Institute of Veterinary, Animal & Biomedical Sciences

BACHELOR OF VETERINARY
SCIENCE

Programme
Guide
# CONTENTS

Welcome to BVSc .......................................................................................................................... 1
  Important People .......................................................................................................................... 2

Learning Outcomes for the BVSc ................................................................................................. 4
  Introduction ............................................................................................................................... 4
  Desired Learning Outcomes ..................................................................................................... 4

Practical Work Regulations .......................................................................................................... 11
  Paper Prescriptions .................................................................................................................. 11
  The Veterinary Practical Committee ...................................................................................... 11
  Administration of Practical Work ............................................................................................ 11
  Requirements – Farm Practical Work ....................................................................................... 12
  Requirements – Veterinary Practical Work ............................................................................... 14

Ethical Guidelines ........................................................................................................................ 15

MUVSA ........................................................................................................................................... 17
  Executive Committee .............................................................................................................. 17
  Class Representatives ............................................................................................................ 17
  Events ....................................................................................................................................... 17
  Veterinary Bookshop ............................................................................................................. 18

General Information ..................................................................................................................... 18
  Assignment Submission ............................................................................................................ 18
  Aegrotat / Impaired Performance ............................................................................................ 18
  BVetTech .................................................................................................................................. 18
  BVSc Zoo ................................................................................................................................. 19
  Class Emails ............................................................................................................................ 19
  Class Photos ............................................................................................................................. 19
  Clothing and Footwear ............................................................................................................ 20
  Clubs ......................................................................................................................................... 20
  Disclosure of Disabilities / Illness ............................................................................................ 22
  Equipment .................................................................................................................................. 22
  Food Consumption .................................................................................................................. 24
  Grievance Procedures .............................................................................................................. 24
  Help .......................................................................................................................................... 24
  Hopkirk Research Institute ....................................................................................................... 24
  Insurance .................................................................................................................................... 25
  Lockers ...................................................................................................................................... 25
  Mail Boxes ............................................................................................................................... 25
  Medical Assurance Society (MAS) ............................................................................................ 25
  Mentors ...................................................................................................................................... 26
  New Zealand Veterinary Association Seminars ....................................................................... 26
  Notice Boards ........................................................................................................................... 27
  Paper Outlines .......................................................................................................................... 27
  Personal Pets ............................................................................................................................. 27
  Plagiarism ................................................................................................................................... 27
  Room Bookings ......................................................................................................................... 27
  Student Foyer ............................................................................................................................ 28
  Supplementary Exams ............................................................................................................. 28
  Timetables .................................................................................................................................. 28
  Veterinary Teaching Hospital ................................................................................................... 29
  Veterinary Undergraduate Programme Office ......................................................................... 29
  Veterinary Student FAQ .......................................................................................................... 30
Appendix

BVSc 1........................................................................................................................................................35
 Year Coordinator ..............................................................................................................................................35
 Paper Coordinators .......................................................................................................................................35
 VLE ...............................................................................................................................................................36
 Library Tutorials ...........................................................................................................................................36
 ePortfolio Tutorials .......................................................................................................................................36
 Stress Management Tutorials ..........................................................................................................................37
 Financial Obligations .....................................................................................................................................37

BVSc 2..........................................................................................................................................................41
 Year Coordinator ..............................................................................................................................................41
 Paper Coordinators .......................................................................................................................................41
 Challenge Exams ...........................................................................................................................................43

BVSc 3..........................................................................................................................................................47
 Year Coordinator ..............................................................................................................................................47
 Paper Coordinators .......................................................................................................................................47
 Library Tutorials ...........................................................................................................................................48
 Halfway Day ...................................................................................................................................................48
 Crossroads .....................................................................................................................................................49
 Planning Externships Overseas in Final Year ...............................................................................................49

BVSc 4..........................................................................................................................................................53
 Year Coordinator ..............................................................................................................................................53
 Paper Coordinators .......................................................................................................................................53
 Spring Calving (Y4C) ......................................................................................................................................54
 Extra Weeks ....................................................................................................................................................55
 Skills Books ....................................................................................................................................................55
 BVSc5 Preparation .........................................................................................................................................57
 NAVLE ............................................................................................................................................................57
 Financial Obligations .....................................................................................................................................58

BVSc 5..........................................................................................................................................................63
 Year Coordinator ..............................................................................................................................................63
 Paper Coordinators .......................................................................................................................................63
 ESS .................................................................................................................................................................64
 Graduation .......................................................................................................................................................64
 Prelude to Practice .........................................................................................................................................64
 In-Practice ........................................................................................................................................................64
 Waltham Lab ...................................................................................................................................................64
 Rosters .............................................................................................................................................................65
 Grand Rounds ................................................................................................................................................65

Appendix 1.....................................................................................................................................................67
IMPORTANT

The information contained within is correct as at the date of printing. However, some details may be subject to change. Should any changes occur you will be notified and updates will be place on the Stream Site: BVSc ZOO.

You are advised to check ZOO regularly.

Printed June 2012
Welcome to BVSc

Institute of Veterinary, Animal & Biomedical Sciences

Welcome to the Bachelor of Veterinary Science!

Massey University is home to the only veterinary school in New Zealand. The veterinary school is a centre of excellence in veterinary science and our BVSc programme is internationally recognized for producing practical graduates with a strong science base, a broad knowledge of companion and production animal health, an independence of thought and excellent problem solving skills.

We were one of the first (and still one of few) veterinary schools outside the United States to meet the stringent accreditation standards set by the American Veterinary Medical Association. This means that in addition to our graduates being able to work in New Zealand, UK, Australia, South Africa, Singapore and Hong Kong they can also work in Canada and the USA.

The vet school is part of the Institute of Veterinary, Animal and Biomedical Sciences (IVABS) and the institute is a world leader in the advancement and dissemination of knowledge regarding animal health, animal welfare, bio-security, conservation and sustainable pastoral productivity.

This programme guide contains necessary information you will require to help you with the administrative requirements of the course. If you have questions or need help in any way, the Programme Director, year coordinators or Undergrad Office staff will be able to help you.

The staff involved in this programme are here to help, guide and support you throughout your time at vet school. We understand that it can be a major challenge to undertake tertiary study and develop the independent learning skills that you are going to need to successfully complete the degree.

We hope you find your studies here enjoyable, challenging and fulfilling.
Important People

**PROF FRAZER ALLAN**
Head of Institute
Institute of Veterinary, Animal and Biomedical Sciences

Professor Frazer Allan has been head of the Institute of Veterinary, Animal and Biomedical Sciences since July 2009. He is a Massey veterinary graduate (1988). After graduation, he worked for two years in practice prior to returning to Massey at the end of 1990 to undertake a residency in companion animal medicine. During his residency he studied towards the degree of Master of Veterinary Science. He attained membership of the Australian College of Veterinary Scientists in 1993 by examination in canine medicine.

Immediately after his residency he undertook a PhD in human clinical nutrition. He lectured in companion animal medicine in the latter part of the 1990s before returning to private practice for three years at the end of 2000. In 2004, he was appointed Director of the Massey University Veterinary Teaching Hospital, a role that he filled until his appointment as Head of Institute. During this time, he studied extramurally towards a post-graduate diploma in business and administration, which was awarded with distinction in 2007.

He is actively involved in the veterinary profession having been a board member of the New Zealand Veterinary Association since 2006. He also sits on the Association’s Finance and Risk Committee. His research interests include companion animal medicine and nutrition.

**PROF TIM PARKINSON**
BVSc Programme Director
Head of Undergraduate Teaching
Institute of Veterinary, Animal and Biomedical Sciences

Tim Parkinson has been at Massey University since 1997, has been Professor of Farm Animal Health & Reproduction since 2004, and Veterinary Programme Director since 2011. He came to New Zealand in 1997, after having been Senior Lecturer in Veterinary Reproduction & Obstetrics at Bristol University for nearly 10 years. Before that he was a research assistant at Nottingham University, where he studied the endocrinology of early pregnancy in cattle, under the supervision of Eric Lamming. Tim has also worked in the cattle AI industry and in mixed rural (mainly cattle) practice in the south west of England.

Tim has two major areas of research interest – animal reproduction and science (veterinary) education. He has worked on aspects of reproduction in most domestic species – even dogs and fish! But mostly it has been on cattle and sheep. Tim is a Fellow of the Royal College of Veterinary Surgeons and is registered as a specialist with RCVS in veterinary reproduction.

As Programme Director, Tim is responsible for the BVSc and BVT programmes, and has an interest in the delivery of all of the other undergraduate courses and papers that are delivered by IVABS. Currently, he is leading a review of the BVSc curriculum which will be implemented in 2013.

Tim has written two major textbooks for veterinary students and practitioners: Veterinary Reproduction & Obstetrics (now in its 9th Edition) and, in 2010, Diseases of Cattle in Australasia.
DR ELOISE JILLINGS
Director of International Students
Institute of Veterinary, Animal and Biomedical Sciences

Eloise Jillings was born in New Zealand but moved to Canada as a child. She always wanted to be a veterinarian so started a BSc at the University of British Columbia with the intention to continue to a veterinary program. During that first year she found out about the option to go straight into the veterinary degree in New Zealand and so left her family in Canada and returned to New Zealand to pursue the BVSc program at Massey University. Fortunately she was accepted after doing the competitive semester and graduated with a BVSc in May 2001. Since graduating she did a clinical pathology residency and now teaches in the Pathobiology department at Massey.

Along with her teaching role, Eloise also is the Director of International BVSc students. In this role she helps look after the international students in the BVSc program and deals with the potential international veterinary applicants. Her experience living and studying both overseas and in New Zealand helps her to understand more about our international students.

SUE GRIBBIN
BVSc Programme Administrator
Student Management (Sciences)

Sue has been with College of Sciences since July 2000 and Programme Administrator for BVSc since April 2002.

Sue plays a key role in the enrolment and selection process for prospective veterinary science students. After selection she ensures that all veterinary students are enrolled correctly and processes examination results, practical work, clearances for graduation, letters for scholarships and confirmations of enrolment to outside enterprises (i.e. NAVLE registration).

SUE LEATHWICK
Undergraduate Administrator
Institute of Veterinary, Animal and Biomedical Sciences

Based in the Undergraduate Office, Sue is the personal assistant to the Programme Director and primarily cares for the administration of the final year students within the BVSc programme, as well as liaising with teaching staff with respects to roster timing and information that is distributed to students. In addition to this she coordinates the production of examinations for all papers within the vet school.

GEORGIE COWLEY
Undergraduate Administration Assistant
Institute of Veterinary, Animal and Biomedical Sciences

Georgie has been with IVABS since 2005 and is located in the Undergrad Office along with Sue Leathwick. Along with caring for the day-to-day admin duties connected with the vet and vet tech students, she also assists Eloise Jillings with the international students both before and after they enter the BVSc programme.
Learning Outcomes for the BVSc

Introduction
The Programme Director, Veterinary Science is required to develop a statement of Learning Outcomes for the BVSc programme in consultation with major stakeholders in veterinary education. This is that document as developed in consultation with stakeholders.

Considerable work has already been done overseas to define the competencies that might reasonably be expected of a veterinarian at the time of initial registration, i.e. at "entry level" and this work has been reviewed and refined to produce this document. The expectations detailed below will serve as a guide to veterinary educators concerned with the undergraduate curriculum. They may also be valuable to those responsible for setting criteria for the registration of overseas-trained veterinary graduates.

The development of statements of Learning Outcomes and the definition of "entry level" competencies for the registration of veterinarians are closely related exercises. Although they may be approached from differing points of view, there is an overall commonality of purpose. Overseas reports reviewed include the "NOOSR/AVA Competency Project" in Australia, the Ontario Veterinary College project on "Professional Competencies of Canadian Veterinarians" and the "Draft Guidelines on the Essential Competencies required of the New Veterinary Graduate" of the Royal College of Veterinary Surgeons in the UK. These provided valuable background in developing the Learning Outcome statements that follow. Many statements included below were prompted by and adapted from competency statements in these reports. This document attempts to steer a middle path between the highly detailed and prescriptive approach adopted in the Australian and Canadian reports and the more general approach taken in the RCVS study.

The principal objective of the BVSc curriculum at Massey University is to produce a competent veterinarian with the entry level knowledge and skills required of registering bodies in New Zealand, the British Commonwealth and North America who has a commitment to lifelong learning. The nature of veterinary practice in New Zealand requires the BVSc curriculum to provide a fundamental level of competency in the major domestic species, in meat hygiene and in public health. The Veterinary Programme Strategic Advisory Committee for the Bachelor of Veterinary Science degree has endorsed the learning outcomes presented below.

Desired Learning Outcomes
Note: These are intended to be read as if prefaced by the statement: "Having completed the BVSc programme, the student should (or should be able to...)"

1. Generic skills and attributes
   1.1 Demonstrate a level of literacy and numeracy that enables them to competently undertake the functions expected of a veterinarian.
   
   1.2 Understand the basis of effective communication by verbal and non-verbal means.
   
   1.3 Be able to communicate effectively orally and in writing.
   
   1.4 Possess interpersonal skills that will enable them to interact effectively and professionally with people with whom they come into contact in their personal and
professional lives. This includes skills in listening and understanding, empathy and respect for others and an ability to handle interpersonal conflict.

1.5 Demonstrate the ability to find, utilise and manage information, including the use of modern information technology.

1.6 Demonstrate intellectual curiosity and a desire for lifelong learning.

1.7 Demonstrate ability to reason logically and think critically and analytically.

1.8 Demonstrate problem-solving ability.

1.9 Make valid judgements and deductions on the basis of evidence and information available taking into account, as appropriate, ethical, moral and legal considerations.

1.10 Recognise the limitations of their knowledge and experience and be prepared to seek further information, advice or assistance when required.

1.11 Demonstrate understanding of the scientific method and the scientific basis of modern veterinary medicine, and the ability to utilise scientific principles in the practice of veterinary science and medicine.

1.12 Have well-developed observational skills.

1.13 Demonstrate adaptability and the ability to work collaboratively with professional colleagues, support staff and clients.

1.14 Understand the principles and methodology of quality management and assurance.

2. **General Veterinary and professional attributes and skills**

2.1 Recognise and comply with all legal and statutory requirements and obligations pertaining to veterinary activity.

2.2 Recognise and comply, in all areas of veterinary activity, with the ethical and professional standards expected of a veterinarian and in particular, those set down in the Code of Professional Conduct.

2.3 Recognise the special responsibilities of veterinarians in safeguarding and promoting animal welfare.

2.4 Be knowledgeable about animal welfare and able to identify and deal with animal welfare issues.

2.5 Recognise the special responsibilities and privileges of veterinarians in society and the need to maintain an appropriate standard of personal and professional behaviour.

2.6 Understand the basic principles involved in the running of veterinary businesses.

2.7 Recognise and accept their responsibility for maintaining their veterinary knowledge and skills, and for their own professional development and continuing veterinary education.
3. **Specific veterinary and professional attributes and skills in relation to the provision of primary veterinary care and other veterinary services.**

3.1 Demonstrate knowledge and understanding of the preclinical and paraclinical subjects.

3.2 Obtain and record a relevant, accurate and detailed history of animals presented.

3.3 Approach, handle and restrain animals in ways that are effective, safe, humane and ethical and appropriate to the circumstances.

3.4 Carry out and evaluate a thorough systematic physical and clinical examination of animals presented and be able to distinguish between the normal and the abnormal.

3.5 Where appropriate carry out, or have carried out, such diagnostic tests and procedures (such as haematology, clinical pathology, radiology and imaging) as are needed to make a diagnosis, ensuring that all samples are properly identified, handled and accurate records kept.

3.6 Know when to investigate and be able to evaluate the environment in which the animals under investigation are kept.

3.7 Carry out a routine post-mortem examination of common domestic animals including birds, record and report observations and initiate further diagnostic procedures where appropriate. Interpret post mortem findings and reach tenable conclusions concerning the changes observed.

3.8 From the history, clinical and/or post-mortem examination and interpretation of diagnostic procedures arrive at a tenable diagnosis or diagnostic hypothesis and a list of differential diagnoses.

3.9 Develop strategies that are appropriate to the circumstances for dealing effectively with commonly diagnosed conditions and diseases.

3.10 Conduct common therapeutic procedures on animals with uncomplicated diseases in a manner that will maximise the likelihood of a satisfactory outcome, and minimise the risk of untoward effects with respect to the animals concerned, public health and safety, food safety and quality. Record, monitor and follow up therapeutic responses and modify where appropriate.

3.11 Understand the importance of the unique disease status of New Zealand and recognise diseases that may be exotic to New Zealand or notifiable.

3.12 Understand the principles and practices involved in controlling the spread of diseases.

3.13 Recognise when analgesia and/or anaesthesia are required and be able to safely induce, maintain and monitor analgesia and anaesthesia in uncomplicated cases, and take steps to ensure safe and humane recovery.
3.14 Carry out common surgical procedures in uncomplicated cases using appropriate techniques and procedures before, during and after surgery that will minimise the risk to the animal and maximise the likelihood of a successful outcome.

3.15 Recognise personal limitations in dealing with unfamiliar, complicated or technically difficult cases and be prepared to seek further advice, assistance or to refer such cases to others.

3.16 Deal effectively with the immediate emergency needs of animals ensuring the relief of pain and suffering of the animal(s) while taking into account ethical and legal considerations.

3.17 Evaluate the need for euthanasia and, where required, carry it out safely and humanely using procedures appropriate for the species concerned and the circumstances. In addition, recognise the sensitivity of the situation and the need for support of grieving clients and the requirement for the consent of the owner of the animal (where known).

3.18 At all times communicate effectively with clients to keep them fully informed, ensuring that they are made aware of the rationale of any actions taken, therapeutic options, likely outcomes, costs and ethical and legal implications, so that they are able to make informed decisions.

3.19 Assess the need for and advise on the implementation of programmes to promote the health, well-being, productivity and performance of animals through such means as: dietary management and feeding; vaccination; preventive and curative treatments for common diseases; housing and general management; training and behavioural management and modification.

3.20 Provide first level advice on the public health implications of animal diseases.

3.21 Understand the procedures, and the animal welfare, ethical and statutory requirements involved in the transport and hygienic production and processing of animals for food and other animal products and the responsibilities of veterinarians in relation to these.

3.22 Recognise the statutory and regulatory requirements for the inspection and certification of animals and animal products intended for human consumption, and the responsibilities of veterinarians in relation to these.

3.23 Understand the basic requirements for the production of safe food and other products of animal origin including the compliance verification and quality assurance procedures involved.

4. **Practical skills of new graduates**

These should include, but are not necessarily limited to, the skills indicated in the following extract from the Practical Work Handbook and the compulsory items listed in the appended Skills Book.
4.1 Extract from the Practical Work Handbook

NOTE: The following list was compiled following responses from Special Interest Branches of the NZVA and individual veterinarians to an invitation to indicate the practical and other skills that might be expected of a new graduate. The responses varied considerably in detail and the list is an attempt to provide a generic statement that covers the great majority of items mentioned in them. It is included in the Practical Work Handbook as a guide to students and to veterinarians with whom they are 'seeing practice'.

*Competency Standards of Veterinary Graduates:*
A recent survey of veterinarians in a range of practices indicated practical skills that were expected of new graduates. This is a guide to the expectations of practitioners of your level of competence by the time you graduate, and so is a useful reference point for you while you are developing your clinical skills doing your veterinary practical work and your clinical work during the course. The following is a set of general principles that you can use as a guide.

*A graduate, unsupervised, should be able to:*
- Recognise a 'normal' animal, and be able to carry out a clinical examination of all common species (including safe handling and restraint, take a history, investigate temperature, pulse, respiration, mucous membranes, eyes, ears, body condition, etc. using appropriate techniques such as auscultation, palpation etc), collect appropriate samples for diagnosis using appropriate procedures for the species concerned and the circumstances (this would include, for example: taking blood samples from appropriate sites - e.g. jugular or tail veins in cattle, cephalic or saphenous veins of dogs and cats, collecting urine samples - e.g. by cystocentesis or catheterisation in dogs and cats, collecting faecal samples), carry out basic examination of such samples (this would include, for example, packed cell volume, specific gravity of urine, simple dipstick chemistry, faecal examination for common parasites etc.); carry out humane euthanasia appropriate for the species, perform a necropsy, assess gross pathology and take appropriate samples for diagnosis.
- Calculate correct doses of medication to be given,
- Administer injections by intramuscular, subcutaneous, and intravenous routes (including using a pole-syringe in deer, and vaccinating animals), and administer fluids by intravenous or other appropriate routes,
- Administer oral medications in appropriate forms (e.g. pills, pastes, liquids such as drenches) and include nasogastric, stomach or crop tubing as appropriate,
- Apply topical medications, including to eyes and ears (e.g. ointments and dressings, washed, pour-ons, drops etc.),
- Induce and monitor sedation,
- Induce, monitor and maintain general anaesthesia in routine, uncomplicated cases,
- Induce local anaesthesia in simple uncomplicated cases (e.g. cornual and regional limb block in cattle, and local infiltration block in dogs and cats),
- carry out minor surgical and medical procedures (e.g. drain abscess, suture wounds, apply bandaging, apply casts, dehorning - with appropriate anaesthesia, emptying anal glands of dogs, trim claws etc.).
A graduate, with some supervision, should aim to develop expertise and experience in:

- Assess body condition and nutritional parameters (e.g. condition scoring of ruminants, estimating quantity and quality of pasture, performance evaluation in pig herds, assessing condition of dogs and cats relative to ideal weights and assessing nutritional requirements,
- diagnose pregnancy e.g. by rectal examination of large animals, ultrasound scanning,
- abdominal palpation in dogs and cats etc.,
- assessing breeding soundness in bulls and rams,
- diagnose anthelmintic resistance by a faecal egg count reduction test,
- carry out tuberculosis testing,
- examine teeth and carry out basic dental procedures (including scaling and extraction in small animals, rasping in horses ),
- carry out more advanced local anaesthesia (e.g. epidural, paravertebral, line block, intravenous block),
- induce, monitor and maintain general anaesthesia in compromised patients,
- manage dystocia, including caesarian section,
- carry out dehorning of cattle and velvetting of stags,
- miscellaneous skills including such things as controlled intravaginal drug releasers (CIDR) application, administering rumen boluses, removing horse’s shoes, foot trimming, urinary catheterisation.

NOTE: You should take every opportunity to familiarise yourself with the above wherever possible. Please remember your experience in a veterinary practice is provided through the courtesy and goodwill of veterinarians.

4.2 The following is an extract from the course notes for 227.503 relating to the Skills Book.

There are two categories of skills in this section:

1) Compulsory skills (some are ‘core’ and some are ‘track’).
2) Additional non-compulsory skills.

1. COMPULSORY SKILLS
Details of these are contained in the red ‘skills’ booklet which you will receive during your fourth year. Compulsory techniques are those in which students are required to demonstrate proficiency. This is a course requirement for the paper, which means that you cannot graduate until you have met the criteria for completing these techniques, as described below. It is your responsibility to ensure that you carry out the techniques and that you get your ability assessed and signed off as and when you perform each technique. Clinicians cannot be expected to remember if you did a particular procedure some time ago... so you MUST get them signed off at the time.

2. ADDITIONAL NON-COMPULSORY SKILLS
These techniques are mostly those in which you should be proficient, but includes others which it would be profitable for you to have seen / participated in. These can be signed off by any registered veterinary practitioner.
These are not compulsory, but indicate the level of technical proficiency that you should expect to achieve before graduation as such these procedures do not have to be signed off, but you will probably want to either tick them off yourself when you are confident in your ability, or even to get a Massey veterinarian or other practitioners to sign off, if you so wish.

See Appendix 1 for more information about specific skills.
Practical Work Regulations
for the Bachelor of Veterinary Science

Students must complete to the satisfaction of the Veterinary Science Programme Committee a period of not less than 20 weeks of approved practical work experience and associated reports, including:

a) not less than fourteen (14) weeks practical farm work (paper number 227.310); and
b) not less than six (6) weeks veterinary practical work (paper number 227.410).

Paper Prescriptions

227.310 - BVSc Farm Practical Work
In this paper students will undertake farm work in cattle, sheep, horse and other livestock industries. Students will develop practical animal skills, and skills in observation, identification, analysis and communication.

227.410 - BVSc Veterinary Practical Work
During this paper, students will undertake practical work in external veterinary practices under the supervision of a registered veterinarian, to develop clinical skills and gain experience of client-based veterinary practice.

The Veterinary Practical Committee
The Veterinary Practical Committee supervises this work and the guidelines available on the website will assist you in meeting the requirements.

Administration of Practical Work

Practical Work Credits
All practical work credits will be recorded by the Practical Work Office. You may verify your records by requesting the relevant information from Sue Gribbin, Programme Administrator, Veterinary Science (email vet@massey.ac.nz)

Full credit for a period of practical work will be given and recorded on your file only if you have:

Farm Practical Work
- supplied a report by the due date (with a late fee if appropriate)
- completed the report cover sheet (including employers verification)
- received a pass mark from the marker
Veterinary Practical Work
- completed the Student Veterinary cover sheet (including employers verification)
- Confidential Assessment Form has been returned directly from the Veterinary Practice

All enquiries concerning the practical work programme should be directed to:

Sue Gribbin
Programme Administrator – Veterinary Science
Email: vet@massey.ac.nz

Note: You can download additional Farm and Veterinary Forms from the Practical Work Website: http://pwo.massey.ac.nz

Requirements – Farm Practical Work

Types of Farm Practical Work
The minimum requirements for farm practical work shall not be less than 14 weeks that must include:

- at least 4 weeks full-time* work on a commercial sheep (sheep/beef) farm(s);
- and at least 4 weeks full-time work* on a commercial dairy farm(s);
- and at least 3 weeks full-time* equine work, which may include:
  a registered farrier, commercial training stable, horse breeding farm or a combination of these.

The balance of 3 weeks (full-time*) may include any combination of the above, or work on deer unit (esp. velvetting stags), piggeries, poultry units, zoological units, or any other livestock units considered to be appropriate.

(* full-time implies a minimum of 40 hours per week, but days/times are to be set directly with the employer)

At least half of the farm practical experience (7 weeks) must be undertaken in New Zealand and must include either the Dairy or Sheep/Beef farm experience.

It is strongly recommended that if you are planning to work in rural practice in New Zealand that you undertake at least two weeks deer practical. The New Zealand Deer Farmers’ Association can be contacted for a list of appropriate farmers who are willing to accommodate a student placement.

If you are planning to sit NAVLE Examinations for Registration in North America, you should seriously consider incorporating two weeks piggery practical work.

Written reports are required for ALL farm work and livestock enterprises including sheep, dairy, equine, deer, pigs, poultry, zoological enterprises, etc.
Pre-entry Practical Work
If you have gained practical experience prior to enrolling for BVSc (e.g. home farm), you may be permitted to claim credit, subject to a suitable report being submitted. Submit your report by end of Semester 2 in the first year of your course.

Reports on Practical Work
All practical work reports must be handed in to the Practical Work Office (Science Tower B, Room 2.22).

Reports should be presented in a manila folder with the signed Farm Report Cover Sheet stapled onto the front (copy of cover sheet included in Guidelines). A separate manila folder is required for each report handed in. Additional copies of the Farm Report Cover Sheet are available from the website http://pwo.massey.ac.nz under Documents and Downloads.

Unsatisfactory reports will be returned to the student for upgrading and re-submission. Reports on any practical work completed must be submitted, marked and approved by an appropriate staff member before credit for that work will be granted. You will have completed 227.310 BVSc Farm Practical Work once all reports have been approved and weeks credited.

Due Dates
Reports on work carried out during any vacation period should be submitted to the Practical Work Office within four (4) weeks after the end of the vacation period in which the work is carried out.

Late reports will be accepted only up to last day of the semester in which the report was due. A late fee of $37.00 (including GST) will be charged for all late reports. This fee should be paid to the Cashier in the Registry Building (to Account PR40030-0704 Vet), and the receipt included with the report.

Reports will not be accepted thereafter except with the written permission from the Chairman of the Veterinary Practical Work Committee, and therefore the practical work may need to be repeated.

Completion of Farm Practical Work
It is recommended that students complete ALL farm practical work by the commencement of semester one of the third year (final reports handed in within four weeks after the start of semester one of the third year). This will enable you to complete 227.410 BVSc Veterinary Practical Work requirements between the June/July break in the third year and the June/July break in the fourth year.

Note that must have completed the requirements for 227.310 BVSc Farm Practical Work BEFORE YOU CAN PROGRESS TO THE FOURTH YEAR OF THE BVSc (except with prior approval of the Programme Director).
Requirements – Veterinary Practical Work

The minimum requirements for veterinary practical work shall be:

SIX (6) weeks attendance under the supervision of a registered veterinary surgeon. It is essential that you experience a range of clinical practices – at least HALF (i.e. 3 weeks) of the veterinary work experience must be completed in New Zealand, in a minimum of two practices and one week must be a large animal/rural practice.

Granting of Credits
The following conditions govern the granting of credit for attendance in veterinary practices:

- all work must be supervised by a registered veterinary surgeon.
- experience must be with at least two veterinary practices (one being a large animal/rural practice).
- veterinary practice experience may only be carried out from the end of semester one (June) of the third academic year and is to be completed by the start of semester two of the fourth academic year.
- a minimum experience of at least one week in each practice, attending for full days, and for the dates indicated on the practice certificate. You must complete at least five days to give credit of a week, unless the fifth day is a public holiday, only then will four days be credited as a week.

Registration of Veterinary Practical Work
The Online Registration of Attendance at a Veterinary Practice, located on the Practical Work Website (http://pwo.massey.ac.nz) MUST BE completed at least two weeks prior to commencement of veterinary experience by the student. Details can be logged into the Online Registration anytime in advance to your visit, then approximately two weeks prior to your visit the Practical Work Office will send a letter with the Confidential Assessment Form to the practice.

Completion of Veterinary Practical Work
It is required that students complete ALL veterinary practical work by the commencement of semester two of the fourth year.

Note that must have completed the requirements for 227.410 BVSc Veterinary Practical Work BEFORE YOU CAN PROGRESS TO THE FINAL YEAR OF THE BVSc (except with prior approval of the Programme Director).
Ethical Guidelines

Ethical Guidelines for students in laboratory classes involving the use of animals and animal tissues

Introduction

The use of animals or animal tissues in laboratory classes is a privilege that brings with it responsibilities. These responsibilities go well beyond the need to avoid cruelty to animals and involve a genuine commitment to their welfare and a respect for the contribution they make to your learning. Outlined below are principles to consider in helping you to meet these responsibilities and to derive maximum benefit from the use of animals in laboratory classes.

Principles to consider

1. **Consider why animals or animal tissues are being used in the laboratory**
   The justification for using animals should be to enhance educational outcomes, while recognising that at the same time there is the potential for harm to animals to achieve these outcomes. Consideration should always be given to whether the educational outcomes could be achieved without the use of animals or animal tissues. Every student and staff member should be mindful of the Three Rs (Replacement, Reduction, and Refinement) when working with animals in a teaching environment.

2. **Consider the requirements for animal welfare and animal handling**
   At all times the welfare of the animal you use is your responsibility not just your teacher’s responsibility. This can be considered as a "duty of care". If you are required to handle animals during a laboratory class, it is important to follow the instructions of staff in the correct handling and restraint techniques for the species with which you are working.

3. **Consider the regulatory environment**
   The use of animals in research, testing and teaching is regulated in New Zealand by legislation under the Animal Welfare Act 1999. This Act has an underlying principle of a "duty of care". It also requires approval from an institution's Animal Ethics Committee (AEC) for work in the teaching environment that uses animals. Gaining this approval involves justification for using animals (species and number), the means by which animals will be handled and, if required, humanely killed, and the educational outcomes of the laboratory work balanced against any potential harm to the animals used. The skills of the staff involved and the supervision of the students are also evaluated. In fact, the questions raised by AECs should be those asked by each student regarding the use of animals in their laboratories.

4. **Consider your own views in using animals or animal tissues in the laboratory**
   You should discuss the use of animals and animal tissues with other students and staff. Opinions should be formed and aired, with appropriate justification, in an open and accepting environment. You should feel free to make suggestions that might improve future laboratory classes, and to this end, student opinion regarding the use of animals in teaching should be encouraged.
5. **Consider your responsibility to make sure that good use is made of the learning opportunity**

You should know what underlying principles are being taught in the class and understand the details that illustrate those principles. This involves reading background material from lecture notes and references before coming to class, reading the laboratory manual before the class, and being generally prepared to maximise the learning experience. Use every opportunity, within the approved scope of the class, to develop manual, observational, and recording skills.

---

**ANZCCART has the following objectives:**

- To promote excellence in the care of animals used in research and teaching and thereby minimise any discomfort that they may experience;
- to ensure that the outcomes of the scientific uses of animals are worthwhile;
- to promote the Three Rs (Replacement, Reduction and Refinement) as they apply to the use of animals for scientific purposes; and
- to foster informed and responsible discussion and debate within the scientific and wider community regarding the scientific uses of animals.

Websites:  
www.rsnz.org/advisory/anzccart/  
www.adelaide.edu.au/ANZCCART/
MUVSA

MUVSA stands for Massey University Veterinary Students Association. It acts as a liaison between Vet / Vet tech students, IVABS members and the Veterinary profession. MUVSA acts in the interests of students.

MUVSA is a non-profit organisation, any surplus funds are used to provide for students. In the past MUVSA has donated a scanner, microwave and toaster.

Executive Committee

The MUVSA executive consists of: President, Vice-president, Secretary, Treasurer and Bar Persons. The Vice-president position is taken by the previous years’ President.

The executive is made up of fourth years (except the vice - president) which are voted in by the vet students in semester two. The remainder of the MUVSA committee is made up of a class representative from each year. This person attends the monthly MUVSA meetings, they have the opportunity to present any complaints or problems that have arisen from that class, allowing these to be discussed and managed.

A patron, usually a member of the teaching staff, is chosen by the committee to help provide guidance and knowledge.

Class Representatives

Class representatives are elected by the students. The first year representative is elected at VLE. Second - fifth year reps are elected during the MUVSA elections.

Class reps acts for and represent the students in their year in areas of organisational requirements and student-staff discussions.

Events

MUVSA also runs the Vet Happy Hours which are held once a month, these provide an excellent chance to get to know your peers and talk to students from other years in a more relaxed environment. These are highly social and enjoyable occasions. It is strongly advised that you attend happy hours as the profit made from these events goes towards improving the facilities available to students.

Skull cup is a yearly event run by MUVSA which sees all the years compete against one another in a variety of sports including touch, volleyball, soccer and netball. Rugby is played as Juniors (years 1-3) vs Seniors (years 4 + 5). This competition runs throughout the day and into the night where more activities take place and the days stories are shared. Again, this is a highly recommended chance to keep up the friendly inter-class rivalry and meet new people.
Veterinary Bookshop
The veterinary bookshop is run by a sub-committee of MUVSA and provides students and staff with overseas text-books twice a year. They send out information beforehand however, if you wish to contact them their email address is: vetbooknz@gmail.com.

They have a notice board on the wall outside the vet foyer locker rooms for posting sale dates and books available for purchase.

General Information

Assignment Submission
When handing in assignments for your papers, please attach an Assignment Coversheet. These are located in the black ‘cubbies’ outside the Undergrad Office.

Note there are two types: a generic and a fifth year specific coversheet. Ensure you use the correct coversheet.

If there are none available, ask at the Undergrad Office.

Assignments are to be put into your year assignment box in the student foyer.

Aegrotat / Impaired Performance
Should these become necessary at any point during your studies, eligibility criteria, information on how to apply and the appropriate forms can be found on the main Massey website. A shortcut link has been posted on BVSc ZOO.

BVetTech
The Bachelor of Veterinary Technology (BVetTech or BVT) is a three year programme structured in a similar way to a BVSc (including a ‘pre-Vet Tech’ semester).

The BVetTech programme was introduced to allow advancement from a Diploma level Veterinary Nurse, to a Bachelors degree level in Veterinary Technology and has opened up opportunities in the veterinary industry, the agricultural industry such as animal health technologists and/or herd health managers who work alongside veterinarians to ensure that farmers institute herd health plans. Veterinary technologists are utilised in government agencies as well as the veterinary industry where they complement the role of the veterinarian.
BVSc Zoo

BVSc Zoo is a new page that can be found on Stream. It has been designed with the express purpose of being a 'one-stop-shop' for all things BVSc. It replaces the Calve and MUVSA websites. You will have access but if you have any problems accessing this site, please contact the UG Office.

Class Emails

Please ensure your details are correct on the SMS system. The email address that you list on this site will be added to a class email list which will enable us to send information regarding your studies to the entire class. If you change your email address, please let the Undergrad Office know.

If you do not appear to be receiving any emails, please contact the Undergrad Office by either emailing vetug@massey.ac.nz or come to room 1.54.

BVSc1: BVSc1@lists.massey.ac.nz.
BVSc2: BVSc2@lists.massey.ac.nz.
BVSc3: BVSc3@lists.massey.ac.nz.
BVSc4: BVSc4@lists.massey.ac.nz.
BVSc5: BVSc5@lists.massey.ac.nz.

All emails sent to this address are routed through the Undergrad Office. Any inappropriate emails will not be circulated.

Class Photos

You will be required to have your photo taken each year as follows:

BVSc1 – during the second week of semester two
BVSc2-4 - during the first or second week of semester one
BVSc5 – during the two-week lecture block

Class photos are compulsory, if you are unable to make it please contact the Undergrad Office to arrange an alternative time to have it taken.

Students are expected to maintain a high level of professionalism for these photos – this means no costumes, wigs, hats or novelty glasses.

Class photos are available for purchase for $2 from the Undergrad Office. You will be notified when these are available.

Not-So Professional Class Photos

If as a class you wish to arrange a fun class photo, this is to be kept separate to official class photos. Should you, as a class, decide to arrange a fun class photo, please give a copy to the Undergrad Office so we can upload it onto BVSc ZOO for other classes to admire your creativity.
Clothing and Footwear

Clothing
No overalls, lab coats or dirty work boots/gumboots are to be worn where food is consumed in the Massey University student centre/dining hall located in the concourse and it is inappropriate for protective clothing to be worn there.

Footwear
ALL users of the IVABS building must wear appropriate footwear. The reason for this is due to the risk of individuals being infected with zoonotic material or sustaining cuts, needle pricks or other injuries. For example, there have been occasions in the past when accidents have lead to contamination of floors with bacteria such as Salmonella. To ensure you do not transmit these bacteria to your family members or flatmates, shoes are to be worn at all times. This means NO BARE FEET WITHIN THE IVABS TOWER.

All footwear worn when handling animals should be ‘closed-toed’, providing suitable protection from animals, and should be professional in appearance (i.e. neat, tidy and as clean as possible).

Vet Clothing
MUVSA has vet clothing sales throughout the year. These will be advertised close to the time and samples will be provided for you to try.

Clubs
There are a variety of clubs and organizations run by the students some of which are listed here. If your group or club is missing, please contact the Undergrad Office.

AWAG
The Animal Welfare Advocacy Group (AWAG) is a student club that aims to promote animal welfare at Massey University. Our aim is to provide non-judgmental support for people interested in animal welfare issues and to promote positive change in animal welfare policy and practices through raising awareness, education and advocacy.

We hold various events on campus, including animal welfare-related feature film presentations, guest speakers and social events where we brainstorm new ideas. We also act as a support group for any students that have concerns regarding the use of animals in classes or in practical work at Massey. We are a new group, and are open to ideas. Our main objective being cooperative work with the university and staff to promote positive changes in animal welfare.

For more information email: awag.nz@gmail.com or find us on Facebook: Massey AWAG.

RADIC
The Radiology and Diagnostic Imaging Club meet weekly on Wednesdays between 12 – 2pm. Specific times will be advertised.
Meetings usually begin with a student presentation relating to what students in first and second year anatomy classes are studying. This is a presentation on normal radiographs without any pathology. The rest of the meeting is presentations by final year students on their radiology rotation. These are cases that have come though the clinic at Massey.

More information will be circulated at a later stage.

SVECCS
The Student Veterinary Emergency and Critical Care Society is part of an international society of student vets and practicing vets.

We meet weekly on Monday’s from 12-1pm.

Our talks focus on all different aspects of both emergency and critical care. We also have a conference in September that is a great hands on experience for students in all years. Membership is $10 and this gives you entry to all meetings or it is a gold coin donation. It also gives you the opportunity to sign up for the conference before non members. The 2010 conference sold out on the first day!

If you have questions please email masseysveccs@gmail.com or find us on Facebook: Massey SVECCS.

Wildlife & Conservation Club
The Massey Students Wildlife and Conservation Club (MSWCC) originated in 1992, and functions as a forum for students of Veterinary Science, Veterinary Nursing, Veterinary Technology and Ecology of with interest in wildlife and conservation to meet and exchange information and ideas.

The club meets weekly on Wednesdays between 12 – 2pm (specific times will be advertised). These sessions alternate between Bird Nerds, hosted by Dr Brett Gartrell, and wildlife and conservation talks. The wildlife and conservation talks are hosted by a wide variety of speakers, including practicing veterinarians, under-graduate and post-graduate students of both the Veterinary and Ecology courses, DOC employees, and many other professionals and researchers with knowledge of wildlife and conservation issues.

Membership is $10 per year.

We also have a website updating our talk schedules at www.mswcc.org.nz. We are also on facebook under ”Massey Student Wildlife Conservation Club”. To contact us email: masseystudentwildlife@gmail.com.

VIVA
VIVA was formed in 2010, starting out as a Vet choir, and then branching out to accept all Massey students in March 2011. We chose the name ‘VIVA’ because it means ‘live’, signifying our vibrant and enthusiastic approach to all things musical. We are a diverse group of nationalities, University majors and ages, all with a common love for music in all its forms. Most read music and
play at least one musical instrument, however, these skills are not essential to be a part of the team.

We meet each Friday from 2-3pm in the Sir Geoffrey Peren Building, near Bennetts. Follow the signs with our bright green logo to our rehearsal room!

Membership is $5 per year for Massey Students and $10 for non-students.

Our song selection is mostly based on requests from members and includes a wide range of genres and musical styles, namely classical, pop, traditional/cultural, and movie music. VIVA is Massey’s only affiliated musical group to date! If you love music and/or have been a part of musical groups in the past then this choir is for you. We have fun and are a friendly, social bunch. Our sound is big and beautiful and with your membership it will only get better.

For more information email: vivamuc@gmail.com or find us on Facebook: ‘VIVA’ The Massey University Choir.

**Disclosure of Disabilities / Illness**

Any student with a mental or physical health problem which may affect performance during the course activities is encouraged to consult the Paper Coordinator, or if preferred, the Programme Director. Students will normally be required to participate in all course activities (e.g. laboratory/field trip), so the Student Health Service should be consulted if you are unable to participate. The provision of this information is voluntary, but it is important that you make known any health conditions which may affect either your safety or the safety of others.

Compulsory components of classes must be made up, so contact your paper coordinator to arrange this.

If you are absent due to illness, a medical certificate must be provided and given to either the Undergrad Office or paper coordinator.

Final year students on rosters are to contact their roster leader in the first instance, or the Undergrad Office.

**Equipment**

**Access Cards**

All BVSc students will require an access card to the Vet Tower. It will allow you to access the building to study after hours seven days a week and will also give you access to the Vet Teaching Hospital, which has restricted access. **NOTE:** Should you require access to computer labs outside the Vet Tower, you will need to contact ITS.

A map showing you what areas you can access afterhours is up on the Notice boards.

**YOU WILL NOT BE ABLE TO ACCESS THE TEACHING HOSPITAL WITHOUT AN ACCESS CARD.**
The doors to the Vet Tower will be locked between 6pm – 7.30am Monday to Friday, and all day Saturday/Sunday. You are not allowed to study in lecture theatres, staff common rooms, Institute meeting/seminar rooms.

Access cards are $10 (CASH ONLY we do not have EFTPOS). This is a bond payment to cover the replacement of access cards should they be damaged or lost while in your possession. If you require a new card, you will be expected to pay a bond for it.

You can purchase access cards from the Undergrad Office, Room 1.54, ground floor. You will receive your bond back at the end of your fifth year when you return your access card.

Your card will automatically de-activate in November of every year so it must be reactivated when you return to continue your studies the following year.

Access cards are to be returned to the Undergrad Office at the end of your final year. You will be refunded your $10 at this time. No card – no refund.

**Dissection Kits**
These are highly recommended, though not compulsory. They can be purchased from the Institute of Natural Resources, AgHort A1.37. They are $35 each.

Alternatively, the Undergrad Office has some good quality forceps and scissors available for purchase. Scissors: $23.50, Forceps: $13.50. Cash only.

**Name Badges**
Your name badge must be worn during all practical classes/labs and rotations. These can be purchased from the Undergrad Office at a cost of $12 each. They take about a week to arrive.

**Protective Clothing**
If unable to purchase through the vet clothing sales, items such as overalls and gumboots can be purchased from places such as Farmlands.

**Stethoscopes**
Stethoscopes are usually required from second year onwards. At some point during the first two weeks of semester one, the Second year class rep will arrange a meeting with Dr Nick Cave to discuss the ins and outs of stethoscopes and what features you should be aware of to enable you to make an informed purchase. The Second year class rep will make arrangements with a supplier to purchase these after that time.

**Textbooks**
Textbooks required for all papers can be found in the paper outlines, available on BVSc ZOO. Keep an eye out for the Vet Bookshop sales information.
Food Consumption
Due to the risk of serious harm from accidental contamination with infectious agents, toxins, chemotherapeutic drugs and, in some labs, low level radioactive materials food should not be consumed in any laboratory within the IVABS tower, post mortem annex or Veterinary Teaching Hospital treatment/consultation rooms.

The student foyer is available for this purpose, when inside the IVABS tower, please restrict your food consumption to this area.

Grievance Procedures
A student who claims that he/she has sustained academic disadvantage as a result of the actions of a University staff member should use the University Grievance Procedures. Students, whenever practicable, should in the first instance approach the University staff member concerned. If the grievance is unresolved with the staff member concerned, the student should then contact the College of Sciences office on his/her campus for further information on the procedures, or read the procedures in the University Calendar.

Help
If you are having difficulties of any kind to do with this course, please call by to discuss the problem and solutions with either the year or paper coordinator, the Programme Director or any other member of staff in whom you can confide. Don’t leave the problem unresolved - ask for discussion earlier rather than later. Use the Student Counseling Service if appropriate.

Hopkirk Research Institute
The Hopkirk Research Institute has the southern hemisphere’s largest concentration of health sciences for pastoral-fed animals. Their scientists are from both AgResearch and Massey University, and they collaborate on:

- researching solutions for the sustainable control of parasitic diseases, primarily in sheep and cattle
- evaluating more effective vaccines to combat infectious disease, including tuberculosis, Johne's disease, mastitis and pneumonia
- identifying and predicting food poisoning threats in New Zealand and devising strategies to minimise their prevalence and impact.

Access to the Hopkirk building is restricted. If you wish to speak with a lecturer that is based here, you are required to register at the IVABS/Hopkirk reception desk. If you don’t have an appointment, be prepared to be turned away if the person you are after is not available. We suggest making an appointment rather than just showing up in the hopes that they are there.
Insurance
Students are not insured by the University against any accident or sickness that may occur in association with studies at Massey University. Medical and personal insurance (such as travel insurance) are your own responsibility.

In the event of injury or sudden illness, the Student Health Service is available on Campus.

Indemnity Insurance
Veterinary students seeing practice or on clinical placements are covered by the University’s indemnity insurance policy provided they complete all required documentation. No paper work no insurance!

Please allow at least TWO (2) weeks prior to seeing practice to ensure you have fulfilled all requirements. This is particularly important for overseas placements. Keep in mind that if you are planning to see practice overseas you are strongly advised to purchase travel insurance.

For more information please contact the Veterinary Programme Administrator (email vet@massey.ac.nz).

Lockers
There are lockers for you to use in the male and female toilet areas. A master list of allocated lockers will be on your notice board. Please ensure you have your locker cleared out by the end of the examination period.

You are to supply your own padlock for your locker (combination locks are recommended), and if required, bolt cutters is available in the Undergrad Office, Room 1.54.

Mail Boxes
You will be allocated a mailbox in the Student Foyer for return of assignments and correspondence from lecturers or classmates. These are located next to the Undergrad Office. These are updated yearly to maintain an alphabetical order so please ensure your mail box is emptied and padlocks removed at the end of every year.

Medical Assurance Society (MAS)
Medical Assurance Society (MAS) are a financial services organisation for Doctors, Dentists and Vets. We can provide insurances, loans and investments (KiwiSaver) for New Zealand Residents. We are very keen to support the Vet Students who make up a key part of the membership of our organisation.

This support takes various forms;
• we provide third, fourth and fifth year students with lab coats or overalls each year.
• we provide wall planners with all term dates and social events noted.
• we provide Welcome Back BBQ at the beginning of each year.
• we support the Prelude to Practice for the fifth years.
• we provide sponsorship for various events throughout the year, including the Ball; Skull Cup; fifth Year Dinner; third Years Calendar; 100 days to go.

Above all, we are here to provide financial advice for our members.

**Mentors**

**Student Mentor System**
Contact between the first and third year students can be very supportive for the first year students experiencing university life and academic pressures for the first time. Mentor-Mentee evenings are organized each year by the third year class.

**Staff Mentor System**
Students are assigned to a mentor while at VLE in first year (see page 35 for more information about VLE). This person is available to help or failing that can direct you to the suitable staff member to deal with any particular issue, or can act as your spokesperson if you do not wish to talk to the staff member directly.

**New Zealand Veterinary Association Seminars**
The New Zealand Veterinary Association (NZVA) run three seminars throughout the year for the vet students. These seminars are as follows:

**Crossroads**
A seminar for third year veterinary students that provides an overview of the profession and looks at career opportunities.

**Prelude to Practice**
A seminar designed to help final year vet students transition into their new profession.

**In-Practice**
Is the follow-up to Prelude to Practice seminar. It gives recent graduates the chance to talk about their first few months in employment, ask questions and share their experiences.
Notice Boards
You will find them down the glass corridor to Vet 1. It is advisable that you check them regularly.

ALL notice boards are for vet/class related materials ONLY. If you wish to post flyers for non-vet related matters, please use the notice board by Vet 1 or the doors between the locker rooms at the base of the vet tower.

There are also four notice boards in the student foyer that may be utilized for advertising vet related events. If you post notices, please remember to take them down after the event.

IMPORTANT!!! Massey University has a strict policy regarding notices and flyers that are posted in inappropriate places (i.e. anywhere that ISN’T an official notice board). Be warned, should you post notices on doors or walls other than the supplied notice boards, they may be removed by the University.

Paper Outlines
All paper outlines are available on BVSc ZOO in your year section. A hard copy of all paper outlines will also be available in the ‘cubbies’ outside the Undergrad Office. This is for all students to look at if and/or when required and is not to be removed.

Personal Pets
The Vice Chancellor has stated that no pets may be brought onto campus at any time. However, this regulation does not apply to animals which are patients at the veterinary clinic or used for teaching purposes.

Students must pay for all clinic services for their own pets.

Plagiarism
Massey University, College of Sciences, has taken a firm stance on plagiarism and any form of cheating. Plagiarism is the copying or paraphrasing of another person’s work, whether published or unpublished, without clearly acknowledging it. It includes copying the work of other students. Plagiarism will be penalised; it is likely to lead to loss of marks for that item of assessment and may lead to an automatic failing grade for the paper and/or exclusion from enrolment at the University.
Room Bookings
Should you wish to book a room for a group event, seminar etc please EMAIL the Undergrad Office (vetug@massey.ac.nz) with the following details:

- Date
- Start Time
- Finish Time
- Approximate number of people you’re expecting (10, 50, 100 etc people)
- Reason for booking (e.g. group/organization you’re booking for)

Please be aware that bookings take about 24 hours to process so please ensure you book early. Also, there may be a charge for bookings that are for groups that are not affiliated with MUSA.

Student Foyer
The student foyer at the base of the vet tower is available for all vet students. This is where your mail boxes are located as well as a water cooler, a refrigerator, some cooking facilities and wireless internet facilities.

This area is also used for university staff activities and events.

Please show consideration to other users and keep this area clean and tidy, particularly the area around the microwaves and refrigerator.

Supplementary Exams
Supplementary exams may be available to vet students who do not pass the paper on the first attempt. Supplementary examinations are only available for 227.XXX veterinary science and 193.XXX veterinary technology papers.

To be eligible to sit supplementary exams students must:

BVSc 1 – have no more than: 2 x D OR 1 x E grades.
BVSc 2-4 – have no more than: 3 x D OR 2 x E OR 1 x D and 1 x E grades.
BVSc 5 – have no more than: 2 x D OR 1 x E grades.

Students who do not pass their supplementary examinations may be invited to repeat their studies for examination in the next year.

Should you be required to sit a supplementary examination, you will be notified prior to the end of year break with a confirmation form which must be completed and returned with payment. The supplementary exam period is usually the last week of January and if required first week of February.

Fourth year students who feel they may be required to sit supplementary exams should include this information on their ‘Track Choices’ form in preparation for their final year so time can be allocated for study etc.
Timetables
All timetables are available on BVScZOO > Common Resources > Timetables. These are updated regularly so please ensure you have the most recent version.

Understanding Your Timetable

<table>
<thead>
<tr>
<th>START TIME</th>
<th>Paper Number</th>
<th>Class Type¹</th>
<th>Room²</th>
</tr>
</thead>
</table>

Classes run for approximately 50 minutes unless otherwise stated.

NOTE: Timetables are subject to change.

Veterinary Teaching Hospital

Public Access to the Veterinary Teaching Hospital
The public may not visit the hospital at any time unless prior permission has been granted by a clinician (and this includes your own friends). Clients who have animals in the hospital are able to visit their pets at arranged times after morning cleaning and exercising are completed.

Veterinary Hospital Car Park
Students may not under any circumstances park in the Veterinary Teaching Hospital car park between the hours of 7.30am – 5.30pm, Monday to Friday.

The VTH has limited parking and these spaces are for clients only. This area is rigorously policed by Massey Security and Traffic and unauthorized vehicles with be ticketed, clamped or towed away (at the owners’ expense). If at any stage you have special parking needs, please feel free to discuss this with the clinic’s reception staff.

Veterinary Undergraduate Programme Office
Located off the student foyer, the Undergrad Office is the place to go for all enquiries relating to your time in vet school.

Office Hours: 8am – 4pm, Monday to Friday (excluding public holidays).

Things we do:

- Access Cards
- Name Badges

¹ Lecture, Laboratory, Tutorial, Practical. Note some lab classes will be streamed. This will be indicated by an ‘S’. See paper outline for more information.

² These are also abbreviated. A key is at the bottom of each timetable page.
• Pagers
• Drop off/Pick up point
• Student rosters
• Timetables
• Room bookings

We also have a selection of study related DVD’s and discs and NAVLE preparation books for students to borrow. A list of what is available to borrow is posted outside the Undergrad Office.

We also have a number of items available for purchase and work on a CASH ONLY basis as we do not have EFTPOS.

Room: 1.54, Vet Tower
Phone: 350 5222
Email: vetug@massey.ac.nz

Veterinary Student FAQ

What is the pin number for access into the anatomy lab after hours?
7506#.

When can we have access to the Histology lab after hours?
Anytime there is not a class in there.

What do you do if you lock your keys in your locker?
See the Undergrad Office in the student foyer for the bolt cutters. We highly recommend you get a combination lock for your lockers to avoid locking keys in there.

Are there any social events planned for Vets?
There are numerous happy hours that are held throughout the year that are organized by the bar component of MUVSA. The dates for these are on the Medical Assurance calendar and you will be made aware of these at the start of the week that they occur. There is also a Vet ball, skull cup and Bar-b-grog which are major events, you will be told about these well in advance.

Is there a calendar of vet events that I can have?
The Medical Assurance Society hands out academic wall calendars each year. These are usually available at the beginning of semester 1.

Do we have teacher or student mentors and what can we expect from them?
You will get a third year student mentor at the mentor / mentee Happy Hour. It is really important that you attend this event. You can ask your mentor any questions and get old exams from them. A teacher mentor is also matched with you and they are available for advice if you need it.

How many exams are there and how do I prepare?
The number of exams varies for each class and your lecturers would be the best people to ask advice from on how to prepare for each class. All assessments should be listed in paper outlines available in your year book and on BVSc ZOO. It still unsure, just ask 😊
Are there any vet sports teams to join?
There is a Rugby Team that is open to the guys, and a few netball social teams. There are other social sports leagues that any vet students can form a team to join. This is mainly up to your class to organize.

Does the vet school sell any clothing?
About twice a semester they have a wet weather gear sale and one clothing sale with fleeces and jackets that is held in the second semester.

Do we get discounts from the Massey Veterinary Clinic?
Yes, you (not your flatmates!!) get a 10% discount. Consultations are only discounted if you are present. Ask at the clinic when booking appointments.

What countries can we work in after graduation and are there any tests that have to be taken to work there?
The Massey degree is recognised worldwide, but the country’s most new graduates seem to be interested in working in are the US, UK and Australia. In order to practice in the US or Canada you will need to sit the North American Board Exams and the State Board exams for the state you wish to practice in, as would new graduates from a US vet school. This is instead of working under supervision for a year as with a non-AVMA accredited degree. To practice in the UK you must register as a member of the Royal College of Veterinary Surgeons, but the Massey qualification is recognised and no further exams are required (www.rcvs.org.uk). A similar situation applies for working in Australia.

Are there any options for specializing?
To ensure a broad base of knowledge Massey encourages students to study all species and areas in equal depth. However, if there is an area which interests you, you may wish to focus your farm practical work in that direction or spend more time at a particular type of practice during semester breaks. Also during your final year students choose a ‘track’ to focus on which can be either small animal, production animal, equine or mixed.

Where can we find a list of required textbooks and where can we buy them?
Lists of required and recommended reading will be provided by paper controllers. Some can be purchased at Bennett’s, most through the vet bookshop (held periodically through the year) or websites such as amazon.com. Speak to students in the years above you to find out which books they recommend as this can often give you a better idea of what is useful than a list given to you in class.

Have we missed something?
If we have left out information that you think future vet students should know about the programme, please let the Undergrad Office know.
BVSc 1
**BVSc 1**

**Year Coordinator**

**PROF KEVIN STAFFORD** - I am the year co-ordinator for BVSc I. As such I am available for consultation if problems arise regarding organisation of this year, or your study of BVSc I. Alternatively you may wish to consult with Professor Tim Parkinson, the BVSc Programme Director, who can be contacted through the Veterinary Undergraduate Programme Office, adjacent to the student foyer on the ground floor of the Vet Tower.

Institute of Veterinary, Animal & Biomedical Sciences  
Room: 3.04, Vet Tower  
Phone: (06) 356 9099 ext 5548  
Email: K.J.Stafford@massey.ac.nz

**Paper Coordinators**

227.102 - BIOCHEMISTRY FOR VETERINARY SCIENCE  
**DR MARK PATCHETT**  
Institute of Molecular BioSciences  
Room: 3.35, Science Tower B  
Phone: (06) 356 9099 ext. 7516  
Email: M.L.Patchett@massey.ac.nz

227.103 – VETERINARY ANATOMY I  
**PROF PETER DAVIE**  
Institute of Veterinary, Animal and Biomedical Sciences  
Room: 6.20, Vet Tower  
Phone: (06) 356 9099 ext 7447  
Email: P.Davie@massey.ac.nz

227.104 – VETERINARY PHYSIOLOGY I  
**DR GORDON W REYNOLDS**  
Institute of Food, Nutrition and Human Health  
Room: 2.17, Riddet Building  
Phone: (06) 356 9099 ext 81426  
Email: G.W.Reynolds@massey.ac.nz

227.105 – ANIMAL BEHAVIOUR, HANDLING AND WELFARE  
**PROF KEVIN STAFFORD**  
Institute of Veterinary, Animal and Biomedical Sciences  
Room: 3.04, Vet Tower  
Phone: (06) 356 9099 ext 5546  
Email: K.J.Stafford@massey.ac.nz
VLE
The Hill’s Veterinary Leadership Experience™, is run for first years during the first week of semester 2.

This event is made possible through Hill’s Pet Nutrition, Massey’s Institute of Veterinary, Animal and Biomedical Sciences (IVABS) and the New Zealand Veterinary Association (NZVA). It will be held at a camp in the Pohangina Valley and will be free for you to attend.

It is an initiative for veterinary students who have been freshly selected into the veterinary programme.

VLE is an established international programme and began at Washington State University five years ago. Participants in VLE develop skills in teamwork and communication, plus they learn about stress management techniques and leadership in an experiential learning environment.

This programme is a fun way of meeting your classmates, building a sense of team spirit within your class and welcoming you into an exciting profession. We guarantee that you will learn lots about yourself in the process and you will be exposed to many tools that you will use through the curriculum and into your career.

The Hills representative is Pru Galloway. If you have any questions, please contact her at pru_galloway@hillspet.com.

For more information about VLE please see: www.vetmed.wsu.edu/orgVLE/.

Library Tutorials
All first and third year students are required to complete an online Library quiz. This Information skills training session is an excellent foundation for your study and research, and is a required part of the BVSc programme. Should you not pass this quiz, you will be required to attend one 2-hour tutorial session.

More information about this will be made available at the start of the semester.

ePortfolio Tutorials
In an environment where we are all encouraged to create our own digital identities, e-portfolios act as platforms for self-expression and allow the user’s abilities to be demonstrated dynamically over time.

The institutional e-portfolio adopted at Massey University is a multimedia web site called MyPortfolio which can be seen as a type of learning record that provides actual evidence of achievement while also allowing you to reflect on your own learning. This can lead to more awareness of learning strategies and needs. MyPortfolio can be used to create study plans, build up and maintain a resume of your experiences in life, work, study, and play and store and showcase examples of your achievements in the form of documents, images, spreadsheets and web pages. Through the use of shared group views, e-portfolios can foster strong connections between students and staff within Massey as well as with other institutions.
There will be a brief and fun MyPortfolio assignment which will ask you to consider some of your current life attributes and align them with the attributes required to graduate as a veterinarian. This exercise will hopefully make you realise what a special person you already are and will help you to develop further. It will also allow you to become familiar with the MyPortfolio website and possibly motivate you to continue using this valuable resource for the rest of your career.

**Stress Management Tutorials**

Work, by its very nature, is stressful. Veterinary practice certainly has its share of stress, with veterinarians having to deal with difficult clients, cases that don’t go according to plan, sometimes financial worries, ethical dilemmas or workplace tensions. The pressures are there at the very beginning when students start down the path of veterinary training. Long hours of study and high levels of performance are required to pass exams each year. Some new graduates and veterinarians feel well supported in their work; others feel isolated and overwhelmed by heavy workloads and unrealistic expectations - their own or someone else’s.

International research shows that stress in the veterinary profession is not new, or restricted to New Zealand. It is a worldwide problem. Veterinarians generally avoid seeking help until they have reached crisis point - which is interesting in a profession that promotes prevention as the best medicine. The earlier treatment is sought and started, the better the result. The New Zealand Veterinary Association recognises that Veterinary students frequently experience higher levels of stress than do many other student groups. Given that emotional stress does go with the territory in a veterinary career, you will have to find a way of coping that is effective for you as an individual. The earlier in your career that you identify your best coping strategy, the better – and coping does not simply mean covering up.

The two hour interactive workshop that you will be assigned to explores the nature of this stress and practical coping strategies for the BVSc course as well as your professional life.

**Financial Obligations**

As you enter your first year you need to be aware that there will be a number financial obligations pop up.

**MUVSA Fee**

All vet students are required to pay a $50 MUVSA fee at the beginning of first year. This money will be collected by the class rep. This money contributes towards student organized events.

**Access Cards**

All vet students require an access card for the vet tower. This will enable you to enter afterhours and on the weekends to study as well as accessing classes based in the vet teaching hospital which have restricted access.

These can be purchased from the Undergrad Office for $10 (cash only). This fee is refundable upon return of the access card at the end of your studies.
Textbooks
The vet book shop will run a sale soon after the start of semester 2. You will be notified of when and where.

Lab Coats
You will require a lab coat for your lab classes which start the second week of semester. These can be purchased from the MUSA shop for $49.50.

Alternatively, the Undergrad Office has a small selection of second hand lab coats for $5.

Name Badges
You will be given a name badge at the start of semester 2. If you lose it, replacements can be purchased from the Undergrad Office for $12 and take around a week to arrive.

Dissection Kits
These are recommended for your anatomy labs and cost $35 from the Institute of Natural Resources.

Alternatively, a scissors and forceps set can be purchased for $37 from the Undergrad Office. These tools can be bought separately. See page 25 for more details.

Supplementary Examinations
Should you be required to sit a supplementary examination at any point during your studies, you will be notified as to the cost upon receipt of the supplementary exam confirmation form. Please see the Supplementary Examination information on page 29.
BVSc 2
BVSc 2

Year Coordinator

**ASSOCIATE PROFESSOR CHRISTINE THOMSON** - I am the year coordinator for BVSc 2. As such, if problems arise concerning your second year learning experiences you may make a time to discuss it with me. Alternatively, if you prefer, please make an appointment to see Professor Tim Parkinson, the BVSc programme director. I wish you well for your studies and hope you find them interesting and appropriately challenging.

Institute of Veterinary, Animal & Biomedical Sciences  
Room: 6.09, Vet Tower  
Phone: (06) 356 9099 ext 7769  
Email: C.E.Thomson@massey.ac.nz

Paper Coordinators

**227.202 – ANIMAL GENETICS AND BREEDING**

**PROF. HUGH BLAIR**  
Institute of Veterinary, Animal and Biomedical Sciences  
Room: 3.02, Vet Tower  
Phone: (06) 350 5122  
Email: H.Blair@massey.ac.nz

**227.203 – VETERINARY ANATOMY II**

**ASSOC. PROF CHRISTINE THOMSON**  
Institute of Veterinary, Animal and Biomedical Sciences  
Room: 6.09, Vet Tower  
Phone: (06) 356 9099 ext 7769  
Email: C.E.Thomson@massey.ac.nz

**227.204 – VETERINARY PHYSIOLOGY II**

**PROF TIM PARKINSON**  
Institute of Veterinary, Animal and Biomedical Sciences  
Room: 1.12, Vet Tower  
Phone: (06) 350 5222  
E-mail: T.J.Parkinson@massey.ac.nz

**227.205 – COMPARATIVE VETERINARY ANATOMY**

**DR KAVITHA KONGARA**  
Institute of Veterinary, Animal and Biomedical Sciences  
Room: 6.07, Vet Tower  
Phone: (06) 356 9099 extn 5363  
Email: K.Kongara@massey.ac.nz
227.206 – INTEGRATIVE VETERINARY PHYSIOLOGY

Dr Craig Johnson
Institute of Veterinary, Animal and Biomedical Sciences
Room: 6.13, Vet Tower
Phone: (06) 356 9099 ext 7285
Email: C.B.Johnson@massey.ac.nz

227.207 – MECHANISMS OF DISEASE

Sandra Forsyth
Institute of Veterinary, Animal and Biomedical Sciences
Room: 7.21, Vet Tower
Phone: (06) 356 9099 ext 7445
Email: S.F.Forsyth@massey.ac.nz

227.208 – ANIMAL NUTRITION FOR VETERINARIANS

Dr Sarah Pain
Institute of Veterinary, Animal and Biomedical Sciences
Room: 3.13, Vet Tower
Phone: (06) 356 9099 ext 7234
Email: S.J.Pain@massey.ac.nz

227.209 – ANIMAL INDUSTRIES

Associate Professor Paul Kenyon
Institute of Veterinary, Animal and Biomedical Sciences
Room: 3.12, Vet Tower
Phone: (06) 356 9099 ext 7501
Email: P.R.Kenyon@massey.ac.nz

227.210 – VETERINARY BIOSTATISTICS

Dr Jonathan Marshall
Institute of Veterinary, Animal and Biomedical Sciences
Room: 2.30, Hopkirk Building
Phone: (06) 356 9099 ext 81187
Email: J.C.Marshall@massey.ac.nz
Challenge Exams
Current vet students may sit Challenge Examinations in order to be credited/exempted from papers within the programme. The conditions surrounding challenge exams are as follows:

1. Under the Massey University policy on Credits and Exemptions, the Veterinary Programme may provide challenge examinations for students who request a credit or exemption from papers in the BVSc schedules, based on approved Prior Learning.
2. Such challenge examinations may take place at a time suitable for both the Paper Coordinator and Student and may be scheduled during the Veterinary Supplementary Examination period (usually late January/early February).

3. In order to be eligible to sit the challenge examinations, applicants must:
   (a) Provide Certified Copy of their Academic Transcript (if not already available on Massey University “Silent One” scanning system) and Paper Outlines (topics taught in lectures & laboratories, number of hours of lectures/labs per week and total contact hours, assessment schedule)
   (b) Complete the application form appended and pay the appropriate fee/s.
   (c) Obtain approval from the Paper Coordinator for the Prior Learning

5. The result of a Challenge Examination will be recorded on the Student’s Academic Record. If the student passes, then a credit will be recorded and the student will be withdrawn from the relevant paper in the BVSc year. If the student does not pass, they will be required to complete the BVSc schedule paper.

6. The fee for each challenge examination is $137.50. This fee must accompany the application.

7. Upon completion of the attached application form and payment of all fees, applicants will be supplied with the paper outline.

8. The closing date for receipt of applications to sit the challenge examinations for Semester 1 and Double Semester papers should be submitted by the 1st December and Semester 2 papers by the 1st June; but no applications will be accepted after the first week of the relevant semester.

9. Since this examination is an evaluation of prior learning and not a summative assessment of learning undertaken at Massey University, candidates will be allowed one attempt at the paper in a Challenge Examination.

If you wish to apply for a challenge exam:

- Complete the Challenge exam form which can be found on BVScZOO
- Pay the Challenge Exam fee $137.50 at the Undergrad Office (CASH or CHEQUE ONLY)
- Submit your form + receipt of payment to the College of Sciences Office (Science Tower B, Room 2.22).

If you have any further questions, please contact Sue Gribbin S.J.Gribbin@massey.ac.nz.
BVSc 3
BVSc 3

Year Coordinator

MARK COLETT - I am the year co-ordinator for BVSc 3. As such I am available for consultation if problems arise regarding activities for which I am responsible. Alternatively you may wish to consult with Professor Tim Parkinson, the BVSc Programme Director, who is located in the Undergraduate Programme Office, Room 1.54.

Institute of Veterinary, Animal & Biomedical Sciences
Room: 7.18, IVABS Tower
Phone: (06) 356 9099 ext 7884
Email: M.G.Collett@massey.ac.nz

Paper Coordinators

227.301 - VETERINARY PATHOLOGY 1
MARK COLETT
Institute of Veterinary, Animal & Biomedical Sciences
Room: 7.18, IVABS Tower
Phone: (06) 356 9099 ext 7884
Email: M.G.Collett@massey.ac.nz

227.302 - VETERINARY MICROBIOLOGY AND IMMUNOLOGY
DR ALEX GRINBERG
Institute of Veterinary, Animal and Biomedical Sciences
Room: 8.04, IVABS Tower
Phone: (06) 356 9099 ext 7659
Email: A.Grinberg@massey.ac.nz

227.303 – VETERINARY PARASITIC DISEASES
PROF BILL POMROY
Institute of Veterinary, Animal and Biomedical Science
Room: 8.27, Vet Tower
Phone: (06) 356 9099 ext 7569
Email: W.Pomroy@massey.ac.nz

227.304 – POULTRY, FISH AND WILDLIFE MANAGEMENT AND DISEASE
ASSOC.PROF BRETT GARTRELL
Institute of Veterinary, Animal and Biomedical Sciences
Room: 5.04, Vet Tower
Phone: (06) 356 9099 ext 7398
Email: B.Gartrell@massey.ac.nz
Library Tutorials
This Information skills training session is an excellent foundation for your study and research, and is a required part of the BVSc programme. Should you not pass this quiz, you will be required to attend one 2-hour tutorial session.

More information about this will be made available at the start of the semester.

Halfway Day
Halfway Day occurs on the second Friday of the second semester of your third year. The tower is ‘trashed’ on the evening before this day with the ‘art work’ being left to be admired by staff and students on Halfway Day.

Traditionally ‘trashing’ is done by the third year students and cleaned up by fourth year students and is to be restricted to the student foyer area only. The student foyer to be returned to its pre-trashed (i.e. normal) state by midday.

The traditions of the vet school are long standing but the customary “Trashing” of the vet tower has got somewhat out of control over the last few years and essentially turned into vandalism. Therefore, at the request of Massey staff, MUVSA has developed guidelines for the “Trashing” that must be adhered to. Disregard of them will result in the offending individuals not being allowed to go on Half Way Day. These traditions are a privilege not a right, just as Half Way Day is.

Guidelines
The following guidelines must be followed for the “Trashing” of the Vet Tower:

- Representatives of MUVSA are requested to advise the Undergrad Office of the intentions of the third year students for the “Trashing” within a week before it happens. The idea will then be sent to the Head of Institute for approval.
• **ONLY the student foyer is to be decorated.** The rest of the tower and clinic are to be left alone. This means that you CANNOT decorate the area outside the lockers and the breezeways etc. It is only where the student seating is.

• No live animals to be used.

• Do not use any form of “decoration” that will require professional cleaning. If so, MUVSA will be charged for the cleaning.

• Do not use anything that will damage the floor, such as spray paint.

• Do not put anything into mailboxes or assignment boxes.

• Do not use anything sticky, such as honey, vegemite etc.

• Do not use anything that could cause Health and Safety concerns, such as water on the floor, hazardous or injurious materials.

• Remember, the “Trashing” is meant to be fun, and can be done along a “Theme” such as winter wonderland, tropical paradise etc. Your artistic work is allowed to be left alone until about 11.00 am the next day. However the student foyer must be returned to its normal state by midday.

At the end of the day these are common sense calls and if you think that there is going to be permanent effects of what you are doing then don’t do it! While these may seem restrictive the only other option is that the tradition of “Trashing the Tower” will be banned.

**Crossroads**
Crossroads happens on the last Friday afternoon before the semester 2 mid semester break. More information will be sent out closer to the time.

**Planning Externships Overseas in Final Year**
Many of you will be thinking about making plans for your final year now and will no doubt have read the preparing for BVSc5 section of this guide.

As many of the places you will be looking at going to are in high demand, you will be required to make arrangements well in advance of your final year.

This far out we **will not** be able to tell you exactly when would be the best time to book externships. The ‘best time’ is relative to what track you choose and track arrangement will not be confirmed until a few months before you start fifth year. If your preferred track doesn’t fit well around your arrangements, you may be required to rethink your track – being flexible in this regard is a must!

If you are concerned about making plans, come and talk to the UG office. Every case is different so different solutions are required. We will do the best we can to accommodate your plans.
BVSc 4
BVSc 4

Year Coordinator

**DR MARK STEVENSON** - Welcome to fourth year! It is hoped and expected that you will find this year highly challenging and interesting. If you have ‘generic’ problems concerning your fourth year learning experiences, please contact me. Alternatively, if you prefer, please make an appointment to see Professor Tim Parkinson, the BVSc Programme Director. Good luck with your studies.

Institute of Veterinary, Animal & Biomedical Sciences
Room: 2.02, Wool Building
Phone: (06) 356 9099 ext 5915
Email: M.Stevenson@massey.ac.nz

---

Paper Coordinators

**227.401 – VETERINARY CLINICAL PATHOLOGY**

**DR ELOISE JILLINGS**
Institute of Veterinary, Animal and Biomedical Sciences
Room: 7.29, Vet Tower
Phone: (06) 356 9099 ext 7791
Email: E.Jillings@massey.ac.nz

**227.402 – EQUINE CLINICAL STUDIES**

**STUART GORDON**
Institute of Veterinary, Animal and Biomedical Sciences,
Room: 1.43, Vet Tower
Phone: (06) 356 9099 ext 7446
Email: S.J.G.Gordon@massey.ac.nz

**227.403 – HEALTH & PRODUCTION IN DEER, SHEEP AND GOATS**

**DR ANNE RIDLER**
Institute of Veterinary, Animal and Biomedical Science
Room: 1.37, Vet Tower
Phone: (06) 356 9099 ext 2031
Email: A.L.Ridler@massey.ac.nz

**227.404 – CATTLE HEALTH & PRODUCTION**

**DR RICHARD LAVEN**
Institute of Veterinary, Animal and Biomedical Sciences
Room: 1.08, Equine and Farm Services Building
Phone: (06) 356 9099 ext 7411
Email: R.Laven@massey.ac.nz
227.405 – SMALL ANIMAL MEDICINE & SURGERY

**Els Acke – Medicine**
Institute of Veterinary Animal and Biomedical Sciences
Room: 1.39, Vet Tower
Phone: (06) 356 9099 ext 4472
Email: E.Acke@massey.ac.nz

**Andrew Worth – Surgery**
Institute of Veterinary, Animal and Biomedical Sciences
Room: 1.38, Vet Tower
Phone: (06) 356 9099 ext 7574
Email: A.J.Worth@massey.ac.nz

227.406 – PIG & POULTRY HEALTH, PRODUCTION AND MANAGEMENT

**Eric Neumann**
Institute of Veterinary, Animal and Biomedical Sciences – EpiCentre
Room: 2.10, Wool Building
Phone: (06) 356 9099 ext 5274
Email: E.Neumann@massey.ac.nz

227.407 – VETERINARY BIOMETRICS & EPIDEMIOLOGY

**Assoc. Prof Mark Stevenson**
Institute of Veterinary, Animal and Biomedical Sciences – EpiCentre
Room: 2.02, Wool Building
Phone: (06) 356 9099 ext 5915
Email: M.Stevenson@massey.ac.nz

Spring Calving (Y4C)
Spring Calving Practicals or Year 4 Calving (Y4C) will generally be run during the first two weeks of August. Y4C is your opportunity to experience dairy cattle medicine so the practice you choose must expose you to calving and dairy cattle. Where exactly you go is up to you. It’s worth checking with the practice that they will be ‘busy calving’ when you plan to go there.

You can start organising your placements whenever you’re ready however we don’t need to know about it until the Y4C packs appear in your mail boxes in late June/early July. Within this pack is a placement form which must be completed and returned to the Undergrad Office. At this time you are advised to re-confirm with the practice you are planning to visit – things change and you don’t want to get caught out.

Objectives
- To improve your large animal handling skills.
- To familiarize yourself with practical obstetrics.
- Gain experience in ‘spring medicine’ of dairy cattle.
- Develop your client communication skills.
Evaluations
Y4C evaluations will appear on the Educational Scheduling System (ESS). This is an online programme that will allow you to see your fifth year rosters and evaluations (for more details see the BVSc 5 section). This will be your introduction to this programme so please take the time to become familiar with it once you are given access.

You will also be expected to do a ‘self-evaluation’ for your Y4C through ESS. Login details and other information regarding ESS will be given to you at a later stage.

Accommodation & Transport
You are expected to arrange and pay for your own transportation and accommodation for your Y4C visits.

You can request placements at the Massey Farm Services Clinic, VetEnt – Te Awamutu or Animal Health Centre – Morrinsville. In the first instance for Te Awamutu and Morrinsville please contact the Undergrad Office.

These placements are strictly limited and are on a first in first served basis.

Extra Weeks
Due to the timing of the spring calving, it is necessary that semester two of your fourth year start early to make up for the loss of these two weeks of teaching. As such you will ‘lose’ one week of the mid-year and mid-semester breaks.

Skills Books
Fourth year students will be issued a red skills book. This is to be completed throughout your fourth and final years at vet school. For more information about what is involved see section 4.2 of the Learning Outcomes on page 9.

How Much To Get Signed Off
ALL CORE compulsory techniques (i.e. 100%) MUST BE signed off by the end of the last week of rosters. You also need to have COMPULSORY TRACK procedures signed off. You are also encouraged to get the additional non-compulsory skills signed off, but these are not assessed and do not contribute to your total.

Compulsory CORE procedures
• ALL STUDENTS – ALL of the CORE Procedures must be signed off

Compulsory TRACK procedures
• PA, EQUINE OR SMALL ANIMAL TRACK STUDENTS
  o Any SIXTEEN (16) TRACK procedures from your track

• MIXED MIXED OR SPECIAL TRACK STUDENTS
  o Any TWELVE (12) procedures from the Production Animal and Equine Tracks
  o FOUR (4) procedures out of the following list of Core procedures MUST BE signed off A SECOND TIME by either a Massey Clinician or elsewhere:
- M31, M32, M40, 41, M63, M77, 85

- **MIXED PA/SA STUDENTS**
  - Any **SIX (6)** procedures from the Production Animal Track
  - **FOUR (4)** procedures out of the following list of Core procedures MUST BE signed off A **SECOND TIME** by either a Massey Clinician or elsewhere:
    - M31, M32, M40, 41, M63, M77, 85
  - Any **TWO (2)** procedures from the Small Animal Track, signed off by either a Massey Clinician or elsewhere
  - Plus any **FOUR (4)** further procedures from the PA or Equine Tracks

- **MIXED Equine/SA STUDENTS**
  - Any **SIX (6)** procedures from the Equine Track
  - **FOUR (4)** procedures out of the following list of Core procedures MUST BE signed off A **SECOND TIME** by either a Massey Clinician or elsewhere:
    - M31, M32, M40, 41, M63, M77, 85
  - Any **TWO (2)** procedures from the Small Animal Track, signed off by either a Massey Clinician or elsewhere
  - Plus any **FOUR (4)** further procedures from the PA or Equine Tracks

- **MIXED PA/Equine Students**
  - Any **SIXTEEN (16)** procedures from the Production Animal and Equine Tracks

Skills can be signed off by any registered veterinarian, except where they are specified as “Massey Only” (which can only be signed off by Massey vets- including Practitioners in Residence) or as “Massey or Externship” (which can also be signed off by externship practices (i.e. Matamata Veterinary Services Equine Hospital, Animal Health Centre Morrinsville, VetEnt Te Awamutu, South Island Equine Externship Canterbury, Veterinary Specialists Group Auckland, VetSouth, Winton).

Procedures which are signed off by vets outside Massey or its externship must also have their **name printed** and, if done overseas, must also have their practice stamp. This is so that we can verify that procedures have indeed been done: we will randomly audit 10% of books/procedures.
BVSc5 Preparation
Information regarding your fifth year choices will be distributed in August of your fourth year. This information will include:

- Special Topic options for your final year.
- Track choices

The BVSc 5 year co-ordinator will schedule time later on in the year to discuss with you specifics of your upcoming fifth year. We ask that you hold off any questions regarding BVSc 5 until after this time.

!!! IMPORTANT !!!

If you are intending to do any externships, research projects or extended overseas trips during your fifth year please keep in mind that the bulk of the CORE rosters will run late January – late May. Please keep this time frame as free as possible.

Should the above arrangements coincide with the timing of track rosters, we CANNOT guarantee your inclusion in tracker weeks. We will do our best to accommodate your plans but please be aware that it may be necessary to reassess your track choices.

We realise that you will be keen to sort out your tracks and rosters for your fifth year. If you wish to discuss your options with the BVSc 5 co-ordinator please come to the Undergrad Office to make an appointment, alternatively you can email vetug@massey.ac.nz.

NAVLE
The North American Veterinary Licensing Examination (NAVLE) is a computer based multiple choice examination that all graduates of an AVMA accredited veterinary program must pass before being able to register to practice in the USA or Canada.

The primary objectives of the NAVLE are as follows:

- To provide a comprehensive objective examination to state, territorial, or provincial boards charged with the licensing of veterinarians
- To protect the public by ensuring that veterinarians demonstrate a specified level of knowledge and skills before entering veterinary practice
- To assess the professional competency of veterinarians in terms of their qualifications to enter
  - private clinical practice
- To provide a common standard in the evaluation of candidates that will be comparable from
  - jurisdiction to jurisdiction
- To contribute to the veterinary profession through the development of improved definitions of the relationship between knowledge and professional practice
- To facilitate interstate/interprovincial licensing reciprocity for practicing veterinarians
Application Fees
The NAVLE fee is US$825 ($550 application fee + $275 additional overseas fee) for candidates taking the NAVLE outside the U.S., U.S. territories, and Canada. Some licensing boards may combine their own application and/or board examination fee with the NAVLE fee, but the actual cost of the NAVLE to all candidates is $550. Because the method of payment will vary from one board to another, you are advised to contact your chosen board (or their designee) for accurate information on how to submit the application fee. You will not be permitted to take the NAVLE unless both the board fee and the examination fee have been paid.

The NAVLE fee is non-refundable. If you do not take the examination during the testing window for which you were approved, you must submit a new application and pay the full fee to take the NAVLE during a subsequent window. If there are extenuating circumstances that make it impossible for you to take the NAVLE once you have submitted your application and paid your fee, contact the NBVME office for guidance.

Application Deadlines
The deadline for applying to the licensing board and to the NBVME will be no later than August 1 for the November-December testing window and January 3 for the April testing window. You should contact your chosen board early, because the requirements, deadlines, and application fees vary among jurisdictions and some boards have an earlier deadline. Both the national application and fee, and the licensing board NAVLE application and fee, must be submitted to the designated offices by their respective deadlines.

If you fail the November-December examination and you are eligible under your licensing board’s retake policy, you may reapply for testing during the subsequent April NAVLE testing window through the same licensing board and under the same testing conditions. The application deadline for these repeating candidates is February 15.

For more information regarding NAVLE please see the NAVLE Candidate Bulletin available from www.nbvme.org.

Financial Obligations
As you enter your final year you need to be aware that there will be a number of financial obligations.

Rosters
All final year students pay a fee of $1000 that contributes towards your travel and accommodation for compulsory core and track rosters. Massey will make all accommodation arrangements for compulsory rosters.

These arrangements (rates and room requirements) are based on all students in any given year using the accommodation for rosters. As such the funds allocated towards accommodation are non-refundable.

Once accommodation has been sorted, the surplus is divided up and returned to students. This money is to assist you with travel cost associated with compulsory rosters.
You will receive a cheque from Massey with this refund in January/February of your final year. As rosters begin in November, depending on your track, you will need to be prepared for travel expenses associated with rosters that start in November.

**Public Health Weeks**
You will be required to visit a meat works/abattoir during your Public Health (PUH) roster. Where you go will be discussed and decided during the first lecture block in fifth year.

Food Safety New Zealand will supply you with a cheque for travel and accommodation expenses. The amount you receive will depend on where you go.

You are responsible for making your own accommodation arrangements.

**Pagers**
Before the start of your final year you will be expected to pay a $60 bond for use of pagers during small animal and equine rosters.

**NAVLE**
NAVLE is US$825. It can be sat in April or December but be aware that should you choose to sit it in April, you must graduate in December.

**Special Topics**
Some special topics may have additional cost associated with them. Many are subsidized but you may want to plan for these just in case. You will be informed of any additional costs (if any) closer to the start of each topic.
BVSc 5

Year Coordinator

JENNY WESTON – Congratulations on making it to final year and I know you will find this an exciting year. As the co-ordinator for the BVSc5 programme I am the person you need to see to make any big decisions regarding your final year. Please contact the Undergrad Office to make an appointment. Alternatively you may wish to consult with Professor Tim Parkinson, the BVSc Programme Director, who is located in the Undergraduate Programme Office, Room 1.54.

Institute of Veterinary, Animal & Biomedical Sciences
Room: 1.09. Equine & Farm Services Building
Phone: (06) 356 9099 ext 7886
Email: J.F.Weston@massey.ac.nz

Paper Coordinators

227.501 – VETERINARY PROFESSIONAL STUDIES

STUART GORDON
Institute of Veterinary, Animal & Biomedical Sciences,
Room: 1.43, Vet Tower
Phone: (06) 356 9099 ext 7446
Email: S.J.G.Gordon@massey.ac.nz

227.502 – VETERINARY PUBLIC HEALTH, FOOD SAFETY & QUALITY MANAGEMENT

DR DEB PRATTELEY
Institute of Veterinary, Animal and Biomedical Sciences - mEpiLab,
Room: 2.30, Hopkirk Building
Phone: (06) 356 9099 ext 81186
Email: D.J.Prattley@massey.ac.nz

227.503 – VETERINARY CLINICS

JENNY WESTON
Institute of Veterinary, Animal & Biomedical Sciences
Room: 1.09. Equine & Farm Services Building
Phone: (06) 356 9099 ext 7886
Email: J.F.Weston@massey.ac.nz
ESS
The Educational Scheduling System (ESS) is an online environment for students who take part in Massey Rosters.

Your schedule of practical placements and rosters will appear here and you are encouraged to check it regularly, especially when changes are requested (such as when submitting OWNS forms).

All rosters (excluding Public Health and Special Topics) are assessed through ESS and you will be able to view these after completing a ‘Self-Assessment’. If you do not complete a self assessment you will not be able to see the grade given for that roster.

Students are strongly recommended to complete a self assessment. This is an excellent way to reflect on what you have learnt or wish to learn in future. We also encourage you to place feedback on your rosters. These are anonymous and are a great way to let the staff on those rosters know what you thought about your time spent there.

Graduation
You will not graduate until ALL components of ALL papers taken in fifth year are completed in addition to practical work requirements. The fifth year components are outlined in the paper outlines available on BVScZOO and also in the BVSc 5 Guide Book.

Once eligible for graduation, you will be sent information and documentation regarding the graduation process. This is to be completed and returned to the Programme Administrator.

Prelude to Practice
This is scheduled for the Friday of the second lecture block (late May/early June). More information will be supplied closer to the time.

In-Practice
This will run on the Saturday before Graduation in May. More information will be supplied closer to the time.

Waltham Lab
This computer lab is available to you while on your Small Animal rosters at Massey. It is subject to the same conditions of use as all other University computer labs. It is also visible to the public. When using this lab you are expected to keep it clean and tidy AT ALL TIMES. Failure to do so may result in the removal of all personal items. No food is to be stored in this area.
Rosters
Final year students will be given information regarding their rosters at the start of their fifth year. This information will include start times and meeting places, learning objectives, structure, assessments, accommodation (if required) and all other information relevant to each roster.

Grand Rounds
All students are required to give one 15 minute Grand Rounds presentation that will be graded. These will be held on Fridays in ICLT from 12.30-1.30. The topic can be of your own choice. Ideally it should be on a case/herd problem you have seen here at Massey and worked up.

This will be a great opportunity to put together all the knowledge you have gathered over the past 4½ years of the course. More information about this will be in the BVSc5 year book.
Appendix 1

Specific Skills as per Learning Outcomes:

**COMPULSORY SKILLS**

**SAFETY**
M1 Demonstrate knowledge of isolation protocol.
M2 Demonstrate knowledge of chemotherapeutic protocol.

**ANAESTHESIA CORE - Compulsory CORE Procedures**

**DOG**
M3 Perform pre-anaesthetic examination.
M4 Develop anaesthetic protocols suitable for routine procedures.
M5 Be able to deliver inhalational anaesthetic agents safely and appropriately.
M6 Monitor anaesthetic depth.

**CAT**
M7 Perform pre-anaesthetic examination.
M8 Develop anaesthetic protocols suitable for routine procedures.
M9 Be able to deliver inhalational anaesthetic agents safely and appropriately.
M10 Monitor anaesthetic depth.

**DOG OR CAT**
M11 Correctly set up the necessary drugs and equipment for a routine anaesthetic.
M12 Monitor blood pressure in anaesthetised patient.
M13 Perform IPPV correctly in an anaesthetised patient.
M14 Pressure check the high and low pressure systems of an anaesthetic machine.

**HORSE**
M15 Perform pre-anaesthetic examination.
M16 Develop anaesthetic protocols suitable for routine procedures.

**SMALL ANIMAL MEDICINE AND SURGERY CORE - Compulsory CORE Procedures**

**ANY SMALL ANIMAL**
M17 Present appropriate case at afternoon medicine rounds – Case 1.
M18 Present appropriate case at afternoon medicine rounds – Case 2.
M19 Present appropriate case at afternoon medicine rounds – Case 3.
M20 Present appropriate case at afternoon surgery rounds.
M21 Scrub-up, gown, and close glove in preparation for surgery.
M22 Display a working knowledge of surgical instruments, equipment and implants (including suture material).
M23 Display an appropriate knowledge of surgical anatomy and recognised procedures for a surgical case under your care.
M24 Interpret clinical pathology results for a case of appropriate complexity – Case 1.
M25 Interpret clinical pathology results for a case of appropriate complexity – Case 2.
M26 Dispense and correctly label medications – Case 1.
M27 Dispense and correctly label medications – Case 2.
M28 Dispense and correctly label medications – Case 3.
M29 Write a full prescription for one of these medications. (as if for a medical pharmacy).
M30 Perform a PCV and TPP on a blood sample.
**DOG OR CAT**

M31 Obtain a thorough, detailed and appropriate history for a medical case (referral or on-going case).

M32 Care for a hospitalised medical case of appropriate complexity and present the written medical case record in SOAP format – Case 1.

M33 Care for a hospitalised medical case of appropriate complexity and present the written medical case record in SOAP format – Case 2.

M34 Provide comprehensive case management instructions to a client (diagnosis/ diagnostic tests, discharge advice, giving medications, on-going patient requirements) – Case 1.

M35 Provide comprehensive case management instructions to a client (diagnosis/ diagnostic tests, discharge advice, giving medications, on-going patient requirements) – Case 2.

M36 Design a preventive health care programme for a dog/cat (e.g. feeding, vaccination, etc) – Case 1

M37 Design a preventive health care programme for a dog/cat (e.g. feeding, vaccination, etc.) – Case 2.

M38 Obtain a thorough, detailed and appropriate history for a surgical case (referral or on-going case).

M39 Care for a hospitalised surgical case of appropriate complexity and present the written surgical case record in SOAP format.

M40 Neuter a female animal.

41 Perform an orthopaedic examination.

42 Perform a neurological examination.

43 Develop a surgical fracture plan for a suitable case.

M44 Calculate daily energy requirements and formulate a nutrition plan for a hospitalised patient.

45 Recommend an appropriate Prescription Diet.

46 Calculate expected / actual daily water intake.

47 Record and interpret an ECG.

48 Perform a BP & explain how to determine cuff size.

49 Perform a dental prophylaxis procedure.

50 Perform a Schirmer Tear Test.

51 Instil Fluorescein, examine cornea and nasolacrimal drainage.

52 Correctly instill ophthalmic medication.

53 Measure SG and Dipstick examination of urine.

54 Collect an ear swab for cytology, stain with Diff-Quick and interpret.

55 Correctly instill otic medication.

56 Collect a fine needle aspirate, prepare a smear, stain with Diff-Quick and examine.

57 Prepare an impression smear (skin lesion, tissue), stain with Diff-Quick and examine.

58 Perform a complete fundic examination.

59 Collect appropriate samples for bacterial, viral or fungal culture.

60 Collect skin scrapings and examine for ectoparasites.

61 Collect coat brushings and examine for ectoparasites.

62 Perform a Wood’s lamp examination for dermatophytosis.

**DOG**

M63 Perform a complete and thorough clinical examination.

64 Demonstrate correct and safe restraint.

65 Correctly perform IV injection (cephalic vein) or collect blood sample.

66 Correctly perform IM injection.

67 Correctly perform SC injection.

68 Perform an otoscopic ear examination, viewing tympanic membrane and canals.

69 Monitor hydration of hospitalised animals: Clinical parameters.

70 Administer fluid requirements to dehydrated animal SC (calculate vol required vol/site, appropriate fluid).

71 Administer fluid requirements to dehydrated animal IV (insert catheter, select fluid, delivery).

72 Administer oral medication.

73 Collect jugular venous blood sample.

74 Obtain a urine sample by cystocentesis.

75 Express anal sacs.

76 Perform a rectal examination and interpret findings (dog).

**CAT**
M77 Perform a complete and thorough clinical examination.
78 Demonstrate correct and safe restraint.
79 Correctly perform IV injection (cephalic vein) or collect blood sample.
80 Correctly perform IM injection.
81 Correctly perform SC injection.
82 Calculate expected / actual daily water intake.
83 Monitor hydration of hospitalised animals: Clinical parameters
84 Administer fluid requirements to dehydrated animal SC (calculate vol required vol/site, appropriate fluid).
85 Administer fluid requirements to dehydrated animal IV (insert catheter, select fluid, delivery).
86 Administer oral medication.
87 Collect jugular venous blood sample.
88 Obtain a urine sample by cystocentesis.

SMALL MAMMAL
89 Perform a complete and thorough clinical examination.

CAGE BIRD
90 Perform a complete and thorough clinical examination.

PRODUCTION ANIMALS CORE - Compulsory CORE Procedures
CATTLE, SHEEP, DEER
91 Administer oral medications.
92 Correctly perform s/c injection.
93 Correctly perform i/m injection (sheep and deer).

CATTLE
94 Properly restrain a cow in a head bail.
95 Put on halter correctly (cow)
96 Use nose grips to restrain a cow.
97 Perform a complete and thorough clinical examination.
98 Correctly diagnose pregnancy by rectal examination (100% correct on 10 consecutive cows).
99 Correctly identify ovarian structures (CL, follicle) per rectum (cow)
100 Place mouth gag correctly.
101 Pass stomach tube or probang.
102 Collect a milk sample for bacteriology.
103 Collect a blood sample (jugular or caudal vein).
104 Correctly perform intramuscular injection into the anterior part of the neck.
M105 Demonstrate the ability to correctly dispense and label PAR medications.

DEER
M106 Perform a complete and thorough clinical examination.
107 Correctly perform IV injection or collection of a blood sample (jugular vein) in a conscious animal.
108 Participate in body condition scoring.
109 Participate in ultrasonographic diagnosis of pregnancy.
110 Participate in sedation and reversal of sedation.
111 Participate in analgesia of the antler.

PIG
M112 Perform a complete and thorough clinical examination.
113 Correctly perform s/c injection.
114 Correctly perform i/m injection.
115 Obtain a blood jugular venous blood sample.
**EQUINE CORE** - Compulsory CORE Procedures

116 Catch, halter and lead a horse.
117 Pickup and clean all four feet.
118 Apply hoof testers.
119 Apply a twitch.
120 Administer oral medication.
121 Correctly perform s/c injection.
122 Correctly perform i/m injection.
123 Correctly perform i/v injection.
124 Obtain a jugular venous blood sample.
125 Place an intravenous catheter.
126 Record the identity of a horse.
M127 Perform a complete and thorough clinical examination.
128 Perform and interpret a PCV/TPP.
129 Perform and interpret a faecal egg count.
130 Be able to identify abnormalities in conformation and gait (forelimb & hindlimb lameness).
131 Remove and put on a cover.
132 Examine and float a horse’s teeth.
133 Bandage a horse's limb.

**SMALL ANIMAL TRACK** - Compulsory TRACK Procedures

**ANY SMALL ANIMAL**

T1 Placement and management of naso-oesophageal feeding tubes (and nasal O₂).
T2 Placement and management of oesophagostomy tubes.
T3 Diet selection for assisted feeding.
T4 Placement and management of thoracotomy tubes.
T5 Thoracocentesis.
T6 Arthrocentesis & interpret a direct smear of joint fluid.
T7 CSF collection.
T8 Bone marrow collection.
T9 Urinary tract catheterisation (male and female).
T10 Cystocentesis.
T11 Prostatic wash.
T12 Trans-tracheal wash.
T13 Tracheobronchial wash.
T14 Blind nasal biopsy.
T15 Diagnostic peritoneal lavage.
T16 Lacrimal duct canulation.
T17 Lymph node fine needle aspiration.
T18 Care for a case with a closed and open drain.
T20 Apply a foot bandage.

**PRODUCTION ANIMAL TRACK** - Compulsory TRACK procedures

**CATTLE, DEER, SHEEP**

T1 Liver biopsy.
T2 Intradermal injection (cattle or deer).

**CATTLE**

T3 Pass intrauterine catheter (recto-vaginal technique).
T4 Ultrasound diagnosis of pregnancy (cow).
T5 Anaesthesia of horn (cornual block).
T6 Correctly perform epidural anaesthesia.
T7 Correctly inject into the jugular vein.
T8 Administer metabolic fluids.
T9 Lift and tie up a cow’s foot properly.
T10 Undertake corrective trimming of a cow’s hoof.
T11 Correctly perform i/v injection.

DEER
T12 Body condition scoring.
T13 Ultrasonographic diagnosis of pregnancy.
T14 Sedation and reversal of sedation.
T15 Participated in the use of pole syringe for immobilization or i/m injection.
T16 Analgesia of the antler.
T17 Complete Herd Health project.

SHEEP
T18 Breeding soundness examination of Ram.
T19 Ultrasound diagnosis of pregnancy.

EQUINE TRACK - Compulsory TRACK Procedures
T1 Safely perform a rectal examination.
T2 Taking and interpreting plain radiographs.
T3 Safely perform a nasogastric intubation.
T4 Collection and submission of samples for laboratory testing, (including interpretation of results).
T5 Perform/participate in a complete orthopedic exam.
T6 URT endoscopy.
T7 Ultrasonographic examination of palmar metacarpal/metatarsal structures.
T8 Neurologic examination.
T9 Ophthalmologic examination.
T10 Euthanasia (watch video).
T11 Ultrasound examination of the thorax.
T12 Ultrasound examination of the abdomen.
T13 ECG recording and interpretation.
T14 Preparation for genital examination in the mare: Tail wrap and tie, wash perineum.
T15 Examination of the genital tract by rectal palpation.
T16 Examination of the genital tract by trans-rectal ultrasonography.
T17 Examination of the genital tract by vaginal speculum.
T19 Palpation of scrotum and testes of stallion.

NON-COMPULSORY SKILLS

ANAESTHESIA CORE: Additional Procedures - Not Compulsory
A1 Observe/participate in general anesthesia.
A2 Demonstrate the methods of basic cardiopulmonary resuscitation.
A3 Recognise + effectively manage / treat pain (dog).
A4 Recognise + effectively manage / treat pain (cat).
A5 Recognise + effectively manage / treat pain (horse).

SMALL ANIMAL TRACK: Additional Procedures - Not Compulsory
A6 Express bladder (dog or cat)
A7 Administer oral medications (small mammal)
A8 Administer tube feeding (choose appropriate diet, design daily feeding schedule, prepare diet, administer) (dog and cat).
A9 Administer an enema (dog)
A10 Observe a CSF collection and submission of appropriate samples to the laboratory.
A11 Observe an endoscopy.
A12 Observe thoracocentesis.
A13 Observe abdominocentesis and/or peritoneal lavage.
A14 Observe tracheal wash / bronchoalveolar lavage.
A15 Perform a rectal examination and interpret findings (bitch).
A16 Apply an Ehmer sling.
A17 Apply an RJB.

**EQUINE TRACK: Additional Procedures - Not Compulsory**
A16 Abdominocentesis.
A17 Preneural nerve block.
A18 Intrasyovial analgesia.
A19 Transtracheal or endotracheal aspiration.
A20 Bronchoalveolar lavage.
A21 Epidural anaesthesia.
A22 Collection of uterine culture/cytology.
A23 Collection of uterine biopsy.
A24 Caslick procedure.