THE ROYAL VETERINARY COLLEGE

SELF EVALUATION REPORT 1

prepared for the joint visit of

the Royal College of Veterinary Surgeons

and

the European Association of Establishments for Veterinary Education

December 2009

CONTENTS

INTRODUCTION

1. The Royal Veterinary College (RVC) is the United Kingdom's only free-standing veterinary school. It was founded in 1791 and became a constituent college of the federal University of London in 1949.

2. Our Vision is to provide leadership and excellence in veterinary science through innovative scholarship and pioneering clinical activity. Since our most recent RCVS/EAEVE visitation in 2000, the College has been re-accredited by the American Veterinary Medical Association (AVMA), and achieved excellent outcomes in audits by the Quality Assurance Agency for Higher Education (QAA), in its application for Degree Awarding Powers, and in the Research Assessment Exercise (RAE). We have been successful in competitive bidding for resources from the Higher Education Funding Council for England (HEFCE) and other national and international agencies. We look forward to demonstrating the progress we have made in the last ten years, and to sharing with the site visit team our plans for further development and improvement.

3. Significant growth has meant that the College now has a greater number of students and a more diverse student body than any other UK veterinary school. We have become a medium size higher education institution in terms of staff numbers and financial turnover and, as such, we command a critical mass of subject specific resources to support education, research and clinical service.

4. We have a research-rich culture with a significant and expanding portfolio of international quality research, which informs teaching and clinical practice, and which was rated highest of the English veterinary schools in the 2008 RAE. Our clinical provision, which integrates closely with both our teaching and research, has moved into a new era, with the completion of the third phase of the Queen Mother Hospital for Animals (QMHA), the establishment of a clinical trials unit and plans for the further expansion of first opinion and referral caseloads in all our clinical practices.

5. The College retains its autonomy as an independent College within the Federal University of London. We continue to award degrees of the University although, in common with the other major Colleges, we have been granted the power to award our own taught and research degrees.

6. The membership of the College's Senior Management Group (SMG) has evolved in the last ten years to meet the opportunities and challenges arising from the continuing changes in higher education. It currently comprises the following:

Position	Incumbent	Date joined SMG
Principal	Professor Quintin McKellar, BVMS PhD DVM DipECVPT MRCVS FIBiol FRAgS FRSE	2004
Deputy Principal & Vice-Principal (Teaching)	Professor Stephen May, MA VetMB PhD DVR DEO DipECVS FRCVS	1997
Vice-Principal (Academic & Clinical Affairs)	Professor David Church, BVSc PhD MACVSc MRCVS	2001
Vice-Principal (Operations)	Mr Ian Mehrtens, BSc MPhil MBA FRICS	2006
Vice-Principal (Research)	Professor Jonathan Elliott, MA VetMB PhD Cert SAC DipECVPT MRCVS	2004
Vice-Principal (Strategic Development and International)	Professor Colin Howard, BSc MSc PhD DSc FRCPath FIBiol	1993
Assistant Principal, Academic Support & Development and Secretary to Council	Mrs Elaine Acaster, DipDSc SRD	2002
Head of Department, Pathology and Infectious Diseases	Professor Declan McKeever, MVB PhD MRCVS	2008
Head of Department, Veterinary Basic Sciences	Professor Neil Stickland, BSc PhD DSc	2008
Head of Department, Veterinary Clinical Sciences	Professor Dan Brockman, BVSc CertVR CertSAD DipACVS DipECVS MRCVS	2009
Director of Clinical Services	Mr Graham Milligan, MA VetMB MRCVS	2007
Director of Finance	Mr Andrew Dyer, BA MBA ACMA	2007
Director of Human Resources	Mr Ian Darker, BA PGDip	2006

7. The College has three academic departments:
   - Pathology and Infectious Diseases (PID)
   - Veterinary Basic Sciences (VBS)
   - Veterinary Clinical Sciences (VCS

   Since the 2000 Site Visit, the Department of VCS has been created through the merger of the former Departments of Farm Animal & Equine Medicine and Surgery, and Small Animal Medicine and Surgery.

8. Alongside the academic departments are the following support structures:
   i. Academic Support and Development (AS&D), created at the time of the 2000 Site Visit, comprising
      - Academic Development
      - Academic Registry
      - Development Office
      - e-Media
      - Graduate School (academic leadership via the Vice Principal - Research; administration within Academic Registry)
      - Library and Information Services

   ii. Biological Services Unit (BSU), with a facility on each campus

   iii. Centre for Excellence in Lifelong Independent Veterinary Education (LIVE CETL)

   iv. Clinical Services Division (CSD), created in 2001, which is responsible for the management and development of the College's clinical facilities:
      - Beaumont Animals' Hospital
      - Equine Referral Hospital (ERH) and Ambulatory Practice
      - Farm Animal Hospital
      - Queen Mother Hospital for Animals (QMHA)
      - Laboratory Diagnostic Services

   v. Continuing Professional Development (CPD) Unit

   vi. Enterprise Unit

   vii. Estates

   viii. Finance

   ix. Human Resources (HR)

   x. Research Office

9. The College's governance structures have undergone comprehensive review since the last Site Visit. The Council has been reduced in size, and comprises members appointed primarily for their professional expertise; its sub-committees have been re-structured so that business is dealt with more efficiently. Similarly, the committees reporting to the Academic Board have been re-organised and streamlined, promoting a more consistent approach to policy- and decision-making across all the College's academic endeavours.

10. Numbers of staff, including academic staff, have more than doubled in the last ten years: there were 75 academic staff (headcount) at the time of the previous visit in May 2000; in December 2009 there were 200. The growth in staff numbers has been driven by the expansion across all our teaching, research and clinical activities and has enabled the College to ensure that both academic and professional support areas have sufficient breadth and depth both to assure the quality and standards of current provision, and to continue developing and enhancing it. Support services, e.g. programme support and examinations administration, have been developed to enable academic staff to concentrate on delivery.

11. The primary focus of this self evaluation report (SER) is the Bachelor of Veterinary Medicine (BVetMed) degree course, which leads to membership of the Royal College of Veterinary Surgeons. As detailed elsewhere in this SER, the last ten years has seen continuing development of the course content, teaching and learning methods, and assessment schemes, and the introduction of new entry routes.

12. At the time of the last visit, the College was introducing a newly integrated systems-based curriculum in Years 3 and 4 of the BVetMed. This was completed successfully, but we immediately commenced planning a more comprehensive curriculum revision, focused on our over-riding strategic goal of developing our students to become independent, lifelong learners. The first cohort of students entered the new curriculum in 2007, and will be half-way through the course at the time of this visit.

13. In addition to the standard 5 year course, UCAS Code D100, (with the option of an intercalated year) we have introduced three other routes:
    i. A four-year Graduate Entry route;
    ii. A six-year combined BSc/BVetMed course (D101);
    iii. A six-year course incorporating the Year Zero Gateway Programme (D102).

14. The RVC is situated on two campuses:
    i. the Camden Campus in London; and
    ii. the Hawkshead Campus (incorporating the College Farm) near Potters Bar in Hertfordshire.

15. The option of consolidating all activity on one campus was reviewed in 2007, with the conclusion that the College should continue to build upon the complementary strengths of its two campuses. Consequently, physical development, both new build and refurbishment, continues at both Camden and Hawkshead.

16. The decade since the last visit has witnessed the most extensive programme of building works in the College's history, and one that will continue well into the next decade. The Camden Campus has seen both extensive refurbishment and limited new build, while a number of significant new buildings have been constructed on the Hawkshead Campus. The major building projects since 2000 have been:

Date	Project	Campus
2000	Microbiology Laboratories	Hawkshead
2001	Hall of Residence	Camden
2001	London Bioscience Innovation Centre (LBIC) Phase 1	Camden
2002	LBIC Phase 2	Camden
2002	Learning Resources Centre	Camden
2003	Large Animal Clinical Centre	Hawkshead
2003	Eclipse Building	Hawkshead
2004	Clinical Skills Centre	Hawkshead
2004	Conversion of Hobday Building, 3rd and 4th Floors	Camden
2004	Lecture Theatre Refurbishments	Camden & Hawkshead
2005	Mary Brancker House (hall of residence commissioned by the College, housing 182 RVC students)	Camden
2005	LBIC Phase 3	Camden
2005	Re-modelling of Catering Facilities	Camden
2006	Animal Welfare Research Unit	Hawkshead
2006	Main Reception remodelling	Camden
2006	LIVE Centre (CETL Project)	Hawkshead
2006	Remodelling of the Finance Department Offices	Camden
2006	Creation of new Anatomy Museum	Camden
2006	Creation of Category 2 Teaching Laboratory	Camden
2007	Locomotion Research Laboratory	Hawkshead
2007	Refurbishment of the Treadmill Building	Hawkshead

2007	Creation of Pfizer Clinical Research Centre (CIC)	Hawkshead
2007	Provision of Student Social Facilities	Camden & Hawkshead
2008	Remodelling of Student Support and Student Administration offices	Camden
2008	QMHA Phase 3	Hawkshead
2009	Centre for Emerging, Endemic and Exotic Diseases (CEEED)	Hawkshead
Under construction	Equine Clinic	Hawkshead
Under construction	Social Learning Facilities	Camden
In design	Teaching and Research Centre	Hawkshead
In design	Student Accommodation	Hawkshead
In planning	Sports and Social Facilities	Hawkshead & Camden

17. We have continued to invest in high quality, state of the art equipment to support all areas of endeavour. In particular, in equipping our clinics we have extended the range of imaging modalities that we support, to include MRI and CT. Rehabilitation services have been enhanced by the construction of a hydrotherapy pool. In respect of research, we continue to invest in up-to-date equipment to support the needs of particular research topics and projects. We also purchase, on a cross-College basis, major items of equipment that will support more than one research group, such as confocal microscopes, a DNA Sequencer, 4 RT-PCR machines, a FACSaria machine and a FACS machine. The Structure and Motion Facility has also been fully equipped with state-of-the-art equipment for biomechanics research. Since the last RCVS visit the College has invested over £12 million in research infrastructure from SRIF (Science Research Investment Fund) 1 – 3, East of England Development Agency funding (associated with CEEED and CIC labs), three Biotechnology & Biological Sciences Research Council (BBSRC) Research Equipment Initiative grants, and three Wellcome Trust equipment grants.

18. The Report of the May 2000 RCVS visitation made three recommendations:
    i. that the issue of the availability of farm animal material for students be further addressed by the RVC and reviewed as a priority at the normal interim enquiry;
    ii. that the RVC continue to review its teaching in veterinary public health and that the progress made in this area be examined carefully at the interim enquiry;

iii. that the RVC review the content and consistency of training programmes for clinical scholars, both for their veterinary and teaching responsibilities.

19. The College responded fully to these recommendations at the time of the Follow-up Enquiries in 2006. As detailed more fully elsewhere in this SER, we have continued to strengthen our provision in these areas:
    i. the availability of Farm Animal material for student teaching has been more firmly assured through the Joint Venture Practice and Welsh Regional Veterinary Centre initiatives (see paras. 117 and 118);
    ii. we have continued to review our Veterinary Public Health teaching, and initiatives in this regard are set out in more detail in paras. 96 - 102;
    iii. our Clinical Training Scholar programmes have been given further consistency through the introduction of the structured MVetMed degree that all Senior Clinical Training Scholars are expected to pursue.

20. The last decade has not been without its major challenges, but the College has tackled them vigorously and innovatively, to emerge stronger and able to face the coming decade - which, because of financial constraints, will undoubtedly be a difficult one for European Higher Education - with a greater degree of confidence than many of our counterparts. Resourcing excellence in teaching, research and clinical service has been a major challenge, but one that the College has met through expanding its income significantly and investing it prudently. This has, in turn, enabled the College to address, with a degree of success, two other problems: developing and maintaining an estate that is fit for purpose (see para. 16 above); and attracting and recruiting sufficient numbers of outstanding staff, particularly in the clinical academic disciplines, through offering an imaginative salary supplement scheme.

21. As outlined elsewhere in this SER, across the full range of our activities we have adopted ingenious solutions to problems. For example, we have built alliances to support and diversify large animal teaching and thus address the falling numbers of farm animal cases in our immediate vicinity; we have led a number of local and national initiatives designed to attract a more diverse student body to the RVC; we have developed new assessment methods to ensure that we do not graduate any student who is not ready to enter the profession.

22. In summary, as we seek to demonstrate in the remainder of this SER, since 2000 the College has strengthened its position in respect of every criterion against which it is judged.

Chapter 1. OBJECTIVES

1.1 FACTUAL INFORMATION

Our Vision

23. To provide visionary leadership and excellence in veterinary science through innovative scholarship and pioneering clinical activity

Our Mission

24. We will enhance our global reputation as an outstanding independent veterinary college by:
    i. improving the quality of the student experience educationally and socially
    ii. delivering excellent education through the best methods and progressive practice
    iii. undertaking research of international quality in focused areas of global significance for animal and human health
    iv. improving animal health and welfare by the provision of outstanding clinical activity across animal species
    v. engaging with the business community and exploiting our novel ideas
    vi. promoting public health and supporting society through the study of the relationships between people, animals and food
    vii. engaging fully with local, national and international communities and all our stakeholders

25. Each element of the Mission Statement is underpinned by a set of Strategic Aims, designed to enable the College to progress towards its long-term goals, set out in our Corporate Plan for 2009-13. The Corporate Plan was adopted by the College Council following extensive consultation at all levels in the College.

26. The prioritisation and phasing of plans to achieve the corporate objectives is determined by the SMG. Wherever possible, these objectives, which are up-dated each year, are defined in measurable terms, together with a timescale, and a member of the SMG is identified as being responsible for leading their delivery. The achievement of objectives is monitored by Council and the SMG, and reported annually to HEFCE and the Academic Board. Evaluation of progress towards each objective forms an integral part of the annual planning cycle, resulting in a modified set of objectives for the following year. Corporate objectives also cascade down into the objectives of organisational units and, through annual appraisal, into the objectives of individual staff.

1.2 COMMENTS

As will be demonstrated throughout this SER, the College continues to succeed in meeting its objectives. Below, we highlight evidence to substantiate this assertion:

27. ***Improving the quality of the student experience educationally and socially***

i. Within the framework of the Learning and Teaching Strategies that we have adopted successively since 1998, there has been an increasing emphasis on cultivating students' skills as independent learners. We recognise that this is vital if they are to complete their course successfully, and to continue to grow and develop as professionals throughout their careers.

ii. We know that students cannot maximise their learning without timely and constructive feedback on their performance. Students have been critical of the quality of feedback in the past. We are therefore starting to develop more comprehensive and consistent processes so that students will be guaranteed feedback which enhances their learning.

iii. Since the last RCVS visit we have, in common with all other UK HEIs, introduced Personal Development Planning. Allied to this, we have overhauled the tutorial system for the BVetMed, so that academic staff meet students more frequently in small groups to monitor their progress.

iv. Students benefit greatly from the College's expertise in technology-enhanced learning. The e-media unit has no peer in UK veterinary schools, and students have enthusiastically adopted initiatives such as podcasting and potcasting; wikivet (a collaboratively authored online veterinary encyclopaedia); digital videos of surgical procedures and clinical skills; haptic technologies; and the Bloomsbury Learning Environment (BLE), the College's virtual learning environment.

v. We have made enormous progress in improving the physical learning environment. The rooms in which students are taught have, almost without exception, been refurbished and modernised in the last decade, and equipped with up-to-date audio-visual equipment; the outmoded Libraries on both campuses have been replaced by state-of-the-art Learning Resources Centres (LRCs), in which students have access to a comprehensive range of printed and electronic resources. A stronger campus identity has been created at Camden.

vi. Student support services have developed rapidly in the last decade: not only have they more than kept pace with increased student numbers, but students now have access to new services including financial advice, on-site

counselling and study skills support, under the leadership since 2008 of a professional Student Support Services Manager.

vii. Student accommodation provision has grown rapidly, with the number of bed spaces offered by the College increasing from 171 to 432 in the last decade.

viii. Students have ready access to sports facilities, both on-site at Hawkshead and via the University of London Union (ULU). However, we recognise this as a priority for further development in the next decade. We also wish to broaden our students' horizons culturally and socially, through initiatives such as an expanded volunteering programme, and the planned engagement of an artist in residence.

28. ***Delivering excellent education through the best methods and progressive practice***

i. The quality of our programmes is attested by a number of measures, most significantly continued Accreditation by the AVMA, and the positive reports of External Examiners.

ii. Recognition of the College, by HEFCE, as a Centre for Excellence in Teaching and Learning (CETL) has provided additional resources, both recurrent (£500,000 per annum) and capital (£2.4m in total), to support innovative educational research and development, the construction of the new Clinical Skills Centre and anatomy and pathology teaching spaces.

iii. Academic staff are trained to teach effectively through mandatory induction programmes accredited by the Higher Education Academy (HEA), and CPD workshops, and from 2009/2010 have been able to enrol on the College's unique MSc and Postgraduate Diploma in Veterinary Education.

iv. Staff publish in educational journals and present at conferences such as those of the Association for Veterinary Teaching and Research Work (AVTRW), Veterinary Education Worldwide (ViEW) and the Association for Medical Education in Europe (AMEE).

v. We have consolidated an outcomes-based approach to curricular design, with emphasis on relevance, reliability and variety of assessment, most significantly implementing Objective Structured Practical Veterinary Examinations (OSPVEs) and Extended Matching Questions (EMQs) as part of the Final BVetMed Examination.

vi. As detailed elsewhere, we are in the middle of introducing a new BVetMed curriculum, based on robust educational principles, designed to produce

independent, lifelong learners with a full range of sound Day One Skills and strong professional attributes.

vii. The Professional Skills module, an innovation in the 1999 curriculum specifically commended by the QAA, has been developed into a full Strand, Professional Studies, that runs throughout the new BVetMed curriculum.

viii. BVetMed students benefit from being taught in a research-intensive environment, with a dedicated eight-week research project in their Final Year. Teaching staff are active researchers and practitioners in their own fields, and their knowledge of their subject is therefore constantly tested and up-dated.

ix. We have expanded our education in basic business skills, giving an introductory level of entrepreneurship training to all students and members of academic staff. 2009 sees a step-change through the establishment of the Centre of Veterinary and Bioveterinary Enterprise, with a Chair in Business and Enterprise (endowed by Norbrook Laboratories) – the first of its kind in the UK – as a focal point; and a senior academic appointment in Animal Health Economics.

29. ***Undertaking research of international quality in focused areas of global significance for animal and human health***

i. The outcome of the 2008 UK-wide RAE confirmed the international importance of the veterinary research conducted at the RVC, placing it second only to the University of Edinburgh.

ii. The College has made and continues to make high quality new appointments in areas of research strength, and has continued to evolve the focus, structure and membership of our research groups to concentrate more clearly on areas of national and international importance, such as the influence of diet, economics and economic drivers of disease problems, lifestyle, and ageing on health, and to enhance collaborative working.

iii. We have consolidated our position as a world leading centre for research in Comparative Biomechanics and Veterinary Epidemiology.

iv. Simultaneously, the increase in total academic staff numbers has enabled particularly productive researchers to have relatively lighter teaching loads.

v. We have developed new research strengths in areas of curricular importance, most notably Veterinary Public Health, Animal Health Economics, and Animal Welfare.

vi. We lead the UK veterinary institutes in developing an infrastructure to enable us to utilise our clinical caseload with a view to working with medical researchers to study the influence of genetics on diseases of lifestyle and ageing.

vii. We have implemented a more co-ordinated approach to exploiting funding opportunities, and this has contributed to income from research grants and contracts increasing to unprecedented levels.

viii. We have improved our research infrastructure, such as the new and reconfigured laboratories, under our Estates Strategy, providing world class facilities which encourage multidisciplinary groups to work together.

ix. We have an extensive range of external partnerships complementary to our own research strengths. These are becoming more international, particularly in the Infection and Immunity research programme, where our membership of the London International Development Centre has enabled us to make significant contributions to international development programmes, and in our collaborations with organisations such as the FAO.

x. Through the Graduate School, we have made considerable progress in increasing numbers of research students, and in enriching their learning environment. The quality of our post-graduate training environment has been recognised by the award of two consecutive BBSRC Doctoral Training grants allowing us to appoint 6 BBSRC funded students a year from 2006 to 2012. An extensive programme of training sessions is organised annually, and there are two weekly research seminar series.

xi. We have instigated improved training and support for post-doctoral researchers, embracing the Concordat, and will further develop the research 'career ladder' and extend the College's research culture.

xii. Building on our strengths in epidemiology as a core discipline for clinical research, we recognise the need to develop statistics and bioinformatics as underlying core disciplines to support research across the College such that more effective use is made of large datasets and the application of mathematical models of biological data is improved. To this end we have:

- appointed (2009) a full time Research Professor in Systems Biology who applies bioinformatics to large datasets in his research on gene expression in muscle. The appointee chairs a working group on bioinformatics, charged with improving training and support in this discipline;
- appointed (2009) a full time statistician with a background in quantitative genetics to provide training and advice in statistics to postgraduate research students, post-docs and academics;

- appointed (2008) a research fellow in quantitative epidemiology with a background in applied mathematics;
- appointed (2009) a research fellow in bioinformatics to provide support for academics and research students in this discipline.

30. ***Improving animal health and welfare by the provision of outstanding clinical activity across animal species***

i. In 2008 we completed the third phase of development of the QMHA, making this one of the largest, best equipped hospital of its kind in Europe. This development supports the continued expansion of both secondary and tertiary medical and surgical services for small animals, built around major investment in the key support services of Emergency and Critical Care, Anaesthesia and Diagnostic Imaging.

ii. Work has begun on the relocation of the Equine Referral Hospital to one site, beginning with the Operating Theatre Suite and exercise areas, which are due to open in Spring 2010. This phase is to be followed by the construction of new intensive care facilities and a rehabilitation unit. The addition of standing and recumbent MRI and CT imaging capability for horses by the end of 2009 will complete our extensive range of imaging options.

iii. Over the last ten years, we have been successful in recruiting and retaining clinical specialists with the highest international standing, so that across a range of specialities we have teams of clinicians who are either RCVS, European or American Diplomates.

iv. The College's clinics have the largest caseload of any UK veterinary school. We continue to develop the caseload in challenging areas such as farm animal and first opinion practice, through innovative partnerships, and in areas such as oncology where we have not previously offered a service. An arrangement with the Dogs' Trust has significantly increased the number of neutering operations carried out by undergraduates. Through adopting a more professional and client-focused approach, we have been able to increase our small animal caseload despite intense competition from high quality referral practices.

v. We have made concerted progress in clinical research. Central to this is the electronic patient record system, now fully implemented, that has started to generate consistent and comprehensive data thus facilitating disciplined study of the caseload. We have created, in partnership with industry, a Clinical Investigations Centre which, with industry funding, facilitates investigation of companion animal health and works to improve the diagnosis and treatment of pets suffering from ill health.

vi. The establishment of the joint RVC/Veterinary Laboratories Agency (VLA) Surveillance Centre has led to an increase in the caseload of necropsy specimens for disease diagnosis and monitoring.

vii. The caseload of the first opinion Equine Practice has risen dramatically since 2000, and we now have three full time clinicians in this area which gives students exposure to first opinion work providing, with the Equine Referral Hospital, a better balance of equine experience.

viii. We have developed of a farm health consultancy service based at the Welsh Regional Veterinary Centre, Gelli Aur, Carmarthenshire. A team of 4 clinicians (including a resident and an intern) provides regional veterinary practices and farmers with assistance in solving farm animal health and production problems.

31. ***Engaging with the business community and exploiting our novel ideas***

i. We have developed a strong business-facing presence over the last decade. Increasing numbers of academic staff are engaging in knowledge transfer and we are now among the UK's ten most successful HEIs in terms of business research income per academic employee. Staff interact with companies through many different type of relationships including consultancy, research collaboration, studentships, contract work and clinical trials. We work with businesses of all types, from SMEs to multinationals, and from human pharmaceuticals to veterinary care.

ii. We have established a technology transfer capability which has been successful in the protection of intellectual property, licensing of technologies to external organisations, and the formation of spin-out companies. We have created three spin-out companies, one of which has already returned revenue to the College.

iii. We have developed the London BioScience Innovation Centre (LBIC) as the capital's premier incubator for bioscience companies and a world-leading focus of interactions between life scientists and the business community.

iv. The enterprise climate has been fostered throughout the College through short courses delivered to all undergraduates and PhD students and offered to academic and research staff. This culture is now underpinned by the formation of the first European chapter of the student-led Veterinary Business Management Association, and the formation of the Norbrook Centre for Bio-veterinary Enterprise, and the appointment of the Norbrook Professor of

Business and Enterprise to head it, a first for a UK veterinary school. A small number of students are now undertaking business-focused Research Projects.

v. Supported by £493K secured from HEFCE's Economic Challenge Investment Fund, we have established the ORBIS programme, engaging with the business community to place 60 bioscience graduate interns in life science companies for 6 months, coupled to provision of a training programme for the interns and company employees in bio-business skills.

32. ***Promoting public health and supporting society through the study of the relationships between people, animals and food***

i. We have strengthened staffing in veterinary public health through the appointment of a new Professor and other teaching and research staff with rich experience of the different public health challenges in a range of European countries and overseas.

ii. We have established relationships with a number of major food retailers, thus fostering mutual teaching and research links.

iii. We have worked with colleagues in the other UK veterinary schools to develop a robust national curriculum in veterinary public health. In the new BVetMed curriculum at the RVC we have raised the profile of veterinary public health so that it has a central role throughout the course, rather than being a stand-alone module studied after the completion of the rest of the classroom-based course.

iv. We have worked with the Veterinary Public Health Association to optimise the learning experience of students during EMS.

v. We have opened the Centre for Emerging, Endemic, and Exotic Diseases (CEEED), which brings together our research strengths in public health and infectious diseases.

vi. We raise the BVetMed students' awareness of Veterinary Public Health through a number of novel activities, for example an essay competition during the EU Veterinary Week.

vii. We have become a training centre for residents in Veterinary Public Health following a programme approved by the European College of Veterinary Public Health.

viii. An important role of the newly developed Welsh Regional Veterinary Centre, established in partnership with the Welsh Assembly Government, Veterinary

Laboratories Agency and Coleg Sir Gar (a local further education college) is to identify problems relevant to food animal production in Wales and to design and deliver research projects to address these problems. Successful projects to establish protocols for biosecurity against bovine TB and to reduce bovine mastitis on Welsh dairy farms have been completed. A two year project to examine risk factors for bovine TB outbreaks on Welsh farms is currently underway.

33. ***Engaging fully with local, national and international communities and all our stakeholders***

i. In the last decade the College has made considerable progress in widening access and increasing diversity, to the extent that we have exceeded our targets for the recruitment of students from under-represented groups. This achievement has involved the College working closely with partner HEIs, schools and Further Education (FE) colleges, and local education authorities. RVC Student Ambassadors and staff have made an exceptional contribution to raising aspirations and achievement in local schools.

ii. The College has extended its work with the veterinary professions through many avenues, including a growing CPD programme, its leading role in the development of the Certificate in Advanced Veterinary Practice (CertAVP), and active staff participation in professional bodies.

iii. We have established strong links with the local authorities in Camden and Hertfordshire, where our campuses are situated.

iv. We have established new programmes of work with specific sectors of the community, e.g. outreach to the Somali community in Camden, and the achievement of the Frank Buttle Quality Mark for work with care leavers.

v. We led the establishment of the VETNET Lifelong Learning Network, which has brought together over 80 course providers and national agencies in the veterinary and related disciplines, to facilitate progression from vocational courses into professional academic degrees.

vi. We have extended and embedded our commitment to equality of opportunity in the recruitment, admission, and subsequent support, of staff and students from all backgrounds

vii. We have developed a range of veterinary outreach programmes in the UK, such as those with the Dogs Trust and Blue Cross charities in London, and the Welsh Royal Veterinary Centre (WRVC) in Carmarthenshire. We have established collaborations overseas, most notably in Bangladesh.

viii. As an important element of our internationalisation strategy, we have established a strong presence in Hong Kong, contributing to the support of equine athletes during the 2008 Olympics, collaborating in Veterinary Public Health programmes, and joining with the Polytechnic University of Hong Kong to develop a degree in Veterinary Nursing.

ix. We value the input that our stakeholders make in helping to guide the College's development, and over the last decade have increased the number of external members who serve on the College's committees.

STRENGTHS AND WEAKNESSES

Strengths

34. The College has notable strengths across the whole range of its activities, particularly in finances, physical facilities, academic support, staff, students, curriculum, research, clinical services, CPD and postgraduate education:

- The College's autonomy within the federal University of London, which affords great flexibility and permits the College to focus its energies exclusively on achieving excellence in veterinary education, service and research.
- Close proximity of the College to many other HEIs, libraries, research institutes, and specialist practices, offering opportunities for collaboration and partnership; and to London's large international student population, and social, cultural and sporting opportunities.
- A sound financial position, resulting from the development of diverse income sources and careful husbanding of resources.
- An ability to win significant funds in competition with other institutions, enabling the College to enhance many aspects of its activities.
- A devolved budgeting system which allows Heads of Department maximum budgetary control and enables them to benefit fully from their own efforts in raising revenue and controlling costs.
- New or refurbished teaching, research and clinical facilities in all parts of the College.
- An energetic, innovative, experienced and cohesive SMG that provides strategic leadership across a wide range of activities.
- Committed, well-qualified and hard-working faculty and staff.
- A strong infrastructure for Academic Support and Development, providing professional academic services whilst freeing academic staff to focus upon teaching, research and service.
- Student support services that are now both comprehensive and responsive to the particular needs of our students.

- A generous bursary scheme to relieve the financial hardship of our least affluent students.
- The UK's pre-eminent veterinary e-media unit.
- Strong professional services in Finance, HR, Estates and Library & Information Services.
- A strong student applicant pool, particularly from the UK.
- A very able student body whose representatives participate fully and responsibly in College governance.
- Constructive relationships between academic staff and students, and an evolving tutoring and welfare system which ensures that all students have ready access to academic and pastoral guidance.
- A growing national reputation for educational excellence, exemplified by the LIVE CETL and the development of the unique Postgraduate Certificate, Postgraduate Diploma and MSc in Veterinary Education.
- Complete control, within the parameters set by the EU, the RCVS and the AVMA, over the curriculum, and the consequent ability to develop programmes to the maximum educational benefit of the students.
- Commitment to using both new and traditional teaching methods, including a shift towards problem-solving, integrated teaching programmes and the use of technology-enhanced learning.
- Sound relationships with practices collaborating in EMS.
- Strong research programmes, particularly in musculo-skeletal pathobiology, cardiovascular biology, and infection and immunity.
- Excellence of clinical expertise and facilities, in particular in the QMHA.
- A veterinary CPD programme that grows annually in strength and popularity.
- A strong team of staff and students working to increase the diversity of students entering the College.
- Strong commitment to the College from a range of stakeholders, particularly the lay members of Council.

35. **Weaknesses**

- Unattractiveness of London to both staff and students due to high costs.
- Limited applicant pool for academic staff positions in some clinical specialities, e.g. ophthalmology.
- Continuing difficulty of recruiting students from minority ethnic groups, and males in general.
- A split physical estate with a moderate distance between Camden and Hawkshead campuses.
- Disproportionate dependence on referral casework in intra mural rotations (IMR), relative to the more limited numbers of routine cases which will form the majority of the graduate's future professional workload.

- Limited farm animal caseload in the immediate vicinity of the College, requiring us to look further afield in order to provide students with suitable clinical material.

1.3 SUGGESTIONS

36. The College is confident that it has an inspiring Vision, a clearly articulated and internationally significant Mission, and Objectives that are challenging but achievable. The most significant factors that limit the pace of our development are the limited governmental support for the veterinary professions in the UK, when compared to the support afforded to human medicine; the worsening funding situation facing the whole of Higher Education; and the increasing competition that the College faces for resources, staff, students, and clinical caseload.

37. The College should continue to prosecute the developments laid out in its Corporate Plan. It should continuously monitor their effectiveness, and be prepared to adapt its plans to meet the challenges of the changing external environment.

Chapter 2. ORGANISATION

2.1 FACTUAL INFORMATION

Contact details of the Faculty:

Name of the Faculty: the Royal Veterinary College, University of London

Address: Royal College Street, London NW1 0TU, UK

Telephone: +44 (0)1707 666333

Fax: +44 (0)1707 666830

Website: www.rvc.ac.uk

E-Mail: Principal@rvc.ac.uk

Title and name of head of the Faculty:

Principal and Dean: Professor Quintin McKellar, BVMS PhD DVM DipECVPT MRCVS FIBiol FRAgS FRSE

Address of the University

University of London
Senate House
Malet Street
London WC1E 7HU
UK

38. The RVC is one of 19 colleges which comprise the federal University of London. However, the RVC is funded directly by HEFCE, and pays the federal University a contribution towards the costs shared by all constituent colleges, e.g. the cost of running the central University Library. The University has no power over how the College spends its income.

39. The University authorises individual colleges to award taught degrees of the University of London, within broad parameters. In order to exercise this right, colleges are required to have established their own regulations, within the

general framework set down in the Ordinances, and to have lodged a copy of their quality assurance procedures with the Vice-Chancellor.

40. The right to confer degrees brings with it a number of related responsibilities, the most significant of which are:
    i. the College makes its own Regulations, including those governing the assessment of students and the award of degrees;
    ii. it approves proposals for new courses of study, and changes to existing courses;
    iii. it appoints Boards of Examiners, including External Examiners.

41. Some very limited aspects of authority remain with the University. For example, the University determines the Regulations governing academic dress.

42. In common with most other college of the University of London, the RVC has recently sought, and been granted, the power to award its own degrees. It is, however, our intention to continue to award degrees of the University of London, rather than to exercise our own degree awarding powers.

Appointment of senior officials

43. None of the senior officials of the College is elected. The Principal is appointed by Council for a term of five years, which may normally be renewable for one further term. The position of Principal is filled via open advertisement and competition. Vice-Principals are appointed by Council, on the recommendation of the Principal, from among senior and experienced RVC staff, for a term of office of normally three years with the possibility of extension. Heads of Department are appointed on a similar basis: either an experienced and able member of the department is appointed as Head for a fixed term of three to five years, or where there is no internal candidate of suitable calibre an external appointment is made.

44. Council is the Governing Body of the College, normally meeting four times a year. It has legal responsibility for the strategic direction, governance and control of the College. Council is responsible for the appointment of the Principal, Secretary to Council, senior staff and all academic staff, although the last named power has been delegated to duly constituted appointments boards. Council receives advice on all academic matters from the Academic Board.

45. Council comprises 18 members, including 11 independent members appointed on the basis of their expertise; the Principal and three academic Vice-Principals; two academics appointed by the Academic Board; and the President of the Students Union Society (SUS).

46. It is supported by the following committees
    i. Finance and General Purposes Committee
    ii. Audit Committee
    iii. Safety Committee
    iv. Ethics and Welfare Committee
    v. Nominations and Fellowships Committee
    vi. Remuneration Committee

47. The Academic Board considers and advises the Council on all academic matters affecting the educational policy of the College, including the organisation of teaching and research**.** The Board is chaired by the Principal and meets three times a year. It comprises all Heads of Department, Professors and Readers; seven elected academic staff; and the President of the Students Union Society. It is supported in its work by five committees, each of which has delegated responsibility for a major functional area of the Board's remit:
    i. Learning, Teaching and Assessment Committee
    ii. Research Degrees Committee
    iii. Research Strategy Committee
    iv. Student Support Committee
    v. Teaching Quality Committee

48. Academic staff are represented on all major committees of the College. In the case of the Academic Board and the committees that report to it, this is through direct representation. In the case of the College Council, two members of academic staff are elected to it by and from the Academic Board.

49. There is student representation on all committees which consider matters of concern to the student body, either through direct election, or via nomination by the Council of the SUS.

50. We recognise the essential role of the veterinary profession and other external stakeholders in guiding the College's direction. Important ways through which this is achieved include:
    i. there are external members, some of whom are members of the profession, on the Council and its committees, on all committees reporting to Academic Board, and on Course Management Committees;
    ii. all our degree courses employ External Examiners and, for the BVetMed, the majority of these are members of the profession;
    iii. academic staff appointment panels include external advisers from the profession;
    iv. selection panels for the BVetMed degree sometimes include a veterinary practitioner.

Please see Appendices 2 and 3 for diagrams of the College's administrative structures and governance systems.

2.2 COMMENTS

51. Since the last RCVS visitation, the College's organisational structure and arrangements for management and governance have changed considerably, to reflect changes in the College's activities and in the external environment. Those which are most significant include:
    i. the strengthening of the Senior Management Group (SMG);
    ii. re-structuring and strengthening of academic and professional support departments;
    iii. the redrawing of the boundary between the responsibilities of the College centrally and individual departments,
    iv. the revision of the College's committee structure.

52. The SMG has evolved in the last decade to become an executive body responsible for leading the implementation of College strategies**.** The changes in the membership of the SMG have mirrored the growth and increasing complexity of the College as an institution. The SMG now comprises a critical mass of managers who have been appointed on the basis of their capacity for strategic leadership, and whose roles focus on key areas of institutional operation. The evolution of the SMG into a strong and cohesive group is evidenced by the College's progress in achieving its strategic objectives. Members of SMG are expected to engage in appropriate development activities, e.g. attending the senior management programmes run by the Leadership Foundation.

53. The number of academic departments has been reduced and currently numbers three. This has resulted in larger, more professional units, whose Heads are members of the SMG. The role of the Head of Department has become increasingly one of resource manager, in which the recruitment, development and deployment of human and other resources has assumed prominence. Simultaneously the role of academic departments has changed significantly, with responsibility for course development, research strategy, and clinical services becoming increasingly centralised, with direct oversight of all courses by College-based committees, and clear lines of reporting and accountability from the courses themselves to the Academic Board. However, academic staff and other subject-specific teaching resources still belong to academic departments which are largely responsible for their deployment.

54. As noted elsewhere, non-academic departments have been re-organised and consolidated into cohesive units capable of providing high quality professional support for the College's core activities. Through achieving critical mass we have been able to appoint staff with extensive experience in leading HEIs to

manage and develop all areas of professional support, most notably Estates, HR, Finance, and AS&D.

55. We have re-structured our academic committee system according to the following principles:
    i. consistency and simplicity of structure;
    ii. clear and simple lines of accountability;
    iii. effective and efficient decision-making;
    iv. committees whose terms of reference and membership provide for focussed frames of reference;
    v. consistency with accepted good committee practice, e.g. quoracy requirements.

2.3 SUGGESTIONS

56. The College should continue to develop its organisational structures in support of its Mission. It should continue to keep the structure and membership of the SMG under review, and should strengthen the succession planning processes that has been put in place in recent years. The College should also keep the efficiency and efficacy of the committee structure under review, to ensure that decisions are made economically and effectively.

Chapter 3. FINANCES [redacted]

Chapter 4. CURRICULUM

The "new" BVetMed curriculum, introduced progressively from September 2007

<table>
<tr><th>Year One</th><th></th><th>Year Two</th><th></th><th>Year Three</th><th></th><th>Year Four</th><th></th><th>Year Five</th></tr>
<tr><td rowspan="2">Induction Week followed by a series of weeklong "first visits" to each of the Systems Strands</td><td rowspan="3">Professional Studies + Principles of Science + PMVPH</td><td rowspan="2">"Second visits" to Systems Strands</td><td rowspan="3">Professional Studies + Principles of Science + PMVPH</td><td rowspan="3">"Third visits" to Systems Strands</td><td rowspan="3">Professional Studies + Principles of Science + PMVPH</td><td>"Third visits" to Systems Strands</td><td>Professional Studies + Principles of Science + PMVPH</td><td rowspan="2">Intramural and Extramural Rotations

Research Blocks

Vacation</td></tr>
<tr><td colspan="2">Taught Tracking</td></tr>
<tr><td rowspan="2">"Second visits" to Systems Strands</td><td colspan="2" rowspan="2">Intramural and Extramural Rotations

Research Blocks

Vacation</td><td>Taught Tracking</td></tr>
<tr><td colspan="2">"Integrative Concepts"</td><td>Final Examinations</td></tr>
<tr><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td><td>Vacation & Graduation</td></tr>
</table>

4.1 FACTUAL INFORMATION

Table 4.1(a): General table of curriculum hours taken by all students - old curriculum

Year	Hours of training							
	Theoretical training			Supervised practical training			Other	Total
	Lectures (A)	Seminars (B)	Self-directed learning (C)	Laboratory and desk based work (D)	Non-clinical animal work (E)	Clinical work (F)	(G)	
First	144	137.75	25	65.5	25			397
Second	149.5	93.75	36	76.25	14			369
Third	257.75	157	1	90.5	0			506
Fourth	181	49.75	5	29.75	0	886.5		1152
Fifth	2.25	50.5	13	19.5	43	233.5		361
Total	**734.5**	**488.75**	**80**	**282.5**	**82**	**1120**		**2786**

Table 4.1(b): General table of curriculum hours taken by all students - new curriculum

Year	Hours of training							
	Theoretical training			Supervised practical training			Other	Total
	Lectures (A)	Seminars (B)	Self-directed learning (C)	Laboratory and desk based work (D)	Non-clinical animal work (E)	Clinical work (F)	(G)	
First	152.75	46.75	4	54.5	41.5			299.5
Second	143	70.5	29.5	49.5	18.5			311
Third Terms 1 & 2	185.5	120	61	27	7.5			401
Fourth								
Fifth								
Total	**481.3**	**237.25**	**94.5**	**131**	**67.5**			**1011.5**

Table 4.2(a): Curriculum hours in subjects taken by each student - old curriculum

Subject	Theoretical training			Supervised practical training			Other	Total
	Lectures A	Seminars B	Self directed learning C	Laboratory and desk based work D	Non-clinical animal work E	Clinical training F	G	
CLASSROOM-BASED SUBJECTS								
Animal Husbandry	34	13		16	16			79
Integrated Structure and Function	2		25					27
Molecular, Cellular and Developmental Biology	50.25	70		20				140.25
Movement, Control and Measurement	37.25	22.75		24				84
Cardiovascular and Respiratory Systems	78.75	62.75	1	37.25	9			188.75
The Head	21.25	7	12	16	1			57.25
Digestion and Metabolism	30.75	9.5	17.25	26.5				84
Immunology	14.25	10	4	1				29.25
Endocrinology & Thermoregulation Year 1	12.75	22.75		1.75				37.25
Urogenital. Year 2 and Year 4	81	54	7.75	26				168.75
General Pathology	19.5	1		10				30.5
Special Species	18.75	8.5			12			39.25
Alimentary System	32.25	43.25		9				84.5
Locomotor System	25.5	9		11.75				46.25
Nervous System and Special Senses	30	8.5		2				40.5
Principles of Clinical Science	39.75	30		5				74.75
Principles of Microbiology	39.5	19.25		14				72.75
Principles of Parasitology	33	16.5		17				66.5
Endocrine System Year 4	12	6.75		3				21.75
Lymphoreticular and Haemopoietic System	10.5	5.25		3				18.75
Population Medicine and Veterinary Public Health	70.5			10				80.5
Skin	21	18		3.75				42.75
Professional Studies	18.75	1						19.75
Total number of hours	**733.25**	**438.75**	**67**	**257.25**	**38**	**1248**		**1534**

Table 4.2, Curriculum hours in subjects taken by each student - old curriculum, continued…

Subject	Theoretical training			Supervised practical training			Other	Total
	Lectures	Seminars	Self directed learning	Laboratory and desk based work	Non-clinical animal work	Clinical training		
	A	B	C	D	E	F	G	
CLINIC-BASED SUBJECTS								
Small Animal Cardiology						48		48
Small Animal Critical Care		10				38		48
Small Animal Internal Medicine						96		96
Small Animal Radiology				7.5		40.5		48
Small Animal Orthopaedics		2				46		48
Small Animal Soft Tissue Surgery						96		96
Small Animal Neurology		5				43		48
Small Animal Dermatology		1	4			43		48
Small Animal First Opinion						48		48
Small Animal Emergency Medicine		4				44		48
Equine Lameness						48		48
Equine Surgery		4				44		48
Equine Diagnostic Imaging						48		48
Equine Emergency						48		48
Equine Medicine		3				45		48
Equine Practice						48		48
Anaesthesia		8	3			85		96
Farm Animal & Camelid Clinical Services (FACCS)						48		48
Farm health at WRVC						48		48
Population Medicine & Veterinary Public Health (PMVPH)		11		5	4	76		96
Clinical and Anatomical Pathology	2.25	2.5	6	7	39	39.3		96
Total number of hours	**2.25**	**50.5**	**13**	**19.5**	**43**	**1120**		**1248**

Table 4.2(a): Curriculum hours in subjects taken by each student - New curriculum To End of Year 3, Term 2.

Subject	Theoretical training			Supervised practical training			Other	Total
	Lectures	Seminars	Self directed learning	Laboratory and desk based work	Non-clinical animal work	Clinical training		
	A	B	C	D	E	F	G	
CLASSROOM-BASED SUBJECTS								
Introduction to Animal form and Function	**4.5**			**3**	**1.5**			**9**
Locomotor	**16.25**	**2.5**		**2**	**7.5**			**28.25**
Skin	**4.5**	**2**	**2.5**	**2**	**0.5**			**11.5**
Cardiovascular and Respiratory	**54**	**25.5**	**16**	**9**	**7**			**111.5**
Neurology and Special Senses	**19.5**	**8**		**6.5**	**4.5**			**38.5**
Embryology	**5.25**				**3**			**8.25**
Endocrine	**9**	**3**		**3**				**15**
Alimentary	**48.25**	**27**	**10**	**12**	**10.5**			**107.75**
Urogenital	**57.85**	**28.75**	**13**	**16.5**	**13.5**			**129.6**
Lymphoreticular and Haemopoietic System	**7.25**	**4**	**3**	**3**				**17.25**
Principles of Veterinary Science	**124.5**	**78**	**28**	**58**				**288.5**
Integrated Concepts	**2**	**3**						**5**
Professional Skills	**51**	**25**	**5**	**2**				**83**
Population Medicine and Veterinary Public Health	**71.95**	**29**	**17**	**8**	**19.5**			**145.45**
Additional Activities / thermoregulation	5.5	1.5		6				13
Total number of hours	**481.3**	**237.3**	**94.5**	**131**	**67.5**			**1011.6**

Table 4.2 (a), Curriculum hours in subjects taken by each student - new curriculum, continued…

Subject	Theoretical training			Supervised practical training			Other	Total
	Lectures	Seminars	Self directed learning	Laboratory and desk based work	Non-clinical animal work	Clinical training		
	A	B	C	D	E	F	G	
CLINIC-BASED SUBJECTS								
Internal Medicine						96		96
Radiology						48		48
Orthopaedics						48		48
Soft Tissue Surgery						48		48
Dermatology						48		48
Emergency Medicine						48		48
Beaumont Animal Hospital						96		96
Equine Surgery1						48		48
Equine Diagnostic Imaging						48		48
Out Hrs. / Emergency						48		48
Equine Medicine						48		48
Equine practice						48		48
Anaesthesia						96		96
Farm Animal & Camelid Clinical						96		96
Population Medicine & Veterinary						96		96
Veterinary public health (Langford)						48		48
Gross and clinical pathology						48		48
Total number of hours						**1056**		**1056**

Table 4.2 Food Hygiene/ Public Health - old curriculum

Subject	Theoretical training			Supervised practical training			Other	Total
	Lectures A	Seminars B	Self directed learning C	Laboratory and desk based work D	Non-clinical animal work E	Clinical training F	G	
Food Hygiene/ Public Health								
a) Inspection and control of animal foodstuffs or foodstuffs of animal origin and the respective feedstuff production unit	10	16			14			40
b) Food hygiene and technology	9	10						19
c) Food science including legislation	8	10						18
d) Practical work (including practical work in places where slaughtering and processing of foodstuffs takes place)					35			35
Total number of hours	**27**	**36**			**49**			112

Table 4.2 Food Hygiene/ Public Health - new curriculum

Subject	Theoretical training			Supervised practical training			Other	Total
	Lectures A	Seminars B	Self directed learning C	Laboratory and desk based work D	Non-clinical animal work E	Clinical training F	G	
Food Hygiene/ Public Health								
a) Inspection and control of animal foodstuffs or foodstuffs of animal origin and the respective feedstuff production unit	10	16			14			40
b) Food hygiene and technology	6	5						11
c) Food science including legislation	6	9						15
d) Practical work (including practical work in places where slaughtering and processing of foodstuffs takes place)					35			35
Total number of hours	**22**	**30**			**49**			**101**

Table 4.3: Curriculum hours taken as electives - old curriculum

Subject	Theoretical training		Supervised practical training			Other	Hours to be taken by each student per subject group
	Seminars	Self directed learning	Laboratory and desk based work	Non-clinical animal work	Clinical work		
	A	B	C	D	E	F	
Anaesthesia (Equine)	21				8		29
Anaesthesia (Small Animal)	21.75				3		24.75
Animal Welfare	14.5				1.5		16
Camelids	16				7	WS = 8.5	31.5
Cardiology	25				2.5		27.5
Clinical Nutrition	19	6			3		28
Dermatology	17.5				4		21.5
Diagnostic Imaging (Small Animal)	22.75	3			4.5		30.25
Diagnostic Imaging (Equine)	27.75				6		33.75
Emergency & Critical Care	17	3			5		25
Equine Medicine	32.5						32.5
Equine Orthopaedics	10.5	0.75			12.75		24
Equine Stud	7.5	4			4	WS = 8	23.5
Equine Surgery	9.5				14	WS = 6.5	30
Exotic Pets: Birds	16	3.5				WS = 6	22.5
Exotic Pets: Reptiles & others	24	6					30
Exotic Pets: Small Mammals	24.75						24.75
Farm Animal 1	16.5				7		23.5
Farm Animal 2	11				17		28

Farm Animal 3	9.5				10		19.5
Farm Animal Diagnostic Pathology	19				8.5		27.5
Feline	24.5						24.5
International Animal Health	24.5						24.5
Neurology	13.25	0.75				WS = 3	17
Practice Management Fundamentals 1	26						26
Practice Management Fundamentals 2	29						29
Reproduction: Animal Breeding and Genetics	8	6			4	WS = 4	22
Reproduction: Livestock & Farm Reproduction	19.75				11.25		31
Small Animal Medicine	26.5	2					28.5
Small Animal Surgery	6.5				30		36.5
Therapeutics (Large Animal)	22						22
Therapeutics (Small Animal)	22.5						22.5
VPH – Outbreak Investigation	22.75						22.75

Table 4.3: Curriculum hours in clinical subjects offered and to be taken as Tracking Rotations - new curriculum

Subject	**Supervised practical training**
	Clinical work
2 X 3 weeks @ 48 hours per week	**288 hours**

Hours devoted to clinical rotations are based upon an approximate figure of 48 hours per week, in conformity with the Working Time Directive. Students are required to attend each rotation for minimum fixed hours, but may be required to be present for longer in order to provide continuity of care.

74. There is no national curriculum for veterinary medicine in the UK; however, we are obliged to meet the complementary requirements of the RCVS, EAEVE and the AVMA, and graduates must have demonstrated achievement of the "Day One Skills" promulgated by the RCVS. Additionally, the QAA has published a "benchmark statement" for Veterinary Medicine, detailing the knowledge, skills and attributes expected of a veterinary graduate; and the Regulations of the University of London specify the length of the BVetMed Degree. Within these parameters, the College has freedom to change the curriculum.

75. The curriculum is "owned" collectively by the College, under the overall authority of the Academic Board. Detailed discussion of the curriculum takes place in the BVetMed Course Management Committee (CMC), on which all departments and disciplines are represented. Through the Course Management Committee, which itself reports to the Academic Board's Learning, Teaching and Assessment Committee, decisions are made about the balance between subjects and between different forms of tuition. The Phase Two and Phase Three Sub-committees have similar responsibility for the final years of the curriculum which is currently being phased out. When the curriculum is undergoing a major revision its meetings are supplemented by Curriculum Review AwayDays, to which all academic staff are invited.

76. The College has been working towards a fully integrated curriculum since the 1990s. At the time of the last RCVS visit, we had implemented horizontally integrated, systems-based modules in the first two years of the course, and were extending this scheme to the remaining didactic components of the course in Years 3 and 4. This is the curriculum that the students in the final two years of the BVetMed will be following in 2009/2010.

77. In 2007/2008 we enrolled the first cohort on our new BVetMed curriculum. The changes embodied in this curriculum are based on the following principles:
    - increased vertical and horizontal integration, breaking down the pre-clinical/clinical distinction, with subjects taught "in context" where possible;
    - reducing contact time, eliminating unnecessary detail, and focusing subject content on an agreed "core";
    - giving students more opportunity to gain further knowledge and experience with a preferred species, through more advanced classes and supplementary clinical rotations;
    - enhancing scientific rigour, and introducing exciting scientific themes;
    - a stronger focus on the achievement of Day One Skills, with emphasis on first opinion practice;
    - improving coverage of relatively neglected topics;
    - developing students as independent learners;
    - making productive use of e-learning;

- implementing an assessment scheme that reliably assesses whether students have achieved the core outcomes of the BVetMed.

78. The classroom-based teaching during the first three and a half years is organised into eleven "Strands". Eight of these focus on major body systems, which will normally be encountered three times, so that the students' knowledge of the system steadily increases and consolidates. The seven systems are:
    - Locomotor
    - Skin
    - Cardiovascular and Respiratory
    - Neurology and Special Senses
    - Endocrine
    - Alimentary
    - Urogenital
    - Lymphoreticular and Haemopoietic

79. Three other Strands, focused on concepts that we consider are best highlighted outside the systems strands, recur throughout the course:
    - Principles of Veterinary Science
    - Professional Studies
    - Population Medicine and Veterinary Public Health (PMVPH)

80. Farm Animal medicine and VPH are effectively integrated through the creation of the PMVPH strand in the new curriculum. Essentially, all VPH teaching is linked to husbandry and production teaching from Year One. This is carried forward into the Farm Animal Rotation, where there is integrated discussion of VPH topics such as biosecurity, slaughter process (including an abattoir visit) and food processing (including a visit to a cheese factory). We have re-designed the Farm Animal rotation weeks to incorporate a two week food production chain emphasis, by exposing students to a hands-on "farm to fork" approach to food quality and safety. Bovine TB is the model disease for the rotation.

81. Students undertake a minimum of twelve weeks Animal Husbandry ExtraMural Studies (AHEMS) during their first two years. Between Years Three and Five they complete their 26 weeks of Clinical Extra Mural Studies (EMS).

82. In the final stage of the new curriculum, from the mid-point of the Fourth Year onwards, following the conclusion of the core classroom-based teaching, students will spend their time as follows:
    - 22 weeks of core IntraMural Rotations (IMR), followed by all students
    - six weeks of "tracking rotations" in a species or discipline of the student's choice;

- nine weeks of taught elective modules in species or disciplines of the student's choice;
- eight weeks devising and executing a research project on a selected aspect of veterinary science;
- all outstanding weeks of compulsory EMS.

83. Strengthened by the addition of the LIVE CETL, the only Centre for Excellence in Teaching and Learning in a British veterinary school, we have introduced a number of teaching techniques that are new to the RVC in the revised curriculum. These are detailed in (5) below.

4.1.3 FURTHER INFORMATION ON THE CURRICULUM

84. The most novel aspects of the new curriculum are:
    - the organisation of teaching through a spiral curriculum, featuring multi-disciplinary "Strands" that the students encounter on a number of occasions during the course, thus extending and consolidating their understanding in a structured contextual way;
    - the introduction of a substantial element of horizontal integration, with each Strand designed and taught by a multi-disciplinary team, thus enabling appropriate elements of clinical science to be taught in the earlier part of the course, and basic sciences to be reinforced later in the course where this is valuable;
    - the development of the three "non-systems" Strands such that students will, we hope, appreciate their importance and value them equally with the systems Strands. Population Medicine and Veterinary Public Health has been expanded and given a more prominent place in the curriculum; the Professional Skills week in the previous curriculum has been developed into the Professional Studies Strand that runs throughout the course; and a new Principles of Veterinary Science Strand has been introduced, to highlight the key scientific principles that underpin veterinary medicine and surgery;
    - we are introducing "Tracking", to enable students to undertake additional rotations - up to six weeks - in the species of their choice, and to attend up to nine weeks of advanced didactic modules in selected subjects. This development responds to the encouragement of RCVS and EAEVE that schools should give students opportunities for limited pre-graduation specialisation, and to feedback from the College's own students and graduates. We are introducing Tracking, which will comprise just over 10% of the overall curriculum, whilst continuing to ensure that all graduates will have demonstrated Day One standards across all the common species.

85. Attendance at clinical rotations, both IMR and EMS, is compulsory. Attendance at IMR is verified by the supervising clinician, according to duty rosters; attendance at EMS placements is certified in writing by the practice. Attendance at tutorials is compulsory and is monitored through tutors making returns to a central database. Attendance at Communication Skills teaching is also compulsory. All other classes are voluntary, although attendance is strongly encouraged.

86. Intramural clinical rotations form an integral part of the BVetMed, and their assessment constitutes Part 1 of the Final BVetMed Examination. The College believes that clinical competence is as important as theoretical knowledge in equipping graduates to enter practice. Students are continuously assessed during each rotation, and must pass all rotations prior to taking Part 2 of the BVetMed Final Examination. In the curriculum followed by the students who will graduate up to and including 2011, there are 28 weeks of compulsory IMR that must be completed, and passed, by all students, during their Final Year. In the current curriculum, these rotations are:

Rotation Divisions	Rotation	Weeks
Small Animal Medicine	Cardiology	1
	Critical Care	1
	Internal Medicine	2
Small Animal Surgery & Radiology	Radiology	1
	Orthopaedics	1
	Soft Tissue Surgery	2
Small Animal Specials	Neurology	1
	Dermatology	1
	Blue Cross	1
	Emergency Medicine	1
Small Animal General	Beaumont Animals' Hospital	2
Equine Surgery	Equine Surgery1	1
	Equine Diagnostic Imaging	1
	Equine Surgery 2	1
	Out of Hours/Emergency	1
Equine Medicine & Ambulatory Practice	Equine Medicine	1
	Equine practice	1
Anaesthesia	Anaesthesia	2
Farm Animal	Farm Animal & Camelid Clinical Services (FACCS)	2
	Population Medicine & Veterinary Public Health	2
Pathology	Gross and clinical pathology	2

87. In the new curriculum the core rotations will be reduced to 22 weeks. The following rotations will become tracking rotations:
    - Cardiology
    - Neurology
    - Emergency & Critical Care

    The following rotations will be reduced from two weeks to one week:
    - Soft tissue surgery
    - Equine surgery
    - Pathology

    The following rotation will change from being an intramural rotation to a compulsory extramural week: Blue Cross

    The following new rotation will be introduced: Veterinary Public Health / Abattoir Week.

    The core rotations will therefore be:

Rotation Divisions	Rotation	Weeks
Small Animal Medicine	Internal Medicine	2
Small Animal Surgery & Radiology	Radiology	1
	Orthopaedics	1
	Soft Tissue Surgery	1
Small Animal Specials	Dermatology	1
	Emergency Medicine	1
Small Animal General	Beaumont Animal Hospital	2
Equine Surgery	Equine Surgery 1	1
	Equine Diagnostic Imaging	1
	Out of Hours / Emergency	1
Equine Medicine & Ambulatory Practice	Equine Medicine	1
	Equine practice	1
Anaesthesia	Anaesthesia	2
Farm Animal/VPH	Farm Animal & Camelid Clinical Services (FACCS)	2
	Population Medicine & Veterinary Public Health (PMVPH)	2
	Veterinary public health (Langford)	1
Pathology	Gross and clinical pathology	1

Alongside the core rotations of 22 weeks, students will have six weeks of tracking rotations where they can elect to do additional weeks in their areas of interest.

88. Attendance at all rotations is *at least* full-time. Student are required to be present throughout normal clinic hours, and to participate in morning and evening rounds where these form part of the clinical routine; this means that students will typically be present in the clinic from approximately 08.00 until 18.00, but these hours will vary according to the demands of specific cases for which the student is responsible. When on rotations which involve evening, weekend or overnight duties, students are required to take part according to a rota. However, where a student participates in out-of-hours duties one day, requiring attendance for significantly longer than is normally required, time off in lieu will normally be taken on the next day. Full details of clinic hours for each rotation are given in the IMR Handbook.

89. There are normally twenty students in each four week rotation division, but these are broken down into multiple groups of four or five for specific clinical activities listed above. When on rotation, students are full participants in the clinical team and take part in all aspects of clinical activity, under staff supervision, from admitting patients and taking their history, through carrying out tests, administering treatments (including surgical procedures), providing nursing care, to discharge. Full details are given in the IMR handbook, which also lists the learning objectives for each rotation.

90. All students are given basic clinical training prior to the commencement of clinical rotations. In the old curriculum, this was focused largely in the module Principles of Clinical Science, whilst in the new curriculum this instruction has transferred to the Principles of Veterinary Science Strand. The clinical skills in which the students are given instruction prior to starting IMR include:

Radiography

- Radiographic positioning – thorax, stifle and hips

Surgery

- Surgical scrubbing for surgery
- Gowning and gloving for surgery – open and closed method
- Instrument suture – square and surgeons knot, one-handed tie, two-handed tie
- Bandaging – basic forelimb and Robert Jones

Anaesthesia

- Anaesthesia – assembly of anaesthetic breathing systems – Magill, T-piece, Bain & Lack

- Prepare and carry out the necessary safety checks on an anaesthetic machine

Clinical laboratory

- Blood smear and stain
- Packed Cell Volume
- Urine specific gravity and dipstick analysis.
- Urine sediment examination
- Fine Needle Aspiration Biopsy (FNAB)

91. This instruction utilises the College's state-of-the-art Clinical Skills Centre (CSC), the first of its kind in a UK veterinary school. In addition to using the CSC for formal classes, students are able to sign up to use it when no formal classes are taking place there. The CSC has "stations" that facilitate training in all the skills listed above. We ensure that students have achieved a threshold level of competence in these clinical skills by including OSPVEs as part of their Third Year BVetMed Examination.

92. The College recognises the critical importance of good communication skills in students entering clinical rotations. Attendance at communication skills classes in Years 2 and 4 is compulsory, and students' competence in communication is assured through the inclusion of communication skills stations in the OSPVEs. Communication skills also form part of the criteria for assessment of IMR.

93. Where appropriate, instruction in clinical skills is included, in context, in Systems-based teaching. For example:

in the **Cardiovascular and Respiratory** Strand students are taught

- to identify heart and lung sounds by auscultation;
- to measure heart rates by auscultation and feeling the peripheral pulse;
- to measure respiratory rates;
- to raise veins in various species at common venepuncture sites.

in the **Principles of Science** students are taught

- to handle a specimen for microbiological culture and sensitivity testing;
- to handle and examine live animals safely.

in the **PMVPH** strand there is an introduction to farm-level risk assessment in which the following risks are considered:

- Animal health
- Animal welfare
- Zoonoses
- Economic risks

in the current **Endocrine** module and in the clinical case scenarios in all the new **Third Year systems strands**, students are taught a logical approach to clinical problem solving.

in the **Locomotor** Strand students are taught:

- to palpate equine distal limb structures (tendons, blood vessels, nerves), identifying diagnostic nerve block sites;
- to palpate common injury sites in greyhounds (gracilis tears, accessory carpal bone fractures, tarsus fractures);
- to identify and name the regions of the hoof, recognising the normal appearance of these regions / structures;
- to lift horses' feet safely;
- to recognize lameness in horses, using videos.

in the **Neurology** Strand students are taught:

- to identify ocular structures visually and through the ophthalmoscope;
- to elicit palpebral & pupillary reflexes;
- to elicit musculoskeletal reflexes, e.g. patellar, panniculus reflexes;
- to examine cranial nerves.

in the **Alimentary** Strand students are taught:

- to examine the rumen (auscultation, palpation of rumenal contractions, percussion);
- to auscultate the equine GIT;
- to palpate abdominal structures in the dog;
- to examine the abdomen through laparotomy / rumenotomy incisions in fresh cadavers;
- to use the haptic cow for an introduction to rectal palpation of the ruminant abdomen and GIT.

in the **Skin** strand, across the year 2 and year 4 visits, the following skills are developed:

- preparation, microscopic examination & interpretation of different types of skin samples;
- recognition of manifestations of skin & ear disease;
- otoscopic examination (& foreign body retrieval from ear canal) on canine cadaver.

94. All students spend one week as active participants in the Emergency and Critical Care rotation in the QMHA, and as such are fully involved in all aspects of emergency clinical activities. Involvement in the treatment of hospitalised cases is similarly comprehensive. Each hospitalised case is the responsibility of a designated student, who examines the animal daily and carries out the routine nursing and physiotherapy procedures.

95. Students participate fully in the activities of the mobile clinics, both farm animal and equine. The farm animal clinician based in the mobile clinic at Hawkshead takes up to three students on calls, the number depending on what is appropriate from both a client and patient viewpoint. Two students go to Northpoint farm animal practice every day, with a maximum of one student accompanying each vet on visits (see para 117 below for details). Up to three students receive clinical skills training (including foot trimming) on farms served by the Westpoint Sevenoaks farm animal practice twice a week. All students spend one week attached to the College's own Equine Ambulatory Practice, in groups of five. The Practice is staffed by four veterinarians (three staff clinicians and one CTS), who take students on visits on a one-to-one basis.

4.1.4 OBLIGATORY EXTRAMURAL WORK

Table 4.5: Obligatory extramural work that students must undertake as part of their course

Nature of work	Number of weeks	Year in which work is carried out
Lambing enterprise	2	Six weeks must be carried out before the end of Year 1; the remainder by the end of Year 2. The timing may differ for students entering via the Gateway Programme (Year Zero) or the Graduate Entry route, but the requirements are the same.
Dairy cattle farm	2	
Commercial pig operation	2	
Equine experience	2	
Animal establishments of the student's choice	4	
Clinical EMS	26 weeks, including • 5 weeks equine practice • 6 weeks first opinion farm animal / mixed practice • 5 weeks first opinion small animal practice – this excludes the compulsory PDSA hospital placement, but may include further time spent at any PDSA centre • 2 weeks PDSA hospital placement • 1 week veterinary public health related EMS, during which the majority of the placement is spent in a meat plant.	13 weeks must be completed before the mid-point of Year 4; the remaining weeks must be completed before graduation.

4.1.5 SPECIFIC INFORMATION ON THE PRACTICAL TRAINING IN FOOD HYGIENE/PUBLIC HEALTH

96. As part of its enhanced Veterinary Public Health teaching the RVC aims to introduce of a structured programme to provide students with practical experience in the following areas:

    i. **Food safety** management procedures

    ii. **Animal welfare** in meat production

    iii. Awareness of principles of **operational hygiene**

    iv. The procedures of **ante and post mortem** inspections, **audit and verification**

    v. The importance of official veterinarians (**OVs)** and their role between the food business operator (FBO) and the Government bodies, on veterinary public health and as part of the inspection team

    vi. The role of slaughterhouses in **surveillance** of zoonotic and notifiable diseases

97. In the old curriculum, at least one week of Clinical EMS must be devoted to Veterinary Public Health (VPH), during which the majority of the placement is spent in a meat plant. The student is expected to develop an understanding of the veterinarian's role in assuring responsible and hygienic meat production and assuring the welfare of slaughter animals, as well as their wider public health role in disease management and prevention. The locations of these slaughterhouses inevitably vary; students locate themselves in the locality of the slaughterhouse for the duration of their placement. The species covered in the slaughterhouses to which our students have access include all the major food animal species, including bovine, porcine and ovine. The RVC maintains a register of slaughterhouses that welcome students. There currently are about 70 plants in the register, with locations throughout the UK.

98. Lectures and practical sessions as well as directed learning and computer-aided learning in Public Health are currently given just prior to the commencement of rotations. As they provide the foundation for this Clinical EMS placement, student are permitted to take this placement only after these lectures have taken place. Students must obtain a Health Clearance Certificate online from Occupational Health before attending an abattoir placement. Learning objectives and responsibilities during VPH EMS are clearly defined and are communicated to the students.

99. In addition to the mandatory week of VPH EMS, during their Farm Animal placement at the Welsh Regional Veterinary Centre students spend one morning at the slaughterhouse at Cross Hands, near Carmarthen, and a morning at either a dairy plant or a commercial deer herd, focusing on the food safety aspects of the operations.

100. In 2009 the College has awarded special project funding to the Veterinary Public Health teaching staff to produce a DVD specifically instructing students on the veterinarian's role in the slaughterhouse.

101. The College has also established relationships with several major food retailers, including Waitrose, Morrison, and Marks & Spencer. These take students on EMS and offer access to their processing plants or those of their partners.

102. Final Year Students receive a week of training in food production chain medicine delivered as a standalone week within the farm animal rotation. Students receive didactic instruction in applied veterinary public health and epidemiology and, from a teaching base at the WRVC, visit farms to collect data for risk analysis on bovine TB outbreaks. If successful, the data collected from this project will be used to steer Welsh Assembly Government policy regarding bovine TB control.

4.1.6 RATIOS - OLD CURRICULUM

		Denominator
R 6:	Theoretical training (A+B+C) / Supervised practical training (D+E+F) = 1303.25/1484.5 => 1/0.88	**1.14**
R 7:	Clinical Work (F) / Laboratory and desk based work + non-clinical animal work (D +E) = 1120/364.5 => 1/3.07	**0.33**
R 8:	Self directed learning (C) / Teaching load (A+B+C+D+E+F+G) = 80/2787 => 1/0.03	**33.33**

4.1.6.2 SPECIAL INDICATORS OF TRAINING IN FOOD HYGIENE/ PUBLIC HEALTH - OLD CURRICULUM

		Denominator
R 9:	Total no. curriculum-hours Food Hygiene / Public Health[2] / Total no. hours vet. Curriculum[1] = 224.5/2782 => 1/0.08	**12.5**
R 10:	Total no. curriculum hours Food Hygiene / Public Health[2] / Hours obligatory extramural work in Veterinary inspection[3] = 224.5/48 => 1/ 4.68	**0.21**

1: Total as derived in Table 4.1
2: Total as derived in Table 4.1, Subject 5
3: Figures to be taken from Table 4.5

4.2 COMMENTS

103. The BVetMed curriculum continues to prepare our students to enter all branches of the profession. Graduates leave the RVC with the Day One Skills required of an entry level general practitioner across the full range of common species; with the underpinning knowledge of scientific method that will enable them to develop research careers; with a knowledge of economics and business fundamentals that will enable them to pursue an entrepreneurial career; and with a knowledge of the principles of veterinary public health that will enable them to enter a career in public service.

104. We are pleased that, following a protracted period of review and debate, we are implementing an outstanding curriculum that embodies sound educational principles. However, we are not complacent, and the curriculum will always be a "work in progress": we will continue to learn from experience in cognate subjects, such as human medicine, and in other countries in Europe and North America; we will continue to scrutinise the results of educational research and adapt our practices accordingly; we will pursue home-grown educational developments, primarily through the vehicle of the LIVE Centre; we will respond to, and where possible anticipate, the changing needs of the profession and of society more widely; and we will adapt to the changing needs,

aspirations and characteristics of the capable and challenging young people who choose to study here.

4.3 SUGGESTIONS

105. The College should continue to review and develop the curriculum. We should, in particular, continue to develop tracking, both in rotations and in the classroom-based part of the programme; the Professional Studies Strand, which some students find particularly challenging; and the extension and integration of Veterinary Public Health and Farm Animal experience, both on-campus and in Extramural Rotations.

Chapter 5. TEACHING AND LEARNING: QUALITY AND EVALUATION

5.1 FACTUAL INFORMATION

5.1.1 THE TEACHING PROGRAMME

106. At the time of graduation, BVetMed students should, to a standard appropriate for a new veterinary graduate, be able to:
    i. understand basic biological principles in relation to normal function and disease of animals;
    ii. distinguish the pathological from the normal;
    iii. prevent animal disease and control its transmission to humans;
    iv. diagnose and treat diseases of animals and alleviate their suffering;
    v. adopt a logical approach to clinical problem solving;
    vi. demonstrate practical competence in techniques and procedures;
    vii. advise on animal management and welfare;
    viii. communicate with the public and with colleagues in their future professional activities;
    ix. demonstrate attitudes that promote professionalism, ethical judgement, enquiry and teamwork;
    x. exercise skills in Information Technology (IT) and data analysis.

107. As detailed elsewhere, the curriculum is owned collegiately. It is organised and delivered by multi-disciplinary teams from across the College, under the day-to-day supervision of curriculum managers who are appointed by the Learning, Teaching and Assessment Committee following consultation with their Head of Department:
    - there is an overall Course Director;
    - Year Leaders co-ordinate the teaching in the classroom-based component of the course;
    - each Strand has a Leader and Deputy Leader, plus a designated contact person in the third academic department;
    - each clinical rotation and elective course has a designated Leader.

    The Course Director chairs the BVetMed Course Management Committee; all departments and each component of the teaching programme are represented on the CMC.

108. The College's pedagogic approach is described in detail in our Learning, Teaching and Assessment Strategy. In the BVetMed, our approach is firmly based upon developing students to be independent, lifelong learners. We recognise that students learn most effectively if they participate actively in the learning process.

109. Lectures still have a place in showcasing fundamental concepts, and in affording a forum in which the students are provided with a common framework within which to construct their knowledge. In the new curriculum there are usually no more than two lectures per day. The reduced number of lectures is designed to give the students time to master effectively the core facts and concepts. Lectures are complemented by timetabled Private Study Sessions, usually eight hours per week; and a mixture of practicals, academic tutorials, and Directed Learning (DL) classes. In the first two years the students also have Integrated Structure and Function (ISF) tutorials using live animals, and dissection classes. At the end of each week students are given an opportunity to self-evaluate their knowledge using computer-based MCQs.

110. In Directed Learning classes small groups of students (normally six) explore a topic, largely through problem-solving. These sessions are designed to enable students to consolidate and develop their understanding of a topic, and to apply their knowledge in context. This approach is predicated on an appreciation of educational research which demonstrates that such a strategy encourages active self learning. However, although staff see the value of this approach and it is generally successful, it is not without its problems in terms of student appreciation.

111. In the RVC tutorial system, students meet monthly in groups of six for an hour with an academic tutor. Besides reflecting on their learning in broad terms, they may be asked to discuss their understanding of one of the topics from the previous month's classes; discuss a topic that they have been asked to think about and research in advance; or there may be an occasional journal club. Additionally during tutorials students learn how to structure exam answers (e.g. essay and problem-solving questions).

112. Technology-enhanced learning is a particular feature of the curriculum:
    - almost all lectures are recorded as podcasts;
    - most Directed Learning (DL) classes are in an electronic format and include online resources such as images, video, sound, documents and web links;
    - students and staff have collaborated in the development of wikivet, an RVC-led project in which other UK veterinary schools now participate;
    - wikis are used for collaborative work on rotations;
    - students develop and improve their skills in pregnancy diagnosis using world-leading haptic simulators;
    - a wealth of learning material, including course notes and locally-produced videos of surgical techniques, is catalogued on the College's Virtual Learning Environment to supplement the use of standard veterinary textbooks
    - Computer Aided Assessment is used extensively to deliver formative and summative assessments;

- the TurningPoint response system is used to facilitate interactive lectures.

The College's broad approach to technology-enhanced learning is detailed in our E-Learning Strategy.

Contractual Arrangements to Support Undergraduate Teaching

113. The College has formal contractual arrangements with outside bodies that support its teaching in small animal first opinion practice; farm animal practice; and pathology. These arrangements are set out below.

Small Animal First Opinion Practice

114. The College has a contractual arrangement with the Blue Cross Animal Hospital under which all Final Year students undertake a one week rotation at their clinic in Victoria, Central London, under the direct supervision of an RVC academic clinician based there.

115. The College has a contractual arrangement with the Dogs' Trust whereby all Final Year students spend part of a rotation at their Re-homing Centre in Harefield, West London, performing neutering operations. In the most recent 12 month period, Final Year students carried out 737 neutering operations there. During the same period, students carried out the following neutering operations in the Beaumont Animals Hospital:

- 739 cats, of which 334 were males (including 249 charity-subsidised) and 405 were females (including 315 charity-subsidised)
- 554 dogs, of which 224 were males (including 196 charity-subsidised) and 310 were females (including 272 charity-subsidised)
- 93 small furries including rabbits, of which 34 were females and 59 males.

This total of 2,123 procedures gives an average of eight or nine operations per student.

Farm Animal Teaching

116. The Farm Animal Teaching Programme has been designed to provide a broad practical-based educational exposure to the activities expected of a modern farm animal practitioner. The skills acquisition is designed to cover individual animal medicine and surgery (Camelid and Farm Animal Hospital), front line

ambulatory practice (the newly formed joint venture practice), herd health investigation (WRVC) and food production chain medicine (WRVC).

117. The College has formed a Joint Venture Practice with Northpoint Veterinary Services, a branch of Westpoint Veterinary Group Ltd), which provides the farm animal ambulatory practice for Final Year students at Hawkshead. This provides Final Year students with experience of Farm Animal practice, including on-farm post mortem examinations for fatalities that are unable to be submitted to the College. As the partnership develops, the Joint Venture Practice will also generate additional pathology material for student learning on campus.

118. The College has also formed the Welsh Regional Veterinary Centre (WRVC) in partnership with the Welsh Assembly Government, the Veterinary Laboratories Agency, the University of Aberystwyth and Carmarthenshire College. This provides the platform for training Final Year students in the practical aspects of population health and production medicine.

119. The College has established a joint Surveillance Centre in partnership with the VLA, to facilitate the provision of a caseload of necropsy specimens for disease diagnosis and monitoring.

Day One Skills

120. We primarily collect data to ensure that our graduates are equipped with Day One Skills through our established systems of student assessment. We place the highest priority on ensuring that our graduates have had adequate opportunities to develop their Day One Skills, and on measuring their achievement, such that a student who is significantly deficient in them will be prevented from graduating.

121. The evidence that our graduates have achieved competence in these areas is provided by the following:
    - OSPVEs which, as part of the Final BVetMed Examination, test students' achievement of practical clinical competencies;
    - rigorous assessment of students' performance in IMR rotations in the following domains:
        - Professional Activity
        - Practical Skills
        - Application of Knowledge and Clinical Reasoning
    - graduate and employer surveys, which list the entry-level competencies expected of a new graduate, and which are analysed so that enhanced tuition can be provided in any areas in which the previous graduating class appeared deficient

- graduates' scores on the North American Veterinary Licensing Examination (NAVLE)
- reports from our External Examiners, who are required to confirm that our graduates are achieving the requisite standards and are fit to enter practice.

5.1.2 THE TEACHING ENVIRONMENT

122. The College's staff development policy is an integral component of the broader 2009-11 HR Strategy, which is linked to and underpins the 2009-13 Corporate Plan . The personal and professional development needs of both academic and non-academic staff are met through an extensive range of opportunities, including in-house provision, and by supporting attendance at external training events and conferences. These events draw upon trainers from specialist providers from a range of sectors. Focussing on the need to address the whole spectrum of requirements, the training programme is informed both by the appraisal process and by training needs identified on a continuous basis. The training programme covers Academic Staff Development, Health and Safety, Leadership and Management, Skills and Knowledge Development and IT, delivered using a variety of methods. Additional areas introduced during 2009/10 include Employee Well Being and a variety of solutions to the specific development needs of early career research staff.

123. Significant resources have recently been invested in a review of the support provided to new academic and non-academic staff, to ensure they are able to become effective in their roles as rapidly as possible. As a result, improved schemes covering induction, mentoring and peer observation of teaching are all being implemented in 2009/10. The induction scheme is developmental as well as factual, in that it encourages new members of staff and their managers to meet regularly to review progress and set new objectives. It is intended that as the scheme beds down clear links will be established between this and probation, which will itself be enhanced from a developmental perspective with the introduction of a 'Probation Toolkit' towards the end of 2009/10. As well as the benefits offered to new staff, these schemes also provide opportunities for further personal development to the established staff who are volunteering to assist with their delivery.

124. It is compulsory for new academic staff, unless they already have significant experience, to complete an initial lecturers' course, either the Postgraduate Certificate in Academic Practice run by King's College London's Learning Institute (KLI); or the Postgraduate Certificate in Medical Education at the University of Bedfordshire. The latter course is recommended for staff whose teaching is predominantly clinic-based. Attendance at an in-house training

course in communication skills facilitation is also compulsory for all new academics.

125. Workshops are arranged on a wide range of topics related to teaching, learning, assessment, curriculum design and technology-enhanced learning. Academic staff development courses continue to be successful in terms both of attendance and impact. The result has been the development of a critical mass of well-informed staff who have driven or supported curricular and pedagogic change. In response to the HEA's Professional Standards Framework, the College has agreed a CPD framework for academic staff designed to ensure that all academics achieve a threshold level of competence in the main aspects of their roles as teachers.

126. From 2009/2010, the College has introduced the UK's first Master's and Postgraduate Diploma in Veterinary Education. This is designed to enable staff to continue developing their skills and knowledge in a structured way after completion of their compulsory Postgraduate Certificate course. Ten students, all of them RVC staff, have enrolled in the first cohort.

127. The College encourages all academic staff to become Fellows of the HEA, and pays the membership processing fee and an annual supplement of £500 to staff who become members either through successfully completing the accredited courses at King's College or the University of Bedfordshire, or through the individual entry route for experienced staff.

128. Excellence in teaching and assessment is an important factor in promotion decisions for all staff for whom teaching is a significant element of their responsibilities. Judgements are based upon student feedback, feedback from line managers and peers, documentation of achievement, and interview performance. Development of the peer observation of teaching scheme referred to in paragraph 123 above took account of the HEA Professional Standards Framework, and has been endorsed by the Teaching Quality Committee as an appropriate vehicle for both formative and summative assessment of excellence. From 2009/10, it will form a compulsory element of probation processes for all new academic staff, and its application will be extended to cover promotion decisions as the scheme beds down and sufficient trained assessors are recruited.

129. The procedures for the annual review of non-professorial academic staff set out the College's current criteria for the assessment of teaching excellence in promotion decisions. These have worked well for the College, and are to be further enhanced through a project (commencing in January 2010) to provide greater clarity about academic promotion processes, and extend the range of relevant criteria.

130. The College has operated a system of prizes for excellence in teaching, the Jim Bee Educator Awards, since 1992. Each year, staff and students are asked to nominate staff for these awards, against the following criteria:
    - excellence in the delivery of the curriculum; and/or
    - excellence in the development of the curriculum and/or teaching, learning and assessment methods; and/or
    - excellence in pastoral care

131. There are six individual Prizes, each carrying a personal cash award of £1,000. All RVC staff engaged in teaching are eligible for an Educator Prize: the only proviso is that no individual may receive a Prize two years in succession. Nominations are adjudicated by a panel comprising:
    - the Principal;
    - the Vice-Principal (Teaching);
    - the Chair of the Teaching Quality Committee;
    - the President of the SUS;
    - a representative of the previous year's prize-winners.

132. The College deploys its quality assurance processes proactively to improve the quality of teaching and of learning. These processes, which adopt a self-critical approach, with follow-up action, as a key element, include:
    - course design and approval;
    - annual monitoring;
    - quinquennial course review;
    - the process of considering and responding to student, graduate and employer feedback;
    - the system for considering External Examiner reports;
    - the processes for responding to the reports of external scrutinies.

    These processes are thus used as a means of stimulating continuous improvement, rather than simply as a means of confirming that our provision satisfies threshold notions of quality and standards.

133. In addition, the College has launched a number of specific initiatives intended to stimulate quality enhancement. The primary means currently employed, or being developed, are:
    i. staff development workshops (see above)
    ii. peer observation of teaching (see above)
    iii. Educator Prizes (see above)
    iv. the LIVE Centre (CETL) (see below)
    v. Curriculum Review AwayDays (see below)

LIVE Centre for Excellence in Teaching and Learning (CETL)

134. The College was the only UK veterinary school to receive funding for a CETL when these were created by HEFCE in 2005. The CETL focuses on the pedagogy of lifelong learning and therefore it was named the Centre for Lifelong and Independent Veterinary Education, or LIVE. The objective of LIVE is to effect *"a fundamental transformation of the veterinary and allied professions, breeding a generation who will be lifelong, independent learners from induction to retirement".* LIVE aims to develop students' independent learning skills during their time at the College, and to equip them to be effective lifelong learners throughout their careers. These aims are consistent with the College's long-term LTA Strategy. LIVE has attracted a strong team of key academic and support staff, and its work is steadily expanding. The Centre has received positive comments from external evaluators and attracts visitors from all around the world. Its main areas of work include
    - development of haptic simulators
    - assessment in veterinary education
    - mobile learning environments
    - peer assisted learning
    - work-based learning
    - development and application of adult learning theory within different educational contexts
    - development of communication skills in the veterinary context
    - motivating factors for practitioners' engagement in Continuing Professional Development
    - production of the BVetMed Day One Skills Handbook
    - inter-professional learning (veterinary and nursing students learning together)
    - coordinating the development of academic staff
    - development and coordination of the new MSc in Veterinary Education

135. The CETL award included £2.4 million for capital development. The College used this to construct the LIVE Centre, which incorporates two state-of-the-art clinical skills laboratories and a communication skills suite. Although clinical skills laboratories are the norm in modern medical schools, the prototype clinical skills centre which the College opened in 2004 was the first in a UK veterinary school. The LIVE Centre builds on this experience to provide a facility in which students can develop clinical skills in a safe environment, thus supporting their development as professionals.

136. Since 2004/05, the College has made between three and six awards annually to teams of staff to fund projects supporting the enhancement of teaching and learning. These projects are conducted under the auspices, and with the support of, the LIVE Centre. Including the current year's awards, 17 such projects (attracting sums of up to £10,000 each) have been funded, and, as the

work has been completed, are being embedded in the College's teaching programmes.

AwayDays

137. Curriculum Review AwayDays, organised annually or biennially, are well-attended, and have generated considerable debate and subsequent developmental activity. As examples:
    - the highlighting of generic skills at an AwayDay ultimately led to the introduction of the Professional Studies module, and stimulated a debate about communication skills which led to significant changes in arrangements for oral examinations;
    - discussion of assessment has played a part in the introduction of more valid and reliable assessment methods;
    - the formal teaching of communication skills was first showcased at an AwayDay;
    - curricular integration has been a prominent feature of recent AwayDays, stimulating the current reform of the BVetMed curriculum.

5.1.3 THE EXAMINATION SYSTEM

138. The BVetMed examination system has been developed within the context of the College's overall Learning, Teaching and Assessment Strategy, and is required to conform to the College's overarching assessment regulations. Both the Strategy and the regulations are approved by the Academic Board on the recommendation of the Learning, Teaching and Assessment Committee. The specific Regulations for each Examination require approval by the Learning, Teaching and Assessment Committee.

139. Written examinations take place during periods when there is no teaching for the year group in question, and students are given a period of study leave during which to prepare for the examination. The timing of examinations is determined by the requirements of the curriculum; whilst the examinations in Years One and Two, and the Final BVetMed Examination, take place in the traditional Summer period, the Third and Fourth Year BVetMed Examinations take place at Easter and Christmas respectively.

140. The following examination formats are used:
    i. Written Papers, including:
        - Multiple choice questions (MCQs) and short answer questions, testing factual knowledge
        - Problem solving questions and extended matching questions (EMQs) testing clinical reasoning

- Essay questions, testing understanding, analysis, problem-solving, synthesis and critical thinking

ii. Practical Tests, including:
- Objective Structured Practical Veterinary Examinations (OSPVEs)
- Structured orals
- Spot tests

iii. In course assessments for taught modules (old curriculum only)

iv. Project Reports, supplemented by oral defences where appropriate

v. Continuous assessment of each rotation

141. In each case our primary consideration is to employ assessment methods that most validly test the learning outcomes in question, whilst seeking to ensure that we maintain an acceptable degree of reliability. In 2008 staff of the LIVE Centre collaborated with Professor Susan Rhind of the University of Edinburgh to publish a guide to assessment methods in veterinary medicine, supported by funding from the RCVS Trust.

142. Students are expected to take each examination at the first opportunity, unless there are extenuating circumstances such as illness. Students who fail an examination at the first attempt are normally permitted only one re-sit opportunity. A student who fails an examination twice is required to leave the course, but has the right to appeal, and may be permitted a third attempt, normally after re-taking the year, if there are mitigating circumstances. Students are normally required to pass an examination before proceeding to the next part of the course.

143. External Examiners play a central role in assuring the College's examinations. The role of the External Examiner is to moderate the assessment process, to confirm the appropriateness of the academic standards, and to ensure that all candidates are treated fairly. The terms of reference of External Examiners are detailed in the QA Handbook.

144. In 2007-2009 we comprehensively reviewed our assessment practices. This has resulted in the establishment of the Common Grading Scheme, and the confirmation of consistent good practice in assessment regulations and processes, including the sampling and double marking of assessed student work. These principles are incorporated into the College's Instructions To Examiners, through which we ensure clear and consistent practice.

5.1.4 EVALUATION OF TEACHING AND LEARNING

145. The College, through the leadership of its Teaching Quality Committee, uses a broad range of interlocking methods to assess the quality of teaching and learning in the BVetMed and other courses. The main elements are:

i. An annual review of each module or strand, and an annual report on each year of the course, including comprehensive data on student performance;
ii. A major five-yearly (quinquennial) review of each course, including external membership of the review panel;
iii. Scrutiny of External Examiners' reports;
iv. Scrutiny of objective external data sources, in particular graduate employment rates and scores in the North American Veterinary Licensing Examination;
v. Feedback from students, graduates, and employers of graduates.

All of these methods are detailed in the QA Handbook.

146. These processes benefit greatly from the input of external evaluators, in particular:
i. External Examiners, whose role is detailed elsewhere;
ii. External members of the key committees that consider the evaluation data, namely the BVetMed Course Management Committee, the Learning, Teaching and Assessment Committee, and the Teaching Quality Committee;
iii. External members of the panel conducting the quinquennial course review.

147. The College has a comprehensive scheme for student evaluation of teaching and teachers, using standard questionnaires approved by the Teaching Quality Committee. Modules and strands are evaluated annually; teaching staff are evaluated either annually or biennially, depending upon the results of their previous evaluation, except that new staff are always evaluated annually during their first three years' teaching. Students normally complete questionnaires at the end of a lecture, and response rates are considered good. Questionnaires have been found to be less successful in gathering student feedback on clinical rotations, and the College therefore holds an annual "Rotation Feedback Forum" on an evening shortly after the end of rotations, at which Final Year students give structured feedback on each rotation.

148. Additional evaluations are arranged when a specific need is identified. For example, LIVE staff are currently working with colleagues in Academic Support and Development to monitor the student learning experience in the new BVetMed curriculum.

149. All forms of evaluation are accompanied by rigorous follow-up, as follows:
i. Issues arising from annual reports are minuted by the responsible committee, and a response reported to the next meeting;
ii. A satisfactory response to the recommendations of a quinquennial review has to be submitted to the Teaching Quality Committee within six months of the review;

iii. The Course Director or Examination Board Chair is required to respond to the Teaching Quality Committee on any issues of concern arising from External Examiners' reports;
iv. In respect of student evaluations, the relevant member of staff is required to provide a written response where any item in the questionnaire elicits an overall negative response from the students.

5.1.5 STUDENT WELFARE

150. The College complies with the extensive UK and EU legislation governing health and safety at work, which covers students as well as employees, and with recognised best practice. There are Regulations and Codes of Practice dealing with the use of equipment of all kinds, including that used by students in laboratories and clinics. For instance, all electrical equipment is subject to periodic safety checks; there are regulations on the use of computer screens; all radiology and similar equipment has annual calibration and emission checks. Students are given extensive induction in health and safety, through presentations to the whole year group and on-line materials. The College recognises that many of the activities in which students engage are inherently hazardous and makes every effort to control these hazards, through compliance with relevant Regulations and Codes of Practice, and through conducting risk assessments.

151. The College employs, full-time, a Corporate Health Safety Manager and two Health and Safety Advisors, and also draws on the services of external consultants in general health and safety matters, in radiological safety and in occupational health.

152. For those students who come into contact with animals the College is required to conduct formal risk assessments which prevent or adequately control exposure to hazardous micro- organisms. Subsequently, students are provided with detailed information and instruction on safe working practices, good occupational hygiene practices and the appropriate use of personal protective equipment. Where applicable, immunisation to protect against infectious disease, for example Hepatitis B and rabies, is made available. The administration of vaccines is either through travel clinics, GPs or by the College's Occupational Health Service providers, who are also able to provide protection against Tetanus, Polio, Tuberculosis, Yellow Fever, Typhoid, Meningitis (A+C strains) and Hepatitis A.

153. The College's Health & Safety Committee is a committee of the College Council and reports regularly to it. Copies of the full set of the College's safety documentation will be made available to the site visit team via the Intranet.

Student Facilities

154. The College provides a suite of rooms in the basement of the Hobday Building at Camden for student use. Facilities in this suite include television, pool tables, and lounges. Similarly, the ground floor of Hawkshead House has been given over for student and staff social facilities, although in practice use is almost exclusively by students. There is also a student bar (the Buttery) at Hawkshead. The SUS has office space on both campuses.

155. All students are members of the SUS and ULU. Through the latter, all RVC students have access to ULU's extensive facilities in Malet Street. Clubs are organised through both the SUS and ULU. Clubs cater for all aspects of student life: sporting; cultural, educational and religious. Veterinary students also organise national events through the Association of Veterinary Students.

156. In addition to the comprehensive sports facilities provided by ULU, the College provides sports pitches; squash courts; tennis courts; a climbing wall; and a swimming pool at Hawkshead.

Student Support

157. It is essential that the College's relatively small size should not disadvantage students in terms of the provision of professional welfare services. We provide these services through a combination of in-house and bought-in services, which have expanded enormously in both breadth and depth since the last RCVS visitation. All of the support services are now united under one 'identity', Student Support Services, and are co-ordinated by a full-time Student Support Services Manager. Their work is monitored by the Student Support Committee. There is a new and comprehensive Student Support Services site on the Blackboard VLE. Tutors are made aware of all the above services and can point students to them when required.

158. In-house provision includes:
    i. the Student Support Services Manager, who co-ordinates support services;
    ii. Senior Tutors and a pool of pastoral tutors on each campus available for consultation by any student;
    iii. a Learning Support Manager and Learning Support Officer, who provide whole class introductory study skills sessions for undergraduate students, with additional sessions provided in response to student demand, e.g. classes on revision techniques prior to examinations; and individual support for students who "self-refer" or are referred by the Academic Progress Review Committee (APRICOT);

iv. a part-time Student Finance and Welfare Officer, responsible for administration of the Access to Learning Fund and RVC Hardship Funds, and for providing general welfare advice;
v. substantive links with the local PCTs, mental health care teams and other health professionals have been established at both campuses;
vi. the Chaplain, who provides confidential support to all students, irrespective of religious belief;
vii. the SUS Welfare Officer;
viii. APRICOT, which serves as valuable support to students who are in difficulty for either personal or academic reasons.

159. Services which are bought in include:
i. University of Hertfordshire Counselling Services, which provides a part-time on-site service on both RVC campuses;
ii. King's College London, which provides a part-time on-site Student Disability Officer on both RVC campuses;
iii. University of London Accommodation Office, which assists students seeking and living in private accommodation, including free legal advice;
iv. University of London Specialist Institutions Careers Service (SICS);
v. The College's affiliations to organisations such as Nightline, the UK Council for International Student Affairs (UKCISA) and International Students House (ISH).

160. The University of London Careers Service is one of the best in the UK. BVetMed students make limited use of this service since they develop contacts and job opportunities through EMS placements, although the service does provide in-depth sessions for students who cannot complete the BVetMed programme and need counselling for career alternatives. Careers education, including a "careers fair" attended by a range of employers from the veterinary and related industries, is an integral part of the Professional Studies module.

5.2. COMMENTS

161. Evaluation data provides evidence that teaching, learning and assessment at the RVC, and the environment underpinning them, are strong. However, as indicated by the College's overarching Corporate Plan and our Learning, Teaching and Assessment Strategy, we are not complacent and we recognise that there is room for improvement in everything we do, drawing upon good practice elsewhere and research evidence.

5.3. SUGGESTIONS

162. We should continue to monitor and improve the assessment system, with a view to maximising its validity and reliability. We also need to ensure that students have full confidence in the assessment system, in particular rotation grading.

We should continue to strengthen the tutor system as a key area of staff/student contact and a vital means of identifying students whose progress may be at risk.

We must improve our arrangements for providing feedback to students on their progress, as a key factor in encouraging effective learning. In particular, we should continue to review and refine our systems for giving students feedback on their performance in clinical rotations.

Chapter 6. FACILITIES AND EQUIPMENT

6.1 FACTUAL INFORMATION

6.1.1 PREMISES IN GENERAL

163. The College operates on three sites: Camden, Hawkshead and Boltons Park, with Hawkshead and Boltons Park, which are about a mile apart, referred to collectively as the Hawkshead Campus.

164. The Camden and Hawkshead Campuses are seventeen miles apart. Travelling time by road or train is variable but 45 minutes is an average time. There is a regular mini-bus service between Hawkshead Campus and Potters Bar Station, and during term-time the College provides a coach service for students living in Potters Bar and neighbouring villages.

CAMDEN

165. The following are located at the Camden Campus, an urban site near Kings Cross Station:
    - a Learning Resources Centre (LRC) and teaching rooms for the first two years of the BVetMed;
    - the greater part of the Department of VBS;
    - the Beaumont Animals' Hospital;
    - the Finance Office;
    - the Research Office;
    - RVC Enterprise;
    - parts of the Senior Management Group, the Departments of PID, the BSU, Estates, and Academic Support and Development;
    - student residences;
    - Student Union Offices;
    - LBIC.

166. The major buildings at Camden are:
    - The Hobday Building, which houses teaching accommodation, the Learning Resources Centre, research laboratories, office space, the refectory, and student social facilities;
    - The Beaumont Animals' Hospital, the College's first opinion clinic;
    - A Biological Services Unit;
    - The Link Block and the MacFadyean Building, housing LBIC, Central London's premier biotechnology innovation centre, providing state of the art laboratory accommodation and business support for biotechnology start-up companies;
    - The Amoroso Building, an ageing facility that is gradually being vacated;
    - College Grove, a student hall of residence.

HAWKSHEAD

167. The following are located at Hawkshead, a rural site of 235 hectares near Brookmans Park in Hertfordshire, just outside the M25:
    - the majority of the Senior Management Group;
    - a LRC and teaching rooms for the final three years of the BVetMed;
    - the Department of VCS, the major part of the Department of PID, and parts of the department of VBS;
    - small and large animal clinics, and laboratory diagnostic facilities;
    - the HR Office;
    - parts of the BSU, Estates Office, and AS&D;
    - student residences;
    - Student Union Offices;
    - sports facilities.

168. The major buildings at Hawkshead are:
    - The Eclipse Building, which houses an LRC, teaching rooms, the senior management suite, meeting rooms, a museum, and office accommodation;
    - the Clinical Block, which provides the main teaching accommodation for the Campus, a range of research laboratories, and office accommodation for academic and support staff;
    - the Mill Reef Building, which provides a state-of-the-art autopsy hall and associated facilities, together with a 180-seat lecture theatre, clinical pathology laboratories, offices and seminar rooms;
    - the Link Building, which houses research laboratories, a teaching room with multi-headed microscopes, and offices for academic and support staff;
    - the Centre for Emerging, Endemic and Exotic Diseases (CEEED), which houses high standard containment laboratories for infection and immunity research, offices and meeting space;
    - the QMHA, the College's small animal referral hospital;
    - the Large Animal Clinical Centre (LACC), a hospital for large animals, chiefly horses, which comprises:
        - a two-storey Administration Block;
        - a Diagnostic Block;
        - accommodation for clinical cases in two adjacent barns.
    - the Sefton Equine Hospital, a fully-equipped equine hospital, constructed in the 1980s, but being replaced by an extension to the LACC in 2009/2010;
    - the LIVE Centre, housing the Centre for Excellence in Lifelong and Independent Veterinary Education, two clinical skills laboratories, a student computer room, a communication skills training suite and staff offices;

- the Clinical Investigation Centre (CIC), housed in refurbished accommodation, attached to which is a large barn providing penning and examination facilities for farm animals;
- the BSU, which comprises a range of barns and similar units providing accommodation for different species of experimental animals;
- the Structure and Motion Laboratory, accommodating treadmills and related facilities for the Biomechanics Research Group;
- Hawkshead House, the ground floor of which houses a staff and student social facility, with the upper floor providing offices for administrative staff. Adjoining Hawkshead House is the Buttery Bar.
- two student Halls of Residence, Northumberland Hall and Odiham Hall, which together provide 70 study-bedrooms, and College Close, a development of 16 houses providing 101 units of student accommodation.

BOLTONS PARK

169. Boltons Park is situated about one mile away from the main Hawkshead site. It provides the Royal Veterinary College Farm, together with office and teaching accommodation for the College of Animal Welfare, with which the College collaborates in the provision of education for veterinary nurses, as well as additional designated BSU facilities.

6.1.2 PREMISES USED FOR CLINICS AND HOSPITALISATION

Table 6.1: Places available for hospitalisation and animals to be accommodated

Regular hospitalisation	*Species*				
		QMH	BAH	ERH	FAH
	cattle				4
	horses			34	
	small ruminants (camelid)				^
	pigs				
	dogs	157	16		
	cats	25	25		
	other - rabbits etc.		15		
Isolation facilities	farm animals and horses			2	0
	small animals	5	10		
	other[1]				

^ included in ERH figure

6.1.3 PREMISES FOR ANIMALS

170. The College's primary facility for rearing and maintaining normal animals for teaching purposes is the RVC Farm at Boltons Park (see above). The Farm comprises a range of standard accommodation for farm animals, for both experimental and teaching use. It includes a dairy unit of approximately 100 milking cows, 180 commercial sheep, a turkey rearing enterprise, a small free range egg producing unit and a small pig fattening operation. The purpose built dairy unit was opened in 1998 and incorporates purpose-designed and built facilities for cattle teaching, along with a teaching classroom, an autotandem milking parlour, with loose housing for dairy cows and handling facilities dedicated for teaching use. The dairy herd is officially Accredited Free of BVDV free under the CHeCS scheme.

171. Extensive use is made of the dairy herd, both for teaching and research and the sheep flock is an important and well-used teaching resources. Activities relating to the on-farm slaughter and sale of turkeys are incorporated into our teaching activities.

172. At Hawkshead there is a pony herd of 22 breeding animals which are an extremely valuable resource for teaching, as well as 8 Alpacas, 4 rams and 6 Jersey cows that are used for teaching.

173. At Camden, live anatomy skills are taught using cows, horses and dogs in both formal timetabled sessions and in self-directed time. The BSU is used for tuition in handling laboratory animals.

6.1.4 PREMISES USED FOR THEORETICAL, PRACTICAL AND SUPERVISED TEACHING

Table 6.2: Premises for clinical work and student training

small animals	consulting rooms	29
	surgical suites	10
equine and food animals	examination areas	7
	surgical suites	2

Table 6.3: Premises for lecturing

Campus	Lecture Theatre	Capacity
Camden	Great Hall	222
Camden	Lecture Theatre 1	100
Camden	Lecture Theatre 3	90
Camden	U5	30

Hawkshead	New Lecture Theatre	265
Hawkshead	Mill Reef Lecture Theatre	180
Hawkshead	Old Lecture Theatre	50

Total number of places in lecture theatres: 937

Table 6.4: Premises for group work (Number of rooms that can be used for supervised group work)

Campus	Room	Capacity
Boltons Park	Boltons Park Room 1	36
Boltons Park	Boltons Park Room 2	15
Boltons Park	Dairy Seminar Room	25
Camden	Anatomy Museum	10
Camden	Council Room	35
Camden	F1b	42
Camden	F1c	42
Camden	F4	40
Camden	F7	48
Camden	F8	42
Camden	F8c/D	42
Camden	F25	20
Camden	F26	25
Hawkshead	F2, Eclipse	40
Hawkshead	F17, Eclipse	16
Hawkshead	F82, Eclipse	20
Hawkshead	G60, Eclipse	54
Hawkshead	G70, Eclipse	54
Hawkshead	S71, Eclipse	15
Hawkshead	S79, Eclipse	16
Hawkshead	S80, Eclipse	88
Hawkshead	George Gould Seminar Room	10
Hawkshead	LACC F1A/B	30
Hawkshead	LACC F2	20
Hawkshead	LIVE G5	8
Hawkshead	LIVE G6	8
Hawkshead	LIVE G7	8
Hawkshead	Mill Reef Seminar Room	25
Hawkshead	Northumberland Hall Room 1	12
Hawkshead	Northumberland Hall Room 2	15
Hawkshead	Room 6	24

Total number of places in rooms for group work: 885

Table 6.5: Premises for practical work (Number of laboratories for practical work by students)

Campus	Room	Capacity
Camden	Category 2 Laboratory	40
Camden	Dissection Room	150
Camden	Practical Laboratory	85
Hawkshead	Clinical Skills Centre	30
Hawkshead	Practical Classroom	90
Hawkshead	Multi-headed Microscope Room	14
Hawkshead	Post Mortem Room	30

Total number of places in laboratories: 439

174. The College is required to conduct a formal risk assessment in respect of any practical work carried out by students. Each category of practical work (e.g. laboratory work, clinical work, animal handling) has its own set of comprehensive regulations, and there are comprehensive health and safety requirements for each of the premises in which students undertake practical work. Students are given a comprehensive health and safety induction at the start of the course, and further instruction is given on specific aspects of health and safety as they start new practical activities. The system is monitored on an annual basis, and a report made to the Safety Committee. A full set of relevant documentation will be made available to the visiting party via the Intranet.

6.1.5 DIAGNOSTIC LABORATORIES AND CLINICAL SUPPORT SERVICES

Diagnostic laboratories

175. The College's diagnostic laboratories provide a comprehensive service, supported by Board Certified Specialists, in the following areas:
    - Haematology
    - Clinical Chemistry
    - Cytology
    - Histology
    - Immunohistochemistry
    - Microbiology
    - Parasitology
    - Endocrinology
    - Serology
    - Post Mortem Examination

176. These services are used by all departments within the RVC, and by veterinary practices and other institutions both in the UK and overseas. The services are

co-ordinated through a Laboratory Integrated Management System (LIMS) from receipt of samples, reporting of results to accessing historical data. The high standard of laboratory work is ensured with both internal and external quality control and assessments.

177. Due to expertise available within the College the Diagnostic Laboratories are also able to provide more specialised services in the following areas:
    - PCR
    - Dermatopathology
    - Muscle Biopsies and Related Assays

    The College also provides a Laboratory Animal Diagnostic Service which provides expert advice on all aspects of laboratory rodent health to the research community.

Central clinical support services

178. Anaesthesia is organised as a single service across the whole of the Clinical Services Division. Although each clinician working in the service specialises in specific species, they work on other species as the needs of individual cases dictate.
    Diagnostic Imaging has previously been organised as a central service, but with increasingly sophisticated techniques being offered across the species, is currently being re-organised into separate small animal and equine imaging services. Advanced CT and MRI equipment located in the imaging centre adjacent to the QMHA will be used for both small animals and horses under general anaesthetic.
    Health & Safety falls under the management of the Assistant Director of Clinical Services, but with each hospital manager carrying operational responsibility for health and safety within their clinical area.
    Pharmacy services are de-centralised to each clinical area.

6.1.6 SLAUGHTERHOUSE FACILITIES

179. The College has an arrangement with the slaughterhouse at Cross Hands, near Carmarthen, three miles from the WRVC, enabling students to spend one morning there during their Farm Animal placement. This slaughterhouse operates most days from 6 AM to 2 PM, and handles both cattle and sheep. The facilities include a boning plant.

180. The College does not make use of a single slaughterhouse facility for EMS purposes but, as indicated above, all students are required to spend one week of their EMS on a veterinary public health placement, in a slaughterhouse.

Students have the opportunity to participate in on-farm slaughter of turkeys on the College Farm before Christmas.

6.1.7 FOODSTUFF PROCESSING UNIT

181. We have established relationships with several major food retailers including Waitrose, Morrisons and Marks & Spencer. These take students on EMS and also offer access to their processing plants or those of their partners.

6.1.8 WASTE MANAGEMENT

182. Waste is disposed of from the Animal Hospitals according to the 'Good Practice Guide to Handling Veterinary Waste' published by the British Veterinary Association. Elsewhere in the College clinical waste is disposed of following the 'Procedure for the Disposal of Clinical Waste'. Waste contractors collect the waste from secure storage containers around the College, and dispose of it by approved means. For the whole College, including the College Farm, we also have a manure management plan as required by law. We spread manure on our own land to minimize commercial fertilizer purchases, and export to neighbouring farms excess production over and above the volume we are legally permitted to spread on our own land.

6.1.9 FUTURE CHANGES

183. As indicated elsewhere, the College is in the midst of a major building programme that will, potentially, represent the greatest step-change in the College's premises since the construction of the Hobday Building in the 1930s. In summary, these developments are:
    - construction of the Teaching & Research Centre at Hawkshead, providing a new landmark entrance to the Hawkshead Campus, as well as adaptable laboratory and supporting accommodation. Construction work is scheduled to commence in January/February 2010 for completion in March 2011;
    - the re-location of the Sefton Equine Hospital alongside the other parts of Large Animal Clinical Centre. The new unit will comprise two new fully equipped state of the art equine operating theatres together with ancillary examination and investigation areas and has been designed to the requirements of the RCVS standard for Tier 3 Large Animal Hospitals. Construction of the new unit commenced in July and is currently on programme for completion in February 2010;
    - the replacement of Northumberland Hall by a new residential and restaurant development which will provide modern en suite

accommodation for 191 students in a pavilion style scheme. In addition to this the old style refectory will be replaced with a more modern restaurant facility incorporating dedicated CPD/training rooms and a suite of meeting rooms and 14 overnight en-suite bedrooms. Currently it is anticipated that construction work will commence by Easter 2010 for completion in summer 2011;

- the construction of a new Social Learning facility intended to provide an area of focus for the Camden Campus. Located in the South Lightwell of the Hobday Building the new facility will comprise an extension to the library with a learning pod enclosure with informal seating, terracing and a coffee facility below. The lightwell space will become fully enclosed by an ETFE (Ethylene tetrafluoroethylene) roof (as per the Eden project) and will provide direct access to the anatomical learning facility. Completion is due in March 2010.

6.2 COMMENTS

184. The College has engaged continuously in constructing new buildings or re-furbishing old ones throughout the last ten years, such that there has been no time when a major project has not been underway. This unceasing effort has enabled the College not only to sustain increased levels of activity across all domains, but also to do so in first class facilities. Buildings are well-maintained, and the adoption of a long-term maintenance strategy will ensure that this remains the case. The facilities for undergraduate teaching are, almost without exception, up-to-date and fit for purpose: aspects where improvements are required, specifically in private study space at Camden and provision for small group learning and laboratory-based teaching at Hawkshead, will be addressed effectively by the current building projects. Equipment for undergraduate teaching, in both the clinical and pre-clinical aspects of the BVetMed, is considered at least adequate and in many respects excellent.

185. The RVC has made a corporate commitment to improving its environmental performance by signing up to an Environmental Policy which will be reviewed on an on-going basis, to ensure its continual relevance and effect. The key principles of the policy are:

- To maximise resource efficiency
- To reduce energy usage per capita by 10% by August 2010
- To minimise waste to landfill by 5% by August 2009 through the introduction of a comprehensive recycling scheme
- To promote energy conservation by efficient usage and design of new buildings with due regard to energy utilisation

- To encourage staff and student involvement in environmental issues through the dissemination of information, and by actively promoting participation in campaigns etc
- To promote environmentally responsible policies in all activities, including purchasing and investment
- To promote green transport alternatives
- To consider the likely environmental impact of RVC activities and developments on the local community
- To appoint environmental 'champions' across the College
- To comply with all relevant government legislation and the requirements of associated stakeholders

A number of policies such as a Green Travel Plan, Waste Minimisation Policy and an Energy Reduction Policy are being developed in order to reach the environmental and sustainability targets.

6.3 SUGGESTIONS

186. The College should continue to implement its Estates Strategy, continually improving facilities on both campuses so that teaching, research and clinical service can be conducted in the most productive environment. At the same time, the College should pursue its new Environmental Policy vigorously, so that the negative impact of its activities can be minimised.

Chapter 7. ANIMALS AND TEACHING MATERIAL OF ANIMAL ORIGIN

7.1 FACTUAL INFORMATION

7.1.1 ANATOMY

Table 7.1: Material used in practical anatomical training

	dog		ruminant		equine		other	
	2007/08	2008/09	2007/08	2008/09	2007/08	2008/09	2007/08	2008/09
live animals	2	2	2	2	2	2		
Cadavers	120	120	66	66	42	42	30 chickens, 30 rabbits, 30 fish	30 chickens, 30 rabbits, 30 fish
Specimen			60 Hearts + brains	60 hearts + brains	30 heads	30 heads	30 pig foetus'	30 pig foetus'

187. We also use a great deal of pre-prepared dissected specimens from previous years that are kept for ongoing usage. There are large cold stores and freezers for this purpose at Camden, and large areas dedicated to formalin storage. The specimens are either commercially sourced, donated or collected from abattoirs, knackers yards etc. We are currently expanding our development and use of plastinated specimens.

7.1.2 PATHOLOGY

Table 7.2: Number of necropsies

SPECIES		**Number of necropsies**			**Average**
		2006/07	**2007/2008**	**2008/09**	
Food-producing animals	cattle	96	80	63	80
	small ruminants	112	116	112	113
	pigs	21	39	23	28
	deer, goats &alpacas	11	28	47	29
Equine		98	92	76	89
Poultry		161	106	101	123
Rabbits		6	Included in "unspecified"	11	9
Companion animals/exotic	dogs	178	213	243	211
	cats	68	75	82	75
	unspecified	19	34	30	28

188. The College has established a joint surveillance centre with the VLA (see also para 119). A major part of the motivation for this is to source necropsy material from food animals The College also sources material of animal origin from slaughter houses for student tuition in Veterinary Public Health.

7.1.3 ANIMAL PRODUCTION

189. The stock at the College Farm at Boltons Park number:

Sheep:
- up to 320 lambs
- 208 Ewes
- 6 Rams

Poultry:
- 200 chickens
- Up to 300 turkeys (seasonal)

Cows:
- 98 cows
- 46 heifers
- 30 beef calves

190. The following subjects are taught to BVetMed students at the RVC Farm:
    - Herd fertility monitoring and related activities including each student carrying out rectal examinations.
    - Lameness work and mobility scoring
    - Castrating and disbudding calves
    - Condition scoring
    - Calving practices
    - Herd health plans
    - Husbandry, environmental and management issues
    - Nutrition
    - Foot trimming
    - Anti and post mortem diagnosis.
    - Lambing Practicals
    - Foot trimming
    - Sheep handling
    - Anti and post mortem diagnosis
    - Flock health plans
    - Flock nutrition plans
    - Condition scoring
    - Poultry flock health plans .
    - Environmental improvements

- De-beaking
- Flock nutrition
- Humane dispatch and stunning
- Pig handling classes

191. The BSU at the RVC Farm normally has the following stock available for students to practice animal handling and skills such as foot trimming:
    - Goats 80
    - Sheep 120
    - Turkeys 20
    - Pigs 80
    - Young cattle 40

192. The College Farm at Gelli Aur, where students spend two weeks of their Farm Animal rotation, has the following stock:
    - Cattle: 400 dairy, 300 youngstock, 50 beef.
    - Sheep: 350-400 ewes, depending on the season more with lambs at foot.

7.1.4 FOOD HYGIENE/PUBLIC HEALTH

193. As indicated in para. 189, the College Farm has adequate numbers of live animals for practical teaching. In addition, the College sources material of animal origin from slaughter houses for student tuition.

7.1.5 CONSULTATIONS AND PATIENT FLOW SERVICES

7.1.5.1 CONSULTATION

	QMHA	BAH	ERH	FAH	EP	NFP
Number of weeks, in the course of the year, during which the clinics are open	52	52	52	52	52	52
Number of consultation days each week	5 & 7*	7	7	7	7	7
Consultation hours	**	***	****	****	****	****

* 5 for regular appointments, 7 for emergencies

** 24 hrs for emergencies, 09:00-17:00 hrs for consultations

*** Mon-Fri - 09:00-19:30, Sat - 09:00-15:15, Sun 11:00-13:00

**** 24 hrs a day

7.1.5.2 PATIENT FLOW

Table 7.3: Number of cases: a) received for consultation, and b) hospitalised in the Faculty clinics, in the past three years.

Species		Number of cases						Average
		2006/07		2007/2008		2008/09		
		a	b	a	b	a	b	
Food producing	Bovine	7	7	1	1	19	19	96
	Small Ruminants	4	4	5	5	13	13	
	Porcine	1	1	1	-	-	-	
	Camelid	6	6	16	16	60	60	
	Cervine	-	-	1	1	-	-	
	Caprine	11	11			-	-	
Poultry		-	-	-	-	-	-	N.A.
Rabbits		-	-	-	-	-	-	
Equine		799	549	812	550	773	543	1342
Companion animals/exotics	Canine	15,531	4,412	14,656	4,766	15,140	4,697	35822
	Feline	11,164	3,459	10,683	3,596	11,724	3,989	
	Unspecified	804	283	957	345	895	367	

7.1.6 VEHICLES FOR ANIMAL TRANSPORT

194. The College has no vehicles designed to bring sick animals to the clinics.

7.1.7 ON-CALL EMERGENCY SERVICE

195. The College's clinics provide a 24 hour emergency service, for all species, for 29 local practices.

7.1.8 ON FARM TEACHING AND OUTSIDE PATIENT CARE

7.1.8.1 AMBULATORY (MOBILE) CLINIC

196. The Ambulatory Services are delivered through a regional joint venture farm animal practice which combines expertise from a local commercial practice (Northpoint Veterinary Services) and the College practice. The joint venture practice provides 24 hour service cover, 365 days per year. The clinical services are shared between three senior clinicians and two junior training scholars. Out of hours duties are shared between four clinicians, one of whom is an RVC staff

member, with the Junior Clinical Training Scholar based at the RVC providing back-up. Typical working hours are 8am to 6pm. Two students go to Northpoint (see above) every day, with a maximum of one student accompanying each vet on routine herd health and sick cow visits. Depending on available students (there are a number of other activities that go on daily on the rotation) the RVC staff member takes from one to three students with him on calls, depending on what is deemed appropriate from both a client and patient base, but also how much the students will be able to participate if there are more of them.

197. Additional Day One Skills are taught through a partnership with Westpoint Veterinary Services, from a custom built teaching centre near Sevenoaks, an hour's drive from Hawkshead. Two or three students travel down to this unit twice a week and participate in a range of activities including herd nutritional analysis, castration, fresh cow examinations and herd health visits. These activities will vary according to the seasonal needs of local farmers.

198. Each vet has a Volkswagen estate (2 Passats, 3 Golfs). Seating capacity is 5 people.

199. Students also accompany the RVC's farm animal clinicians on farm visits during their two-week PVMPH rotation at the Welsh Regional Veterinary Centre. Students visit two herds per week, each with an average of about 100 cows. They stay for two weeks at the WRVC so each student will see 4-5 herds.

Table 7.4a: Number of cases seen by the Ambulatory (mobile clinics) in the past three years.

	Species	Number of patients			Average
		2006/7	2007/8	2008/9	
Food-producing animals	cattle	3,132	12,312	9,480	8783
	small ruminants	220	393	320	
	pigs	50	206	120	
	unspecified	31	35	50	
Poultry (no of flocks)		56	4	26	29
Rabbits (no production units)		0	0	0	
Equine		4,942	5,241	5,540	5241
Other (production units)		13	23	55	30

Includes cases seen at the Joint Venture Practice and Welsh Regional Veterinary Centre

Table 7.4b: Number of herd health visits in the past three years.

	Species	Number of patients			Average
		2006/7	2007/8	2008/9	
Food-producing animals	cattle	1316	628	1838	
	small ruminants	63	96	219	
	pigs	22	43	80	1494
	poultry	56	4	26	
	others	13	23	55	

7.1.9 OTHER INFORMATION

200. As indicated elsewhere, the College has contractual arrangements with the Blue Cross Animal Hospital, under which all Final Year students undertake a one week rotation at their clinic in Central London; and with the Dogs' Trust, whereby all Final Year students spend part of a rotation at their Re-homing Centre in Harefield, West London, performing neutering operations.

201. We believe that, in all branches of our clinical services, the standards of the College's provision compare favourably with those of private practices. The information given elsewhere in this SER indicates the heavy investments that the College has made, and continues to make, in clinical facilities, both buildings and equipment. Clinical practice, both first opinion and referral, is highly competitive in the South East of England, and the College would not have maintained its caseload, both in existing specialities and new ones, if clients and referring vets were not convinced that the College's clinical services were of outstanding quality. The College has extensive feedback, both formal and informal, to support this assertion from, in particular, client surveys and the College's Reputation Audit. Further evidence of high standards is provided by the recognition of the College's clinics under the RCVS's Practice Standards Scheme.

202. The College' s policy in respect of the balance between first opinion and referral caseload is that between them they must give every student the opportunity to achieve competence in the full range of Day One Skills. Any percentage figure would be misleading, given the very different nature of first opinion and referral cases in different species, and the variety of both internal and external clinical settings in which IMR takes place.

Clinical Specialisation

203. The following areas of clinical specialisation are covered by the College:

<u>Small Animal</u>

- Anaesthesia
- Behaviour
- Cardiology
- Dermatology
- Diagnostic Imaging
- Emergency and Critical Care
- Internal Medicine
- Neurology and Neurosurgery
    - includes the Epilepsy Clinic
- Nutritional Support Service

- Oncology
- Orthopaedics
    - includes Joint Replacement in Dogs
- Physiotherapy and Rehabilitation
- Soft Tissue Surgery

Equine

- Anaesthesia
- Colic
- Dermatology
- Diagnostic Imaging
    - Standing and recumbent CT
    - Standing and recumbent MRI
- Emergency & Critical Care
    - Intensive Care Foal Unit
- Infectious Diseases
- Neurology
    - Neuromuscular Lab
- Oncology
- Ophthalmology
- Poor Performance
- Respiratory

Farm Animal

- Bovine and Small Ruminant Medicine
- Herd Health and Production Medicine
- Reproductive and Obstetrical Medicine
- Farm Animal Welfare
- Nutrition
- Infectious Disease Epidemiology
- Public Health
- Camelid Medicine and Reproduction

In all areas of clinical specialisation, the College provides a comprehensive 24/7 service, including out-of-hours emergency cover.

Relationships with Outside Practitioners and other Organisations

204. The main areas of the College's relationships with outside practitioners are:
    - referral of cases to the College's clinics;
    - participation in the RVC's 24-hour on-call emergency service;
    - provision of EMS placements;
    - attendance by practitioners at CPD workshops;
    - membership of practitioners on College committees;

- provision of teaching in specialist areas (e.g. exotics, dentistry) where the College's expertise is limited;
- provision of feedback on the quality of RVC graduates.

205. These relate to all species groups, i.e. small animal, farm animal and equine, although to varying degrees, e.g. attendance at CPD workshops is predominantly by small animal practitioners. The College has recently employed a marketing manager to further improve communications regarding RVC services with this group.

206. As indicated above, the College and the VLA have established a joint Surveillance Centre which provides a caseload of necropsy specimens for disease diagnosis and monitoring.

Administrative Systems

207. Rx Works practice management software is used as the client and patient database in all three hospitals, although on two different servers, one for the Beaumont Animals' Hospital (BAH) and one shared by the ERH & QMHA (although we are planning to separate these). This is used for all billing, pharmacy dispensing, appointments, sales, etc. Much of the hospital management information is retrieved from here. Information is fed from this system into CRIS (Clinical Record Information System – bespoke & developed by RVC) where all the current electronic hospital forms are kept, such as clinical history, discharge forms, radiology reports, etc. This is a continuing development and more will be added in time. This is where all the clinical coding and retrieval of clinical data comes from for hospital management, research, clinical governance, etc. The BAH does not use CRIS.

208. When a patient is discharged a message is sent to PaPER (Partial Patient Electronic Record – also a bespoke RVC system developed prior to CRIS) along with an email to the clinician to prompt them to write the report. This is where the final reports for veterinary practices are produced and stored, and the tracking of the reports from time of discharge to being sent out. The BAH does not use PaPER.

209. As well as the electronic records, every patient has a paper case file (with the exception of the BAH whose system is totally electronic), as not everything is on an electronic system yet in QMHA & ERH.

210. We also use the LIMS system (which is not yet integrated with the above systems), where the diagnostic laboratories record clinical information. The hospitals can access this to view results through a web based system, LabVu.

211. There is also a separate digital image storage system for radiographs, ultrasounds and ECGs.

7.1.11 FISH AND OTHER FOOD PRODUCING SPECIES

212. Students are given comprehensive instruction in poultry as a food producing species, and in the new BVetMed curriculum both rabbits and fish as farmed species will be covered in tracking.

7.1.10 RATIOS

Table 7.5: Animals available for clinical training (in the clinics of the Faculty or seen through the Ambulatory clinic) as ratio to the number of students in last full year of clinical training

R 11:	no. of students graduating annually [a)] / no. of food-producing animals seen at the Faculty[1)] = 176/96 => 1/1.8	0.56
R 12:	no. of students graduating annually [a)] / no. of individual food-animal consultations outside the Faculty[2) 3)] = 176/8783 => 1/0.02	50
R 13:	no. of students graduating annually [a)] / number of herd health visits [3),4)] = 176/1494 => 1/0.12	8.3
R 14:	no. of students graduating annually [a)] / no. of equine cases[1)] = 176/1342 => 1/0.13	7.7
R 15:	no. of students graduating annually [a)] / no. of poultry/rabbit cases[1)] = Data not available	
R 16:	no. of students graduating annually [a)] / no. of companion animals[1)] seen at Faculty = 176/35822 => 1/0.005	200
R 17:	no. of students graduating annually [a)] / Poultry (flocks)/rabbits (production units) seen [2) 3)] = 176/29 => 1/6.07	0.17

Table 7.6: Animals available for necropsy

R 18:	no. of students graduating annually / no. necropsies food producing animals + equines = 176/339 => 1/0.52	1.92
R 19:	no. of students graduating annually [a)] / no. poultry/rabbits[1)] = 176/132 => 1/1.33	0.75
R 20:	no. of students graduating annually [a)] / necropsies companion animals[1)] = 176/314 => 1/0.56	1.79

7.2 COMMENTS

The Beaumont Animals' Hospital (BAH)

213. As a result of strenuous efforts by the hospital management team to lead improvements to the clinical areas and working practices, the BAH was awarded RCVS Hospital (Tier 3) status at the end of 2008. The latest improvement to the facilities has been the expansion of isolation facilities by the addition of a large walk-in kennel. A further wave of upgrades and refurbishment is planned for the next 24 months to improve further the clinical facilities such as the treatment room, pharmacy, the imaging room, offices and staff accommodation. We have expanded the staff team by 0.6 vet FTEs and one nurse FTE for 2009/2010, which will allow us to extend opening hours.

The Queen Mother Hospital for Animals (QMHA)

214. The management team is focussed on improving the efficiency of patient flow and job satisfaction in the expanded hospital and is working on providing a better balance between clinicians and support staff (nursing and administrative), simplification of administrative tasks and improved communication in the hospital. A new nursing structure, which enables specialisation within the clinical services and improved career opportunities for nurses, is now in place.

215. Work continues on the Electronic Patient Record system, with the long term aim of significantly reducing paper records, enabling easy access to patient records electronically whilst providing data for clinical governance and clinical research. A new software system for document management is soon to be introduced, along with an electronic query/job processing system. Once embedded in QMHA they can be rolled out to other units in CSD.

216. The first opinion emergency service cover provided by QMHA continues to be very successful in itself and further developments are planned for this service in the coming year.

217. The oncology service successfully launched as a standalone clinical service in 2009. Facilities are now completed that enable all chemotherapy patients to be managed in one ward and for chemotherapy treatments to be prepared safely on site rather than outsourced as they were previously.

218. In medicine, a plan to double the number of cats treated for hyperthyroidism with radioactive Iodine^{131} therapy, developed in conjunction with the College Health & Safety team, has been implemented. The aim is to reduce the long waiting list for this invaluable service, which is offered by only six centres in the UK.

219. Plans are being developed with the key services of medicine and neurology to establish the RVC as a centre of excellence in interventional urology and nephrology and the diagnosis and management of brain tumours and epilepsy respectively. Funding has been secured for the purchase of equipment vital to the achievement of these goals, namely advanced cystoscopy equipment and an ultrasonic surgical system.

220. The physiotherapy & rehabilitation service has developed rapidly with an associated increase in caseload. A new water treadmill is now installed alongside the hydrotherapy pool which will enhance the existing facilities and offer a greater range of rehabilitation services.

Equine Services

221. Investment in a new digital radiography system has been made to allow X-rays to be taken and viewed at client premises, increasing efficiency for owners and the equine ambulatory practice. This is proving to be a great success.

222. Construction of the new Equine Theatre block and the barn conversion for the temporary Intensive Care and Foal Unit started in August 2009. Considerable investments are being made in new diagnostic imaging technology to support the equine clinical team. Standing CT and MRI have both recently been installed for the ERH.

223. Early discussions are taking place regarding the development of equine rehabilitation facilities. Further expansion of our equine services including dermatology, oncology, and ophthalmology is being achieved through joint use of facilities and expertise with the QMHA.

Farm Animal

224. The new partnership with NorthPoint Practice is developing strongly, and we are maintaining our improved caseload in the Farm Animal Hospital.

Clinical Diagnostic Laboratories

225. A root and branch review of the service is underway, to identify growth opportunities.

Comments

226. The data and other supporting information in this Chapter demonstrate the College's success in developing and expanding its clinical services and the associated caseload at a time of increasing student numbers. We have executed major developments in clinical facilities since the last RCVS visit, most notably the construction of the Large Animal Clinical Centre and Phase 3 of the QMHA, and the comprehensive refurbishment of the BAH. The range of clinical specialities offered by the College has grown to include oncology, E&CC, and a Camelid Medicine and Reproduction Service. Future developments will include expansion of services for rabbits and other small pets (other than cats and dogs), and better physiotherapy and rehabilitation services for horses.

227. We cannot afford to be complacent about the availability of adequate and appropriate caseload to support teaching and learning. The College's clinical services are in direct competition with high quality referral practices (several of which are led by clinicians with specialist qualifications from the RVC), and only by continuing to offer outstanding treatment by recognised leaders in their fields will we maintain our advantage. Similarly, if recent decades' trends in livestock farming continue, we cannot expect to see any increase in the numbers of production animals in the College's immediate vicinity. However, by demonstrating continued excellence, and devising innovative responses to the challenges we face, the College will continue to ensure that RVC graduates have the practical clinical experience that helps to make them outstanding practitioners.

7.3 SUGGESTIONS

228. The College should continue the recent expansion in the caseload of the Farm Animal Hospital, to complement the increasing on-farm experience which is available to students as a result of the College's external collaborations.

229. The College should take further steps to maintain the necropsy caseload, particularly in farm animals, and should consider investing in a vehicle to transport material to the College.

Chapter 8. LIBRARY AND LEARNING RESOURCES

8.1 FACTUAL INFORMATION

8.1.1 LIBRARY AND OTHER INFORMATION TECHNOLOGY SERVICES

230. The RVC maintains Learning Resources Centres (LRCs) at both Camden and Hawkshead. These combine traditional library resources (print collections), substantial numbers of open access PCs, significant collections of electronic resources (journals and databases etc), photocopiers and study spaces.

231. The LRCs are managed by the Director of the Library & Information Services Division (LISD), who reports to the Assistant Principal (Academic Support & Development), a member of the Senior Management Group. The IT component of LISD is guided by the Information Technology Steering Group which is chaired by the Vice Principal (International and Strategic Development).

232. Opening hours for the library parts of the LRCs are as follows:

Term time

Hawkshead

Monday to Friday	8am to 8pm
Saturday	9am to 6pm*
Sunday	12 noon to 4pm*

*Open later when the MSc Veterinary Physiotherapy students are at Hawkshead

Camden

Monday to Thursday	8.30 am to 8pm
Friday	8.30am to 6pm
Saturday	10am to 2pm (pre exam periods)

Opening hours during part of July and August at Camden and during August at Hawkshead are shorter with Camden closing at 5.30pm and Hawkshead at 7pm.

Opening hours are extended at Hawkshead during June, with the library closing at 10pm Monday to Friday.

Open access PCs, study spaces, photocopiers and scanners are all available 24/7 in both LRCs.

233. There are currently approximately 120 reader places in the Hawkshead LRC and approximately 50 in the Camden LRC. There are also 170 open access PCs at each campus with the bulk of these located within the LRCs. Open access PCs

have a standard suite of software including MS Office, EndNote, SPSS and Internet access. All students and staff are given IT accounts which they must use to log on to any college PC.

Electronic Resources

234. The following electronic databases are available to staff and students. Most are available remotely:
- Agcensus
- CAB Direct
- Cochrane Library
- ERIC
- Intute: Health and Life Sciences
- ISI Web of Science
- Journal Citation Reports
- MedVet Resource
- PubMed
- WildPro
- ZETOC

235. There are currently 2,964 e-journals available (though this number will fluctuate), with some 85% available remotely. We select electronic versions of journals wherever possible and this has reduced our print journal subscriptions to around 200. Access to electronic resources is mostly authenticated using OpenAthens, though some publishers use other methods.

236. We hold over 500 CDs, DVDs and videos that are available for borrowing.

237. We actively encourage students and staff to recommend book purchases and try to be comprehensive in what we buy. It is highly unusual for a relevant purchase to be refused. Textbooks are bought in multiples as we aim to supply any textbook for loan with a maximum wait of 24 hours. We run a report each night which identifies items with reservations and the length of time of each wait period.

238. We have a handful of e-books (no more than ten to date) and have been in negotiation with the major publisher in the veterinary area for a substantial collection though price is currently an issue.

239. All our print collections are catalogued and this is available via any internet capable PC.

240. We operate a virtual bookshop which passes on a discount of 12-15% on books from most veterinary related publishers and which buys most library purchases at a substantial discount.

241. Other material which is available for loan includes past student Elective and other Project Reports; examination papers (where these are available for open access); laptops; video cameras; and iPods which are pre-loaded with resources produced by the e-Media Unit.

Staffing

242. There are currently approximately 23 FTE LISD staff with 18 of these being full-time posts. Most staff perform front-of-house helpdesk roles, though we have teams performing roles in applications development (supporting the electronic patient record and hospital management systems etc), academic liaison, user training and administration and purchasing.

8.2 COMMENTS

243. Although students would always like there to be more copies of popular texts, through purchasing all relevant books, and providing multiple copies of many, we have been successful in minimising the time that students have to wait for requested books. Similarly, through investing in electronic journals, we have been able to ensure that for both teaching and research purposes staff and students have quick and easy access to a comprehensive range of veterinary and related journals.

244. Opening hours are considered to be adequate, and we keep the library open at periods when there are very few users. From time to time students request longer opening hours, but when we have piloted extended hours the actual use has not justified its continuation.

245. We judge that the IT facilities for students are generally comprehensive and adequate. Again, students occasionally comment that they are unable to find an available open access PC at particularly busy periods, but our user statistics demonstrate that there are usually free PCs, and LISD's stock of loan laptops is rarely fully utilised. We ensure that the software available to students is relevant and up-to-date, and more specialist software is made available when necessary. The current academic year has seen the highest ever levels of demand for open access PCs. This was a planned consequence of the new curriculum and the ever increasing amount of online learning material available.

246. We recognise that adequate and appropriate IT provision is essential if students are to have the resources to study independently, and the current development of extensive new social learning space at the Camden Campus is evidence of our commitment to this. We expect that this new space and an associated re-modelling of parts of the LRC will alleviate the current pressure on IT resources.

247. We gather, analyse and respond to feedback, gathered regularly on all aspects of LISD's services. Feedback from both staff and students is generally positive, and Library and IT services receive above-average ratings in the National Student Survey.

8.3 SUGGESTIONS

248. The College should keep under review the utilisation of the Library and IT resources, and continue to ensure that their availability keeps pace with changes in the curriculum and in students' learning styles. The College should re-consider whether all students should be provided with their own lap-tops to increase overall IT access.

Chapter 9. STUDENT ADMISSION AND ENROLMENT

9.1 UNDERGRADUATE COURSES

9.1.1 UNDERGRADUATE STUDENT NUMBERS

Table 9.1: Undergraduate student composition in year prior to visitation - 2008/09

Total number of veterinary undergraduates	1163
Total number of male students	213
Total number of female students	950
Foreign students	115
- from EU countries	28
- from non-EU countries	87

249. The minimum number of years is five. However, students entering via the Graduate Entry track (G Year) will normally complete the BVetMed in four years, although taking into account their previous undergraduate degree they are required to complete seven years of Higher Education in order to graduate as a veterinarian. A student entering via the Gateway (Year Zero) Programme will be required to study for at least six years before graduating.

9.1.2 STUDENT ADMISSION

Minimum Admission Requirements

D100 and D101
Three GCE Advanced/A2 subjects including Biology and Chemistry and one other subject which does not overlap (excluding General Studies). AAA grades are normally required, though candidates who perform exceptionally well at interview may be offered a place with AAB grades.
and
Five GCSE A grades, including grade A in Double Science (or in Biology and Chemistry if taken separately) and not less than grade B in English, Mathematics and Physics (if taken as a separate subject).
or
International Baccalaureate in Biology, Chemistry and one other subject at Higher Level. Offers usually require 766 grades, though candidates who perform exceptionally well at interview may be offered a place with 666 grades. Qualifications in English, Mathematics and Physics equivalent to GCSE level will also be required.
or

Five Scottish Highers at grades AAAAB including Biology, Chemistry and Physics and two Scottish Advanced Highers in Biology and Chemistry at grade AA. Exceptional students may be offered AB in Advanced Highers. English, Mathematics and Physics equivalent to GCSE level also required.

or

Irish Leaving Certificate with grades of AAAABB including Biology and Chemistry at grade A. English, Mathematics and Physics at Ordinary Level at minimum grade B

or

BTEC National Diploma in Animal Management with DDD (Distinctions) overall, including Distinctions in specified modules (in addition to GCSE requirements above)

or

Cambridge Pre-U with at least D3 in three Principal Subjects including Biology and Chemistry (in addition to GCSE requirements above)

or

Science based Access to HE Diplomas which include a minimum of 15 Level 3 credits in Biology and 15 Level 3 credits in Chemistry. Distinctions required in all Biology and Chemistry modules taken (in addition to GCSE requirements above)

or

Other international qualifications which are equivalent to the above.

or

North American candidates with the following undergraduate prerequisites: Required at upper Level (8 semester credits each):

- Organic Chemistry with Lab
- At least 4 credits in Principles of Biology or General Biology. Remainder of the credits can be in Animal Biology, Zoology, Microbiology or Genetics (all with Lab)

Also required (4 semester credits each)

- Biochemistry
- Physics with Laboratory
- Mathematics or Statistics (including algebra)

Strongly recommended:

- General Chemistry or Inorganic Chemistry or Fundamentals of Chemistry with Laboratory.

or

Other qualifications may be considered

D190 (Gateway stream)

GCSEs at Grade B or above in English Language, Mathematics and Science (Double Award or separate sciences) and other subjects at grades A-C.

and

GCE Advanced/A2 levels in Chemistry, Biology and any other subject except General Studies at grade CCC or higher.

or

BTEC National Diploma in Animal Management at Distinction level, with Distinctions in specified modules .
or
Five Scottish Highers at Grade C or above including Physics, Biology and Chemistry; and Advanced Highers in Biology and Chemistry, with C grades. English, Mathematics and Physics equivalent to GCSE level also required.
or
Cambridge Pre-U with at least P1 in three Principal Subjects including Biology and Chemistry (in addition to GCSE requirements above)
or
International Baccalaureate in Biology, Chemistry and one other subject at Higher Level with 555 grades. Qualifications in English, Mathematics and Physics equivalent to GCSE level grade B will also be required.
or
Other qualifications may be considered

Graduate entry (D102)
At least a 2:1 in an appropriate biological sciences degree (suitable disciplines include (but are not limited to) Animal Science, Biochemistry, Biological Sciences, Bioveterinary Science, Physiology, Veterinary Sciences, and Zoology); in addition to the A-level and GCSE subject requirements for D100 and D101. Good grades required.
or
North American candidates with a bachelor's degree (or in their final year of a degree) with a large biological science component, with a GPA of at least 3.4, and with the following prerequisites:
Required at upper Level (8 semester credits each)

- Organic Chemistry with lab
- At least 4 credits in Principles of Biology or General Biology. Remainder of the credits can be in Animal Biology, Zoology, Microbiology or Genetics (all with Lab)

Also required (4 semester credits each)

- Biochemistry
- Physics with Laboratory
- Mathematics or Statistics (including algebra)

Strongly recommended:

- General Chemistry or Inorganic Chemistry or fundamentals of Chemistry with Laboratory.

Work experience

D100: varied work experience in a veterinary practice and with animals to develop handling skills, for a minimum of two weeks (at least one week must be in a veterinary practice).

D101: as above but in addition candidates should also have at least one week's experience in a scientific environment.
D190: work experience is not essential, although the two weeks described above are considered desirable.
Graduate Entry (D102): candidates should have a minimum of two weeks recent experience of working with animals including at least one week in a veterinary practice.

Other requirements

Applicants are required to take the Biomedical Admissions Test (BMAT), a subject-specific admissions test taken by applicants to certain medicine, veterinary medicine and related courses, unless they are applying through the Gateway route. Currently North American applicants do not need to take the BMAT.

The Gateway programme is available to UK students attending a non-selective state school whose parents have not been to university and who receive, or would be eligible for, an Education Maintenance Allowance payment.

Applicants from overseas will be required to provide evidence of proficiency in spoken and written English, including scientific usage and comprehension.

Numbers of Student Places

250. The College limits the First Year intake to 218. The number of entrants to the Gateway Programme (which is included in this figure of 218) is 35. The maximum number of students admitted to the Graduate Entry Year is more flexible, with the maximum number being set such that no more than 240 students may enter Year Three of the BVetMed.

251. The number of government-funded BVetMed places (i.e. places funded by HEFCE) is determined by the College as part of its annual planning cycle, taking into account three factors:
    - The number of places in the Veterinary Medicine Price Group funded by HEFCE, including Additional Student Numbers (ASNs) allocated in the year in question;
    - The requirements of other courses which recruit UK and EU students;
    - The College's position in its HEFCE contract range. HEFCE calculates a notional sum that the College would require in order to teach the number and mix of UK and EU students that it recruits. If the College's actual income from HEFCE is significantly higher than this, then HEFCE would claw back part of the College's income; if significantly lower, then HEFCE would require the College to reduce student numbers. In practice, the College maintains a year-on-year position within the

contract range set by HEFCE, indicating that the number of students enrolled is appropriate to the funding the College receives.

Selection Processes

252. The selection process is as follows:
    - Staff in the Admissions Office check that the candidate has achieved the required grades in mandatory subjects at GCSE; is entered for the required subjects at Advanced Level; has achieved or is predicted to achieve at least grades AAB including grade A in Biology and Chemistry (or equivalent qualifications); has undertaken the relevant animal-related experience; and has satisfactory references.
    - Once BMAT results are received the Admissions Tutor and the Head of Admissions confirm the BMAT threshold depending upon the number of interviews to be held based on the recruitment targets for that year.
    - Candidates meeting the criteria above and the BMAT threshold are invited for interview.
    - Interviews are conducted by two academic staff members - normally one clinician and one pre-clinical scientist - who are normally joined by a practising veterinarian (for D101 the third interviewer is normally a research scientist). Each interviewer scores each candidate on specified criteria. An overall interview score is reached by averaging the total interview scores of each interviewer. Offers are made through descending interview scores until the agreed number of offers have been made. This number is based upon previous years' experience of the ratio of offers to acceptances and the percentage of candidates likely to achieve the required A-Level grades.
    - If the candidate has already achieved the required grades the offer will be unconditional. Otherwise the offers are conditional, i.e. the candidate will be permitted to take up the offered place only if he or she achieves the required grades (normally AAA or AAB) in the A-Level examinations.
    - In August, when the A-Level results are published, if the number of candidates who have met the terms of their offers is fewer than the number of places available, the remaining places are filled by taking into account A-Level grades, BMAT scores and interview scores of the remaining candidates. This does not imply any lowering of standards: typically, it will mean that candidates whose offers were conditional upon achieving AAA who have achieved grades AAB (including grade A in Biology and Chemistry) in their A-level examinations will be admitted.

253. A modified selection procedure is followed for mature students, graduate entrants and international (including North American) students. The major differences are as follows:
    - International candidates are not normally interviewed, unless resident in the UK or North America. In assessing entry qualifications from overseas, we consult the NARIC (National Academic Recognition Information Centre) database, the official source of information and advice on the comparability of international qualifications from over 180 countries worldwide with those in the UK.
    - Different measures of academic attainment are scrutinised in determining whether the candidate has the aptitude required by the programme. In the case of graduate entrants, this will normally be the grades achieved in relevant modules in the first degree. The criteria against which North American applicants are considered are detailed above.
    - There may be some flexibility in GCSE grade requirements for mature students.

254. Inevitably there is some variation in the scientific competence of students entering the BVetMed, given the number of different GCE A-Level syllabuses followed by students in the last year of high school, the College's acceptance of selected "vocational" qualifications as entry requirements, and the range of degree courses taken by Graduate Entry students. However, the College does much to mitigate the effects of these factors, e.g.
    - all GCE A-Level entrants are required to have high grade passes in both Chemistry and Biology;
    - student entering via the Gateway Programme, with lower grades in these subjects, have an extra year to improve their scientific knowledge and skills;
    - the Graduate Entry Year ensures that all graduate entrants have an equivalent knowledge base before they enter Year Three.

255. It would be highly unusual for the College to admit extra students to the undergraduate veterinary course. Because of the integrated nature of the course, entry would normally be permitted only at the start of one of the routes detailed above. Admission with advanced standing might be considered in exceptional circumstances, provided it was possible to demonstrate that the in-coming student had achieved all the learning outcomes of the parts of the curriculum from which he or she sought exemption.

256. We do not plan any significant changes in the number of students admitted annually. There may be a change in the balance between school leaver entry and graduate entry, given the fall in numbers of the former in the next decade, and the strong demand for graduate places from excellent candidates. We plan to continue increasing numbers of international students, with a corresponding

reduction in UK and EU entrants. We have already strengthened our student support arrangements to meet the particular needs of international students.

Table 9.2: Intake of veterinary students in the past five years

Year	Number applying for admission			Number admitted		
	Gateway	BVetMed yr 1	4 yr Accelerated	Gateway	BVetMed yr 1	4 yr Accelerated
2009	166	1097	220	34	159	58
2008	158	1014	185	35	160	36
2007	151	871	185	33	179	32
2006	112	725	127	20	197	29
2005	100	856	104	23	212	19
Average	137.4	912.6	164.2	29	181.4	34.8

9.1.3 STUDENT FLOW

Table 9.3: Number of undergraduate veterinary students enrolled in 2008/2009

Year	Number of students
Year 0	37
Year 1	193
Year 2	176
G Year	36
Year 3	242
Year 4	234
Year 5	245
Total	1,163

Includes BVetMed with intercalated BSc in Years 4 and 5.

BVetMed Progression/Attrition Rates

Year	Status	Sept'04	Sept '05	Sept '06	Sept '07	Sept '08
1	**Enrol Type**					
	New entrants	213	212	218	199	188
	Not Continuing	1	1	1	2	1
	Re-sitters	3	5	1	11	5
	Outcome					
	Suspended study	0	2	0	2	0
	Withdrawals	2	2	1	6	5
	Required to withdraw	1	8	8	15	0
	Incomplete	2	3	1	1	15
	Required to repeat	3	7	8	9	4
	Eligible to proceed	208	195	198	177	169
2	**Enrol Type**					
	Continuing	207	197	197	174	
	Not Continuing	2	0	7	5	
	Suspended study	0	0	0	1	
	Re-sitters	1	4	1	2	
	Re-entrants	0	0	1	0	
	Outcome					
	Suspended study	1	1	0	0	
	Withdrawals	0	0	0	2	
	Required to withdraw	4	0	3	0	
	Incomplete	1	1	2	6	
	Required to repeat	5	0	3	0	
	Eligible to proceed	197	199	190	168	
3	**Enrol Type**					
	Continuing	191	195	192		
	Not Continuing	3	2	4		
	Re-sitters	6	4	3		
	Re-entrants	0	0	1		
	Intercalating students	8	6	6		
	Intercalating returns	33	8	0		
	Outcome					
	Suspended study	0	3	1		
	Withdrawals	0	0	0		
	Required to withdraw	0	1	0		
	Incomplete	2	1	24		
	Required to repeat	1	0	0		
	Eligible to proceed	227	202	177		
4	**Enrol Type**					
	Continuing	223	205			
	Re-sitters	2	1			
	Re-entrants	1	0			
	Intercalating students	2	0			
	Intercalating returns	4	0			
	Outcome					
	Suspended study	1	2			
	Withdrawals	0	1			
	Required to withdraw	1	1			
	Tran to Step Off Qual	0	1			
	Incomplete	0	3			
	Required to repeat	3	0			
	Eligible to proceed	225	197			

Average first year progression rate 89.8

Average second year progression rate 96.2

Average third year progression rate 95.7

Average fourth year progression rate 96.8

5		
	Enrol Type	
	Continuing	225
	Re-sitters	0
	Outcome	
	Suspended study	0
	Withdrawals	0
	Incomplete	0
	Required to withdraw	0
	Required to repeat	3
	Graduated	222

Graduated BVetMed	July	200
	Oct	22

Table 9.4: Number of students graduating annually over the past five years:

	Year	Number graduating
	2008/09	242
	2007/08	173
	2006/07	166
	2005/06	158
	2004/05	141
	average	176

Table 9.5a: Average duration of studies: graduates of 2008

Duration of attendance	
5 years*	89%
6 years	7%
7 years	4%

*includes students who intercalated for a BSc

Requirements for Progression

257. In order to progress to the subsequent year of the course, a student must have passed all examinations in the preceding year.

258. A student who fails any examination twice is normally required to leave the course. However, in these circumstances a student has the right to appeal to a review panel. If the panel concludes that there were compelling personal circumstances that contributed to the student's failure, the student may be permitted a third attempt at the examination.

9.2 COMMENTS

259. Given the demanding entry requirements, the competition for places, and the rigorous selection process, the standard of students entering the course is high. However, changes in secondary education, which has become more intensely driven by examination results in the last 20 years, and social changes in the ways in which students conceptualise education and knowledge, mean that there have been changes in the typical characteristics of students entering the College, changes which have been highlighted by research in both the UK and elsewhere. They have achieved excellent examination results and many have outstanding ability to absorb and retain factual information. However, their ability to think critically, analyse and synthesise information, to grasp complex concepts, to learn independently, and their enthusiasm to engage with the subject, may be less well developed in some cases. It has therefore been necessary to make more formal provision to help students develop the types of study skills required for success in higher education; and to place greater emphasis on the development of our students to become lifelong, independent learners.

260. As a free-standing institution, the RVC has complete authority to determine the maximum number of students it will accept on to the BVetMed. The number of students admitted is determined primarily by the following factors:
    - the number of funded student places available;
    - the College's capacity to teach any given number of students at an acceptably high quality;
    - the demand for places from suitably qualified applicants;
    - the availability of appropriate employment for the College's graduates.

261. We judge that the College's facilities and teaching programme are highly appropriate to the current number of students. As we demonstrate throughout this SER, the College has continuously expanded its provision, in all respects, consistent with any increase in student numbers. Teaching accommodation and equipment, clinical facilities, academic staff, student support provision including housing, have all improved enormously in both quantity and quality since the last RCVS/EAEVE visit.

262. The vast majority of students make consistently good progress in their studies, and over 90% ultimately graduate. Those who do not graduate either fail to meet the course's academic standards, or they leave the course for personal reasons. The College seeks to ensure that students make satisfactory progress through a rigorous system of formative and summative assessments, and through referring any student whose progress gives cause for concern to APRICOT. Students who fail in-term examinations are called to an APRICOT meeting where they are reminded of the support systems available to them.

9.3 SUGGESTIONS

263. In the last two years we have undertaken a comprehensive review of the entry requirements of the BVetMed, to ensure that they remain fit for purpose, and to open entry to applicants with a broader range of qualification. We should keep our entry qualifications and admissions processes under review, and monitor their effectiveness. We are currently engaged in a number of projects with this aim.

264. The aim of the "Predictors of Success" project is to look at the rich data sets available to us with a view to aiding student selection and progression. We are evaluating the range of selection tools we use for entry into the BVetMed (including BMAT, A levels including individual subjects, GCSEs and interview performance) for their predictive ability of student progression and outcomes. We will also be looking at the demographics of our students and the impact these have on success. We expect that results from this work will be published in peer reviewed journals and presented internally to RVC staff and externally at appropriate conferences.

265. We are also collaborating with Cambridge Examinations on a comparative correlation of how BMAT scores relate to the performance of student on the BVetMed. We are looking, with Nottingham Veterinary School, at the Myers Briggs personality profile of their and our students with a view to seeing if there are any differences, in the context of our very different selection processes.

266. The College should also continue its programmes to widen participation in veterinary medicine by under-represented groups, through outreach to local schools and colleges, and through active participation in VETNET LLN, the national lifelong learning network led by the College.

Chapter 10. ACADEMIC AND SUPPORT STAFF

10.1 FACTUAL INFORMATION

Table 10.1: Personnel in the establishment provided for veterinary training

		Budgeted posts (FTE)		Non-budgeted posts (FTE)		Total (FTE)	
1. Academic staff		VS	NVS	VS	NVS	VS	NVS
	Teaching staff (total FTE)	127.55	58.5	2.31	0.5	129.86	59
	Research staff (total FTE)	3.4	12.19	19.6	48.8	23	60.99
	Others (FTE)						
	Total FTE	130.95	70.69	21.91	49.3	152.86	119.99
	Total FTE (VS + NVS)	201.64		71.21		272.85	
	*FTE providing teaching in 2008/2009	188.39		13.07		201.46	
2. Support staff							
a)	responsible for the care and treatment of animals	83.95		0		83.95	
b)	responsible for the preparation of practical and clinical teaching.	53.81		3.1		56.91	
c)	responsible for administration, general services, maintenance, etc.	306.23		1.6		307.83	
d)	engaged in research work	21.8		3		24.8	
e)	**others (please specify)	10		0		10	
	Total support staff	475.79		7.7		483.49	
3. Total staff		677.43		78.91		756.34	

*includes a notional 15% time commitment from research staff

Table 10.2: Allocation of academic (veterinary surgeon and non veterinary surgeon) teaching staff – expressed as FTE – and support staff to the various departments

Department name	Academic teaching staff								Support staff (see table 10.1)		
	Full Prof.		Associate Prof.		Assistant Prof.		Assistant/ Other		Teaching	Research	Admin
	VS	NVS	VS	NVS	VS	NVS	VS	NVS			
Academic Support & Development											107.01
RVC Enterprise		1									12
Biological Services Unit							4.8		8.16	10.51	3.16
Clinical Services Division							11.3		88.79	5.4	40.95
Estates											78.14
Finance											17.6
Human Resources											14.98
LIVE	1		2		1	1		1.4			4.84
Pathology & Infectious Diseases	6	2	6.4	1	9.4	3.6	4	9.06	7	4	3.9
Principal's Office	1										1.6
Research Support Office	1									2	8.2
Veterinary Basic Sciences	3	5.9	2	9	4	15.2	8	24.3	14	7.6	9.13
Veterinary Clinical Sciences	8.2	2	19.2	1	43.46	5.5	18.2	21.1	13.6	4.6	16.32

Diplomates of European and American Colleges

College	Number
European College of Animal Reproduction	1
European College of Bovine Health Management	2
European College of Equine Internal Medicine	2
European College of Small Ruminant Health Management	1
European College of Veterinary Anaesthesia and Analgesia	5
European College of Veterinary Clinical Pathology	1
European College of Veterinary Dermatology	4
European College of Veterinary Diagnostic Imaging	5
European College of Veterinary Internal Medicine – Companion Animals	9
European College of Veterinary Neurology	4
European College of Veterinary Pathology	3
European College of Veterinary Pharmacology and Toxicology	3
European College of Veterinary Public Health	3
European College of Veterinary Surgeons	14
European Veterinary Parasitology College	2
American College of Veterinary Emergency and Critical Care	4
American College of Veterinary Internal Medicine	11
American College of Veterinary Nutrition	1
American College of Veterinary Pathologists	3
American College of Veterinary Radiologists	1
American College of Veterinary Surgeons	4

Table. 10.3: Ratios students/staff

R 1:	no. total academic FTE in veterinary training / no. undergraduate veterinary students = 201.46/1163 => 1/0.17	5.88
R 2:	no. of total FTE at Faculty / no. undergraduate students at Faculty = 201.46/1457 => 1/0.14	7.14
R 3:	no. total VS FTE in veterinary training / no. undergraduate veterinary students = 133.31/1163 => 1/0.11	9.09

R 4:	no. total VS FTE in veterinary training / no. students graduating annually = 133.31/176 => 1/0.76	1.32
	no. total FTE academic staff in veterinary training / no. total FTE support staff in veterinary training = 201.46/483.49 => 1/0.42	0.42

267. The allocation of staff is determined as part of the annual budgetary cycle. Resource allocation is governed by a formula which is designed to ensure that activities are funded at a level that reflects their real costs, and that they are credited with resources that they earn. Thus, for example, an academic department will receive a proportion of the College's Teaching (T) income based upon the contact hours for which it is responsible and the HEFCE Price Group of the students whom it teaches. This allocation is made after the distribution of institutional top-slices, primarily those which are allocated to AS&D and the administrative departments (HR, Estates and Finance). As part of this process, new staff positions are created and filled. It is for each Head of Department to recommend to the Principal, and hence to Council which ultimately approves the overall College budget, the proportion of the departmental budget to be devoted to staff, and to recommend the pattern of positions within the staffing budget. Throughout the period since the May 2000 Visitation, the College has had the funding to fill staff posts as they fall vacant, whilst using newly created posts to increase the depth of staffing in areas where this was judged necessary, such as Veterinary Public Health, or to support new ventures, such as the designation of two posts to teach students at the Welsh Regional Veterinary Centre.

268. Staff recruitment poses constant challenges. Overall employee turnover averages 15%; academic staff turnover rates fluctuate a little more, but is currently running at a healthy 9%. The College has, thus far, been able to recruit and retain additional academic staff to more than keep pace with the expansion in student numbers. In this context, HR Strategy objectives in recent years have focussed on recruitment and retention, including pay and reward, training and development, and equality of opportunity. Since the last RCVS visit, there has been a significant move towards a more flexible and transparent pay structure based on a single, nationally negotiated pay spine for all employees, including academic staff, the details of which are negotiated locally with union representatives. To assist the College with this transition, salary surveys in the UK and abroad have been commissioned to determine the level of market pay for, in particular, clinical veterinary academic staff. It is anticipated that this will allow the College to pay differential salaries to

academic staff in scarcity areas in future and so remain competitive in the global recruitment market. Similarly, the College will be able to offer salary supplements to professional services staff in areas where recruitment is particularly competitive.

269. The veterinary profession in the UK is likely to be predominantly female in the future, given that approximately 80% of the College's undergraduate intake are female, a statistic mirrored in other UK veterinary schools. The College will need to ensure that it is a female-friendly employer in order to remain competitive for academic staff. There are likely to be increasing numbers of part-time academic staff and the College is adapting some of its academic staff policies and procedures to accommodate this. The College's flexible working policy aims to retain and support staff who need to balance their careers with family commitments, and childcare vouchers are offered to provide specific support to those (who qualify) with children.

270. The College's staff profile, particularly academic staff, is increasingly international. Approximately 20% of the College's academic staff are from the EU (other than the UK), and a further 15% from outside the EU, representing a total of 25 different countries.

271. Overall staff numbers have increased approximately three-fold in the last decade. Broadly, the College's ability to fill vacancies has improved in this period. This may be attributed to a number of factors:
    - the College's reputation as a stimulating place to work;
    - more competitive salaries;
    - increased professionalism in the recruitment process, allied to active cultivation of potential recruits to posts in shortage disciplines.

272. Additional staff are employed from service income according to the resource allocation formula referred to above. Such posts are normally funded jointly by the academic department and the clinical service concerned, according to the percentage of the staff member's time to be devoted to clinical work.

273. Under their contracts of employment, academic and non-academic staff are precluded from undertaking paid employment outside the College. Exceptionally, staff may request permission from their Head of Department to undertake such work, and any such request may be approved, provided it can be demonstrated that it will in no way affect the capacity of the employee to undertake their contractual duties. Such requests are considered on an individual basis and subject to specific criteria relating to the particular circumstances. In the case of academic staff they would also be subject to the approval of the Principal.

274. Staff are encouraged to attend scientific meetings appropriate to their role and professional development. Financial support is provided from Departmental funds to cover the cost of such meetings and legitimate expenses associated with them. Attendance at such meetings is subject to the approval of the Head of Department.

275. Whilst there is no *automatic* right for any employees to be granted sabbatical leave, academic staff may be granted paid Sabbatical Leave of up to one year in certain circumstances. The granting of such leave would be subject to the approval of the Head of Department and the College Principal and the fulfilment of certain criteria.

10.2 COMMENTS

276. As demonstrated throughout this self-evaluation, current numbers are adequate to sustain our high quality programmes of teaching, research and clinical service, and to initiate frequent new developments in all these areas.

277. Our salary levels are competitive. In order to make clinical academic staff salaries more competitive with those in private practice, the College has a salary supplement scheme for this group of staff, through which they can earn up to £15,000 per annum in addition to the College's single pay scale, dependent upon the achievement of a range of objectives set and reviewed on an annual basis. The salary supplement scheme for clinical academic staff has made a valuable contribution to maintaining academic staff numbers in the face of the high cost of living in the London region. By offering realistic salaries we have also been able to attract appropriate numbers of veterinary qualified staff. The overall percentage of academic staff who are veterinary qualified is 70%; almost all staff in the departments of VCS and PID are veterinary qualified, as are a number of those in the department of VBS. Veterinary qualified staff also hold other key positions in the College, including the Head of e-media and the Director of Professional Development.

278. In addition to the Salary Supplement Scheme, a system of allowances has been developed that further enhances academic staff salaries. This includes responsibility allowances for being a Strand or Module Leader for the BVetMed programme. The latter range from £1,000 to £3,000 per annum depending on the "size" of the Strand or Module concerned. The College has also encouraged academic staff to become Fellows of the HEA by paying for membership and giving a supplement of £500 per annum for all members. 59% of academic staff either are members, or are working towards membership through following a recognised training programme.

279. The College continues to review the effectiveness of these schemes and to adapt them to developing labour market conditions. A Panel of senior staff, chaired by the Principal, has been established for this purpose, and to consider and award individual payments made under them, as well as their on-going cost implications.

280. Although supplement schemes on the same scale are not available for other groups of employees, the College takes a realistic view of market forces and aims to offer salaries that attract and retain staff in all categories. With effect from January 2010, the Panel referred to in paragraph 232 above will oversee the introduction of extended range points at the top of each of the nine grades on the salary scale. These will be open to all groups of staff and awarded by the Panel on a discretionary basis in response to recruitment and retention pressures. To further reward achievement, a 'special awards' scheme is being introduced by the Panel to make salary-related lump-sum payments on a termly basis; as well as a 'recognition scheme' for junior staff, intended to provide small, but immediate rewards for work well done.

10.3 SUGGESTIONS

281. The College should continue to develop imaginative schemes that will enable it to attract and retain the high calibre staff that it needs if it is to meet the challenges of providing an accredited veterinary degree.

Chapter 11. CONTINUING EDUCATION

11.1 FACTUAL INFORMATION

282. The College's aim, as set out in the Corporate Plan 2009-13, is to be the foremost national provider of high quality CPD programmes for veterinary and para-veterinary professionals. We are therefore delivering an expanded portfolio (over 100 courses per year) of CPD activity, and have established ourselves as the leading provider of the RCVS Certificate of Advanced Veterinary Practice, with 848 module registrations to date (November 2009). Since the last RCVS visitation, CPD has become established as a core element of the College's provision, and all clinical academic staff can be expected to contribute to it as part of their overall workload. The College therefore offers CPD across the breadth of its clinical specialities, and also in the related disciplines of veterinary nursing and veterinary physiotherapy.

11.2 COMMENTS

283. The quality of the College's CPD programmes is high, as evidenced by the levels of attendance (see below) and the feedback from participants. All our CPD courses receive excellent feedback and are consistently rated as good to excellent by the vast majority of participants. Participation by veterinarians in the College's CPD courses is good, as evidenced by the following figures of average attendances in 2009:

Type of course	Average number of participants
On-site courses	17
On-line lectures	11
e-CPD courses	27

11.3 SUGGESTIONS

284. The College should continue to develop its CPD offering, to meet the needs of the profession, and should be prepared to investigate new modes of delivery so that the widest possible range of practitioners can take advantage of them.

Chapter 12. POSTGRADUATE EDUCATION

12.1 FACTUAL INFORMATION

Table 12.1.1: Clinical specialty training

Clinical discipline	Number of Junior Clinical Training Scholars	Number of Senior Clinical Training Scholars	Diploma or title anticipated for SCTS
Anaesthesia	1	4	DiplECVAA DipACVA
Equine Epidemiology	0	1	DipECVPH
Equine Medicine	0	2	DipECEIM DipACVIM
Equine Practice	0	1	CertAVP
Equine Studies	3	0	None
Equine Surgery	0	2	DipACVS DipECVS
Farm Animal Health and Production	0	1	DipECVPH
Farm Animal and Camelid Medicine	6	0	None
Radiology	0	3	DipECVDI
Small Animal Cardiology	0	2	DipECVIM-CA (cardiology) DipACVIM
Small Animal Emergency and Critical Care	0	5	DipACVECC
Small Animal Internal Medicine	0	4*	DipECVIM-CA DipACVIM

Small Animal Internal Medicine / Small Animal Nutrition		1	DipACVIM DipACVN
Small Animal Neurology	0	4	DipECVN
Small Animal Oncology		1	DipACVIM
Small Animal Studies	12		
Small Animal Surgery	0	4	DipACVS DipECVS
Veterinary Anatomic Pathology	0	6	DipACVP DipECVP FRCPath
Veterinary Clinical Pathology	0	2	DipACVP DipECVCP FRCPath
Veterinary Dermatology	0	2	DipECVD
Veterinary Public Health	0	2	DipECVPH

*plus normally one SCTS from Giessen on a programme leading to DipECVIM - CA

All of these programmes are certified by the European Board of Veterinary Specialisation, with the exception of the Junior CTS programmes, the ECC programme; and the Equine Practice programme.

We also co-supervise Senior Clinical Training Scholars in other institutions (e.g. VLA, London School of Hygiene and Tropical Medicine).

Both Junior and Senior Clinical Training Scholars receive a stipend.

12.1.2 RESEARCH EDUCATION PROGRAMMES

Table 12.2: Number of research students enrolled in different programmes

Type of degree	Fulltime	Part time	Duration
PhD	153	15	Normally 3 – 4 years full-time; variable part-time
Doctor of Veterinary Medicine	0	1	Variable

Figures include writing-up students but exclude 3 students who are currently dormant and are accurate on 29/10/2009.

Students who receive scholarships from the RVC, the Research Councils, charities, foreign governments, and similar funding bodies, normally receive a grant.

Taught Postgraduate Programmes

Programme	**Number of students enrolled in 2008/2009**		
	Full-time	**Part-time**	**Distance Learning**
MSc Wild Animal Health	10		
MSc Wild Animal Biology	16		
MSc/PGDip Control of Infectious Diseases in Animals	9	1	
MSc Veterinary Epidemiology	11	4	
MSc/PG Dip Veterinary Physiotherapy		44	
MSc/PGDip Livestock Health and Production			31
MSc/PGDip Veterinary Epidemiology and Public Health			81

12.2 COMMENTS

285. The number of postgraduate qualifications awarded annually has increased steadily since the last RCVS/EAEVE visit. Numbers fluctuate, but in a typical

year we would award 25 – 35 PhDs; 70 – 80 Masters' degrees or postgraduate diplomas; and 35 – 40 certificates to Clinical Training Scholars completing their programme successfully. Approximately 40% of the students participating in postgraduate research training programmes are veterinarians. 50 of the College's current PhD students are graduates of our undergraduate or postgraduate programmes.

12.3 SUGGESTIONS

286. The College should continue to develop high quality postgraduate programmes across the broad range of its specialities, so that it can attract both veterinary and non-veterinary graduates.

Chapter 13. RESEARCH

The details requested under this heading relate only to research experience offered to students during their undergraduate training, for example through project work.

13.1 FACTUAL INFORMATION

287. All BVetMed students are required to complete a hands-on Animal Health research project in Year Three, designed to give them a foundation for developing critical thinking skills, provide an introductory experience in designing and answering a practical research question, and to develop their scientific writing skills. The Project results in a Report of up to 4,000 words, the assessment of which contributes towards the Third Year BVetMed Examination.

288. All BVetMed students complete a further Elective research project spread over the Fourth and Final Years to which a minimum of eight weeks is devoted. The outcome is a Project Report of up to 5,000 words, which the student defends in a viva voce examination. Some of the best Project Reports form the basis for papers in refereed journals and conference presentations.

289. In addition, all BVetMed students have an opportunity to intercalate for a BSc degree which incorporates a substantial research project. Most intercalating students register on programmes at other colleges of the University of London, but each year up to 15 of the highest performing students from all the UK veterinary students have the opportunity to intercalate on the RVC's internationally-acclaimed BSc in Veterinary Pathology. Launched in 2000, this programme has, uniquely, received funding from the Wellcome Trust for a second five year period.

290. The College has adapted the Regulations of the BVetMed to permit outstanding students to intercalate for a PhD during their course.

291. The College also offers an annual Summer Studentship Scheme, sponsored by the Department of Veterinary Basic Sciences. This scheme is open to all undergraduate students at the RVC, but particularly targets students enrolled on the BVetMed. Up to fifteen students per year are given the opportunity to undertake a research project, lasting for between eight and ten weeks, on a broad range of research areas. The Studentships are awarded through open competition, and are always heavily over-subscribed. In recent years, we have been particularly successful in applying for Wellcome Trust funding to support many of the BVetMed students. In addition, we have secured two BBSRC vacation studentships per year, which has helped to increase the number of students who can be taken on this scheme. For many BVetMed students, these placements represent their first opportunity to dedicate a significant period of

time to laboratory-based research.

13.2 COMMENTS

292. We believe that the opportunities for our students to carry out real research projects, in the laboratory and in the field, are unsurpassed. However, we are not complacent, and the Academic Board and SMG have both considered how we can sustain and build upon our current achievements, e.g. in ensuring that more students present the results of their work outside the College. In 2009 we appointed Dr Robert Abayasekara as Undergraduate Research Champion, with this remit.

13.3 SUGGESTIONS

293. As we develop the final stages of the new BVetMed curriculum, we should consider how we can make the Research Project more meaningful for those students with limited interest in research.

Chapter 14. EXTRA MURAL STUDIES

294. The EMS programme has a central role in the BVetMed curriculum and in the final three years is designed to complement and supplement IMR in the College's own clinical services.

295. The overall aims of EMS are those set out by the RCVS. Work placements should be undertaken in a range of veterinary-related contexts to allow students to gain an appreciation of the breadth of the veterinary role and how veterinary medicine and science operates in "real-life" and commercial environments. Specifically, placements should enable students to:
    - develop their animal handling skills across a range of common domestic species
    - develop their understanding of the practice and economics of animal management systems and animal industries
    - develop their understanding of practice economics and practice management
    - develop their understanding and gain further experience of medical and surgical treatments in a variety of species
    - develop communication skills for all aspects of veterinary work
    - expand their experience to those disciplines and species not fully covered within the university
    - appreciate the importance of animal welfare in animal production and in the practice of veterinary medicine
    - gain experience to help them appreciate the ethical and legal responsibilities of the veterinary surgeon in relation to individual clients, animals, the community and society
    - gain experience of a variety of veterinary working environments

296. The College has set detailed and specific objectives for both Animal Husbandry EMS and Clinical EMS; these are set out in the Student Handbooks.

297. Students are required to complete a total of 38 weeks' EMS. The normal distribution of EMS in the BVetMed programme is as follows:

Years 1 & 2	Animal Husbandry	12 weeks
Years 3, 4 & 5	Clinical EMS	26 weeks

298. The management of EMS is the responsibility of the College's Director of EMS. Its day-to-day administration rests with the Academic Registry, which ensures that students, tutors and participating practices are fully aware of the aims and objectives of EMS and conform to all relevant regulations and guidelines. The College liaises closely with the other UK veterinary schools and the RCVS to ensure that standards are maintained nationally and the overall efficiency of the system continues to be enhanced.

Animal Husbandry Extramural Studies (AHEMS)

299. The 12 weeks of AHEMS must include:
    - 2 weeks on a lambing enterprise (preferably in the Easter vacation)
    - 2 weeks on a dairy cattle farm
    - 2 weeks at a commercial pig operation
    - 2 weeks of equine experience
    - 4 supplementary weeks at establishments of the student's choice; while this might include an additional period (maximum of two weeks) on another sheep, cattle, pig or horse placement, students are encouraged to gain experience with other species (e.g. beef cattle, poultry, dogs, cats, laboratory animals, wildlife, zoo species, reptiles, sea mammals, fish, avians, etc.)

Clinical Extramural Studies

300. The 26 weeks of clinical EMS placements must include the following:

    - An "Introductory" week that is organised during the first EMS block in 3rd year.
    - The first six weeks on placement should be considered as a preparatory time for EMS and students should aim to break these six weeks down into three 2-week placements in three separate multi-vet general practices.
    - Students are encouraged to try and return to one of these first opinion "Preparatory EMS" placements throughout the remainder of their programme.
    - The remaining 19 weeks of their EMS should be used to develop practical experiences across a range of different animal species. They should look to gain at least the equivalent of two weeks practical experience in a busy small animal practice, the equivalent of two weeks practical experience in a busy equine practice, and the equivalent of two weeks practical experience in a busy large animal practice. If they find that (for example), their two week equine placement turns out to be a quiet time for all, they should not consider this to be good enough to "tick the box", but instead take a more mature approach and book some more.
    - A compulsory Veterinary Public Health week must be completed once IMR rotations have begun.
    - A compulsory two-week placement with the PDSA must be completed once IMR rotations have begun (this is over-and-above the two weeks minimum requirement for small animals described above).

- The remaining 10 weeks should be planned in consultation with the student's tutor. This time should be used sensibly to develop knowledge and experience that best sets them up for Finals and a professional life beyond graduation.
- Placements at single-vet placements should be the exception as they provide limited experiences. The six weeks at the beginning of Clinical EMS spent observing practices should not be spent at single-vet practices
- Up to nine weeks of the total EMS programme may be taken in suitable overseas placements.

301. The student's Clinical Tutor plays an important role in ensuring that the student gains maximum benefit from EMS. The Clinical Tutor assists the student in planning his or her selection of locations for Clinical EMS, taking an overview of the full 26 weeks; and ensures that the student meets the learning objectives which have been set for EMS. Each Clinical Tutor is responsible for approximately 18 students.

302. EMS is closely regulated to ensure that the student gains maximum benefit. In preparation for EMS, students are given training in animal welfare assessment and communication skills. Prior to each rotation, the student completes a form (EMS1) giving details of the planned EMS placement. The Academic Registry writes to the practice giving information about the stage of the programme the student has reached, the techniques which can be expected of the student at this stage, and any specific requirements for the placement, and detailing the health and safety arrangements which apply. Students are encouraged to write to the placement shortly before arrival, outlining the stage of the course that they have reached, their relevant experience, and a number of learning objectives (agreed with their tutor) that can be used as the starting point for discussion with the placement supervisor upon their arrival. Following the placement, the practice submits an assessment report on the student (EMS3) on each placement, and this serves as the basis for de-briefing by the Clinical Tutor.

303. Students select their practices for EMS placements in a number of ways, e.g. through practice directories such as that on the RCVS website, through contacting veterinary practices close to home, or through recommendations from students in previous years. Whatever source the students use to select the practice, the placement must be discussed with and approved by their Clinical Tutor. Students are not required to spend their placements in practices accredited under the RCVS Practice Standards Scheme. In terms of mastering common techniques and procedures, a student will often gain most from spending time in a small, "low tech" practice. However, the College systematically collects feedback from students on their experience in each practice via Form EMS4 so that other students, their Clinical Tutors and the Director of EMS are able to judge whether a particular practice will meet their needs.

14.2 COMMENTS

304. A key strength of the College's approach to EMS is that it enables the student to achieve sufficient experience in different species, while at the same time gaining additional experience in species, regions, or practice types of particular interest to the student. The fact that EMS is distributed throughout the year, rather than taking place in traditional "vacation" periods, means that students have a wider range of practices to choose from and are able, in particular, to arrange large animal placements during specific periods, e.g. an equine placement during the foaling season.

305. Through placing the onus for negotiating placements in the student's hands, EMS also plays a valuable role in developing the student's independence.

306. The College has been proactive in developing our Student Guidelines and Advice to Clinical Tutors to better align with the recent RCVS EMS Working Party recommendations. We see our current guidelines as a transition phase between the old and the new and look forward to seeing the benefits of these new recommendations as they achieve greater acceptance across the UK veterinary community.

14.3 SUGGESTIONS

307. The College should continue to address the recommendations of the RCVS EMS Working Party, monitor their impact, and be prepared to adjust its practices in the light of experience.

GLOSSARY

AHEMS	**Animal Husbandry Extramural Studies**
APRICOT	**Academic Progress Review Committee**
AS&D	**Academic Support and Development**
ASN	**Additional Student Number**
BAH	**Beaumont Animals' Hospital**
BBSRC	**Biotechnology and Biological Sciences Research Council**
BLE	**Bloomsbury Learning Environment**
BSU	**Biological Services Unit**
BTEC	**Business and Technology Education Council**
BVDV	**Bovine Viral Diarrhoea Virus**
BVetMed	**Bachelor of Veterinary Medicine**
CEEED	**Centre for Emerging, Endemic and Exotic Diseases**
CertAVP	**Certificate in Advanced Veterinary Practice**
CETL	**Centre for Excellence in Teaching and Learning**
CIC	**Clinical Investigations Centre**
CMC	**Course Management Committee**
CPD	**Continuing Professional Development**
CRIS	**Clinical Record Information System**
CSC	**Clinical Skills Centre**
CSD	**Clinical Services Division**
CT	**Computed Tomography**
DL	**Directed Learning**
EAEVE	**European Association of Establishments of Veterinary Education**
EBVS	**European Board of Veterinary Specialisation**
EMS	**Extra-Mural Studies**

ENQA	**European Association for Quality Assurance in Higher Education**
ERH	**Equine Referral Hospital**
FTE	**Full-time Equivalent**
GCE	**General Certificate of Education**
GCSE	**General Certificate of Secondary Education**
GPA	**Grade Point Average**
HEA	**Higher Education Academy**
HEFCE	**Higher Education Funding Council for England**
HEI	**Higher Education Institution**
HR	**Human Resources**
IMR	**Intramural Rotations**
ISF	**Integrated Structure and Function**
LACC	**Large Animal Clinical Centre**
LBIC	**London Bioscience Innovation Centre**
LISD	**Library and Information Services Division**
LIVE	**Lifelong and Independent Veterinary Education**
LRC	**Learning Resources Centre**
MCQ	**Multiple Choice Question**
MRCVS	**Member of the Royal College of Veterinary Surgeons**
MRI	**Magnetic Resonance Imaging**
OSPVE	**Objective Structured Practical Veterinary Examination**.
PCT	**Primary Care Trust**
PDSA	**Peoples Dispensary for Sick Animals**
PID	**Department of Pathology and Infectious Diseases**
PVMPH	**Population Medicine and Veterinary Public Health**
QAA	**Quality Assurance Agency for Higher Education**

QMHA	**Queen Mother Hospital for Animals.**
RAE	**Research Assessment Exercise**
RCVS	**Royal College of Veterinary Surgeons**
SER	**Self Evaluation Report**
SMG	**Senior Management Group**
SUS	**Students' Union Society**
UCAS	**Universities and Colleges Admissions Service**
ULU	**University of London Students' Union**
VBS	**Department of Veterinary Basic Sciences**
VCS	**Department of Veterinary Clinical Sciences**
VLA	**Veterinary Laboratories Agency**
VLE	**Virtual Learning Environment**
VPH	**Veterinary Public Health**
WRVC	**Welsh Regional Veterinary Centre**

List of Supporting Documents to be made available during the Visit

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5.6 Draft e-learning Strategy
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5.8 Staff Development Programme, 2009/2010
5.9 Induction courses for new lecturers
5.10 Attendance at professional development workshops, 2001 - 2009
5.11 CPD Framework for Academic Staff
5.12 MSc and PGDip in Veterinary Education: Course and Student Handbooks
5.13 Fellows of the HEA
5.14 LIVE Initiative Evaluation Report
5.15 Progress Report on Jim Bee Teaching Award Projects 2004 - 2009
5.16 Peer Observation of Teaching Scheme
5.17 BVetMed Assessment & Award Regulations
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5.19 Examination question papers
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5.23 Good Practice for Boards of Examiners
5.24 Briefing for External Examiners
5.25 List of current BVetMed External Examiners
5.26 BVetMed External Examiner Reports, 2006 - 2009
5.27 Responses to External Examiners' Reports
5.28 Quality Assurance Handbook, 2009/2010
5.29 Membership of Teaching Quality Committee, 2009/2010
5.30 Minutes of Teaching Quality Committee from September 2008
5.31 Examples of BVetMed Module Reviews
5.32 Examples of BVetMed Year Leaders' Annual Reports
5.33 Report of the Quinquennial Review of the BVetMed, 2005
5.34 TQC Annual Report on BVetMed Student Feedback, 2008/2009
5.35 "You said…..We did"
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