that had brought about the regulation of the practice of veterinary science in New South Wales with the passing of the *Veterinary Surgeons Act* in 1923. It was his drive that led to the growth of the Faculty until the Second World War.

With the temporary closure of the Queensland Veterinary School during the Second World War, Sydney once again became solely responsible for veterinary education in Australia. In 1939 extensions to the main buildings were added and in 1946 the present temporary building for the Department of Veterinary Pathology and Bacteriology was constructed. In 1949 some temporary buildings were erected to provide further accommodation for the Veterinary Teaching Hospital. In 1954 additional farm facilities were acquired at Camden. The Camden farms provide final year students with animal units for the teaching of husbandry and disease control, and with a veterinary clinic and hospital, lecture theatres and teaching laboratories, and a hall of residence (Nepean Hall).

Although the development of the Veterinary School is far from complete, extensive hospital and clinic buildings (Evelyn Williams Building) and a combined Veterinary Physiology/Animal Science building (R.M.C. Gunn Building) have been erected at the Sydney campus.

The number of departments has grown from one to five, and over 2500 students have been awarded the BVSc degree. Apart from the growthin under graduate teaching, there are a number of postgraduate diplomas as well as courses leading to the degrees of Master of Science in Veterinary Science, Master of Veterinary Science, Master of Veterinary Studies, Master of Veterinary Clinical Studies and Doctor of Philosophy available to graduates. Future progress is assured.

Membership of the Faculty

Membership of the Faculty is specified in the following section of the Senate resolutions. The resolutions are published in full in the Statutes section of the *Calendar*.

1. The Faculty of Veterinary Science shall comprise the following persons:

(a) the Professors, Readers, Associate Professors, Directors, Senior Lecturers, Lecturers and Associate Lecturers being full-time or fractional (50% or greater) members of the tenured, tenurable and fixed-term teaching staff in the Departments of Animal Health, Animal Science, Veterinary Anatomy, Veterinary Clinical Sciences and Veterinary Pathology;

(b) the Heads of the Departments of Biochemistry, Histology and Embryology, and Pharmacology, together with one full-time permanent member of each of these Departments nominated biennially by the Head of theDepartment;

(c) the Heads of the Schools of Physics, Chemistry and Biological Sciences or one full-time permanent member of the academic staff of each of those Schools nominated biennially by the Head of the School;

(d) the Dean of the Faculty of Agriculture;

(e) the Director of the University farms;

(f) the Superintendents, as defined under the N.S.W. Veterinary Surgeons Act, and

Senior Clinical Pathologist, being full-time members of the staff of the Veterinary Teaching Hospital and the Rural Veterinary Centre;

(g) the Director and the Deputy Director of Laboratory Animal Services;

(h) two members of the staff of the Department of Crop Sciences nominated by the Head of the Department;

(i) not more than three persons distinguished in the field of veterinary science appointed by the Faculty on the nomination of the Dean of the Faculty;

(j) one nominee each of the Australian College of Veterinary Scientists, the N.S.W. Division of the Australian Veterinary Association and the J.D. Stewart Foundation, who may be a member of the Faculty by virtue of one of subsections (a) to (i) inclusive;

(k) the Director of the Postgraduate Foundation and the Postgraduate Committee in Veterinary Science and the Directors of the Dairy Husbandry Research Foundation and the Poultry Husbandry Research Foundation *ex officio;*

(l) full-time members of the research staff of the Faculty holding the position of Research Fellow or above;

(m) not more than three students elected in the manner prescribed by resolution of the Senate; and

(n) such other persons as may be appointed by the Faculty on the nomination of the Dean of the Faculty.

2. A person appointed pursuant to subsections l(i), (j) and (n) shall be appointed for a period of three years and shall be eligible for reappointment for one further period of three years.

Student membership of the Faculty

The first student members of the Faculty of Veterinary Science were elected to hold office in 1974.

The three student members are two undergraduate students enrolled as candidates for the degrees of Bachelor of Veterinary Science or Bachelor of Science (Veterinary) at the University of Sydney and one postgraduate enrolled as a full-time or part-time candidate for a postgraduate degree or diploma in the Faculty, not otherwise eligible for membership of the Faculty.

3 Undergraduate degree requirements

The courses for the BVSc degree extend over a minimum of five years. First year is concerned with the basic sciences and pre-clinical subjects. Some time is spent also at the University farms, Camden, where students are given training in the practical aspects of animal husbandry. Second and third years concentrate on pre-clinical and para-clinical subjects although introductory courses for veterinary medicine and surgery are started towards the end of third year. Students in fourth year continue their studies in the clinical subjects. Much of the time is spent in the Sydney University Veterinary Teaching Hospital where diseases of small animals and horses are diagnosed and treated. The final year is spent at the University farms, Camden, where students normally live in at Nepean Hall. Clinical exposure to large animals as well as small animals occurs through the Rural Veterinary Centre. Students also attend theory and practical courses in aspects of diseases of farm animals.

Students may interrupt their basic undergraduate candidature to undertake a year of advanced study in a subject area which may lead to the degree of Bachelor of Science (Veterinary).

Further information on the courses for the BVSc degree is given below.

Bachelor of Veterinary Science: BVSc

The requirements for the degree of Bachelor of Veterinary Science are set out in the resolutions of the Senate of the University.

1. Candidates for the degree of Bachelor of Veterinary Science shall complete the following courses of instruction:

(i) In the first year—
- Introductory Veterinary Science V115
- Introductory Biology V124
- Chemistry V103
- Physics 1 (Life Sciences) V107
- Veterinary Anatomy and Histology I V100
- Veterinary Cytology V110
- Biometry V112
- Animal Husbandry V101
- Pastoral Botany and Agronomy V116

(ii) In the second year—
- Veterinary Anatomy IIV203 (1995)
- Veterinary Anatomy and Histology II V207 (1996)
- Veterinary Embryology V218 (1996)
- Veterinary Histology V214 (1995)
- Veterinary Physiology V206
- Biochemistry V202
- Animal Genetics V201
- Veterinary Pathology V225

(iii) In the third year—
- Animal Nutrition V321
- Veterinary Physiology V317
- Veterinary Pathology V315
- Veterinary Bacteriology and Mycology V302
- Veterinary Virology V309
- Veterinary Pharmacology and Toxicology V306
- Veterinary Medicine V323
- Veterinary Surgery V328
- Veterinary Parasitology V314

(iv) In the fourth year—
- Veterinary Medicine V405
- Veterinary Surgery V407
- Veterinary Parasitology V426
- Veterinary Anatomy HI V413
- Veterinary Clinical Pathology V404
- Applied Reproduction and Obstetrics V422
- Animal Nutrition V421
- Animal Husbandry Practical Report

(v) In the fifth year—
- Bird Health and Production V502
- Horse Medicine V503
- Pig Health and Production V526
- Cattle Health and Production V507
- Special Medicine V508
- Sheep Health and Production V519
- Veterinary Surgery V505
- Veterinary Public Health V504
- Essay V517

2. A course shall consist of lectures, together with such clinical, laboratory and tutorial instructions, practical work, exercises and essays as may be prescribed by the Faculty.

In these resolutions, 'to complete a course' and derivative expressions mean:

(a) to attend the lectures and seminars, if any, for clinical, laboratory or tutorial instructions;

(b) to complete satisfactorily the practical work, exercises and essays, if any; and

(c) to pass the examinations, if any, in the course.

3. Class examinations may be held during each course of instruction in each semester; students shall not absent themselves from these examinations except upon production of a medical certificate. A report of the results signed by the responsible teacher shall be presented to the Dean and may be taken into account at the annual examinations.

4. (1) An annual examination may be held for each of the prescribed courses of study for the degree.

(2) At each annual examination, a candidate shall be required to give proof of his or

her knowledge by written answers to the questions set, and if required also by practical or viva voce examination or both.

5. No candidate for the degree may enrol in any of the courses prescribed for the second or subsequent years of candidature unless that candidate has completed at the one examination all the requirements of the previous year.

6. A candidate who has been enrolled for the degree of Bachelor of Veterinary Science but has not re-enrolled for a period of one year or more shall complete the requirements for the degree under such conditions as the Faculty may determine.

7. A candidate for the degree may enrol in the courses prescribed for the fourth or subsequent years of candidature only after having demonstrated proficiency in the safe handling of animals, in such a manner as may from time to time be prescribed by the Faculty.

8. During the fifth year, candidates shall be required to spend such periods in residence at the University of Sydney farms as the Faculty may from time to time determine.

9. Before admission to the degree of Bachelor of Veterinary Science, candidates shall be required to complete such practical clinical work as may from time to time be prescribed by the Faculty.

10. Before admission to the degree of Bachelor of Veterinary Science, each candidate shall be required to produce evidence of having spent such periods as may be specified by the Faculty in gaining approved practical experience in animal management.

11. (1) First and Second Class Honours may be awarded at graduation.

(2) Results obtained in annual examinations shall determine whether a candidate qualifies for the award of Honours.

(3) Honours shall not be awarded to a candidate who has taken longer to complete the course than the minimum period in which a candidate may complete a degree of Bachelor of Veterinary Science.

(4) Notwithstanding the provisions of subsection (3) of this section, the Faculty, for special reasons, may permit the award of Honours to a candidate who has taken longer to complete the course than the period specified in that subsection.

(5) If a candidate graduates with First Class Honours and the Faculty is of the opinion that the candidate's work is of sufficient merit, the candidate shall receive a bronze medal.

Award of honours

A system of Weighted Average Marks (WAM) is used as a measure of academic performance each year. The WAM is calculated by summing the products of the marks achieved and the weighted values of the courses taken and then dividing by the sum of the weighted course values. The formula used is:

$$WAM = \frac{\sum WvM}{\sum Wv}$$

where Wv is the weighted course value and M is the mark achieved out of 100. Only the first attempt at each course is included, except where discontinued with permission. Weights are determined on the basis of timetabled hours. Where an exemption is granted from a subject, the mark used for the calculation of the WAM is the mean mark of contemporary students in that subject.

Resolutions of the Senate of the University governing award of honours at graduation have already been outlined. The Faculty would expect a candidate to achieve a WAM of at least 65 per cent to qualify for Second Class Honours, 70 per cent for First Class Honours, and 75 per cent for Honours I and the University Medal. Note that, in general, Honours are not awarded to students who have not completed the course in minimum time.

Bachelor of Science (Veterinary): BSc(Vet)

The opportunity exists for suitably qualified students who have completed three or more years of the BVSc degree to interrupt their formal studies for one year to take part in the research of the Faculty and work for the BSc(Vet) degree. Many students have done so and have found the experience enjoyable and rewarding. Candidates for the BSc(Vet) work in one or more of the departments of the Faculty and are supervised by a member of the Faculty. They are expected to complete the requirements for the degree during one calendar year.

A wide range of research is undertaken in the Faculty and it would not be difficult for most students to find an area of interest. However it is essential to have had adequate prerequisite training in the scientific field chosen for advanced study. Insufficient training may preclude enrolment in some areas. The Dean and other members of staff will be able to provide advice on this point.

Students wishing to be considered for enrolment for the BSc(Vet) degree should consult members of the department in which they propose to study and should lodge an application for enrolment with the Faculty Office. Applications for candidature are to be considered at the December meeting of the Board of Examiners of the Faculty. It is necessary to have all the arrangements completed well before applying to enrol, preferably before the annual examinations for the BVSc. Prospective candidates are therefore encouraged to begin their consultation with staff early in second semester.

The purpose of the degree is principally to impart experience and skills in scientific research. Candidates will gain experience in experimentation and in the oral and written presentation of scientific results. The development of these skills will be assessed in four ways. Firstly, each candidate, after consultation with

his or her supervisor and after appropriate study of the literature, will give a short, informal, small group seminar to outline the proposed research project. This seminar enables helpful comments and suggestions to be incorporated into the research plan. Secondly, after the research has been completed, candidates will give a further seminar to present the results and conclusions of their work. Thirdly, a written account of the research, in the form of a dissertation, should be lodged in the Faculty Office by the end of November and no later than the end of December in the year in which the work is done. Late submission will normally disqualify a candidate from consideration for First Class Honours for the BSc(Vet) degree. The dissertation will be assessed by two examiners who will also question the candidate on the topic of the research in the fourth assessment process, a viva voce examination. These four assessments are intended not only to evaluate the standard of achievement but also to provide students with additional opportunities to learn the various skills of presentation of the results of scientific research.

The dissertation represents 70%, the viva voce examination 20% and the final seminar 10% of the marks for the assessment of the degree. Successful candidates will be awarded the degree with either First Class, Second Class, or Third Class Honours. If the dissertation is submitted before the end of November, it is possible for successful candidates to receive the degree at the graduation ceremony in December.

A list of some recent projects is given below as a guide to some of the areas in which candidates have worked. Areas of possible candidature change regularly and intending candidates are advised to consult with the Dean and other staff. The resolutions of the Senate and the Faculty concerning the degree follow.

Recent projects have included: 'An investigation of the involvement of the MHC in resistance to footrot in sheep using R.F.L.P. techniques', 'Adaptations of equine skeletal muscle to different trainingintensities', 'Immunology of mange caused by *Trixacarus caviae* in guinea pigs', and 'Pathologic and sonographic studies of equine tendons and ligaments'.

Resolutions of the Senate

1. Candidates for the degree of Bachelor of Veterinary Science who —

   (a) have completed not less than three years of candidature for the degree of Bachelor of Veterinary Science, and

   (b) are considered to be suitable candidates for advanced work,

may be permitted by the Faculty to interrupt their candidature for the degree of Bachelor of Veterinary Science for not more than one academic year to undertake an approved course of advanced study and research as a candidate for the degree of Bachelor of Science (Veterinary).

2. The course of advanced study and research shall be in a field of scientific investigation for which adequate prerequisite training has been obtained and for which appropriate supervision and facilities are available.

3. Applications for admission to candidature for the degree of Bachelor of Science (Veterinary) may be approved by the Dean on behalf of the Board of Examiners.

4. Each candidate shall be supervised by a member of Faculty and, if it is considered appropriate to the field of the work, by one or more associate supervisors as well.

5. Assessment and examination for the award of the degree shall be by dissertation, oral examination and presentation of seminars.

6. (1) . The degree shall be awarded only with Honours.

   (2) There shall be three classes of Honours, namely Class I, Class II and Class III.

7. A candidature may be terminated at any time by the Dean if, in the opinion of the Supervisor and the Associate Dean concerned with the degree, the candidate's work is unsatisfactory.

Resolutions of the Faculty

1. The responsibility for overseeing the implementation of the Faculty's academic policies concerning the degree is to lie with the Board of Examiners of the Faculty which will act through the Dean on the advice of the Associate Dean concerned with Research and Scholarship.

2. The responsibility for supervision of the administrative procedures concerned with the degree will lie with the Associate Dean and members of the Research and Scholarship Committee who will act and report through the Dean to the Board of Examiners and, if requested, to the Faculty.

3. Candidates working outside the Faculty, in departments with guidelines and requirements for Science Honours or BSc(Med) students, should follow, where possible, such departmental requirements except where these conflict with the regulations for the BSc(Vet) degree.

4. The minimum acceptable qualifications for the supervisor of a candidate for the degree is an appropriate higher degree.

5. In response to an application for candidature, the Associate Dean concerned with Research and Scholarship will, in consultation with the candidate, the proposed supervisor and the head(s) of the department(s) or school(s) in which the work is to be undertaken, ensure that the Faculty's requirements are satisfied in respect of:

(a) eligibility of the candidate;
(b) the proposed field of study;
(c) prerequisite training;
(d) appropriate supervision;
(e) the adequacy of other resources; and
(f) the proposed date of examination.

6. Recommendations for approval of each candidature will be made by the Associate Dean concerned with the degree through the Dean to the Board of Examiners in a report describing:

(a) the name of the candidate;

(b) the field of study;
(c) the nominated supervisor and, if applicable, the associate supervisor(s);
(d) where the work will be undertaken; and
(e) any special circumstances surrounding the candidature.

7. The Research and Scholarship Committee will, in respect of all candidatures:
(a) maintain an overview of the examinations of all candidates;
(b) organise the implementation of the Faculty's policies on examination of candidates;
(c) maintain an overview of the standards achieved and grades awarded in examinations; and
(d) report, to the Board of Examiners, the grades awarded to all candidates.

8. The assessment and examination procedures are defined as follows:
(a) Each candidate, in the presence of one or more members of the Research and Scholarship Committee, shall give an introductory seminar which outlines the proposed program of study and research.
(b) Each candidate, in the presence of one or more members of the Research and Scholarship Committee, shall give an open seminar at the end of the program of study to present the results of the research. An assessment of the seminar would normally be given by the members of the committee who attend.
(c) A dissertation of appropriate style containing an account of the results and conclusions of the program of study should normally be lodged in the year in which the work for the degree is undertaken by a date in November, recommended by the Research and Scholarship Committee and approved by the Board of Examiners. Late submission will normally disqualify a candidate from consideration for Honours Class I for the BSc(Vet) degree. The dissertation must be in a form approved by Faculty and must be no longer than one hundred A4 pages overall.
(d) The dissertation shall be examined by two examiners, at least one of whom should normally be from outside the department in which the work was done and neither of whom should normally be a supervisor of the candidate.
(e) Each candidate shall be examined on the topic of the dissertation at a viva voce examination conducted by the two examiners. Members of the Research and Scholarship Committee and the supervisor(s) may attend this examination.
(f) The examiners shall separately write reports giving their independent assessments of the dissertation and making separate recommendations to the Associate Dean concerned with Research and Scholarship. The examiners shall propose a joint mark and write a joint report on the viva voce examination.
(g) The dissertation is to represent 70%, the viva voce examination 20%, and the assessment of the final seminar 10 % of the total assessment for the award of the degree.

9. The recommendations of the examiners will normally be considered by the Board of Examiners at the December meeting of the year in which the candidate is enrolled.

10. Honours shall be awarded according to the following scale:

Grade (%)	*Honours*
75+	Class I
65-74	Class II
50-64	Class EI

11. If a grade is less than 50 %, the degree will no t be awarded.

12. Matters of policy concerning the degree are to be determined by the Faculty with such advice as it may wish to seek from time to time.

4 Courses of study BVSc

Courses are subject to alteration

Courses and arrangements for courses, including staff allocated, as stated in this or any other publication, announcement or advice of the University, are an expression of intent only and are not to be taken as a firm offer or undertaking. The University reserves the right to discontinue or vary such courses, arrangements or staff allocations at any time without notice.

Course coordinators

The coordinator for each course is indicated. These were correct at the time of printing but are subject to change.

Books

Students are advised not to buy textbooks until lectures commence and lecturers recommend the preferred books. Reference books are for reference only. Printed book lists are available from the Faculty Office.

English expression

The Faculty of Veterinary Science expects students to be proficientinbothwrittenandspokenEnglishexpression. Students with problems in this area should consult the following'books and seek advice from members of Faculty. The Language Study Centre and the Centre for Teaching and Learning offer help in this area.

H.W. Fowler *A Dictionary of Modern English Usage*
W. Strunk *et al. The Elements of Style*

First year courses

Introductory Veterinary Science V115

A course of about 8 lectures taken by all students in first year. Lectures are given on activities within the University, the undergraduate course and careers, in veterinary science.

Introductory Biology V124

Dr Peat

A course of 39 lectures on aspects of biology serving as a basis for, and supplementary to, other courses in veterinary science.

Topics include: invertebrates (10 lectures), vertebrates (14 lectures), plant ecology (6 lectures), ecology (4 lectures), and behaviour (5 lectures).

Reference books
W.T. Keeton and J.L. Gould *Biological Science* (Norton, 1986)
D.R. Kershaw *Animal Diversity* (University Tutorial Press, S. Lough, 1983)

Chemistry V103

Dr Pierens

This is a two-semester course designed to provide (i) a suitable foundation for subsequent subjects such as biochemistry, physiology and pharmacology, and (ii) a chemical background that will aid in the understanding, diagnosis and treatment of disease. It covers chemical theory, inorganic, physical, and organic chemistry with many examples frombiological areas. It pre-supposes a satisfactory prior knowledge of the Chemistry 2-unit HSC course or the Chemistry component of the Science 3- or 4-unit course.

Fully detailed information about the course is available from the Chemistry School.

Lectures
A course of 69 lectures comprising 42 lectures in inorganic and physical chemistry and 27 lectures in organic chemistry, with illustrations from biological areas.

Practical work
A course of 18 three-hour sessions.

Tutorials
A series of 27 tutorials (1 per week).

Examinations
Theory examinations are held at the end of each semester. Students are advised at the beginning of the year about other factors contributing to assessment for the course.

Textbooks
Detailed information about prescribed textbooks is available from the Chemistry School.

Physics I (Life Sciences) V107

Mrs Millar

The physics course consists of lectures and laboratory work. It emphasises the concepts of physics and, where possible, shows the application of physics in the biological sciences. There are six units: forces and energy, electricity, thermal physics, optics, ionising radiationand properties of matter. The courseis taught on the assumption that students have completed Mathematics 2-unit and either Physics 2-unit or the Physics section of the Science multistrand 4-unit course for the Higher School Certificate. Tutorials are available for those who have not studied physics before.

Textbooks
Physics 1 Laboratory Manual, Dentistry and Veterinary Science (School of Physics, 1995)
Physics I (Life Sciences): Kane and Sternheim *Physics* (Wiley, 1988)

Veterinary Anatomy

The course of instruction in veterinary anatomy is given in the Department of Veterinary Anatomy in the first, second and fourth years of the veterinary course. The course covers the anatomy of domestic animals including the horse, ox, sheep, pig, dog, cat and domestic fowl.

In 1995 the components of the course are Veterinary Cytology (V110), Veterinary Anatomy and Histology I (V100), Veterinary Anatomy II (V203) and Veterinary Anatomy HI (V413).

In 1996 the components of the course are Veterinary Cytology (VI10), Veterinary Anatomy and Histology I (V100), Veterinary Anatomy and Histology II (V207), Veterinary Embryology (V218) and Veterinary Anatomy III (V413).

FIRST YEAR COURSES

Veterinary Cytology (V110)

Dr Hopwood

A course of 12 lectures and 12 hours of practical classes which covers the morphology of cells and an assignment to be completed by the end of semester 1.

Textbook

H. Dellman and E.M. Brown *Textbook of Veterinary Histology* 4th edn (Lea & Febiger, 1993)

Reference books

W.J. Bacha and L.M. Woods *Colour Atlas of Veterinary Histology* (Lea & Febiger, 1990)

M.K. Ross and L.J. Romrell *Histology: A Text and Atlas* (Williams & Wilkins, 1989)

R. Warwick and P.L. Williams (eds) *Gray's Anatomy* (Longman, 1973)

Veterinary Anatomy and Histology I (V100)

Dr Hopwood

A course of 85 lectures and 105 hours of practical classes in which the anatomy of the dog is covered on a body system by body system basis.

Textbooks

H.E. Evans and G.C. Christensen *Miller's Anatomy of the Dog* 2nd edn (Saunders, 1979)

H. Dellman and E.M. Brown *Textbook of Veterinary Histology* 4th edn (Lea & Febiger, 1993)

Reference books

W.S. Adamef *al. Microscopic Anatomy of the Dog: A Photographic Atlas* (Charles C. Thomas, 1970)

W.J. Bacha and L.M. Woods *Colour Atlas of Veterinary Histology* (Lea & Febiger, 1990)

W.J. Banks *Applied Veterinary Histology* (Williams & Wilkins, 1986)

J.S. Boyd *A Colour Atlas of Clinical Anatomy of the Dog and Cat* (Wolfe, 1991)

K.M. Dyce *et al. Textbook of Veterinary Anatomy* (Saunders, Philadelphia, 1987)

E.J. Field and R.J. Harrison *Anatomical Terms* (Heffer, 1968)

W.E. Le Gros Clark *The Tissues of the Body* (Oxford U.P., 1965)

R. Nickel *et al. The Locomotor System of the Domestic Mammals* (Paul Parey, Hamburg, 1986)

R. Nickel *et al. The Viscera of the Domestic Mammals* (Paul Parey, Hamburg, 1973)

M.K. Ross and L.J. Romrell *Histology: A Text and Atlas* (Williams & Wilkins, 1989)

A. Schummer *el al. The Circulatory System, the Skin and the Cutaneous Organs of the Domestic Mammals* (Paul Parey, Hamburg, 1981)

S. Sisson and A. Grossman *Anatomy of Domestic Animals* (Saunders, 1975)

Nomina Anatomica Veterinaria (International Committee on Veterinary Anatomical Nomenclature, Vienna, 1983)

Biometry V112

Mr Thomson

Research in veterinary science requires experiments to be planned and analysed as sensibly and as efficiently as possible. The study of biometry shows how simple statistical principles can be used to this end.

In addition to discussion of standard techniques of design and analysis, emphasis will be placed on developing an understanding of the important concepts. This means that a minimum of mathematical detail is required during the course.

Lectures are complemented by computer-based practicals, which allow students to practise and develop skills in applying statistical methods to real problems.

Reference book

R. MeadetaZ. *Statistical Methods in Agriculture and Experimental Biology* 2nd edn (Chapman & Hall, 1993)

Animal Husbandry V101

Dr Miller

Students are required to undertake approximately sixteen weeks' extra-mural training to gain experience in livestock husbandry. This is to be undertaken after commencing the veterinary course. The practical work is carried out on farms and stations.

A course of 46 lectures and 1 day weekly for ten weeks at the University Farms, Camden, where students are given training in animal husbandry. Practical work will be taken by all students, including repeat students, and will be examinable.

The lecture course includes: horses — their characteristics and management; cattle, sheep, pigs and poultry — the animal industries in Australia, management, production of meat, milk, wool and eggs; wool — wool and its qualities; cats, dogs and small animals — breeds and their management.

Reference books

G. Alexander and O.B. Williams *The Pastoral Industries of Australia* 2nd rev. edn (Sydney U.P., 1986)

R.S. Anderson and A.T.B. Edney *Practical Animal Handling* (Pergamon Press, 1991)

Australian Meat and Livestock Corporation *Handbook of Australian Livestock* 3rd edn (A.M.L.C, Sydney, 1989)

V.G. Cole (ed.) *Beef Production Guide* 2nd rev. edn (N.S.W. U.P., 1982)

D.J. Cottle (ed.) *Australian Sheep and Wool Handbook* (Inkata Press, 1991)

J. A. A. Gardner *et al.* (eds) *Pig Production in Australia* 2nd edn (Butterworths, 1990)

C. W. Holmes and G.F. Wilson *Milk Production from Pasture* rev. edn (Butterworths, 1987)

K.A. Houpt and T.R. Wolski *Domestic Animal Behaviour for Veterinarians and Animal Scientists* (Iowa State U.P., 1982)

P.J. Huntington and F. Cleland *Horse Sense: The Australian Guide to Horse Husbandry* (Agmedia, 1992)

D.M. McCurnin *Clinical Textbook for Veterinary Technicians* (W.B. Saunders Co., 1985)

M.O. North and D.D. Bell *Commercial Chicken Production Manual* 4th edn (A.V.I. Publishing Co., 1990)

V.O'Farrell *Manual of Canine Behaviour* (Brit. Small Animal Vet. Assoc, 1992)

T.B. Poole (ed.) Univ. Federation for Animal Welfare *Handbook on the Care and Management of^Laboratory Animals,* 6th edn (Livingstone, 1986)

R.L. Reid *A Manual of Australian Agriculture* 5th edn (Heinemann, 1990)

G.H. Schmidt and L.D. Van Vleck *Principles of Dairy Science* 2nd edn (Prentice Hall, 1988)

P.J. Schmidt and N.T.M. Yeates *Beef Cattle Production* 2nd edn (Butterworths, 1985)
D.C. Turner and P. Bateson *The Domestic Cat: the Biology of its Behaviour* (Cambridge U.P., 1988)

Pastoral Botany and Agronomy V116

Mr de Kantzow

This course consists of 42 hours of lectures and practical classes. It includes the identification of pasture grasses, legumes and weeds and the common poisonous plants. The lecture course covers the agronomic and ecological principles of the production and utilisation of native and sown grassland communities. Topics covered include pasture growth and the environment, pasture quality, substances injurious to animal health, pasture improvement and management. A plant collection is part of the course.

Reference books

B. Auld and R. Medd *Weeds: An Illustrated Botanical Guide to the Weeds of Australia* (Inkata, 1987)
R.E. Barnes *et al. Forage Legumes for Energy-Efficient Animal Production* (USDA A.R.S., 1985)
G.M. Cunningham *et al. Plants of Western New South Wales* (N.S.W. Government Printer, 1981)
Flora of New South Wales Vols 1,2,3 and 4 (N.S.W. University Press, 1992)
Handbook of Economic Plants of Australia (CSIRO, 1993)
G.N. Harrington *et al. Management of Australia's Rangelands* (CSIRO, 1984)
L.R. Humphries *A Guide to Better Pastures in the Tropics and Sub-tropics* (Wright Stevenson & Co., 1991)
R.L. Ison and M.V.CReilly *A Guide to Better Pastures in Temperate Climates* (Wright Stevenson & Co., 1991)
E.J. McBarron *Medical and Veterinary Aspects of Plant Poisons in N.S.W.* (N.S.W. Agriculture, 1976)
W.T. Parsons and E.G. Cuthbertson *Weeds of Australia* (Inkata Press, 1992)
C.J. Pearson *et al. A Plain English Guide to Agricultural Plants* (Longman Cheshire, 1993)
C.J. Pearson and R.L. Ison *Agronomy of Grassland Systems* (Cambridge U.P., 1987)
J.W. Wheeler *et al. Temperate Pastures, Their Production, Use and Management* (Australian Wool Corporation and CSIRO, 1987)

Second year courses

Veterinary Anatomy IIV203 (1995)

Prof. Bryden

The course consists of lectures and practical classes totalling 234 hours. It covers the anatomy of the horse, ox, sheep, pig, cat and domestic fowl. A course in embryology is presented in first semester. Aspects of comparative anatomy are presented at the end of second semester.

Textbooks

K.M. Dyce *et al. Textbook of Veterinary Anatomy* (Saunders, 1987)
D.M. Noden and A. de Lahunta *The Embryology of Domestic Animals: Developmental Mechanisms and Malformations* (Williams & Wilkins, 1985)
W.O. Sack and R.E. Habel *Rooney's Guide to the Dissection of the Horse* (Veterinary Textbooks, Ithaca, N.Y., 1982)

Reference books

R.R. Ashdown and S.H. Done *Color Atlas of Veterinary Anatomy: Tlie Horse* (Bailliere Tindall Gower Medical Publishing, London, 1987)
A. de Lahunta and R.E. Habel *Applied Veterinary Anatomy* (Saunders, 1986)
K.M. Dyce and C.J.G. Wensing *Essentials of Bovine Anatomy* (Lea & Febiger, 1971)
R.E. Habel *Guide to the Dissection of Domestic Ruminants* (published by the author, Ithaca, 1970)
W.K. Latshaw *Veterinary Developmental Anatomy: A Clinically Oriented Approach* (B.C. Decker Inc., 1987)
K.L. Moore *The Developing Human. Clinically Oriented Embryology* 3rd edn (W.B. Saunders, 1982)
R. Nickel *et al. The Locomotor System of the Domestic Mammals* (Paul Parey, Hamburg, 1986)
R. Nickel *et al. The Viscera of the Domestic Mammals* (Paul Parey, Hamburg, 1973)
I.R. Rooney *Biomechanics of Lameness in Horses* (Williams & Wilkins, 1969)
A. Schummer *et al. The Circulatory System, the Skin and the Cutaneous Organs of the Domestic Mammals* (Paul Parey, Hamburg, 1981)
S. Sisson and A. Grossman *Anatomy of Domestic Animals* (Saunders, 1975)
D.H. Steven *Comparative Placentation* (Academic Press, 1975)

Veterinary Anatomy and Histology II (V207) (1996)

Prof. Bryden

This course covers the anatomy of the horse, ox, sheep, pig, cat and domestic fowl and comparative anatomy of some non-domesticated vertebrates; integrated microscopical anatomy of selected organs of those species.

The course consists of lectures and practical classes totalling 241 hours.

Textbooks

H. Dellman and E.M. Brown *Textbook of Veterinary Histology* 4th edn (Lea & Febiger, 1993)
K.M. Dyce *et al. Textbook of Veterinary Anatomy* (Saunders, 1987)
W.O. Sack and R.E. Habel *Rooney's Guide to the.Dissection of the Horse* (Veterinary Textbooks, Ithaca, N.Y., 1982)
D.M. Noden and A. de Lahunta *The Embryology of Domestic Animals: Developmental Mechanics and Malformations* (Williams & Wilkins, 1985)

Reference books

R.R. Ashdown and S.H. Done *Color Atlas of Veterinary Anatomy: The Horse* (Bailliere Tindall Gower Medical Publishing, London, 1987)
A. de Lahunta and R.E. Habel *Applied Veterinary Anatomy* (Saunders, 1986)
K.M. Dyce and C.J.G. Wensing *Essentials of Bovine Anatomy* (Lea & Febiger, 1971)
R.E. Habel *Guide to the Dissection of Domestic Ruminants* (published by the author, Ithaca, 1970)
R. Nickel *et al. Tlie Locomotor System of the Domestic Mammals* (Paul Parey, Hamburg, 1986)
R. Nickel *et al. The Viscera of the Domestic Mammals* (Paul Parey, Hamburg, 1973)
I.R. Rooney *Biomechanics of Lameness in Horses* (Williams & Wilkins, 1969)

A. Schummer *et al. The Circulatory System, the Skin and the Cutaneous Organs of the Domestic Mammals* (Paul Parey, Hamburg, 1981)
S. Sisson and A. Grossman *Anatomy of Domestic Animals* (Saunders, 1975)

Veterinary Embryology (V218) (1996)

DrR. Canfield

This course consists of 20 lectures and 16 hours of practical classes. The course covers the embryology of domestic animals.

Textbook
D.M. Noden and A. de Lahunta *The Embryology of Domestic Animals: Developmental Mechanisms and Malformations* (Williams & Wilkins, 1985)

Reference books
W.K. Latshaw *Veterinary Developmental Anatomy: A Clinically Oriented Approach* (B.C. Decker Inc., 1987)
K.L. Moore *The Developing Human. Clinically Oriented Embryology* 3rd edn (W.B. Saunders, 1982)
D.H. Steven *Comparative Placentation* (Academic Press, 1975)

Veterinary Histology V214 (1995)

Dr McAvoy

Veterinary histology will be taught in the first semester being a continuation of the first year course. It concludes the instruction begun in first year.

Textbook
M.H. Ross and LJ. Romrell *Histology: A Text and Atlas* (Williams & Wilkins, 1989)

Reference books
W.J. Banks *Applied Veterinary Histology* (Williams & Wilkins, 1986)
H. Dellman and E.M. Brown *Textbook of Veterinary Histology* 2nd edn (Lea & Febiger, 1987)

Veterinary Physiology

Dr Evans

The course of instruction in veterinary physiology is given in the Department of Animal Science in the second and third years.

Veterinary Physiology V206

This course introduces some of the principles that are fundamental to the study of physiology; it studies the composition of the internal environment and some of the properties of excitable cells and tissues; it includes a consideration of the nervous, cardiovascular, respiratory, renal, digestive, cutaneous and endocrine systems with particular emphasis on their role in regulation of the internal environment.

Practical classes are conducted throughout the year. These classes, as well as exemplifying and augmenting material presented in lectures, provide some material for the first time. Practicals include experiments, self-instruction material, lecture demonstrations, films and discussion periods. Students work in small groups in most practical classes and keep detailed records of their results. It is necessary to purchase a course handbook from the department in the first practical class.

This portion of the course in veterinary physiology comprises about 72 hours of lectures and 97 hours of practical work.

Text and reference books
A list of recommended text and reference books is provided in the departmental course handbook.

Animal Genetics V201

Assoc. Prof. Nicholas

A course of 45 lectures introducing those aspects of genetics relevant to veterinarians. The first section (Genetics and Animal Disease) covers biochemical disorders, chromosomal abnormalities, non-Mendelian familial disorders, immunogenetics, pharmacogenetics, genetic variation in pests, parasites and pathogens, and genetic and environmental control of disease. The second section (Genetics and Animal Improvement) covers relationship and inbreeding, variation and heritability, breed history and structure, selection, and crossing.

Textbook
F.W. Nicholas *Veterinary Genetics* (Clarendon Press, Oxford, 1987)

Reference books
A.B. Chapman (ed.) *General and Quantitative Genetics* (Elsevier, 1985)
D.S. Falconer *Introduction to Quantitative Genetics* (Longmans, 1989)
L.D. Van Vlecket *al. Genetics for the Animal Sciences* (Freeman, 1987)

Biochemistry V202

Assoc. Prof. Slaytor

The course consists of 78 lectures. The lectures in the first part of first semester cover the topics proteins, enzymes and molecular genetics in sufficient detail for the understanding of the intermediary metabolism lectures in the remainder of the year. The course provides background material for other subjects, particularly physiology, endocrinology and nutrition.

The laboratory work gives some manipulative skill in quantitative biochemistry and illustrates some of the techniques used in clinical pathology.

Textbook
A.L. Lehninger *et al. Principles of Biochemistry* (Worth Publishers Inc., 1993)
or
C.K. Mathews and K.E. Van Holde *Biochemistry* (The Benjamin/Cummings Publishings Co. Inc., 1990)

Veterinary Pathology

The courses extend over the second, third, fourth and fifth years and embrace the following subjects:

General Pathology
Systemic Pathology
Immunology
Haematology
Clinical Pathology

Veterinary Pathology V225

Assoc. Prof. Rothwell

In second year, *General Pathology* deals with causes of disease, morbid and reactive processes, inflammation, immunological reactions, regressive and progressive tissue changes, including the study of neoplastic growths. Practical work includes the examination of gross and microscopic changes in representative examples of these processes.

Textbooks

A.K. Abbasetal.CellularandMolecularImmunology (Saunders, 1991)

I.M. Roitt *Essential Immunology* 7th edn (Blackwell, 1991)

D.O. Slauson and B.J. Cooper *Mechanisms of Disease: A Textbook of Comparative General Pathology* 2nd edn (Williams & Wilkins, 1990)

Third year courses

Veterinary Physiology V317

Dr Heywood

Topics covered include ruminant digestion, the nervous system, reproduction, growth and development, animal behaviour and some specialised topics not covered in the second year course. In this part of the course greater emphasis is placed on the activity of the animal as a whole.

Practical instruction comprises some laboratory exercises, but a greater use is made of demonstrations, discussions and tutorials than in the second year course. Students spend considerable time on project topics that allow a greater understanding of particular areas. These have a high independent learning component.

This part of the course in veterinary physiology comprises about 53 hours of lectures and 93 hours of practical work.

Text and reference books

A list of recommended text and reference books is provided in the departmental course handbook.

Veterinary Pathology V315

Assoc. Prof. Rothwell

Systemic Pathology is an extension of General Pathology and applies general pathological principles to diseases of the various organs and systems of domestic animals.

Practical work includes the examination of gross and microscopic changes in representative examples of diseases of the major organs and instruction in the performance of post-mortem examination of animals.

Textbooks

A.K. *Abbasetal. Cellular and Molecular Immunology* (Saunders, 1991)

I.M. Roitt *Essential Immunology* 7th edn (Blackwell, 1991)

D.O. Slauson and B.J. Cooper *Mechanisms of Disease: A Textbook of Comparative General Pathology* 2nd edn (Williams & Wilkins, 1990)

R.G. Thomson *Special Veterinary Pathology* (B.S. Decker, 1988)

Veterinary Bacteriology and Mycology V302

Assoc. Prof. Daria Love

A course of 63 hours of lectures and 102 hours of practical work. Lectures outline the classification and general biological properties of bacteria and fungi. A systematic study of the principlesof disease production by major veterinary pathogens is then presented.

Practical work includes the isolation, cultivation and identification of micro-organisms and examination of the tissues of animals affected by microbial diseases. Tutorials and practical classes also demonstrate and apply principles of sample collection, handling and laboratory processing enabling students to understand the requirements necessary to aid diagnosis of infectious disease. Some practical procedures for antimicrobial testing of isolates are also given.

Textbook

None recommended

Veterinary Virology V309

Dr Bailey

The course of 18 lectures presents the classification and general biological properties of viruses and outlines diseases they cause in animals. The lectures are reinforced and illustrated by practical work.

Textbook

Virology for Australian Veterinarians (Veterinary Science Postgraduate Committee, University of Queensland, 1992)

Veterinary Pharmacology and Toxicology V306

Dr Maddison

Assessment one 90 min exam/sem, class performance, assignments

A course of 56 hours of lectures and 6 hours of problem-based tutorials. In addition, 3 correlation sessions (3 hours each session) will be run in conjunction with members of other departments within the Faculty to illustrate the interaction of preclinical and clinical disciplines in solving clinical problems. The lecture course covers basic pharmacological principles and clinical veterinary pharmacology. The interactive workshops address topics of particular relevance to veterinary pharmacology.

Textbooks

B.G. Katzung (ed.) *Basic and Clinical Pharmacology* 4th edn (Appleton & Lange, 1989)

A.A. Seawright *Animal Health in Australia Vol. 2. Chemical and Plant Poisons* (Australian Government Publishing Service, 1982)

Study Aids

R. Einstein *Pharmacology, Self-assessment Questions for Students* 2nd edn (Butterworths, 1989)

Reference books

G.C. Brander *et al.* Veterinary *Applied Pharmacology and Therapeutics* 5th edn (Bailliere Tindall, 1991)

B.S. Cooper (ed.) *Antimicrobial Prescribing Guidelines for Veterinarians* (Postgraduate Committee in Veterinary Science, University of Sydney, 1994)

S.L. EveristPoisonous *Plants of Australia* (Angus & Robertson, 1982)

A.G. Gilman *et al. Goodman and Gilman's The Pharmacological Basis of Therapeutics* 8th edn (McGraw-Hill, 1991)
Pharmacological Basis of Veterinary Therapeutics Proceedings 198 (Postgraduate Committee in Veterinary Science, University of Sydney, 1992)
J.F. Prescott and J.D. Baggot *Antimicrobial Therapy in Veterinary Medicine* (Blackwell, Boston, 1993)

Animal Nutrition V321

Dr Mercer

A course of 36 lectures concerned with the principles and practice of nutrition.

Textbook
P. McDonald *et al. Animal Nutrition* 4th edn (Longmans, 1988)

Reference books
K. Blaxter *Energy Metabolism in Animals and Man* (Cambridge U.P., 1989)
D. Cole *Recent Developments in Pig Nutrition 2* (Nottingham U.P., 1993)
C. Fisher and K.N. Boorman *Nutrient Requirements of Poultry and Nutritional Research* (Butterworths, 1986)
W. Mertz (ed.) *Trace Elements in Human and Animal Nutrition* Vols 1 and 2 5th edn (Academic Press, 1987)
National Academy of Sciences, Washington *Nutrient Requirements of Domestic Animals* (a series of pamphlets on individual animals)
T. Tsuda *et al. Physiological Aspects of Digestion and Metabolism in Ruminants* (Academic Press, 1991)

Veterinary Medicine V323

Assoc. Prof. Watson
Classes Sem 2: 3 lec/wk

A course of 36 lectures on veterinary medicine and diseases of organ systems of animals, concerned with clinical methods and techniques of examination of various organ systems. Diseases of organ systems of the dog and cat are discussed. Attempts are made to integrate knowledge of anatomy, physiology, biochemistry, pharmacology, pathology, genetics and nutrition. The lectures are reinforced and illustrated with clinical material from the Veterinary Teaching Hospital.

Textbook
R.W. Nelson and C.G. Couto (eds) *Essentials of Small Animal Internal Medicine* (Mosby, 1992)

Reference books
E.A. Chandler *et al.* (eds) *Canine Medicine and Therapeutics* 3rd edn (Blackwell, 1992)
E.A. Chandler *etal.* (eds) *Feline Medicine and Therapeutics* 2nd edn (Blackwell, 1994)
A. de Lahunta *Veterinary Neuroanatomy and Clinical Neurology* 2nd edn (Saunders, 1983)
N.J. Edwards *Bolton's Handbook of Canine and Feline Electrocardiography* 2nd edn (Saunders, 1987)
S.J. Ettinger and E.C. Feldman (eds) *Textbook of Veterinary Internal Medicine* 4th edn (Saunders, 1994)
E.C. Feldman and R.W. Nelson *Canine and Feline Endocrinology and Reproduction* (Saunders, 1987)
C.E. Greene (ed.) *Infectious Diseases of the Dog and Cat* (Saunders, 1990)
R.W. Kirk and J.D. Bonagura (eds) *Current Veterinary Therapy XI* (Saunders, 1992)
M.D. Lorenz and L.M. Cornelius (eds) *Small Animal Medical Diagnosis* 2nd edn (Lippincott, 1993)
M.D. Lorenz *et al.* (eds) *Small Animal Medical Therapeutics* (Lippincott, 1992)
G.H. Muller *et al.* (eds) *Small Animal Dermatology* 4th edn (Saunders, 1989)
R.G. Sherding (ed.) *The Cat Diseases and Clinical Management* 2nd edn (Churchill Livingstone, 1994)
D.R. Strombeck and W.G. Guilford *Small Animal Gastroenterology* 2nd edn (Stonegate, 1990)

Veterinary Surgery V328

Assoc. Prof. Bellenger

Study of veterinary surgery extends over three years and provides theoretical and practical instruction in the principles of surgery, obstetrics, anaesthesia and radiology in both large and small domestic animals.

Instruction in veterinary surgery commences in the third year with a course of 26 lectures in second semester. Topics covered include: the principles of aseptic surgery; plastic, reconstructive and oncologic surgery; radiography, ultrasonography and radiation oncology; and anaesthesia, in preparation for entry to the Veterinary Teaching Hospital in fourth year. An equivalent time in the third year is also devoted to practical instruction in these subjects.

Textbooks
L.W. Hall and K.W. Clarke *Veterinary Anaesthesia* (Bailliere Tindall, 1991)
C.D. Knecht *etal. Fundamental Techniques in Veterinary Surgery* 3rd edn (Saunders, 1987)
Kodak *The Fundamentals of Radiography* (Eastman Kodak Co., 1980)
D. Slatter *Textbook of Small Animal Surgery 2nd* edn (Saunders, 1993)

Reference books
E.E. Peacock *Wound Repair* 3rd edn (Saunders, 1986)
G.D. Ryan *Radiographic Positioning of Small Animals* (Lea & Febiger, 1981)
S.F. Swaim and R.A. Henderson *Small Animal Wound Management* (Lea & Febiger, 1990)
J.W. Ticer *Radiographic Technique in Small Animal Practice* 2nd edn (Saunders, 1984)
R.G. Warren *Small Animal Anaesthesia* (Mosby, 1983)
J.B. West *Respiratory Physiology—The Essentials* 3rd edn (Williams & Wilkins, 1979)

Veterinary Parasitology V314

Dr Collins

A study of the major parasitic diseases of the companion animals: dogs, cats, horses, cage birds and aquarium fish. The course of 52 hours covers the structure and biology of helminth, arthropod and protozoal parasites, but the emphasis is on the pathogenesis, diagnosis, epidemiology, treatment and control of parasitic diseases. Educational objectives are used to assist learning; assessment is based on these objectives and comprises a group project, contributory tests and final practical and written examinations.

Teaching manual
G.H. Collins *Veterinary Parasitology* (latest edn)

Fourth year courses

Veterinary Parasitology V426

Dr Collins

A study of the economically important parasitic diseases of commercial animals: cattle, sheep, goats, pigs, poultry, bees and farmed fish. The course of 54 hours emphasises the importance of clinical and sub-clinical parasitic diseases as constraints on agricultural production and shows how knowledge of the epidemiology of these diseases is used in planning control measures. Educational objectives are used to assist learning; assessment is based on these objectives and comprises a group project, contributory tests and final practical and written examinations.

Teaching manual

G.H. Collins *Veterinary Parasitology* (latest edn)

Veterinary Clinical Pathology V404

Assoc. Prof. Canfield

A course of lectures, demonstrations, practical classes and seminars during fourth year deals with the practical application of pathological, biochemical, haematological, microbiological and parasitological techniques to clinical aspects of veterinary science.

Practical work includes the examination of specimens taken from living animals by techniques in the above fields. Special attention is given to the application and interpretation of tests used in the diagnosis of disease.

Reference books

R.K. Archer and L.B. Jeffcott *Comparative Veterinary Clinical Haematology* (Blackwell, 1986)

E.H. Coles *Veterinary Clinical Pathology* 4th edn (Saunders, 1986)

J.R. Duncan and K.W. Prasse *Veterinary Laboratory Medicine* 2nd edn (Iowa State U.P., 1986)

J.J. Kaneko *Clinical Biochemistry of Domestic Animals* (Academic Press, 1989)

N.C. Jain *Schalm's Veterinary Haematology* (Lea & Febiger, 1986)

Veterinary Medicine V405

Assoc. Prof. Watson

Classes Yr: 3 lec/wk

The course commenced in third year continues through the two semesters of fourth year. Lectures (36) on diseases of various organ systems constitute the didactic component given in first semester. The course is based on dogs and cats but references are made to other animal species as necessary.

Practical work in the Veterinary Teaching Hospital is undertaken using clinical case material and case illustrated tutorials are given during both semesters.

Textbook

R.W. Nelson and C.G. Couto (eds) *Essentials of Small Animal Internal Medicine* (Mosby, 1992)

Reference books

As for third year Veterinary Medicine

Veterinary Surgery V407

Assoc. Prof. Bellenger

The course of 102 lectures includes the surgical diseases and affections of domestic animals. These are arranged with emphasis on a systematic approach giving consideration to the alimentary, musculoskeletal, respiratory, urogenital, cardio-vascular, nervous, cutaneous and endocrine systems of the body. The special sense organs such as the eye and ear are dealt with separately.

Training is given by lectures and demonstrations in the principles of antisepsis and aseptic surgery, in the pathophysiology of surgical diseases, in the technique of operative surgery and in anaesthesia, radiography and radiology. Surgical techniques are practised under supervision in 60 hours of formal practical classes. Students assist in the surgery and after-care of animals in the veterinary hospital on a roster system as part of their clinical work.

The course of instruction in veterinary anaesthesia covers the theory and practice of general anaesthesia and of local and regional analgesia. The student studies the pre-operative assessment of the anaesthetic patient in addition to the recognition and management of post-operative anaesthetic complications. Fluid therapy and intensive care of both surgical and medical cases are undertaken.

Instruction in the use of radiology as an aid to clinical diagnosis in diseases of the different body systems is given. Examination of clinical cases, practical classes and tutorials will provide an introduction to radiological diagnosis and cover further aspects of radiography, radiation protection, ultrasonography and radiation oncology.

Textbooks

G.S. Allan Radiology *Symposium* Proceedings No. 203 (Postgraduate Committee in Veterinary Science, University of Sydney, 1992)

H.E. Amstutz (ed.) *Bovine Medicine and Surgery* Vols I and II (American Veterinary Publications, 1980)

W.O. Brinker *et al. Handbook of Small Animal Orthopaedics and Fracture Treatment* (Saunders, 1990)

L.W. Hall and K.W. Clarke *Veterinary Anaesthesia* (Bailliere Tindall, 1991)

CD. *Kneehtetal. Fundamental Techniques in Veterinary Surgery* (Saunders, 1987)

D.L. Piermattei and R.G. Greeley *An Atlas of Surgical Approaches to the Bones of the Dogand Cat* (Saunders, 1979)

R.J. Rose and D.R. Hodgson *Manual of Equine Practice* (Saunders, 1993)

D. Slatter *Textbookof Small Animal Surgery 2nd* edn (Saunders, 1993)

D.E. Thrall *Textbook of Veterinary Diagnostic Radiology* (Saunders, 1993)

Reference books

J. Archibald *Canine and Feline Surgery* (1984)

G.H. Arthur *et al. Veterinary Reproduction and Obstetrics* (1983)

R.S. Atkinson *et al. A Synopsis of Anaesthesia* (Wright, 1987)

J. Auer (ed.) *Equine Surgery* (Saunders, 1992)

J. Beech (ed.) *Equine Respiratory Disorders* (Lea & Febiger, 1991)

A.G. Binnington and J.R. Cockshutt (eds) *Decision Making in Small Animal Soft Tissue Surgery* (B.C. Decker, 1988)

J. Bojrab *Pathophysiology in Small Animal Practice* 2nd edn (Lea & Febiger, 1993)

MJ. Bojrab *Current Techniques in Small Animal Surgery* (Lea & Febiger, 1990)
W.O. Blinker *et al. Manual of Internal Fixation in Small Animals* (Springer-Verlag, 1983)
H.R. Denny *Guide to Canine Orthopaedics* 3rd edn (Blackwell Scientific, 1993)
S.P. Di Bartola *Fluid Therapy in Small Animal Practice* (Saunders, 1992)
J. Dik and I. Gunsser *Atlas of Diagnostic Radiology in the Horse* Vols 1, 2 and 3 (Saunders, 1988)
E.L. Gillette *etal. Carlson's Veterinary Radiology* (Lea &Febiger, 1977)
B.F. Hoerlein *Canine Neurology Diagnosis and Treatment* (Saunders, 1978)
P.B. Jennings *The Practice of Large Animal Surgery* Vols I and II (Saunders, 1984)
C.W. Mcllwraith *Diagnostic and Surgical Arthroscopy in the Horse* (Veterinary Medicine Publ. Co., Kansas, 1990)
C.W. Mcllwraith and A.S. Turner *Equine Surgery Advanced Techniques* (Lea & Febiger, 1987)
Milne and Turner *An Atlas of Surgical Approaches to the Bones of the Horse* (Saunders, 1979)
DA. Morrow *Current Therapy in Theriogenology* (Saunders, 1986)
W.W. Muir and J.A.E. Huldsell *Equine Anaesthesia* (Mosby Year Book, 1991)
Muller *et al. Manual of Internal Fixation* (Springer-Verlag, 1979)
F.W. Oeheme *Textbook of Large Animal Surgery* (Williams & Wilkins, 1988)
R. Owen *et al. Scientific Foundations of Orthopaedics and Traumatology* (Heinemann Medical, 1981)
R.R. Paddleford (ed.) *Manual of Small Animal Anaesthesia* (Churchill Livingstone, 1988)
E.E. Peacock *Wound Repair* (Saunders, 1986)
T. W. Ribold *Large Animal Anaesthesia Principles and Techniques* (Iowa State U.P., 1982)
I.J. Roberts *Veterinary Obstetrics and Genital Diseases* (published by the author, 1986)
N.E. Robinson (ed.) *Current Therapy in Equine Medicine 2* (Saunders, 1992)
N.E. Robinson (ed.) *Current Therapy in Equine Medicine 3* (Saunders, 1992)
J.R. Rooney *The Biomechanics of Lameness in Horses* (Williams & Wilkins, 1969)
P.D. Rossdale and S.W. Ricketts *Equine Stud Farm Medicine* (Bailliere, 1980)
H. Schebitz and H. Wilkens *Atlas of Radiographic Anatomy of the Dog and Cat* (Verlag Paul Parey, Berlin, 1986)
H. Schebitz and H. Wilkens *Atlas of Radiographic Anatomy of the Horse* (Verlag Paul Parey, Berlin, 1988)
C. Scurr and S. Feldman *Scientific Foundations of Anaesthesia* (Heinemann, 1983)
S. Sevitt *Bone Repair and Fracture Healing in Man* (Churchill Livingstone, 1981)
R.G. Sherding *Medical Emergencies* (Churchill Livingstone, 1985)
C.E.Shoit(ed.)PrinciplesandPracticeof Veterinary Anaesthesia (Williams & Wilkins, 1987)
D. Slatter *Fundamentals of Veterinary Ophthalmology* (Saunders, 1990)
G.R. Sumner-Smith *Bone in Clinical Orthopaedics* (Saunders, 1982)
S. Swaim and R.A. Henderson *Small Animal Wound Management* (Lea & Febiger, 1990)
G.H. Theilen and B.R. Madewell *Veterinary Cancer Medicine* (Lea & Febiger, 1988)
The Veterinary Clinics of North America (Saunders, 1971 onwards)
A.S. Turner and C.W. Mcllwraith *Techniques in Large Animal Surgery* (Lea & Febiger, 1989)
Veterinary Clinicsof NorthAmerica *Large Animal Anaesthesia* (Saunders, 1981)
H. Wadsworth and A.P. Chanmugam *Electrophysical Agents in Physiotherapy* (Sciences Press, 1980)
D.F. Walker and J.T. Vaughan *Bovine and Equine Urogenital Surgery* (Lea & Febiger, 1980)
R.C. Warren *Small Animal Anaesthesia* (C.V. Mosby, 1983)
W.G. Whittick *Canine Orthopedics* (Lea & Febiger, 1990)
S. Withrow and E. McEwen *Clinical Veterinary Oncology* (Lippincott, 1989)

Veterinary Anatomy III V413

Dr McCarthy

This course consists of 24 hours of demonstration and practical classes. It covers the surface anatomy and applied anatomy of the horse and dog.

Reference books

A. de Lahunta and R.E. Habel *Applied Veterinary Anatomy* (Saunders, 1986)
D.W. Milne and A.S. Turner *An Atlas of Surgical Approaches to the Bones of the Horse* (Saunders, 1979)
D.L. Piermattei and R.G. Greeley. *An Atlas of Surgical Approaches to the Bones of the Dog and Cat* (Saunders, 1979)
J.R. Rooney *Biomechanics of Lameness in Horses* (Williams & Wilkins, 1969)
J.A. Taylor *Regional and Applied Anatomy of the Domestic Animals:* Part I—*Head and Neck;* Part 2—*Thoracic Limb* (Oliver & Boyd, 1955-59)

Applied Reproduction and Obstetrics V422

Assoc. Prof. Evans

A course of 36 lectures and 1 practical class concerned with applied aspects of animal reproduction and obstetrics. Topics include the normal patterns of fertility in farm animals, dogs, cats and horses, and emphasis is placed on regulation of fertility and management of reproductive disorders. Instruction is provided on pre-partum affections, parturition, dystocia, and the affections of the urogenital tract at birth. Practical experience is provided at the Veterinary Teaching Hospital in Sydney, at the Rural Veterinary Centre at Camden, and in further formal demonstrations in Fifth Year courses.

Reference books

G.H. Arthur *et al. Veterinary Reproduction and Obstetrics* 6th edn (Bailliere Tindall, London, 1989)
C.R. Austin and R.V. Short *Reproduction in Mammals* Books 1-5 2nd edn (Cambridge U.P., 1982)
Ib.J. Christiansen *Reproduction in the Dog and Cat* (Bailliere Tindall, 1984)
P.W. Concannon *et al.* (eds) *Dog and Cat Reproduction, Contraception and Artificial Insemination* (Journal of Reproduction and Fertility Supplement 39,1989)
P.W. Concannon *et al.* (eds) *Fertility and Infertility in Dogs, Cats and Other Carnivores* (Journal of Reproduction and Fertility Supplement 47,1993)
I. Gordon *Controlled Breeding in Farm Animals* (Pergamon Press, 1983)
E.S.E. Hafez *Reproduction in Farm Animals* 5th edn (Lea & Febiger, Philadelphia, 1987)
A.O. McKinnon and J.L. Voss *Equine Reproduction* (Lea & Febiger, 1993)

D.A. Morrow (ed.) *Current Therapy in Theriogenology* 2nd edn (Saunders, Philadelphia, 1986)
S.J. Roberts *Veterinary Obstetrics and Genital Diseases* 3rd edn (S.J. Roberts, Woodstock, Vermont, 1986)
V. Sloss and J. Duffy *Handbook of Bovine Obstetrics* (Williams & Wilkins, 1980)

Animal Nutrition V421

Dr Mercer

A course of 36 lectures on the integration of nutrition with clinical topics and applied nutrition of a variety of animals including horses, dogs, cats, fish, cage birds, laboratory and zoo animals.

Reference books

D.G. Church *Livestock Feeds and Feeding* 2nd edn (Church, 1984)
A.T.B. Edney (ed.) *Dogand Cat Nutrition* 2nd edn (Pergamon Press, 1988)
D. Frape *Equine Nutrition and Feeding* (Longman Scientific & Technical, 1986)
L.D. Lewis *et al. Small Animal Clinical Nutrition III* (Mark Morris Associates, Topeka, Kansas, 1987)
National Academy of Sciences, Washington *Nutrient Requirements of Domestic Animals* (a series of pamphlets on individual animals)
J.M. Wills and K.W. Simpson (eds) *The Waltham Book of Clinical Nutrition of the Dog and Cat* (Pergamon Press, 1994)
L.F.M. Zutphen *et al.. Principles of Laboratory Animal Science* (Elsevier, 1993)

Animal Husbandry Practical Report

Dr Mercer

Students are required to undertake extramural practical work in animal husbandry to enable them to master animal handling and manipulative techniques and to introduce them to activities in the various animal industries and to practical management problems. Experience is gained with various classes of livestock including beef and dairy cattle, sheep, horses, pigs and poultry. This work is documented in a practical report which is submitted for assessment in the first week of semester one of the fourth year.

Fifth year courses

Veterinary Surgery V505

Assoc. Prof. Bellenger

In fifth year the surgery course consists of 14 hours of lectures or seminars on special features of surgery, radiology and anaesthesia and 80 hours of practical instruction. The practice of surgical and obstetrical techniques under supervision, and preparation of small and large animals for surgery and their after-care in the Rural Veterinary Centre, continues throughout the year.

Students are expected to reach a standard of skill enabling them to control, examine and make clinical diagnoses and undertake the treatment of the common diseases found in general practice. A period of three weeks' practical participation in the out-patients' and in-patients' departments of the Veterinary Teaching Hospital at the University of Sydney combined with three weeks in the Rural Veterinary Centre, Camden, and periods spent with veterinary practitioners engaged in general practice, provide opportunities to reach the standard required at graduation.

Text and reference books

As for third and fourth year Veterinary Surgery with the additional following reference books

P.T. Colahan *et al.* (eds) *Equine Medicine and Surgery* Vols I and II (American Veterinary Publications, 1991)
T. Stashak (ed.) *Adams Lameness in Horses* (Lea & Febiger, 1986)
N.A. White (ed.) *The Equine Acute Abdomen* (Lea & Febiger, 1990)

Bird Health and Production V502

Dr Cross

This course consists of 35 lectures and 40 hours of practical classes. The aim of the course is to develop knowledge and skill in bird medicine. Emphasis is placed on the epidemiology, management and preventive medicine of intensive and extensive bird populations. Special presentations are given on rehabilitation and wildfowl, ratite and raptor medicine and surgery. To complete the course each student will need to obtain at least 50% in the final written examination. Students will be assessed during practical sessions on practical skills, knowledge, participation and presentation.

Reference books

R.F. Gordon and F.T.W. Jordan (eds) *Poultry Diseases* 2nd edn (Bailliere Tindall, 1982)
S. Leeson and J.D. Summers *Commercial Poultry Nutrition* (University Books, Guelph, Ontario, 1991)
R.E. Moreng and J.S. Avens *Poultry Science and Production* (Reston Publishing, 1985)
D. Sainsbury *Poultry Health and Management* 3rd edn (Blackwell, 1992)
Standing Committee on Agriculture *Feeding Standards for Australian Livestock, Poultry* (CSIRO, 1987)

Horse Medicine V503

Assoc. Prof. Hodgson

Equine medicine is presented as lectures, practical classes and by participation in clinical practice. There are 26 lectures covering medical problems in all the major body systems including equine reproduction. Lectures are presented using an approach which highlights major problems in equine medicine. Practical classes in equine reproduction, ophthalmology and neurology are held at the Faculty Horse Unit in Cobbitty and the Rural Veterinary Centre. The Rural Veterinary Centre and its laboratory provide experience in the management of a wide range of disease problems in companion animals (including horses), cattle, goats and deer. Students also participate in herd health services provided to local dairy, producers.

Textbooks

D.C. Blood *et al. Veterinary Medicine* 8th edn (Bailliere Tindall, 1994)
CM. Brown *Problems in Equine Medicine* (Lea & Febiger, 1990)

P.T. Colahan *et al. Equine Medicine and Surgery* 4th edn (American Veterinary Publications, 1991)
Equine Internal Medicine Proceedings No. 206 (Postgraduate Committee in Veterinary Science, University of Sydney, 1993)
Equine Medicine Proceedings No. 183 (Postgraduate Committee in Veterinary Science, University of Sydney, 1992)
D.R. Hodgsonand R.J. *RoseThe Athletic Horse (W.B.* Saunders, 1994)
A.M. Koterba *et al. Equine Clinical Neonatology* (Lea & Febiger, 1990)
I.G. Mayhew *Large Animal Neurology* (Lea & Febiger, 1989)
N.E. Robinson *Current Therapy in Equine Medicine* Vol. 3 (W.B. Saunders, 1992)
R.J. Rose and D.R. Hodgson *Manual of Equine Practice* (W.B. Saunders, 1993)
D.W. Scott *Large Animal Dermatology* (W.B. Saunders, 1988)
B.P. Smith *Large Animal Internal Medicine* (Mosby, 1990)
N.A. White II *The Equine Acute Abdomen* (Lea & Febiger, 1990)

Pig Health and Production V526

Assoc. Prof. Love
Classes Sem 2:33 lec, 8 pracs
Assessment 2hr exam at end Sem 2

The lectures are presented in a sequence following the three phases of production: reproduction, birth to weaning and weaning to marketing. The aim of the lectures is to deal with the common problems of pig medicine and production rather than attempt to cover the full range of possible problems. Practical classes are aimed at providing the necessary understanding and skills for pig practice.

The emphasis of the course is managing endemic disease and preventive medicine. Welfare of intensively housed pigs is also given consideration.

Reference books

J. Gardner *et al. Pig Production in Australia* (Butterworths, 1990)
Leman *et al. Diseases of Swine* 7th edn (Iowa State U.P., 1993)
E.R. Miller *et al. Swine Nutrition* (Butterworth-Heinemann, 1991)
G.M. Pesti and B.R. Miller *AnimalFeedFormulation: Economics and Computer Applications* (VanNostrand Reinhold, 1993)
PigProdwchbnProceedmgsNo.l86(PostgraduateCommittee in Veterinary Science, University of Sydney, 1992)
Standing Committee on Agriculture *Feeding Standards for Australian Livestock, Pigs* (CSIRO, 1987)
C. Whittemore *The Science and Practice of Pig Production* (Longman Scientific & Technical, 1993)

Cattle Health and Production (V507)

The course in cattle health and production is an integration of material presented by the Departments of Animal Health and Animal Science. The aim of the course is to deal with those aspects of cattle medicine and production which are required to enable new graduates to participate effectively in all forms of cattle practice. It incorporates cattle medicine, including herd health, cattle production and reproduction including artificial breeding. The course will be examined in two 2-hour papers at the end of the second semester.

Cattle Medicine

Dr English

The cattle medicine course consists of 33 lectures and 40 hours of practical classes, with additional exposure to case material and herd health programs during clinical rotations in the Rural Veterinary Centre. The lecture course covers the medicine of systems, generalised and metabolic diseases, and deficiency states. A major aim of the course is to develop an understanding of the balance between consideration of the individual animal and the herd, with an appreciation of the close linkage between medicine and production.

Textbooks

Beef Cattle Production Proceedings No. 68 (Postgraduate Committee in Veterinary Science, University of Sydney, 1984)
Dairy Cattle Production Proceedings No. 78 (Postgraduate Committee in Veterinary Science, University of Sydney, 1985)
Dairy Medicine and Production Proceedings No. 161 (Postgraduate Committee in Veterinary Science, University of Sydney, 1991)
O.M. Radostits *et al. Veterinary Medicine* 8th edn (Bailliere Tindall, 1994)
O.M. Radostits and D.C. Blood *Herd Health* (W.B. Saunders, 1985)

Cattle Production

Assoc. Prof. Kellaway

The course consists of 15 hours of lectures and three 3-hour practical classes. It covers the nutrition and management of beef cattle and dairy cattle in tropical, sub-tropical and temperate environments. Methods of pasture improvement, nutrient content of native and improved pastures, and strategies of supplementary feeding are covered, as are intensive systems and live animal exports. Production systems are simulated using computer models.

Reference books

P.C. Garnsworthy (ed.) *Nutrition and Lactation in the Dairy Cow* (Butterworths, 1988)
C. W. Holmes and G.F. Wilson *Milk Production from Pastures* (Butterworths, 1984)
I. Lean *Nutrition of Dairy Cattle* (Postgraduate Foundation in Veterinary Science, University of Sydney, 1987)
National Research Council *Nutrient Requirements of Dairy Cattle* (National Academy of Sciences, Washington, D.C, 1989)
National Research Council *Nutrient Requirements of Beef Cattle* (National Academy of Sciences, Washington, D.C, 1984)
A.M. Nichol (ed.) *Feeding Livestock on Pasture* (N.Z. Soc. of Animal Production, Occasional Pub. No. 10,1987)
J.H.B. Roy *The Calf 5th* edn (Butterworths, 1990)
Standing Committee on Agriculture *Feeding Standards for Australian Livestock. Ruminants* (CSIRO, 1990)

Cattle Reproduction

Dr Lean

The course consists of 12 lectures and three 3-hour practical classes. The objectives are to produce a graduate who understands and can apply methods of oestrus synchrony and manipulation of fertility, who

understands and has some familiarity with embryo transfer, and who is capable of delivering reproductive management programs to cattle clients.

Reference books

I. Gordon *Controlled Breeding in Farm Animals* (Pergamon Press, 1983)

D.A. Morrow *Current Therapy in Theriogenology 2* (W.B. Saunders, 1986)

S.J. Roberts *Veterinary Obstetrics and Genital Diseases (Theriogenology)* (pub. by author, Woodstock, Vermont, 1986)

Milk Quality

Dr Gooden

This component examines the physiology of lactation and the importance of milk quality in 2 lectures. Aspects of anatomy of the mammary gland, milk letdown, synthesis of milk fat, protein and lactose are described, with emphasis on milk quality. Factors affecting milk quality are discussed and include mastitis, colostrum, sediment, protein and seasonal factors. Some of the methods of measuringmilk quality are outlined.

Textbooks

T.B. Mephan (ed.) *Biochemistry of Lactation* (Elsevier, Amsterdam and New York, 1983)

T.B Mephan *Physiology of Lactation* (Open University Press, Milton Keynes and Philadelphia, 1987)

Special Medicine V508

Dr Dixon

There are two parts to this course which comprises lectures, tutorials arid assignments.

1. Clinical toxicology: the important toxicological disorders of ruminants, horses and pigs are presented with the emphasis on clinical signs, necropsy findings and epidemiology.

2. Exotic diseases: diseases which represent an external threat to the livestock industries of Australia are covered. Aspects studied include not only clinical and necropsy findings of the significant diseases but also quarantine and the responsibilities of veterinarians in an animal disease emergency.

Reference books

S.L. Everist *Poisonous Plants of Australia* 2nd edn (revised) (Angus & Robertson, 1981)

W. A. Geering and A.J. Forman *Exotic Diseases* (Vol. 9 Animal Health in Australia) (Australian Government Publishing Service, Canberra, 1987)

W.T. Parsons and E.G. CuthbertsonNoxfous *Weeds of Australia* (Inkata Press, Melbourne, 1992)

A.A. Seawright *Chemical and Plant Poisons* 2nd edn (Vol. 2 Animal Health in Australia) (Australian Government Publishing Service, Canberra, 1989)

Veterinary Clinical Toxicology (Postgraduate Committee in Veterinary Science, University of Sydney, 1987)

Sheep Health and Production V519

Mr Abbott

Classes Sem 1:5 lec/ week for 8 wks. 56 hr prac in 2 blocks of 28 hr/fn

Assessment one 3hr exam at end of Sem 1, assignments in prac.

The course aims to develop skills and knowledge appropriate for a rural practitioner dealing with the more common disease conditions on commercial sheep farms and with controlled breeding programs. Strong emphasis on disease management of flocks rather than individual animals and preventive medicine in an economic context rather than therapy of affected animals.

Nutrition: nutritional management in sub-tropical and temperate environments, nutrient content of natural and improved pastures, strategies of supplementary feeding, use of computers in formulating nutritional advice. Reproduction: disorders of reproduction and methods of investigating poor reproductive performance, control of reproduction, artificial breeding, collection, evaluation, handling and preservation of semen, multiple ovulation and embryo transfer including the preparation of donors and recipients and the evaluation and handling of embryos. Genetics: application to commercial sheep production and to evaluation of controlled breeding strategies. Disease management: epidemiology and preventive medicine of internal and external parasites; diagnosis, control and, where appropriate, eradication of diseases from individual flocks; integration of animal health management with optimal farm management procedures.

Reference books

AnimalHealth in Australia Series (Australian Bureau of Animal Health, AGPS, 1981 *et seq.)*

D.C. Blood and O.M. Radostits *Veterinary Medicine* (Bailliere Tindall, 1994)

D.J. Cottle (ed.) *Australian Sheep and Wool Handbook* (Inkata Press, Melbourne, 1991)

A.D. Donald *et al.* (eds) *The Epidemiology and Control of Gastrointestinal Parasites of Sheep in Australia* (CSIRO, Melbourne, 1978)

J.R. Egerton *et al.* (eds) *Footrot and Foot Abscess of Ruminants* (CRC Press, Florida, 1989)

G. Evans and W.M.C. Maxwell *Salamon's Artificial Insemination of Sheep and Goats* (Butterworths, 1987)

I. Gordon *Controlled Breeding in Farm Animals* (Pergamon Press, 1983)

F.H.W. Morley (ed.) *Grazing Animals* (Elsevier Scientific, Amsterdam, 1981)

National Research Council *Nutrient Requirements of Sheep* (National Academy of Sciences, Washington, D.C, 1985)

C.M. Oldham *et al.* (eds) *Reproductive Physiology of Merino Sheep: Concepts and Consequences* (School of Agriculture, Animal Science, University of Western Australia, 1990)

O.M. Radostits and D.C. Blood *Herd Health: A Textbook of Health and Production Management of Agricultural Animals* (W.B. Saunders, 1985)

Sheep Proceedings No. 58 (Postgraduate Committee in Veterinary Science, University of Sydney, 1981)

Sheep Production and Preventive Medicine Proceedings No. 67 (Postgraduate Committee in Veterinary Science, University of Sydney, 1983)

Sheep Health and Production Proceedings No. 110 (Postgraduate Committee in Veterinary Science, University of Sydney, 1988)

Sheep Medicine Proceedings No. 141 (Postgraduate Committee in Veterinary Science, University of Sydney, 1990)

D.J. Stewartef *al.* (eds) *Footrot in Ruminants* (CSIRO, Division of Animal Health, Australian Wool Corporation, Melbourne, 1986)
V. Squires *Livestock Management in the Arid Zone* (Inkata Press, Melbourne, 1981)

Veterinary Public Health V504

Prof. Egerton

There are four components of this course—principles of epidemiology, food quality and hygiene, the zoonoses and the legal and ethical bases of veterinary work. The objective of the course is to make graduates aware of their potential for contributing directly to human welfare through controlling diseases of animals transmissible to people and through provision of high quality food. Understanding the obligations imposed by the community through acts and regulations and the self-imposed obligations arising from membership of a learned profession is an essential outcome of the course.

There are 63 hours of lectures and 27 hours of practical or tutorial work programmed for Veterinary Public Health.

Textbooks

Epidemiological Skills in Animal Health Proceedings No. 143 (Postgraduate Committee in Veterinary Science, The University of Sydney, 1990)
Veterinary Surgeons Act, 1987

Reference books

Acts and Regulations (N.S.W. unless stated):
Animal Research Act 1985
Cattle Compensation Act
Cattle Slaughtering Diseased Animals and Meat Act
Commonwealth Quarantine Act 1908
Dog Act
Meat Industry Act
Pastures Protection Act
Poisons Act
Prevention of Cruelty to Animals Act
Registration of Stock Brands Act
Stock (Artificial Insemination) Act
Stock Diseases Act
Stock Foods and Medicine Act
Swine Branding Act

P. Gillies *Business Law* 6th edn (Federation Press, Sydney, 1994)
W.J. Stevenson and K.L. Hughes *Synopsis of Zoonoses in Australia* 2nd edn (Commonwealth Department of Health AGPS, 1988)
M. Thrusfield *Veterinary Epidemiology* (Butterworths, London, 1985)

Sydney University Veterinary Teaching Hospital

Dr Church, Superintendent

Students will attend the Veterinary Teaching Hospital in both semesters of fourth year and in certain periods of fifth year. In this way practical experience is obtained in both the diagnosis and treatment of medical and surgical disorders in dogs, cats, horses and other animals. Students receive special instruction and experience in anaesthetics, surgery, radiology, post-operative care, internal medicine, therapeutics, veterinarian-client relationships and case record keeping. Students are rostered for duties within the various sections of the hospital and clinical pathology laboratory.

Rural Veterinary Centre

Assoc. Prof. Hodgson, Superintendent

During their period of residence at Camden in fifth year, students will be introduced to veterinary practice among farm and companion animals. This is achieved by practical work in groups in the ambulatory clinic, hospital and clinical pathology laboratory of the Rural Veterinary Centre. Students will be able to observe disease problems under field conditions and obtain practical experience in the application of clinical pathology techniques utilised in the investigation of these diseases.

Practical work requirement

Students are required to do practical work in livestock husbandry as described in the Animal Husbandry course.

During the vacation periods rostered after semester 2, fourth year, students will attend the Veterinary Teaching Hospital and Rural Veterinary Centre for practical experience in veterinary medicine and surgery. All students will spend three weeks at both locations. Students are also required to undertake specified extramural practical work which will be arranged by the Faculty Office.

Essay V517

Students must satisfactorily complete an essay during the undergraduate course. The latest time acceptable for nomination and Faculty approval of the topic is the Friday before the mid-semester break in semester 2 of fourth year. Essays must be typewritten and submitted by the Friday of the first week of second semester in fifth year. However, earlier submission is recommended. Guidelines for the essay are available from the Faculty Office.

5 Other Faculty information

General University information

This chapter of the handbook contains information specific to the Faculty of Veterinary Science as well as some important general information. For further information about examinations, the organisation of the University, assistance for disabled students, child care facilities, housing, health, counselling, financial assistance, careers advice and a range of other matters, see the *University of Sydney Diary,* available free from the Student Centre or from University of Sydney Union outlets.

Administration

Faculty Office

The Office of the Faculty of Veterinary Science is in the J.D. Stewart Building, in Room 218.

All enquiries in relation to matters specific to the Faculty should be made at this office in the first instance, including:

- enrolments in the Faculty
- special information about admission to the Faculty
- facilities available in the Faculty
- other Faculty matters.

Timetables

Copies of the Faculty lecture timetables and location of theatres are available from the office prior to the commencement of each academic year. Copies are also displayed on the Faculty noticeboard.

Booklists

Copies of textbook and reference book lists for each year are available from the office.

Welcome to first year students

In orientation week the Dean and members of the Faculty in conjunction with senior students welcome the first year students enrolled in the Faculty. Advice and information on Faculty matters are included in the addresses of welcome, and the new students are conducted on a tour of the Veterinary Science precinct.

Noticeboards

The main Faculty noticeboards are in the ground-floor corridor of the J. D. Stewart Building. These noticeboards should be checked regularly.

Mail collection

There are pigeon-hole facilities for mail collection in the J. D. Stewart Building, and you are advised to check them regularly for any messages.

Lockers and change room facilities

Cockersin the J.D. Stewart Buildingmaybe hired. Change room facilities including hot showers are also available.

Photocopying

There is a coin-operated photocopying machine for student and staff use in the J. D. Stewart Building.

Faculty staff

Members of the teaching staff may be consulted throughout the year about any problems regarding the course.

General information and advice

Academic

For academic questions affecting courses of study you should see the appropriate faculty or college office, or for questions on course content, see the lecturer concerned.

Learning Assistance Centre

The Learning Assistance Centre offers help to all students of the University who wish to develop their learning skills and their use of the English language to carry out their university studies.

Noticeboards

Current information about timetable changes, course announcements, tutorials, practical work, term tests, essays and recommended books is posted on faculty, college and departmental noticeboards. These noticeboards should be consulted regularly.

Information about examinations is displayed in the Main Quadrangle from time to time. There are also several permanent noticeboards in the Main Quadrangle area, notably beneath the Western Tower.

Publications

The *University of Sydney Diary,* the *Map Guide,* Faculty handbooks and other publications are available from the Student Centre.

Other sources

You may require advice of a different kind and in this case your first enquiries are often best made at the Student Centre.

International students

International students are required to make application to the International Education Office. International students already studying at schools in Australia should apply to the Universities Admissions Centre.

Sponsored international students

The Australian International Development Assistance Bureau (AIDAB), which is the overseas aid unit of the Australian Department of Foreign Affairs and Trade, has a responsibility for the welfare of sponsored international students and their families. The address of the Bureau in Sydney is:

2nd Floor
'Sydney Central'
477 Pitt Street
Sydney 2000. Tel. (02) 379 8888.

Private international students

Private subsidised international students should advise the Department of Employment, Education and Training (DEET) of their address and enrolment details by writing to the Overseas Student Section, PO Box 9880, Canberra, A.C.T. 2601.

Private subsidised international students continuing their studies should confirm their enrolment with the Overseas Student Section as early as possible each year in order to ensure that arrangements for the extension of their temporary entry permit can be made.

All subsidised students must advise the department if they change their semester residential address during the year. Telephone enquiries should be directed to 008 812 698 (toll-free).

Private fee-paying international students

" Private fee-paying international students must advise the International Education Office of any changes of address. Any enquiries about fee payments, enrolments and any other problems can be made to the International Education Office on (02) 3514079 or 351 4161.

Advisers to international students

The International Education Office has been established to help all international students with application and enrolment procedures and any other problems they may encounter.

The International Student Services Unit on the main campus and theAdvisoryCentreforOverseas Students (Cumberland College campus) can help with any problems arising during an international student's stay in Australia.

Special enrolment information

These are the special requirements for Veterinary Science students only.

Registration

All students, both new and re-enrolling, must register at the Faculty Office at the time of enrolling. This office is open from 9.00 am to 5.00 pm daily during the enrolment period.

First year science courses

Students in first year will be allotted to particular chemistry and physics practical classes. The lists indicating these class sections will be displayed outside the relevant laboratories before the beginning of the semester.

You must attend the classes only at the times indicated.

Attendance at lectures, and leave of absence

Attendance at lectures and such other classes as are prescribed for individual courses is compulsory. If for good reason you are unable to attend classes you should apply for leave of absence. In the case of illness your letter of application should be accompanied by a certificate from a registered medical practitioner.

Should you be absent from classes without permission you may be refused permission to take the examinations.

Discontinuation

If you are contemplating discontinuing you should consult a student counsellor before you commit yourself to a decision.

If you are enrolled for a degree in the Faculty-of Veterinary Science and, without permission of the Faculty, you discontinue a year or a full-year course after the last day of the first week of second semester, or discontinue a one-semester course after the last day of the seventh week of teaching, you will be deemed to have failed such year or course.

Students re-enrolling after absence

If you were previously enrolled (even if you discontinued all courses during the past year and were given 'repeat' status) and are eligible to re-enrol in the same degree or diploma course, you are required to lodge an Application for Re-enrolment by the specified date in the preceding year at the Student Centre. An Application for Re-enrolment form is available from the Student Centre or Faculty Office. Should your application be approved, you must complete your enrolment in accordance with the instructions included in the letter of approval to enrol.

If you have been enrolled for the degree of Bachelor of Veterinary Science but have not re-enrolled for a period of one year or more, you must complete the requirements for the degree under such conditions as the Faculty may determine.

Regulations

Discontinuation of enrolment and re-enrolment after discontinuation—undergraduate

All Faculties, Colleges and Boards of Studies

1. A candidate for a degree of Bachelor who ceases attendance at classes must apply to the Faculty, College Board or Board of Studies concerned and will be presumed to have discontinued enrolment from the date of that application, unless evidence is produced (i) that the discontinuation occurred at an earlier date, and (ii) that there was good reason why the application could not be made at the earlier time

2. A candidate for a degree of Bachelor who at any time during the first year of attendance discontinues enrolment in all courses shall not be entitled to re-enrol for that degree unless the Faculty, College Board or Board of Studies concerned has granted prior permission to re-enrol or the person is reselected for admission to candidature for that degree.

3. Subject to paragraphs (i) and (ii) of section 1, no candidate for a degree of Bachelor may discontinue enrolment in a course or year after the end of lectures in that course or year.

4. The Dean, Pro-Dean or a Sub-Dean of a Faculty, Director or Deputy Director of a College or the Chairperson of a Board of Studies, may act on behalf of that Faculty, College Board or Board of Studies in the administration of these resolutions unless the Faculty, College Board or Board of Studies concerned decides otherwise.

Withdrawal from full-year and First Semester courses

5. A candidate for a degree of Bachelor who

discontinues enrolmentin a full-year or First Semester course on or before 30 March in that year shall be recorded as having withdrawn from that course.

Withdrawal from Second Semester courses

6. A candidate for a degree of Bachelor who discontinues enrolment in a Second Semester course on or before 30 August in that year shall be recorded as having withdrawn from that course.

All Faculties, Colleges and Boards of Studies except the Faculty of Engineering

Discontinuation

7. (1) A discontinuation of enrolment in a course shall be recorded as 'Discontinued with Permission' when the discontinuation occurs after the relevant withdrawal period and

(a) on or before the Friday of the first week of Second Semester for a full-year course, or

(b) up to the last day of the seventh week of teaching in a one semester course.

(2) A discontinuation of enrolment in a course shall be recorded as 'Discontinued' when the discontinuation occurs

(a) after the Friday of the first week of Second Semester for a full-year course, or

(b) after the last day of the seventh week of teaching in a one semester course.

(3) Notwithstandingparagraph(2)theDean, Pro-Dean or Sub-Dean of the Faculty, Director or Deputy Director of the College or Chairperson of the Board of Studies concerned may determine that a discontinuation of enrolment should be recorded as 'Discontinued with Permission' on the grounds of serious ill-health or misadventure.

Discontinuation of enrolment and readmission after discontinuation—postgraduate

All Faculties, Colleges. Boards of Studies and Graduate Schools—all candidates

1. A candidate will be presumed to have discontinued enrolmentin a course, degree or diploma from the date of application to the Faculty, College Board, Board of Studies or Graduate School concerned, unless evidence is produced (i) that the discontinuation occurred at an earlier date, and (ii) that there was good reason why the application could not be made at the earlier time.

2. A candidate who at any time discontinues enrolment from a degree or diploma shall not be entitled to re-enrol in that degree or diploma unless the candidate is readmitted to candidature for that degree or diploma.

3. Subject to paragraphs (i) and (ii) of section 1, candidates may not discontinue enrolment in a course after the end of classes in that course, unless the degree or diploma regulations permit otherwise.

4. The Dean, Pro-Dean or a Sub-Dean of a Faculty, Director or Deputy Director of a College, Chairperson of a Board of Studies or a Chairperson of a Graduate School may act on behalf of that Faculty, College, Board of Studies or Graduate School in the administration of these resolutions.

Candidates proceeding mainly by coursework

Withdrawal from full-year and First Semester courses

5. A candidate for a degree or diploma who discontinues enrolment in a full-year or First Semester course on or before 30 March in that year, shall be recorded as withdrawn from that course.

Withdrawal from Second Semester courses

6. A candidate for a degree or diploma who discontinues enrolment in a Second Semester course on or before 30 August in that year, shall be recorded as withdrawn from that course.

Discontinuation

7. A candidate for a degree or diploma who discontinues enrolment in a course after the withdrawal period but before the end of classes in that course, shall be recorded as 'Discontinued with Permission' in that course, unless the degree or diploma resolutions permit otherwise.

Candidates proceeding mainly by thesis

Withdrawal

8. A candidate who discontinues enrolment in a course or degree before the end of the fifth week of enrolment, shall be recorded as having withdrawn from that course or degree.

Discontinuation

9. A candidate who discontinues enrolment in a course or degree after the end of the fifth week of enrolment shall be recorded as THscontinued with Permission'.

Restriction upon re-enrolment

There are certain circumstances in which you could be asked to show good cause why you should be permitted to repeat any previously attempted study. Liability for exclusion fromre-enrolmentis determined by academic attainment during the immediate past one or. two academic years (depending upon the faculty, college or board of studies concerned). The resolutions of the Senate restricting re-enrolment may be found in the University's *Statutes and Regulations.* You should acquaint yourself with the resolutions relating to the studies in which you are enrolled. If you are in any doubt about your liability for exclusion following academic failure or discontinuation of courses you should seek advice from the Faculty Office.

It is not possible to define in advance all the reasons that constitute 'good cause' but serious ill health, or misadventure properly attested, will be considered. In addition your general record, for example in other courses, would be taken into account. In particular if you were transferring from another faculty your record in your previous faculty would be considered. Not usually acceptable as good cause are such matters as demands of employers, pressure of employment, time devoted to non-university activities and so on, except as they may be relevant to any serious ill health or misadventure.

Extract from Resolutions of the Senate relating to Restriction upon Re-enrolment

20. (1) The Senate authorises the Faculty of

Veterinary Science to require a student to show good cause why he or she should be allowed to repeat Second Year in the Faculty of Veterinary Science if he or she has already taken more than one year to qualify for admission to Second Year. (2) The Senate authorises the Faculty of Veterinary Science to require a student to show good cause why the student should be allowed to repeat First Year in the Faculty of Veterinary Science if that student has failed all the subjects of the First Year in the Faculty of Veterinary Science or has obtained a weighted average mark of less than 40% in those subjects.

Assessment and examinations

Periods

There are three formal examination periods:

Period	when held	approximate duration
First semester	June	2-3 weeks
Second semester	November	3-4 weeks
Supplementary	January/ February	2 weeks

In addition, individual faculties and departments may examine at other times and by various methods of assessment, such as essays, assignments, viva voce, practical work, etc. Some departments do not examine during the first semester.

Supplementary examinations

Supplementary examinations, which are held in January/February, may be granted by a faculty, college or board of studies:

(a) to candidates who have been prevented by duly certified illness or misadventure from completing an examination, or

(b) tocanolidateswhohavefauedmanyexamination, but whose work is deemed sufficient to warrant the concession of a further test.

Supplementary examinations should be regarded as distinct privileges, not as rights.

Timetables

Draft timetables are displayed in the Main Quadrangle, approximately 3-4 weeks before the commencement of examinations. Notice will be given in the *News* and on departmental noticeboards. Enquiries about these may be made at the Student Centre.

Printed copies of the final timetables are available from the Student Centre and at the University farms.

Study vacation

A break after lectures at the end of each semester is set aside for examination study and preparation.

Notification of examination results

The results of annual examinations are displayed on noticeboards in the Main Quadrangle. Also they are posted through the mail service directly to you at the end of the year.

Disclosure of examination marks

Final marks will appear on your annual result notice. Marks may also be obtained from your faculty for the major components of assessment which make up the final marks. You are entitled to information about any details of the assessmentproceduresused to determine the final result.

Your examination scripts and any other assessment material may be retrieved within a reasonable time after the completion of assessment in each course. This does not apply to examination papers which involve the repeated use of the same material in successive examinations.

Examination marks (as opposed to examination grades) are treated as personal information and therefore disclosed only to the student concerned. However, information will be made available to help you gauge your comparative performance in class.

Examination grades

Each subject taken will be allotted one of the following grades at the annual examinations:

Grade	per cent
High Distinction	85-100
Distinction	75-84
Credit	65-74
Pass	50-64
Fail	below 50

Award of examination grades

It is important to note that the University does not use a set formula for determining the number of specific examination grades to be awarded in particular subjects. However there is a policy of the Academic Board on trying to achieve equity between faculties on the number of *merit* grades to be awarded in subjects. This policy is printed below.

"The following proportions of merit grades to be awarded in each subject are provided to examiners as indicative only. *They **are certainlynot to** be considered as quotas.* The proportions have been refined over the years to provide a basis for equity of examination results between faculties, particularly the 'generalisf faculties of Arts, Economics and Science. Equity of examination results is important in its own right, but is crucial when Honours students are being considered for the award of Commonwealth Postgraduate Scholarships. Please note that the proportions are cumulative and are based on the number of students who gain a Pass or better in the particular subject.

	% **High Distinction**	**% Distinction +**	**% Credit +**
First year courses	**3**	**14**	**42**
Second year courses	**3**	**16**	**46**
Third year courses	**4**	**18**	**50**

The proportions of merit grades may vary from course to course and from year to year, reflecting

different capabilities of different groups. Any variations will be compared with previous years and the proportions will continue to be refined in the light of experience.'

Illness or misadventure

(Please contact the Faculty Office for full details of application procedure.)

You may apply (in writing) for special consideration of your examination performance on grounds of illness or misadventure. In the case of *illness* a medical certificate should be provided. The minimum requirements of a medical certificate are that it:

(a) be submitted and signed by your own medical practitioner and indicate the dates on which you sought attention;
(b) certify unambiguously a specified illness or medical disability for a definite period;
(c) indicate the degree of your incapacity, and express a professional opinion as to the effect of your illness on your ability to take an examination.

Certificates in connection with annual or supplementary examinations should be submitted prior to the examinations, unless the illness or misadventure takes place during the examinations, in which case the evidence must be forwarded as soon as practicable, and in any case before the close of the examination period. There is a special form available at the Student Centre and at the University Health Service for submission with medical certificates.

For consideration on the grounds of *misadventure,* your application must include a full statement of circumstances and any available supporting evidence.

Should you find it embarrassing to state your difficulties in writingyou should arrange aninterview with the Dean of the Faculty.

The need to seek early advice

Many students in need of advice fail to make full use of the assistance available to them. If you believe that your performance during a course, or your preparation for your examinations, has been adversely affected by medical, psychological or family circumstances, you should seek advice as early as possible. Members of the teaching staff, of the University Counselling Service, and of the University Health Service, are all available for consultation and can give advice on appropriate action to take.

Libraries

Badham Library

Badham Library holds most of the material needed by veterinary science staff and students, especially in the later years of their courses. The Library covers the fields of agriculture, plant industry and agricultural economics, botany, zoology, genetics and veterinary science.

The Library is open during semester from Monday to Thursday between 8.45 am and 7.00 pm, on Friday between 8.45 am and 6.00 pm and on Saturday between 10.00 am and 5.00 pm. Vacations hours vary and are posted in the Library.

Other libraries containing material of use to veterinary science students are Fisher Library (first-year students) and the Hector Geddes Library at the University farms, Camden.

Books, but not periodicals, may be borrowed from these libraries. Use of reserve material is for limited periods only. Photocopying facilities are available.

Clubs and societies

The Veterinary Alumni Association

The Veterinary Alumni Association was launched in August 1986. The aims of the association are to establish a link between the Faculty and its graduates throughout Australia and overseas and to provide opportunities for graduates to renew acquaintances, participate in educational events and to promote the interests of both the Faculty and veterinary science generally.

Sydney University Veterinary Society

The Sydney University Veterinary Society, which was formed in 1914, seeks to foster good fellowship among graduates and undergraduates in the Faculty of Veterinary Science and to assist the development in its undergraduate element of abroad and comprehensive approach to matters of professional and public interest. The society conducts an annual dinner, an annual dance and end-of-semester social gatherings, and arranges for the regular delivery of addresses on general and scientific topics. The journal of the society, *Centaur,* is published each year (see below).

Veterinary School Common Rooms

The object of the Veterinary School Common Rooms is to provide a place to meet members of the teaching staff, postgraduates and other undergraduate students, and a place where they can meet other members of the University and visitors. Light meals and refreshments for members and their guests are available.

Publications

Centaur

Centaur is an annual, illustrated journal of contributions from students edited by a student elected to the task. It covers the highlights of the year and is eagerly awaited by both students and staff. Cos ts of producing the latest edition were met by advertisers. Contributions are actively sought towards the end of the year.

Roundhouse

Roundhouse, the Faculty of Veterinary Science Newsletter, is named after the historic building central to the veterinary buildings on the Sydney campus. It was started in November 1985 and is published two or three times each year. Copies are distributed to all members of staff and to students. The aims of the newsletter are to keep the Faculty informed of scientific and social activities and to provide a forum for comment and discussion. *Roundhouse* also contains articles on the history of the Faculty and the achievements and careers of its graduates. Contributions are welcomed from both staff and students; copy should be sent to Dr Henry Collins, Department of Veterinary Pathology.

Scholarships and prizes: undergraduate

The following is a summary only. For further information contact the Scholarships Office.

Scholarship or prize	**Value** $	**Qualifications**
Matriculation		
Alexander Donald	250	Student from Sydney Grammar School
Martin Mcllrath	500	Male student—preference to sons of ex-servicemen
Undergraduate		
Australian College of Veterinary Scientists (Chapter of Veterinary Pharmacology)	plaque	Proficiency in Veterinary Pharmacology and Toxicology
Australian Small Animal Veterinary Association Prize	300 + medal + 2 yrs membership	Proficiency in small animal medicine and surgery
Australian Society for Parasitology	200	Proficiency in 4th year Veterinary Parasitology
Auxiliary to the Australian Veterinary Association (N.S.W. Division) Prize	80	Proficiency in Biochemistry and 1st and 2nd year Veterinary Physiology
Australian Veterinary Association	book	Proficiency in Veterinary Pathology
Auxiliary to the Australian Veterinary Association (N.S.W. Division) Prize in Veterinary Clinical Pathology	50 (voucher)	Proficiency in 4th year Veterinary Clinical Pathology
Auxiliary to the Australian Veterinary Association (N.S.W. Division) Prize for Third Year students	50 (books)	Greatest improvement in 3rd year
Auxiliary to the Australian Veterinary Association (N.S.W. Division) Prize in Animal Genetics	50	Proficiency in Animal Genetics
Baker & Ridley Memorial	150	Proficiency in 4th year Animal Husbandry Practical Report
H.G. Belschner	100	Proficiency in 1st year in sheep and wool
Bloodhorse Breeders' Association of Australia (N.S.W. Division)	100	Proficiency in 5th year in Animal Husbandry, Veterinary Medicine and Veterinary Surgery
Rex Butterfield Prize in Veterinary Anatomy	50	Proficiency in 2nd year in Veterinary Anatomy
Carnation	25	Proficiency in 3rd year in principles of nutrition
H.R. Carne Prize and Medal	100 +, medal	Proficiency in the examinations for the degree of Bachelor of Science (Veterinary)
Commonwealth Bureau of Animal Health	40	Proficiency in 4th year in Veterinary Surgery
Cooper Australia Ltd.	225	Proficiency in 4th year in Veterinary Parasitology
Coopers Prize in Cattle Medicine	100 + medal	Proficiency in final year in the area of cattle medicine
Farr Memorial	50	Proficiency in 1st year in horse husbandry
N.P.H. Graham	200	Proficiency in 5th year in the sheep component of Veterinary Medicine
John Gurner and Frederick Ebsworth	350 each (3)	Proficiency in 1st year in Chemistry, in Physics and in Biology
K.G. Johnston	60	Proficiency in Veterinary Clinical Pathology
Dr J. Lamond Memorial	Bursaries	Financial need and academic merit
Lonsdale	400, 200	Proficiency in 4th year in clinical studies
William James McHugh	300	Case report in equine medicine or surgery in 4th or 5th year
Martin Mcllrath	490	Proficiency by male students in all years—preference to sons of ex-servicemen

Scholarship or prize	Value $	Qualifications
Metro Farms Pty. Ltd. Prize in Pig Medicine	50	Proficiency in final year in pig medicine
Jack Moran	20	Proficiency in meat inspection in Veterinary Public Health
H.C. Moulder	150	Proficiency in 3rd year in Veterinary Microbiology
Virginia Osborne	250	Proficiency in 2nd year in anatomy of the horse
W.R. Sidman Memorial Prize—awarded by N.S.W. Division of Australian Veterinary Association	3 yrs membership of Australian Veterinary Assoc.	Proficiency in 4th year in clinical studies
Beri Sinkovic Poultry Medicine Prize	200	Proficiency in 5th year in poultry medicine
Stewart	180	Proficiency in 4th year in veterinary medicine
J.D. Stewart	60	Student essay
S.T.D. Symons	up to 500	Proficiency in final year in clinical subjects
Uncle Ben's of Australia Pty Ltd	50	Proficiency in 4th year in small animal medicine
WIRES Wildlife Prize	250	Best final year essay relating to Australian native wild life

Mathematics Learning Centre

The Mathematics Learning Centre offers help to students who enter the University with insufficient preparation in mathematics to enable them to cope with the mathematical requirements of their chosen course.

Older students who may not have done mathematics for several years and some overseas students may need some help with biometry in first year Veterinary Science. If you are doubtful whether you are well enough prepared for a course, you should contact the Mathematics Learning Centre for advice.

The Centre can help you decide which topics you need to do extra work on. It provides resources for individual study, with guidance from tutors; and small tutorials are arranged for students who are having difficulties. Workshops to help with mathematics study skills are held near the beginning of the year, and introductory and bridging courses are organised during the summer and throughout the year.

Location

The Centre is on the ground floor of the Transient Building in Fisher Road (next door to the Co-op Bookshop). Any student seeking assistance should call at the Centre, or phone 351 4061.

Academic dress

Members of the University appear in their academic dress on public occasions convened for academic purposes.

Details on the ceremonial robes for all degrees of the University are given in a leaflet on academic dress available from the Student Centre. The particular requirements for the BVSc and BSc(Vet) degrees are as follows:

Bachelor of Veterinary Science—a gown similar to that worn by graduates holding the degree of Bachelor of Arts in the University of Oxford or of Cambridge, hood of black silk edged with amber and purple silk, black cloth trencher cap.

Bachelor of Science (Veterinary)—a gown similar to that worn by graduates holding the degree of Bachelor of Arts in the University of Oxford or of Cambridge, hood of black silk edged with purple and gold silk, black cloth trencher cap.

6 Postgraduate study

Higher degrees and postgraduate diplomas

Higher degrees

The higher degrees in the Faculty of Veterinary Science are:

MScVetSc—Master of Science in Veterinary Science
MVSc—Master of Veterinary Science
MVetClinStud—Master of Veterinary Clinical Studies
MVetStud—Master of Veterinary Studies
PhD—Doctor of Philosophy
DVSc—Doctor of Veterinary Science

The regulations covering the award of these degrees are printed in the *Calendar*. Prospective candidates should consult with the head of the department most closely concerned before submitting an application for admission to candidature.

The following statements summarise part only of the by-laws and resolutions of the Senate governing the award of these degrees.

Master of Science in Veterinary Science

Persons holding the degree of bachelor with first or second class honours may apply for admission to candidature for the degree of Master of Science in Veterinary Science. Applicants holding the degree of bachelor of the University of Sydney without honours but who have completed work equivalent to a degree of bachelor with honours or who have passed a preliminary examination or examinations as prescribed by the Faculty may be accepted as candidates.

A candidate for this degree shall complete such courses as are prescribed by the head of the department concerned and carry out research under the guidance of a supervisor for not less than one year. A thesis must be submitted, embodying the results of this research.

Master of Veterinary Science

Persons holding the degree of Bachelor of Veterinary Science may apply for admission to candidature for the degree of Master of Veterinary Science. Graduates in veterinary science from other universities may also, with the approval of the Faculty and the Academic Board, be admitted as candidates.

A candidate for this degree shall pursue a course of advanced study and research under the guidance of an adviser or supervisor for not less than one year and submit a thesis embodying the results of his or her investigation.

Master of Veterinary Clinical Studies

Persons holding the degree of Bachelor of Veterinary Science may apply for admission to candidature for the degree of Master of Veterinary Clinical Studies. Graduates in veterinary science from other universities may also, with the approval of the Faculty and the Academic Board, be admitted as candidates. Candidates shall be registrable by the Board of Veterinary Surgeons of New South Wales, unless exempted by the Faculty.

A candidate for this degree shall, for at least two years, engage in full-time supervised advanced veterinary clinical study and research and submit a thesis embodying the results of an original investigation.

Master of Veterinary Studies

Persons holding the degree of Bachelor of Veterinary Science may apply for admission to candidature for the degree of Master of Veterinary Studies in the following areas: Veterinary Pathology, Veterinary Radiology, Veterinary Anaesthesia, Avian Medicine, and Wildlife Medicine and Husbandry. Graduates in veterinary science from other universities may also, with the approval of the Faculty and the Academic Board, be admitted as candidates. Except for candidature in the subject areas of Avian Medicine and Veterinary Radiology, an applicant shall have qualifications registrable by the Board of Veterinary Surgeons of New South Wales. An applicant for admission to candidature in the subject area of Wildlife Medicine and Husbandry shall produce evidence of having worked for a period of not less than eight weeks in an institution which is concerned with the maintenance and care of wildlife and has been approved by the Faculty. A candidate for this degree shall, for a period of not less than twelve months, follow as a full-time student such courses of study and pass such examinations as the Faculty, on the recommendation of the head of the department or departments concerned, may prescribe.

A candidate for the degree in the subject area of Veterinary Pathology shall pass examinations in each of the following subjects:

Clinical pathology
Bacteriology
Pathology
Veterinary parasitology
Virology

A candidate for the degree in the subject area of Veterinary Radiology shall pass examinations in each of the following subjects:

Physics of diagnostic imaging
Radiobiology and radiation protection
Anatomy and physiology considered in relation to diagnostic imaging
Interpretation of clinical images
Radiation therapy

A candidate for the degree in the subject area of Veterinary Anaesthesia shall pass examinations in each of the following:

Part 1
Written and practical examinations
Anatomy, physiology, biochemistry and physics considered in relation to anaesthesia and intensive care

Pharmacology of drugs used for and in association with anaesthesia and intensive care.

Part 2

Written, clinical and practical examinations

The theory and practice of general anaesthesia

The theory and practice of regional anaesthesia

Pre-operative assessment, preparation and medication, and the recognition and management of post-operative complications in so far as they are related to anaesthesia and surgery.

Fluid therapy and management of cases requiring intensive care.

A candidate for the degree in the subject area of Avian Medicine shall pass examinations in each of the following subjects:

Epidemiology

Therapeutics

Medicine

Surgery

A candidate for the degree in the subject area of Wildlife Medicine and Husbandry shall:

(a) complete satisfactorily and submit a report on an approved full-time program of study of at least six months' duration at an institution which is concerned with the maintenance and care of wildlife and has been approved by the Faculty; and

(b) present a report embodying the results of an original investigation carried out on a full-time basis over not less than six months in the University of Sydney or at an institution which is concerned with the maintenance and care of wildlife and has been approved by the Faculty; or complete satisfactorily a report, including a case report, on an approved full-time program of study of at least a further six months at an institution as described in section (a); and

(c) pass examinations in each of the following subjects:

Management of captive animals

Management of free living wildlife

Zoological medicine

Diseases of free living wildlife

Nutrition and reproduction of wildlife.

The Faculty shall appoint a suitably qualified person to act as a supervisor of each candidate for the degree.

A candidate for the degree shall complete the requirements for the degree not earlier than one year after the commencement of candidature and, except with the permission of the Faculty, not later than two years after the commencement of candidature.

The Faculty may—

(a) on the recommendation of the head of the department concerned, call upon any candidate to show cause why that candidature should not be terminated by reason of unsatisfactory progress towards completion of the degree; and

(b) where, in the opinion of the Faculty, the candidate does not show good cause, terminate the candidature.

Doctor of Philosophy

Graduates who hold the degree of Master of Veterinary Science, Master of Veterinary Clinical Studies, or Bachelor of Veterinary Science with Honours may apply for admission as candidates for the degree of Doctor of Philosophy in the Faculty of Veterinary Science. Applicants not having an honours degree may be accepted as candidates after passing an examination at an equivalent standard. Graduates of other universities may also be admitted as candidates provided that their qualifications satisfy the Academic Board of the University of Sydney.

The degree may be taken on either a full-time or part-time basis.

In the case of full-time candidates, the minimum period of candidature is two years for candidates holding a master's degree or equivalent, or three years in the case of those holding a bachelor's degree with first class or second class honours. The maximum period of candidature is normally five years.

Part-time candidature may be approved for applicants who can demonstrate that they are engaged in an occupation or other activity which leaves them substantially free to pursue their candidature for the degree. Normally the rninimum period of candidature will be determined on the recommendation of the Faculty but in any case will not be less than three years; the maximum period of candidatureis normally seven years.

Doctor of Veterinary Science

The degree of Doctor of Veterinary Science is not conferred until the candidate is a graduate of eight years' standing from the degree that qualified him or her for candidature. The degree is awarded for published work that is recognised by scholars as a distinguished contribution to knowledge.

Postgraduate diploma

The Faculty awards the following postgraduate diploma

- DipVetClinStud Diploma in Veterinary Clinical Studies

Scholarships: postgraduate

The following is a summary only. For further information contact the Scholarships Office.

Scholarship	Value $	Closing date	Qualifications
1. Restricted to Veterinary Science postgraduates			
Lionel Lonsdale Clinical Fellowships	16 500Jnr 22 500 Snr	As advertised	For research at Sydney Veterinary Teaching Hospital and Clinic in diseases of domestic animals
F.H. Loxton Postgraduate Studentships	equivalent to APA	15 October	Male graduates of any university for research in veterinary science
Sara and Anne Payten Canine Cancer Research Fund	As recommended Head of Dept of Vet.Clin.Sciences	As advertised	Postgraduate study and research
Jean Walker Trust Fellowships	equivalent to APA	As advertised Not available until 1997	Postgraduate study and research
Jean Walker Trust Supplementary Fellowships	maximum 5000	As advertised Not available until 1997	Postgraduate study and research
James Ramage Wright Research Scholarships	500	As advertised Not available until 1997	Postgraduate study and research into the problems of animal production
2. Other awards open to Veterinary Science postgraduates			
(a) Tenable at the University of Sydney			
Australian Postgraduate Awards (APA)	14 619 18 866	October	Open to permanent residents of Australia for higher degree by research
(b) Travelling scholarships			
Harriett Beard Scholarship	9000	November	Postgraduate study and research in physical sciences - engineering, veterinary science and dentistry
Boulton Postgraduate Scholarship	9000	November	Postgraduate study or research for graduates educated within the Australian public educational system
C.G. Heydon Travelling Fellowship	10 500	November	Postgraduate study or research in biological sciences at overseas institutions
William and Catherine Mcllrath Scholarship	25 000	November	Postgraduate study or research overseas within four years after qualification for the first degree appropriate to the proposed course of study overseas
J.B. Watt Travelling Scholarship	9000	November	Postgraduate study or research overseas within four years after

Scholarship	Value $	Closing date	Qualifications
			qualification for the first degree appropriate to the proposed course of study overseas
Eleanor Sophia Wood Travelling Fellowships	35 000	November	Postgraduate study or research overseas
Eleanor Sophia Wood Postgraduate Research Travelling Scholarship	9000	November	Postgraduate study or research overseas within four years after qualification for the first degree appropriate to the proposed course of study overseas
(c) Grants-in-aid			
Restricted to Veterinary Science postgraduates			
Sir Ian Clunies Ross Scholarship	up to 500	31 May	Postgraduate candidature related to research in the wool industry
N.P.H. Graham Scholarship	up to 500	31 May	Postgraduate candidature related to research in sheep medicine
Goldia and Susie Lesue Scholarship	up to 2500	31 May	Postgraduate candidature in the Department of Veterinary Clinical Sciences
Neil and Allie Lesue Scholarship	up to 2500	31 May	Postgraduate candidature in the Department of Veterinary Clinical Sciences
Eric Horatio Maclean Scholarships	up to 1000	31 May	Postgraduate candidature
Stock and Meat Industries Grant-in-Aid	up to $1250	31 May	Postgraduate candidature in research related to the Stock and Meat Industries
Other grants-in-aid open to Veterinary Science postgraduates			
Royston George Booker Scholarships	up to 1000	31 May	Postgraduate study or research overseas
Herbert Johnson Travel Grants	up to 1000	31 May	Postgraduate study or research overseas
J. Kentley Memorial Scholarship	up to 1000	31 May	Postgraduate study or research
James King of Irrawang Travelling Scholarship	up to 1000	31 May	Postgraduate study or research overseas
G.H.S. and I.R. Lightoller Scholarship	up to 1000	31 May	Postgraduate study or research overseas

7 The University of Sydney (Camden)

In 1954 the Australian Dairy Produce Board, the Australian Meat Board and the interdepartmental Committee on Wool Research gave the University of Sydney two farms, totalling 324 hectares, for the use of the Faculty of Veterinary Science. Since then, through additional bequests and by acquisition, the University now owns 1400 hectares of land in the Camden district. This, together with other property in the Moree and Marulan districts, comprises the University farms. All the farms are the responsibility of the Director of Properties and Investments. The Camden farms are grouped into three centres, all of which are about 65km from the main Sydney site and within easy access of the academic centre at Werombi Road. The farms are at Badgery's Creek, Bringelly and Cobbitty.

Academic developments at Camden

Most development is at the Corstorphine Centre. Land from the original gift of the industries boards has been set aside for use by two departments of the Faculty of Veterinary Science and the Department of Agronomy of the Faculty of Agriculture. The faculty departments with major responsibilities at Camden are Animal Science and Animal Health. These departments are based in the J.L. Shute Building on Werombi Road. They have several major teaching and research units on nearby areas of the Corstorphine Centre. The Department of Animal Science has developed laboratories and other facilities for research in dairy cattle, poultry, sheep and meat. The Rural Veterinary Centre is a major component of the Department of Animal Health. It is a rural veterinary practice, providing services to the district. As well as teaching undergraduate students and postgraduates in clinical subjects, the Department of Animal Health is responsible for the management of the J.B. Pye Farm where 1000 sheep are kept for teaching and research. This department has also established and maintains separate pig and deer units.

In 1981 the University acquired a farm at Cobbitty. Here the Faculty of Veterinary Science has a horse breeding unit, and the Department of Animal Science's animal reproduction unit is also located in the same area.

Postgraduate training is a strong feature of the work of academic departments at Camden. Graduate students from Australia and overseas are engaged in research projects mostly concerned with primary industry disease and production problems. Some of their work entails the use of livestock on the University farms.

The University farms as a whole carry more than 400 milking cows and, with beef cattle and replacement stock, a total of more than 1200 cattle. They also carry about 2000 sheep, 30 horses, 80 deer, 2000 hens, 20 goats and 60 pigs. Almost all this stock is used in one way or another for teaching or research purposes, but in addition it produces a commercial income that defrays the basic costs associated with holding the farms and provides some funds for farm development, research and teaching.

The University farms at Camden are under the control of a director, who is responsible to the Vice-Chancellor. A Farms Advisory Committee advises the Vice-Chancellor on the role of the farms in teaching and research in the Faculties of Agriculture and Veterinary Science.

The Corstorphine Centre provides a base for a student accommodation unit, *Nepean Hall.* This gives students easy access to lectures and practical classes conducted by various departments of the faculties at Camden. Corstorphine is also the site of the Departments of Animal Health, Animal Science, and Agronomy, which occupy the Rural Veterinary Centre, the Shute Building, the Breakwell Building, the Poultry Research Centre, the M.C. Franklin Beef Research Centre and the Dairy Research Unit. Further large animal research and teaching facilities are provided by the Department of Animal Science on May Farm, which is only 3km south of Corstorphine.

The Bringelly Farms Centre, 10km north of Corstorphine, provides extensive sheep, beef and dairy cattle facilities for the Departments of Animal Health and Animal Science. Its irrigation resources are being further developed and it is becoming increasingly important as a research-teaching resource for other University departments.

As well as providing basic land, water and animal resources for a wide range of teaching and research in different departments, the farms serve the plant and animal industries by frequently acting as commercial testing sites for new plants, new fertilisers, new vaccines and antibiotics and new whole-farm management systems.

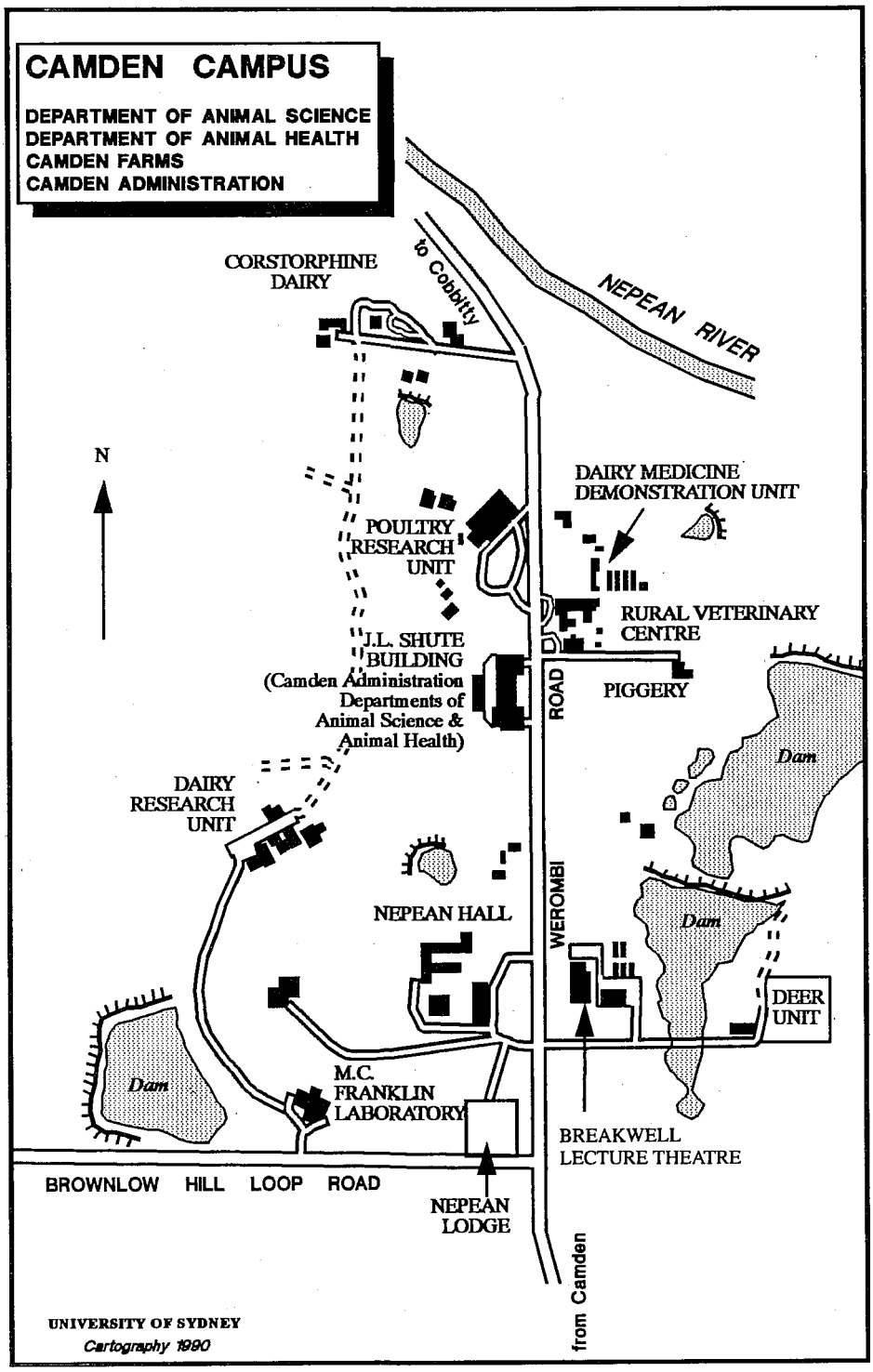
The Rural Veterinary Centre, staffed by the Department of Animal Health, in addition to offering a veterinary service for the district, provides clinical training for fifth year students.

Student usage of the farms takes two forms. In the first year, students take day excursions to the farms where they receive lectures and are given practice in animal handling and management. In fifth year they are in residence on the farms for the whole academic year as well as for a vacation period of three weeks working in the clinic.

In 1979 an additional livestock holding west of Marulan known as Arthursleigh came to the University as part of the Eric Holt bequest. It consists of about 5300 hectares and is being developed as a large-scale sheep-beef property.

Corstorphine

To reach *Corstorphine* from Sydney, take Hume Highway (not the freeway) to the Cobbitty turn-off,


CAMDEN CAMPUS
DEPARTMENT OF ANIMAL SCIENCE
DEPARTMENT OF ANIMAL HEALTH
CAMDEN FARMS
CAMDEN ADMINISTRATION
CORSTORPHINE DAIRY
to Cobbitty
NEPEAN RIVER
N
DAIRY MEDICINE DEMONSTRATION UNIT
POULTRY RESEARCH UNIT
RURAL VETERINARY CENTRE
J.L. SHUTE BUILDING (Camden Administration Departments of Animal Science & Animal Health)
ROAD
PIGGERY
Dam
DAIRY RESEARCH UNIT
NEPEAN HALL
WEROMBI
Dam
DEER UNIT
Dam
M.C. FRANKLIN LABORATORY
BREAKWELL LECTURE THEATRE
BROWNLOW HILL LOOP ROAD
NEPEAN LODGE
from Camden
UNIVERSITY OF SYDNEY
Cartography 1990

which is to the right, 20 km from the Liverpool Post Office. Follow the road through Cobbitty to the Nepean River, cross the bridge, turn left and travel another 800 metres.

The telephone numbers are:
The University of Sydney (Camden)—(046) 55 2300
Rural Veterinary Centre—(046) 55 2000
Students—(046) 55 0278,55 0281, 55 0282, 55 0283, 55 0284

Nepean Hall

In 1964 Nepean Hall was established as. a Hall of Residence on the University farms at Camden for final year Veterinary Science and Agriculture students.

Nepean Hall consists of two residential wings, which accommodate 85 students in furnished single study/bedrooms. Residence in the Hall is non-compulsory but there is a high demand for places. Fees are kept at the lowest possible level with full board set at $150.00 per week in 1995.

The Hall, with its spacious surrounds and panoramic views, offers a wide range of amenities including a recreational common room and music room, games rooms with table tennis, billiards and snooker, squash, tennis, football, television and video equipment, barbecue and supper-making facilities. In addition, there is a library adjacent to the Hall and residents are permitted conditional access to it at night.

The management of Nepean Hall is vested in the Council consisting of:

(a) the Vice-Chancellor *(ex officio)* or nominee;
(b) the Warden of the Hall;
(c) the Dean of the Faculty of Veterinary Science or nominee;
(d) the Dean of the Faculty of Agriculture or nominee;
(e) one student elected annually by and from students in residence in Nepean Hall who are candidates for a degree or diploma in the Faculty of Veterinary Science;
(f) one student elected annually by and from students in residence in Nepean Hall who are candidates for a degree or diploma in the Faculty of Agriculture;
(g) two persons appointed by the Senate on the recommendation of the Council to hold office for three years from 1 January following their appointment;
(h) the Authorised Officer;
(i) the Professor of Animal Science and the Professor of Animal Health.

Day-to-day activities of the Hall are the responsibility of a committee elected by the residents.

Rules

The following rules apply to students while resident in the Hall.

1. A visitor shall leave at any time if requested by the Warden.
2. A member of the Hall who is a student who commits a breach of the constitution or the rules or a breach of discipline or misconducts him or herself in or out of the Hall:
(a) may be fined by the Warden,
(b) may be suspended from residence in or attendance at the Hall by the Warden for a period not exceeding one month,
(c) may be suspended for any period by the Warden of the Hall or the Vice-Chancellor of the University,
(d) may be fined by the Council or the Vice-Chancellor in any amount, or
(e) may incur any penalty in accordance with academic usage which the Senate, the Proctorial Board of the University, the Council or the Vice-Chancellor or any other person authorised within the by-laws of the University may impose.

Appeals

Any person affected by a decision given under Rule 2 may appeal to the Council or the Vice-Chancellor in respect of any decision given by the Warden or any other person authorised with the maintenance of discipline and to the Senate where the decision is given by the Council or the Vice-Chancellor.

Addresses

The University of Sydney (Camden), 425 Werombi Road, Camden 2570; telephone (046) 55 2300.

Departments of Animal Health and Animal Science, 425 Werombi Road (Private Mail Bag 3), Camden 2570.
Department of Animal Health: telephone (046) 55 2301, fax (046) 55 2931.
Department of Animal Science: telephone (046) 55 2309, fax (046) 55 1331.

Rural Veterinary Centre, 410 Werombi Road, Camden 2570; telephone (046) 55 2000, fax (046) 55 1212.

Nepean Hall, 345 Werombi Road, Camden 2570; telephone (046) 55 2300.

Dog and Cat Facility, 405 Werombi Road, Camden 2570; telephone (046) 55 2178.

Horse Unit, Cobbitty Road, Cobbitty 2570; telephone (046) 51 2283.

John Bruce Pye Farm, Greendale Road, Bringelly 2171; telephone (047) 74 8212.

Lansdowne Farm, Cobbitty Road, Camden, 2570; telephone (046) 51 2328.

May Farm, May Farm Road, Mt Hunter, Camden 2570; telephone (046) 54 5239.

McGarvie Smith Animal Husbandry Farm, Elizabeth Drive, Badgery's Creek, 2171; telephone (047) 74 8184.

Plant Breeding Institute, Cobbitty Road, Cobbitty 2570; telephone (046) 51 2600, fax (046) 51 2578.

Wolverton Dairy Farm, Greendale Road, Bringelly 2171; telephone (047) 74 8013.

8 Foundations

Postgraduate Foundation in Veterinary Science

The purpose of the Foundation has been to fund postgraduate continuing veterinary education. The Foundation raises funds from the profession and the wider community in support of its activities. A full-time Director coordinates a program of continuing education which includes refresher courses, commissioned reviews and time-out seminars for veterinarians who have been away from clinical practice. The affairs of the Foundation are controlled by a nominated Council, which is appointed by the Senate of the University.

Poultry and Dairy Research Foundations

The purpose of both Foundations is to provide an interface between the relevant industries in Australia and the University of Sydney. As such they undertake research relevant to these industries, assist in the training of scientific and technical personnel to service the private and public sectors of the industries and act in an industrial liaison capacity. Both Foundations are actively involved in the dissemination of technical information to the industries through the organisation of annual scientific symposia.

J.D. Stewart Veterinary Science Foundation

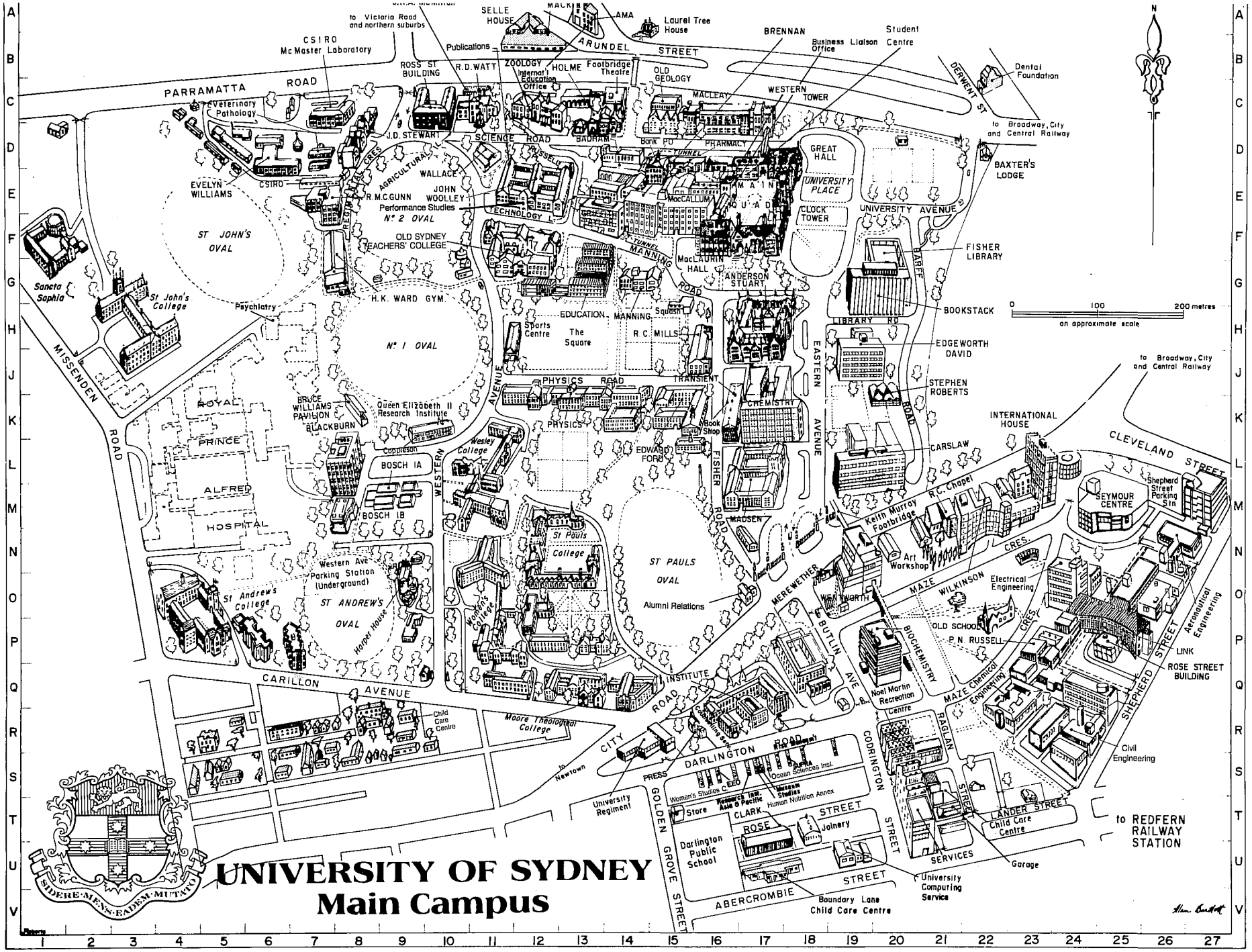
The establishment of the J.D. Stewart Veterinary Science Foundation was approved by Senate in March 1986.

The Foundation was established to promote veterinary research at the University of Sydney; however, its prime objective in the immediate future is to raise funds for the construction of a new building to house the Department of Veterinary Pathology.

The affairs of the Foundation are being conducted by a council chaired by the Right Honourable J.D. Anthony CH.

Buildings, departments and operations (main campus)

13G Accommodation Service A35
16S Accounting H51
16E Admin. Policy & Strategic Planning Division A14
17D Admin. Support Services Division A14
17D Admissions A14
26N Aeronautical Engineering J07
11C Agricultural Annexe A07
IOC Agricultural Chemistry & Soil Science A03
11C Agricultural Economics A04
11C Agricultural Glasshouses A06
1ie Agriculture Faculty Office A05
23N Alma Street Glasshouse G07
170 Alumni Relations F18
17H Anderson Stuart Building F13
17H Anatomy & Histology F13
7E Animal Science Bl9
16F Anthropology A14
16S ANZAASH44
16F Archaeology, Classics & Ancient History A14
22M Architectural & Design Science G04
22M Architecture, Dept & Faculty Office G04
20G Archives F04
20N Art Workshop G03
16E Arts Faculty Office A14
14F Asian Studies A18
170 Attendant's Lodge F18
14D Badham Building & Library A16
Banks
19N Advance G01
13C Commonwealth A09
19N Commonwealth G01
15D National Australia A15
19N National Australia G01
22D Baxter's Lodge F02
8L Behav. Sciences in Medicine D06
20P Biochemistry G08
12C Biological Sciences, Zoology A08
16C Biological Science, Botany A12
8L Blackburn Building D06
16K Bookshop F12
8L Bookshop, Medical D06
19N Bookshop SRC Secondhand G01
8M Bosch Building D05
9M Bosch Lecture Theatres D04
16C Botany A12
14F Brennan, C, Building A18
17H Burkitt Library F13
17E Business Liaison Office A14
12A Careers & Appts Service KOI
6C Caretaker's Cottage (Vet. area) B03
19L Carslaw Building F07
16D Cashier A14
15E Celtic Studies A17
21S Central Stores G12
19L Centre for Teach & Learning F07
17D Chancellor's Committee Shop A14
10G Chaplains, University Dll
23Q Chemical Engineering J01
21S Chemical Store Gil
17K Chemistry Fll
Child Care
17U Boundary Lane
9R Carillon Avenue
14A Laurel Tree House (Glebe) K05
21S Union (Darlington) G10
24R Civil Engineering J05
17T Clark Building H12
17E Clock Tower A14
17L Computer Science, Basser Dept F09
12A Continuing Education KOI
9K Coppleson Postgrad. Med. Inst. D02
13G Counselling Service, University A35
14C Credit Union A09
12E Crop Sciences A20
U C Agricultural Entomology A04
11C Agricultural Genetics & Plant Breeding AO
12E Agronomy A20
IOC Biometry A03
12E Horticulture A20
11C Plant Pathology A04
7C CSIRO McMaster Laboratory B02
7E —, Annexe B14
22B Dental H. Educ. & Res. Fndn K03
16K Dentistry Faculty Office A27
18Q Econometrics H04
18Q Economic History H04
18P Economics H04
18P Economics Faculty Office H04
19J Edgeworth David Building F05
13G Education A35
15K Edward Ford Building A27
24P Electrical Engineering J03
17L Electron Microscope Unit F09
23Q Engineering Faculty Office J02
24S Engineering Workshop J06
12E English A20
16S Equal Employment Opportunity H47
6D Evelyn Williams Building BIO
8L Experimental Medicine D06
17D External Relations Division A14
17D Financial Services Division A14
16H Fine Arts A26
20F Fisher Library F03
14C Footbridge Theatre A09
14E Found Property A19
14F French Studies A18
21T Garage, University G13
17Q Geography H03
19J Geology & Geophysics F05
14F Germanic Studies A18
18Q Govt & Public Admin H04
8K Grandstand No. 1 Oval D01
18D Great Hall A14
17E Greek—Ancient A14
13F Greek—Modern A19
13F Griffith Taylor Building A19
7E Gunn, R.M.C., Building B19
Health Service, University
13C Holme Building A09
19N Wentworth Building G01
15F History A17
17K History & Philosophy of Science Fll
13C Holme Building A09
5D Horse Stables B09
20P Human Nutrition Unit G08
17Q Industrial Relations H03
8L Infectious Diseases D06
19U Information Services H08
17Q Institute Building H03
17Q Internal Auditor H03
13D International Education Office K07
23 L International House G06
4D Isolation Block—large animal bull pen B05
16H Italian Studies A26
18T Joinery G12
12F Koori Centre A22
13F Language Centre A19
17E Latin A14
13G Learning Assistance Centre A35
16K Linguistics F12
250 Link Building J13
12A Mackie Building KOI
16F MacLaurin HallA14
16C Macleay Building A12
15C Macleay Museum A12
7C McMaster Laboratory CSIRO B02
U C McMillan, J.R.A., Building A05
17L Madsen Building F09
15C Mail Room (Internal) Al1
17E Main Building A14
14G Manning House A23
13A Margaret Telfer Building K07
16K Mathematics Learning Centre F12
19L Mathematics & Statistics F07
26N Median. & Aero. Eng Bdg J07
250 Mechanical Engineering J07
15K Medicine Faculty Office A27
8L Med. Paraclinical & Clinical D06
17H Medicine, Preclinical F13
18P Merewether Building H04
20P Microbiology G08
16H Mills, R.C., Building A26
14Q Moore Theological College 1
15F Mungo MacCallum Building A17
17S Museum Studies H36
24M Music J09
16F Nicholson Museum A14
10K Obstetrics & Gynaecology D02
17S Ocean Sciences Institute H34
15C Old Geology Building Al1
220 Old School Building G15
12F Old Teachers' College Building A22
8L Pathology & Path Museum D06
12E Performance Studies A20
13A Personnel Services K07
8L Pharmacology D06
15D Pharmacy A15
17F Philosophy A14
16K Phonetics Laboratory F12
21T Photography G12
13K Physics A28
17H Physiology F13
10K Postgraduate C'ttee in Medicine D02
15D Post Office A15
16R Press Building H02
21T Printing Service G12
16E Professorial Board Room A14
13A Properties Office K07
6H Psychiatry D06
15F Psychology A17
U D Publications A20
15K Public Health A27
21T Purchasing G12
17E Quadrangle A14
10K Queen Elizabeth II Res. Inst. D02
16D Records A14
15R Regiment, University HOI
13F Religion, School of Studies in A19
17S Research Institute for Asia & the Pacific H40
18S Risk Management H31
25P Rose Street Building J04
loe Ross Street Building A03
7D Round House Bll
23P Russell, Peter Nicol, Building J02
16K SAUT F12
SP St Andrew's College 2
3H St John's College 3
21M St Michael's College
12N St Paul's College 4
IF Sancta Sophia College 5
4C Sand roll shed B04
19L Science Faculty Office F07
14E Security A19
12A Selle House K02
18E Semitic Studies A14
18E Senate Room A14
21T Services Building G12
25M Seymour Theatre Centre J09
SD Sheep Building & Pens B07
17H Shellshear Museum F13
21S Shepherd Centre G10
27M Shepherd St Parking Station J10
16H Social Work A26
Sports
20R Noel Martin Recreation Centre, Darlington G09
12H Sports Centre Western Ave A30
7F Sports Union D08
7F Ward, H.K., Gymnasium D08
20J Stephen Roberts Theatre F06
8D Stewart, J.D., Building B01
17L Student Centre F09
19N SRC G01
18S SUPRA H28
8L Surgery D06
20R Swimming Pool G09
20D Tennis pav. & women's courts FOI
14E Traffic Office A19
16K Transient Building F12
19N Union, University of Sydney G01
15F University of Sydney Club A17
22M Urban & Regional Planning G04
8D Vet. Anatomy B01
6D Vet. Clinic, hospital, surgery BIO
6D Vet. Clinical Sciences BIO
7D Vet. Operating theatre & animal house B13
7D Vet. Pathology B12
7E Vet. Physiology B19
8D Vet. Science, Faculty Office B01
16E Vice-Chancellor A14
U D Wallace Theatre A21
17D War Memorial Gallery A14
250 Warren Centre for Adv. Engin. J07
U C Watt, R.D., Building A04
17L Welfare Association F09
19N Wentworth Building G01
UL. Wesley College 6
8N Western Avenue Underground Parking Station D07
16E Western Tower A14
22M Wilkinson Building G04
17H Wilson (Anatomy) Museum F13
HO Women's College 7
12H Women's Sports Association
16S Women's Studies Centre H53
12E Woolley Building A20
17D Yeoman Bedell A14
12C Zoology A08


UNIVERSITY OF SYDNEY
Main Campus
SIDERE·MENS·EADEM·MUTATO
PARRAMATTA ROAD
ARUNDEL STREET
SCIENCE ROAD
UNIVERSITY AVENUE
EASTERN AVENUE
WESTERN AVENUE
CARILLON AVENUE
MISSENDEN ROAD
DARLINGTON ROAD
CITY ROAD
GOLDEN GROVE STREET
ABERCROMBIE STREET
CLEVELAND STREET
SHEPHERD STREET
CODRINGTON STREET
CLARK STREET
ROSE STREET
LANDER STREET
to REDFERN RAILWAY STATION
to Victoria Road and northern suburbs
to Broadway, City and Central Railway
to Newtown
CSIRO Mc Master Laboratory
Veterinary Pathology
EVELYN WILLIAMS
CSIRO
J.D. STEWART
AGRICULTURAL
WALLACE
R.M.C GUNN
JOHN WOOLLEY
Performance Studies
SELLE HOUSE
Publications
AMA
Laurel Tree House
ROSS ST BUILDING
R.D. WATT
ZOOLOGY
HOLME
Footbridge Theatre
OLD GEOLOGY
MACLEAY
BRENNAN
Business Liaison Office
Student Centre
WESTERN TOWER
Dental Foundation
DERWENT ST
BAXTER'S LODGE
BADHAM
Bank PO
PHARMACY
GREAT HALL
UNIVERSITY PLACE
CLOCK TOWER
MacCALLUM
MAIN QUAD
GRIFFITH TAYLOR
TECHNOLOGY
Internat'l Education Office
OLD SYDNEY TEACHERS' COLLEGE
ST JOHN'S OVAL
Nº 2 OVAL
Nº 1 OVAL
H.K. WARD GYM.
Psychiatry
Sancta Sophia
St John's College
ROYAL PRINCE ALFRED HOSPITAL
BRUCE WILLIAMS PAVILION
BLACKBURN
Queen Elizabeth II Research Institute
Coppleson
BOSCH IA
BOSCH IB
Wesley College
St Paul's College
ST PAULS OVAL
Alumni Relations
ST ANDREW'S OVAL
St Andrew's College
Harper House
Women's College
Western Ave Parking Station (Underground)
Moore Theological College
Child Care Centre
University Regiment
INSTITUTE
Sports Centre
The Square
EDUCATION
MANNING
R.C. MILLS
Squash
TUNNEL
MANNING ROAD
MacLAURIN HALL
ANDERSON STUART
PHYSICS ROAD
PHYSICS
CHEMISTRY
EDWARD FORD
Book Shop
TRANSIENT
MADSEN
FISHER ROAD
FISHER LIBRARY
BARFF
BOOKSTACK
LIBRARY RD
EDGEWORTH DAVID
STEPHEN ROBERTS
CARSLAW
INTERNATIONAL HOUSE
R.C. Chapel
Keith Murray Footbridge
SEYMOUR CENTRE
Shepherd Street Parking Stn
Art Workshop
MEREWETHER
WENTWORTH
MAZE CRES.
WILKINSON
Electrical Engineering
OLD SCHOOL
P.N. RUSSELL
BIOCHEMISTRY
Noel Martin Recreation Centre
MAZE Chemical Engineering
LINK
ROSE STREET BUILDING
Aeronautical Engineering
Civil Engineering
BUTLIN AVE.
RAGLAN
Darlington Public School
Women's Studies C.E.E.D.
Ocean Sciences Inst.
Human Nutrition Annex
Store
Joinery
SERVICES
Garage
University Computing Service
Boundary Lane Child Care Centre
Lander Street Child Care Centre
0 100 200 metres
an approximate scale
N