

Stage 1 Visitation Final Report

University of Bristol

24 – 28 November 2014

Report to the Council of the Royal College of Veterinary Surgeons (RCVS) in
accordance with Section 5 of the Veterinary Surgeons Act 1966,
and
to the European Committee on Veterinary Education (ECOVE) in compliance with
European Directive 2005/36/EC

December 2014

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Introduction

1. This report is prepared for the RCVS in accordance with the provisions of Section 5(1) of the Veterinary Surgeons Act 1966, “*for the purpose of securing that the courses of study to be followed by students training to be veterinary surgeons and the standard of proficiency required for registration in the register shall be such as sufficiently to guarantee that persons registered in the register will have acquired the knowledge and skill needed for the efficient practice of veterinary surgery*”.
2. The report is also prepared on behalf of the European Association of Establishments for Veterinary Education (EAEVE) for report to the European Committee on Veterinary Education (ECOVE) – a joint committee of EAEVE and the Federation of Veterinarians of Europe.
3. Visitors took account of the Directive of the Council of the European Communities (2005/36/EC, Annex V.4, section 5.4.1) of September 2005 concerning the requirements for the study programme for veterinary surgeons.
4. The evaluation was undertaken in accordance with the evaluation criteria defined by the European System of Evaluation of Veterinary Training (ESEVT) agreed at the EAEVE General Assembly in Budapest, 2012, these criteria having been fully incorporated within the RCVS procedures for visitations. The visit was conducted in accordance with the procedures set out in the RCVS document “Criteria and Guidance for RCVS Approval of Veterinary Degree Courses in the UK and Overseas”, November 2011 edition.
5. The ESEVT Standard Operating Procedures agreed in 2012 comprise two stages, the first covering essential standards for a degree to comply with the requirements of the EU Directive 2005/36, and the second covering standards of ongoing quality assurance. Compliance with the first stage enables the degree to be “approved” by ECOVE. Compliance with both Stages One and Two enables the degree to be “accredited” by ECOVE. For continued recognition by RCVS, a veterinary degree needs to meet the requirements of both stages, covering the quality assurance processes for the degree course.
6. The Visitors were appointed by RCVS Council and included three nominations from EAEVE, a student, a visitor from the Australian Veterinary Boards Council (AVBC) with which RCVS has a mutual recognition agreement and an observer from the South African Veterinary Council (SAVC). The Visitors’ remit was to report on the courses of study, staffing, accommodation, and equipment available for training in veterinary surgery, and the other arrangements and facilities for such training in accordance with the ESEVT/RCVS criteria for evaluation.
7. The Visitors were present at the University from 24 – 28 November 2014 inclusive, having attended a briefing session for Visitors on Sunday 23 November. A self-assessment document was prepared by the School and provided to the Visitors two months before the visit. The Visitors were also given access to a number of supporting documents including examination papers, external examiners’ reports, committee records, course material, staff CPD records, as well as access to the university intranet.

8. The Visitors toured the facilities at the Langford campus in Bristol, and stayed together as a group for the majority of the meetings with staff and students. Two Visitors made a visit to the RSPCA (Royal Society for the Prevention of Cruelty to Animals, a charity clinic) in Manchester in the week preceding the visit (21 November 2014). The Visitors made a visit to the abattoir at Langford on day 2. The Visitors were divided into groups for touring the Distributed Teaching Practices at Shepton, PDSA Bristol and Delaware, and the farm at Bridgwater College's Cannington Centre.
9. The Visitors attended a meeting on the final day of the visit with the Vice Chancellor of the University, Professor Sir Eric Thomas and the deputy Vice Chancellor, Professor Guy Orpen and gave a summary of their main findings and advance notice of the recommendations that would be passed to RCVS and ECOVE.
10. The Visitors are grateful to the Head of Veterinary School, Professor Joanna Price, and all her staff in the School for their help and hospitality during the visit. The Visitors are aware of the considerable amount of work and time that is taken up by these visitations, and thank the staff from the School and the Institutes who made themselves available. The Visitors would also like to thank the employers and alumni who attended the meetings and the undergraduate and postgraduate students who met with the Visitors each day to talk about the experience of studying at Bristol.
11. The RCVS and ESEVT undertook a full visitation to the University of Bristol in March 2007. The Visitors reported on a number of positive features of the veterinary degree course. Some concerns were identified relating to facilities, however, and the degree was granted 'conditional approval' by RCVS Council and ECOVE with conditions to be met over the following two to four years.
12. Three members of the original visitation team undertook a revisit on 28 – 29 October 2009. The Visitors noted that major advances had been made but that some further work needed to be completed. A further two years of conditional approval was granted by RCVS. ECOVE, however, agreed to restore full approval, taking the view that Bristol had made sufficient progress to comply with ESEVT's criteria for "stage 1 approval" under the two-stage ESEVT evaluation process.
13. RCVS visited Bristol again on 15 December 2011 and noted significant improvements in the areas that had caused concern during previous visits. The University was congratulated on its continued commitment to the development of the School and RCVS restored Bristol to full approval for the remainder of its seven year accreditation period.
14. The following summarises the significant changes made to the programme since the last full visit by RCVS/ESEVT in 2007:
 - appointment of a new Dean (2009)
 - appointment of a European Diplomate in veterinary public health, new 0.5 fte teaching position, and senior clinical training scholarship in VPH started
 - appointment of a new Professor of Veterinary Education (2012)

- appointment of a clinical Professor as Academic Head of Enterprise, Strategic Development & External Partnership
- more than 50% of academic staff establishment in the school appointed since 2009
- changes to the divisional structure of the School with central coordination of teaching and research (2009)
- rationalisation of committees managing the BVSc programme
- strategic alliance with Bristol Zoo Gardens, including 0.5fte shared teaching appointment and joint MSc in global wildlife health and conservation
- most parasitology teaching moved into the school (previously in the school of biological sciences)
- new staff review and development procedure and salary scales to improve clinical academic staff progression prospects
- senior clinical training scholarship programmes re-established in pathology
- improvements to student support and tutor systems
- management of extra-mural studies reviewed and improved
- restructure of technical support for the school
- appointment of new school manager (2013)
- management of Wyndhurst Farm taken over by external management company
- establishment of Farm Board with external chair (2010)
- establishment of Abattoir Board with external chair and appointment of external management consultants (2012)
- Anatomy Department restructured (2010) to become the Centre for Clinical and Comparative Anatomy, and made administrative part of the School of Veterinary Science
- review and restructure of management of technical and administrative staff, now managed by the School Manager
- new 0.4fte post for Head of Admissions (2012), university level review of management of admissions leading to centralised process; multiple mini-interviews added to admissions interview process.
- new 'zero based' budgeting system introduced for non-salary expenditure with Dean responsible for all budgets within his/her faculty
- increase in student numbers to 150 authorised by the University with effect from 2014
- closure of Animal Health & Veterinary Laboratories Agency (AHVLA)¹ facility at Langford (September 2014); successful bid to DEFRA (June 2014) to provide farm animal post mortem surveillance service covering geographical area an hour's drive from Langford, providing cases for teaching.
- establishment of Langford Veterinary Services (2009), a separate clinical company owned by the University, leading to significant increase in clinical case load available for teaching
- major improvements to Wyndhurst farm, including silage storage facility and slurry pit, and £2m major capital programme to build a new dairy unit, upgraded calf house and new young stock building
- new small animal surgery, imaging facility and intensive care unit (£7.5m investment) described by the RCVS visitors in 2011 as 'outstanding in terms of design and construction'
- new equine surgery (Alborada Building), £3m project completed in 2012

¹ This is now the Animal and Plant Health Agency (APHA)

- equine imaging: CT scanner now accessible for horses, and standing MRI scheduled for installation September 2014
- new clinical skills laboratory at Langford (2012) and satellite clinical skills laboratory in Bristol (2014)
- new student centre at Langford (£300,000 project), in the converted old Pathology Barn completed 2013
- upgrading of library facilities at Langford and Bristol
- improvements to small group teaching rooms in the Pearson Building, Langford
- upgrade of post mortem facilities
- Pre-Clinical Translational Research Centre under development (due to open in 2015), including MRI and angiography suite available for veterinary clinical cases
- new BVSc curriculum rolled out from October 2013 for first year students
- extended final year of 44 weeks introduced for fifth year students (from May 2013)
- continuous updating of existing curriculum and teaching, including 'de-bulking' of lecture content, closer alignment to Day One Competences, introduction of case-based and problem-solving exercises
- changes to assessment methods, including introduction of Directly Observed Procedural Skills (DOPS)
- new regulations relating to teaching and student progression
- new Fitness to Practise process established, aligned to other professional programmes
- improvements in results on National Student Survey, with 99% overall student satisfaction in 2013
- participation of Bristol students in Cornell Leadership Programme and UK veterinary team leadership and professionalism course.

Stage 1

Findings and comments from the Visitors in relation to RCVS and ESEVT essential requirements

Chapter 1 – Objectives

Findings

- 1.1. The University of Bristol veterinary school has set itself a vision statement to be “globally recognised for the delivery of world-class education programmes and for its ability to translate fundamental research into improved health and welfare of animals and humans and to increase sustainability of livestock production within welfare friendly limits. Bristol University is an organisation characterised by a friendly atmosphere of academic curiosity, productivity and adherence to high standards of professional and scientific behaviour operating within modern facilities.”
- 1.2. These objectives are aligned with the University of Bristol as a whole and are based on the following values:
 - rigour in research scholarship pursued by all academic staff
 - teaching informed by educational, clinical and scientific research within the School as well as from outside
 - clinical decision making based on disciplined study of outcomes in the caseload
 - commitment to developing the careers of, and rewarding, creative individuals functioning within thematic teams
 - commitment to providing students with an outstanding educational experience
 - an environment in which the importance of each individual member of staff and student is understood and valued.
- 1.3. The School has set itself a number of specific short term and medium term objectives which it aims to have met between 2012 and 2020.
- 1.4. Short term objectives to be completed between 2012 and 2020 are:
 - to retain full RCVS accreditation and EAEVE approval
 - to put in place a new BVSc curriculum
 - to increase BVSc student numbers
 - to submit an application for an Athena SWAN Bronze Award in November 2014
 - prepare for the 2014 REF² exercise (now completed)
 - move to a new Faculty of Health Sciences in August 2015
 - address training provision for Clinical Training Scholars
 - recruitment of leaders for a number of research groups
 - continue to develop a Research Strategy
 - work with the Faculty to develop a more effective working relationship with LVS
 - improve student experience
 - develop a ‘road map’ for training veterinary clinician scientists.
- 1.5. Medium term objectives to be completed between 2014 and 2020 are:

² REF = “Research Excellence Framework” – a national process of expert review of universities’ research outputs, run under the auspices of the UK higher education funding councils. See www.ref.ac.uk

- put in place a world-class BVSc curriculum
 - apply for AVMA accreditation
 - work with the University and the new Faculty to put in place a 'REF Action Plan' for 2020
 - work with Campaigns and Alumni Relations Office and the Langford Trust to fundraise for clinical and translational research
 - further develop a management structure
 - continue to evaluate staff review practices
 - ensure that other educational programmes in SVS are sustainable
 - continue to work to foster greater integration
 - achieve Athena SWAN Silver Status.
- 1.6. There is no system in the current Faculty that monitors a School's objectives or ensures alignment to the Faculty's strategic aims. However, the Faculty Board and the Faculty Senior Management Team meet monthly and ensure there is communication between Schools in the Faculty. Additionally, all Heads of School have the opportunity to feed into the documentation associated with the Annual Academic Review (AAR) process each autumn which precedes the annual budget setting round in the spring: it enables the Dean to ensure that the University Senior Management Team is made aware of each School's priorities and challenges. Locally, the School Management Team of SVS monitors the list of objectives that are linked to the School's long-term vision.
- 1.7. Staff are made aware of the objectives at staff meetings and via the School Review Process (all documents and reports were available for staff and students to read and all constituencies were actively involved in the review process). Staff also play a role in defining how the School Management Team identify priorities at events such as 'Away Days'; e.g. in January 2014 an Away Day was held for all academic staff to start defining strategic priorities for the next few years. The School Manager organises similar events for administrative and technical staff where the School's vision and aims are discussed. Students have been involved in the curriculum review process and had significant input into the planning of the refurbished student facilities at Langford.

Comments

- 1.8. The School is progressing well with the defined objectives set for both short and medium term. A substantial curriculum review has taken place with a new curriculum introduced for first and final years in 2013. Beneficial changes to teaching and assessment have also been implemented throughout the five years of the programme. The success of clinical delivery through LVS has now embedded into the Faculty and School and the SVS-LVS operational board ensures that strategic decisions are made jointly to the benefit of all stakeholders. The school has submitted a Unit of Assessment 6 return to the 2014 REF exercise and is committed to developing its research strategy. The move to a new Faculty of Health Sciences is seen as an opportunity to engage with other schools to align research strategy to the 'One Health' agenda.

Commendations

- 1.9. The University is commended on the support it has provided to the School of Veterinary Science since 2007 to allow a significant change and improvement in the resources, facilities and

organisation of the vet school activities. Recruitment of an enthusiastic and dynamic senior management team to the school has invigorated staff and students alike to create an ethos of positivity and 'can-do' attitude. The School, with support of the Faculty and the University, has responded positively to previous visitation reports and areas which were previously of concern have now shifted to examples of best practice.

Recommendations

- 1.10. It is recommended that the University and Faculty continue to support the School to ensure sustainability and implementation of the new curriculum and of the increased undergraduate numbers projects.

Chapter 2 – Organisation

Findings

- 2.1. The School of Veterinary Sciences is currently part of the Faculty of Medical and Veterinary Sciences, which in turn is part of the University of Bristol. On August 1st 2015 the School of Veterinary Sciences and the Centre for Clinical and Comparative Anatomy will become part of the newly formed Faculty of Health Sciences, together with the medical and dental schools currently in the Faculty of Medicine and Dentistry. A Pro-Vice Chancellor (PVC) is responsible for oversight of each Faculty.
- 2.2. At University Level the following administrative bodies develop policy and ensure effective governance:
 - **Council** – the governing body of the University. In consultation with *Senate* it sets the policy of the University on academic matters and ensures that the Vice-Chancellor and University officers further that policy. It reviews and promotes the teaching and research of the University and supervises *Senate*. Council makes and amends ordinances and regulations and nominates the Chancellor, Pro-Chancellors and Treasurer for appointment by *Court*. It also appoints the Vice-Chancellor and Pro Vice-Chancellors after consultation with *Senate*. Council will investigate and, if appropriate, redress any grievance brought by officers, staff or students of the University.
 - **Court** – An advisory body that considers the annual accounts and the strategy and management of the University.
 - **Senate** – the University's principal academic body, responsible to Council for teaching and learning, examinations and research and enterprise. It has more than 100 members, including Deans, Heads of Schools, elected academics and student representatives. *Senate* normally meets five times a year and is chaired by the Vice-Chancellor
 - **Vice Chancellor's Advisory Group** includes members of the University senior management team and includes: the Vice-Chancellor, the Deputy Vice Chancellor, the Registrar, the Finance Director, the PVC for Research, PVC for Education and PVC for International Development.

- **University Planning and Resources Committee (UPARC)** – UPARC is a stand-alone Committee which advises the Vice-Chancellor, Council and Senate on operational and academic policy matters. UPARC may report directly to University Council, on matters that lie outside the remit of Senate, and/or on issues where Council would benefit from advice direct from UPARC.
- **Capital Investment Programme Board (CIPB)** is the University committee that owns, oversees the development of, and monitors the University of Bristol's capital programme. It is chaired by the Deputy Vice-Chancellor and comprises members of the senior team.
- **Systems and Process Investment Board (SPIB)** is the University committee responsible for the governance and oversight of the University's portfolio of programmes, IT Services and associated policies (encompassing systems, process review and improvement, and strategic change). It is chaired by the Registrar and comprises the Deputy Vice-Chancellor, the Pro Vice-Chancellors (Research and Education), the Finance Director and relevant divisional heads.
- **University Education Committee** develops policy and advises Senate and Council on all aspects of teaching and learning activities within the University. The committee also provides education leadership in relation to learning, teaching and assessment and advice on student recruitment policy. It is chaired by the Pro Vice-Chancellor for Education and comprises the Academic Registrar, the Vice-Chancellor and the Directors of both undergraduate and graduate studies teams.

Faculty Committees

- **Faculty Board** is responsible for management of the Faculty, debating and advising the Dean on the education and research strategies of the Faculty, and with responsibility for the management of these. The Faculty Board is responsible for monitoring the Faculty budget and associated staffing requirements. The Board is chaired by the Dean and includes the Heads of Schools, Faculty Officers (UG and PG Education Directors, Research Director, Faculty International Director), Faculty Manager, Faculty Education Manager, Faculty HR Manager and Faculty Finance Controller.
- **Faculty Graduate Studies Committee** considers all matters relating to Postgraduate Studies in the Faculty. The joint Board of Examiners/Progress Committee receives and approves all postgraduate unit marks under reserved business of the Graduate Studies Committee, and decides on progress issues.
- **Faculty Research Committee** is a forum for discussion of topics and issues relevant to all research activity in the Faculty including the implementation of novel technologies, oversight and provision of research facilities, creation and implementation of best practice methods and discussion of current research priorities. The Faculty Research Committee reports to the Faculty Board and Senior Management Team through the Faculty Research Director and to Schools through the School Research Leads.
- **Faculty Undergraduate Studies Committee** considers all matters relating to Undergraduate Studies in the Faculty, including consideration of changes to programmes and units, review and consideration of recommendations from FQET and any items referred from the Faculty Board.

School (SVS) Committees

- **School Management Committee (SMC)** is the main decision making body in the School and meets monthly. SMC defines the strategy and objectives for SVS and ensures that the School meets its objectives. SMC does not report to any other 'higher' committee of the Faculty or University, but plays a role in articulating for the Dean and the University the needs of the wider Bristol Veterinary School that is, in effect, a 'virtual' entity. Because many aspects of veterinary teaching are not the direct responsibility of SVS, SMC therefore has a key influencing role. A key function of SMC is to ensure that there is clarity around what the School needs from Professional Services (via the School Manager and Faculty Manager). Although the Dean has responsibility for agreeing the SVS budget (and that of other Schools which teach on the BVSc), SMC articulates on an annual basis the financial requirements of the School. SMC has responsibility for monitoring the delivery of the annual budget and is able to make decisions on the School's annual capital and minor works allocations. SMC also has responsibility for managing a range of activities and facilities which support teaching and research including Wyndhurst Farm, the Abattoir and the new Farm Animal Pathology and Disease Surveillance service, although separate Boards manage the strategy and day to day operations of these enterprises.
- **Teaching Management Committee (TMC)** is responsible for overseeing all aspects of the organisation, delivery and assessment of undergraduate and taught postgraduate Masters teaching within SVS. It has oversight of all teaching or examination related resources and is responsible for developing policy to ensure they are used appropriately. It reports to SMC.
- **SVS/LVS Partnership Board** - responsible for overseeing the efficient and co-ordinated delivery of SVS objectives that involve Langford Veterinary Service (LVS); specifically to ensure that clinical teaching and clinical research objectives are met. It meets monthly either as a full board, or core member, format. It reports to SMC.
- **Research Committee** is responsible for promoting a research ethos within SVS and acts as the main strategy and planning committee for all research based activities. This extends into the operation and management of the School's Grant Review Process. It represents the views of the School's research groups at SMC, meets quarterly and reports to SMC.
- **School Health and Safety Committee** - reports to SMC and is responsible for having effective systems in place to ensure staff receive the correct information regarding Health and Safety, producing risk assessments for site activities and communicating best practice methods to staff. The committee also ensures that accidents, dangerous incidents and occupational health issues are investigated and reported to the Director of Health and Safety.
- **Veterinary Programme Committee (VPC)** - currently chaired by Professor Sarah Baillie and is responsible for overseeing the quality of teaching and learning on the whole five years of the BVSc programme. VPC reports to the FMVS Undergraduate Studies Committee (UGSC) which has a link to Faculty Board via reports of the Faculty Education Director (FED). The FMVS UGSC reports to the University Education Committee. The FED chairs the FMVS Examination Board. Annually a Programme Review is undertaken and this process is overseen by the University's Education Support Unit (ESU).

VPC also liaises directly with the SVS Staff/Student Liaison Committee, which deals with issues raised by students in relation to teaching facilities and other student matters and there is liaison with the Academic Support Committee and Admissions Committee. Student representatives (elected year course representatives and Centaur President) sit on VPC.

While VPC has responsibility for oversight of the BVSc programme, it has no mechanism for implementing change, as resources are managed at School and Faculty level. However, the chair of VPC now sits on the SMC of SVS and also meets regularly with Heads of Teaching in other Schools and liaises with the Chair of the Teaching Management Committee and the LVS-SVS Partnership Board. The Year 5 lead, Ms Sheena Warman, sits on VPC and the LVS-SVS Partnership Board.

- 2.3. The School engages extensively with the veterinary profession. Veterinary surgeons from private practice are involved in undergraduate admissions; they play a key role in the delivery of several elements of Professional Studies including communication skills and career mentoring. Private practitioners have been involved in the design of the new BVSc curriculum, and occasionally sit on appointments boards for academic staff. Final year students undertake some rotations in external veterinary practices, and Bristol has close relationships with a number of veterinary practices that provide base/foster practice EMS placements. Veterinary practices are involved in supporting the new Farm Animal Pathology and Disease Surveillance service. Langford Veterinary Services employs a large number of veterinary surgeons who engage with students on a day to day basis. A number of external veterinary surgeons are involved in undergraduate teaching on-site through the provision of clinical services (e.g. dentistry, ophthalmology). The chair of the abattoir Board is an external veterinary surgeon.
- 2.4. The governing body of the veterinary profession, the Royal College of Veterinary Surgeons, exerts influence on veterinary education policy both directly and indirectly. The Head of School, the Chief Executive Officer of Langford Veterinary Services, and Head of the Nursing programme at Bristol sit on RCVS Council and are members of a number of RCVS Committees.
- 2.5. Members of the profession are also sought out by the School to act as External Examiners for the professional examinations that take place within the School and, by way of feedback, influence both undergraduate education policy and assessment.
- 2.6. Members of the general public are not directly involved in the management of the School, however, lay people play a key role on the Farm and Abattoir Boards. The University's Council and Court include lay members, which provides an additional viewpoint for policy decisions.
- 2.7. An aspiration for the future as stated by the School in its Self Evaluation Report is that the role of the Head of Bristol Veterinary School (BVS) should again be separated from the Head of the School of Veterinary Sciences and that Bristol Veterinary School should be a recognised entity within the University to ensure clarity as to who owns the whole veterinary programme. Also in the SER the school suggests that a Veterinary Board (ideally with external members) needs to be re-instated, chaired by the Head of BVS, to provide a forum that has oversight of all issues relating to the wider veterinary school. With this model one person (the Head of BVS) would be delegated (by the Dean) with responsibility for all veterinary matters at Bristol and the Faculty and University would take their advice from this individual.

Comments

- 2.8. In August 2015 the SVS will move to a new Faculty, The Faculty of Health Sciences, along with the Medical and Dental schools and CCCA. This will provide further opportunity for collaborative research within the 'One Health' agenda and staff within SVS are positively engaged with this process of change. This organisational structure is seen as a good fit for developing the

veterinary clinical programme, research and curriculum alongside those of their medical and dental counterparts.

Commendations

- 2.9. The governance and organisation of the clinical delivery through LVS provides substantial quality caseload for undergraduate teaching and clinical research in a real commercial environment. Since the inception of LVS there has been a significant improvement in clinical service provision with commercially successful businesses providing a high quality service. This is evidenced not only by increased throughput of cases but also by feedback from veterinary practitioners, students, clients and other stakeholders. LVS is now in a position to balance its portfolio of services to allow continued delivery of less commercially successful areas which are required for the undergraduate teaching, such as the provision of a large animal pathology service.

Chapter 3 – Finances

Findings

- 3.1. The University of Bristol is a research-intensive university with an annual income in 2012-2013 of £459.2M. Of this, £118.3M was derived from funding body grants (HEFCE), £131.7M from tuition fees and support grants, £120.1M was research-derived and a further £89.1M was classified as 'other' income.
- 3.2. The Langford site has received over £13M investment in new buildings since the 2007 visitation.
- 3.3. The Schools and Centres within the University are currently divided into six academic faculties (headed by the Deans as budget holders). These six faculties, together with Professional Services (headed by the Registrar and Chief Operating Officer as budget holder), Finance Services, and Central and Corporate costs, make up the Budget Centres. The faculty structures have just been reviewed and the School of Veterinary Science will be joining with the medical and dental schools to form a new Faculty of Health Sciences. There will continue to be six Faculty Budget Centres and each will continue to be divided into several Budget Units, which are, with a few exceptions, the Schools. Each of the contributing areas is responsible for providing teaching input into several courses in addition to the BVSc. For example, CCCA, Biochemistry, Physiology and Pharmacology also teach on Bristol's medical and dental programmes, as well as a range of BSc programmes.
- 3.4. The allocation of Veterinary Teaching Income between the different Schools for 2013-2014 is detailed in the SER. With the exception of SVS, it is not possible for the Faculty to provide accurate information on other Schools' expenditure on delivery of the BVSc teaching because staff and teaching facility costs are shared between several different taught programmes.
- 3.5. **Langford Veterinary Services (LVS):** In 2009 LVS was set up as a wholly owned subsidiary of the University. Income and direct costs relating to clinical services flow through this subsidiary. As a separate organisation LVS prepares and manages its own budgets that are annually reviewed and agreed by the LVS Board. Any surplus that LVS generates is retained by the

central University to help contribute to payment for the new clinical facilities at Langford. However, in 2013-2014, LVS incorporated £20K of its budget to support clinical research.

- 3.6. In 2013 the Finance Director agreed to a joint annual budget meeting, as part of the normal University budgeting cycle, which is to include both SVS and LVS. The aspiration is to ensure that there is optimal strategic alignment between LVS and SVS so that the academic objectives of SVS and financial targets of both organisations can be met. This system provides greater transparency over the veterinary clinical staffing establishment and the need for new clinical posts and Senior Clinical Training Scholars is discussed at these meetings.
- 3.7. In general, the Faculty takes the view that each of the five years of the programme is a clinical year and income to each School is therefore calculated based on the percentage of the programme taught.
- 3.8. The way the Faculty currently supports the School is to provide a non-salary budget via a needs-based budgeting approach. From 2014/2015 this is being applied to all Schools in the Faculty. Currently SVS is provided with 40% of the Faculty's non-salary budget. Allocation of staffing FTEs is based on the consideration of the needs of the whole Faculty.
- 3.9. The total number of home undergraduate students that the University can admit each year is determined by the Higher Education Funding Council for England (HEFCE). Because HEFCE has lifted the cap on the number of students that can be admitted with AAB grades the University has agreed to increase veterinary student numbers from 120 to 150 in October 2014. This decision was made to improve the financial position of the School/Faculty and to meet the targets set in the business plans used to support the recent investment in teaching and clinical facilities at Langford.
- 3.10. HEFCE-funded students attract a standard Unit of Resource (UoR) based on the banding of their course. BVSc students are funded at Band A – the highest rate which, for 2013/14, is £10,000. Student tuition fees increased from £3,000 to £9,000 in 2012/13. Student intakes prior to 2012/13 are still on the old regime, attracting a UoR of £13,210 as Band A students. These students are paying the lower tuition fee of around £3,000 per year.
- 3.11. All incoming Bristol undergraduates now pay fees of £9,000 per annum. In 2013 Bristol changed the fee structure for graduate entrants to the BVSc so that it is now the same as for non-graduate entrants. The overseas student fee for 2014-2015 is £17.5k (approx. £31k per annum for years 4 and 5 of BVSc).
- 3.12. Of the £9K home student tuition fee, the University retains £1,000 to be used to fund its student bursary scheme and widening participation programme. This is not reflected in the income distribution but allocated through the resource allocation model (attributed costs). The rest is distributed to the Faculty and then down to schools as teaching income.
- 3.13. The current (2013-2014) income allocation for the BVSc to the different Schools is given in the SER. This is based on teaching of the old BVSc curriculum and does not reflect the change in the proportion of teaching delivered by different Schools since the new BVSc was introduced in 2013. The percentage of the total BVSc Programme taught by two schools (CCCA and SVS) has increased over both academic years 2013/2014 and 2014/2015 and there is a further increase of 8.2% planned in 2015/2016. In 2015/2016 the FIS for SVS should increase to reflect this change in academic effort.

- 3.14 The School states in its SER that it will be difficult to meet its short and medium term objectives without a fundamental review of the funding model, as the University's financial position for the next three years will be very challenging. The School of Veterinary Sciences will need to make a turnover saving of £165K in 2014-15 that is normally achieved by academic staff movement. Furthermore, in order to meet Faculty targets in 2014/15, additional income generation, or a further saving, has been set at £140K for SVS. This will be achieved by a combination of recruitment freezes and possibly redundancy.

It is unfortunately not possible for the Faculty to provide information on expenditure from other Schools teaching on the BVSc. This is because they teach on several professional and BSc programmes and staff and consumables costs are shared across programmes.

Comments

- 3.15. The budget holder for the SVS and other Departments teaching on the veterinary programme is the Dean. The Head of the School is engaged in the budget setting process jointly with the Dean and is responsible for setting the financial needs of the school. There appears to be sufficient resource to the school for the current needs although as identified in the recommendations below additional resource is required for the two major projects which are underway, namely the increased undergraduate numbers and the introduction of the new curriculum. The commercial businesses run through LVS have separate financial modelling and provide additional resource opportunity for school activity in addition to funding capital plans for the businesses.

The governance and financial arrangements for Wyndhurst Farm have produced a turnaround from a loss making establishment with major biosecurity risks as identified in the 2007 visitation report to a financially sustainable example of best practice.

Recommendations

- 3.16. The Faculty must approve and implement the business case for additional student numbers (HUG project) as provided by the school. This project has commenced in September 2014 with an intake to the veterinary programme of 150 students. It is therefore essential that the Faculty commits the funds to appoint the posts required by this project and secures available funds for the non-salary spend to allow sufficient resources to be available for each year of the programme as the additional students make their way through the course.
- 3.17. The Faculty must approve the additional funds required for implementation of the new curriculum. A cohesive business case was not produced for the Faculty prior to the start of the new curriculum and some resources have already been provided to cover the needs of years 1 and 2 of the new programme. However, the detail of years 3 and 4 of the new curriculum are currently being finalised and this will commence in the autumn of 2015. This means there is an urgent need for the funds to be released to enable required resources to be in place in a timely fashion. A business case was provided for reintroduction of research projects to years 3 and 4 of the new curriculum with associated costs and there is significant buy-in from staff across the Faculty for these research projects. As the research projects will commence for year 3 undergraduates in the 2015-16 academic year it is recommended that resources are approved and implemented urgently to avoid delay in timetabling of the programme.

Chapter 4 – Curriculum

Findings

- 4.1. The structure of the new BVSc curriculum in years 1 and 2 and the curriculum followed by current final year students (from October 2010 to June 2015) is described in the SER.

The BVSc has undergone a major review and a new curriculum is being designed and implemented. The new Years 1 and 5 started in 2013-14, Year 2 in 2014-15 and Years 3 and 4 will follow in 2015-16 and 2016-17 respectively. In parallel with the introduction of the new curriculum, existing years ('old' curriculum) have also undergone change to incorporate some elements intended for the new curriculum.

- 4.2. The BVSc curriculum is being designed to meet the RCVS Day One Competences, EAEVE requirements and the QAA Subject Benchmark for Veterinary Science. The curriculum is delivered over 5 years and is outcomes-based. It aims to provide students with the knowledge and understanding of basic and clinical science and the practical competences and the professional attributes of a veterinary surgeon.
- 4.3. Following the recommendations put forward by the previous RCVS visitation in 2011, and a subsequent School Review, the School has undertaken to redesign the curriculum to ensure the programme remains relevant and engaging for students.
- 4.4. The new curriculum aims to achieve:
- Horizontal integration: basic science disciplines are aligned under systems-based elements and clinical disciplines are aligned by system and species where possible.
 - Vertical integration with the clinical relevance of basic sciences emphasised from Year 1 e.g. using Live Anatomy and case-based learning to motivate and contextualise learning. Professional Studies units have been introduced in all five years and other vertical themes have been developed that run throughout the curriculum e.g. Veterinary Public Health (VPH), Evidence Based Veterinary Medicine (EBVM), practical and clinical skills.
 - Reduced content by removing unnecessary repetition and focusing on relevance to Day One Competences.
 - A move from teacher-focused to learner-centred approaches, allowing more space for independent study while also promoting methods that encourage active learning; e.g. all students have their own 'clickers' (audience response systems) to support more interactivity in lectures.
 - The development of lifelong and independent learning skills and professionalism; e.g. each year, as part of the Professional Studies unit, students produce a reflective journal.

- Enhancement of employability: each year includes plenary sessions which provide insight into the spectrum of veterinary careers. Students have options to focus on an area of their choice in Year 5 during track and elective rotations and can participate in mock interviews.
- Modernisation of assessment practices which are monitored via the BVSc Assessment Matrix which details all assessments across the programme.

These changes have been supported by a comprehensive programme of staff training.

- 4.5. Aspects of the above changes have also been implemented in the existing curriculum where possible e.g. improved integration in Year 4 by aligning material according to systems, reduced curriculum overload by ensuring Day One relevance, increased use of case-based learning, modernisation of assessment including the introduction of Objective Structured Clinical Examinations (OSCEs) in Year 3. Professional Studies units were introduced into all five years in 2011-12 and the new extended final year began in 2013-14.
- 4.6. The new curriculum involves a learner progressively developing knowledge and understanding of:
- normal healthy animals: individuals, groups and populations.
 - disease: agents of disease, body's response to disease, disease management.
 - case management and clinical reasoning.

This is complemented by the progressive development of:

- practical and clinical skills.
 - professional behaviours and attitudes.
- 4.7. Clinical Veterinary Science (CVS) spans Years 3 to 5 and is mostly based at Langford. Case-based learning has been introduced from Year 1 and is integrated with the other themes, e.g. cases are utilised in Animal Health Science and Animal Disease to provide clinical context. The CVS theme will encompass the current units and elements of Basic Clinical Science, Therapeutics, Farm and Companion Animal Sciences and the extended final year (see below). This part of the curriculum will begin in the academic year 2015/16. Students will develop the skills to manage cases on an individual animal, group and population basis. As well as traditional lectures, clinical reasoning skills will be developed further by small group case-based learning in the classroom and on clinics.
- 4.8. In parallel with the main structure, there are long strands with units in most, or all years and vertical themes embedded through the curriculum:
- **Professional Studies** - this includes a unit in each year and five elements on communication skills, professional conduct, ethics and the law, business management, health and safety, study, learning and investigation. These units were implemented in 2011/2012 and continue to be reviewed and updated as part of the new curriculum. In Year 5 all students have the opportunity to apply for several jobs in the virtual "Langford Record", submit their CV and a

covering letter and participate in mock interviews with employers (from local practices, alumni and industry).

- **Animal Management, Welfare and Global Health** - with units or elements in each year this encompasses Animal Management, Husbandry and Welfare and Global & One Health.
 - **Other vertical themes** - These describe and signpost a number of 'themes within units' where aspects of each are taught in most, if not all years, and include 'Evidence Based Veterinary Medicine', 'Clinical, Practical & Laboratory Skills', 'Veterinary Public Health' and additional themes with major components in the new Year 3 and 4 e.g. 'Research Skills'.
 - **Extended final year** - Until 2013 the final year had been constrained to traditional academic term times, which limited students' access to LVS cases (the primary clinical learning resource) and EMS practices. The new extended final year addresses both these issues and is spread over 44 rather than 30 weeks. Students undertake 21 weeks of core rotations followed by 4 weeks of track rotations, a Professional Studies week, a Global Health week and a three-week elective, interspersed with EMS placements. The new structure enhances the student experience by improving access to cases, reducing group sizes, and allowing the timing of EMS placements to be optimised (e.g. to allow for seasonality of certain activities). Track and elective rotations allow students to extend experience while focussing on an area(s) of their choice to enhance employability.
 - **Classroom to Clinic (C2C)** - a one-week element introduced in the existing Year 4 will be extended to three weeks in the new Year 4 prepares students for the clinical environment.
 - **Research Project** - all students will undertake a research project in two parts over Years 3 and 4. Many Bristol students have undertaken vacation projects and intercalated degrees, supported primarily by the Wellcome Trust's Clinical Veterinary Research Training initiative (CVTRI). Several options are currently being considered and will be informed by current evidence relating to the inclusion of research in professional degrees and whether the financial resource is available.
- 4.9. An extended final year was introduced in May 2013 rather than waiting for the new curriculum to reach Year 5 in 2017-18. Clinical Veterinary Science consists of 22 weeks of core teaching (comprising 21 weeks of clinical rotations and a week of experiential learning activities relating to Global Health), four weeks of track (student-selected) rotations, and a three-week elective period. The 21 weeks of core rotations are delivered over a 30 week period starting in mid-May and finishing in late December. Students rotate between on-site clinical rotations, off-site extra-mural placements (clinical EMS) and vacation time. Students also have a week of experiential learning related to Professional Studies.
- 4.10. Students attend core clinical rotations in seven blocks of three weeks. Each student spends time in the disciplines. Track rotations, Professional Studies and One Health teaching takes place between January and March. Each student then undertakes a three-week elective period, choosing from a wide range of subjects.
- 4.11. The aims of core rotations are to:

- equip students with the skills to apply previously gained knowledge within the clinical context to meet the Day One Competences
 - enable students to develop problem-solving and clinical reasoning skills by applying their knowledge of the underpinning scientific basis of pathophysiology, diagnosis, treatment, prevention and management of disease.
- 4.12. Track rotations aim to enable students to gain further experience and consolidate their Day One Competences by focussing on an area(s) in more depth (usually a species-specific area), and to further develop skills of problem-solving and clinical reasoning.
- 4.13. The elective period aims to help students integrate and further their knowledge and understanding of underpinning scientific principles and their application in the clinical context. This will enhance their ability to solve problems in the clinical (or research) setting, and allow them to demonstrate their ability to evaluate published research in an informed manner.

Comments

- 4.14. The School has undertaken a major curriculum review and is implementing a more modern and focused curriculum. The process has been rapid and intense and additional resource has been provided by the Faculty and the school to support the project. At the time of the visit the first and final years of the programme had been completed once and the revised second year had been running for 2 months. The 3rd and 4th years of the programme had just been approved and detailed learning outcomes were being planned. There was obvious engagement and buy-in by staff and students in the review process and appreciation of the more integrated and active learning approach being introduced. The detailed planning for the 3rd and 4th years of the programme had not yet been completed, which made evaluation of the total curriculum difficult. An aspect of the proposed revised curriculum that the visitors support but for which the future is unclear is the Research Project. The future of this project depends on adequate funding being available to support its implementation. A business case has been made for this and the School acknowledges the need to fund the research activities that will be necessary. Research Project 1 is meant to be a literature study leading up to a potential research plan that is then developed further and executed in Research Project 2.

The visitors concluded that if the implementation of the 3rd and 4th year curriculum proceeds as well as the 1st and 2nd years appear to have, the learning objectives of the new curriculum should be achieved. However, at the time of the visit, there was insufficient detail to allow evaluation of the proposed 3rd and 4th year teaching.

Commendations

Early introduction of some features of the revised curriculum such as the extended final year and some case-based and more active learning to 3rd and 4th years is commended.

Enthusiastic and energetic staff participation in the curriculum review process is commended.

Suggestions

- 4.15. It is suggested that aspects of the integrated learning programme be made more explicit, for example in major areas such as Public Health and Epidemiology.

Recommendations

- 4.16. It is recommended that curriculum mapping software is implemented as soon as is possible to allow interrogation of the curriculum to ensure topic coverage, outcome coverage and assistance in blueprinting examinations and assuring alignment of teaching and assessment.

Curriculum – basic subjects and sciences

Findings

- 4.17. There are 3 Animal Health Science (AHS) units which encompass and integrate the traditional disciplines of Anatomy, Physiology and Biochemistry and are taught in Year 1 and part of Year 2. The theme begins with a 6 week introductory 'AHS Foundation unit' which provides basic knowledge and understanding of cells, tissues, organs and body structures and is a foundation for the next two AHS units and the BVSc programme. In the second unit 'AHS 1' (in Year 1) and third unit 'AHS 2' (in Year 2) students learn about the integrated structure and function of the body systems in the following elements; cardiac & respiratory; alimentary & renal; reproductive & endocrine; neurological & associated senses; locomotor and associated systems of the common domestic species, followed by a short element on exotic animals.
- 4.18. The number of hours given to the teaching of basic sciences is given in the SER.

Comments

- 4.19. First and second year students appreciated the integrated nature of their learning programme and commented on their appreciation of the early introduction of the clinical relevance of their learning in the basic sciences, as applied to knowledge and skills.

Suggestions

- 4.20. None

Recommendations

- 4.21. None

Curriculum – clinical sciences

Findings

- 4.22. There are 2 Animal Disease (AD) units which encompass the disciplines of Pathology, Parasitology, Microbiology and Pharmacology and are, and will be, taught in Year 2 and part of Year 3. In 'AD 1' in Year 2 students are introduced to disease mechanisms and agents including

microbes and parasites, immunology and basic pathology and pharmacological principles followed by more in depth coverage of the common parasites, therapies and control mechanisms. In Year 3, 'AD 2' will provide more in depth coverage of microbes, therapies and preventative measures and Veterinary Public Health.

4.23. The number of hours given to the teaching of clinical sciences is given in the SER.

Comments

4.24. The relevant topics are all covered in the current curriculum and appear to be in the proposed new curriculum.

4.25. Even-though access to pigs is extremely difficult, pig medicine and pig diseases are taught.

Suggestions

4.26. Given the difficulty in accessing pig herds, the Clinical Skills Facility would benefit from a model to train blood sampling in pigs.

Recommendations

4.27. None

Curriculum – animal production

Findings

4.28. The number of hours given to the teaching of animal production is given in the SER.

Comments

4.29. These topics appear to be well covered in the core curriculum and are supplemented by further opportunities for gaining experience in EMS and elective rotations.

Suggestions

4.30. None

Recommendations

4.31. None

Curriculum – food hygiene and technology and veterinary public health

Findings

4.32. The number of hours given to the teaching of food hygiene/public health is given in the SER.

Comments

- 4.33. This area of the curriculum was investigated specifically since the documentation for years 3 and 4 was incomplete. As a result of this enquiry it was concluded that teaching in public health met EAEVE guidelines and European standards.

Suggestions

- 4.34. None

Recommendations

- 4.35. None

Curriculum – professional knowledge

Findings

- 4.36. The number of hours spent on teaching practice management and career planning & opportunities is given in the SER. No hours are given to the teaching of veterinary certification and report writing.

Comments

- 4.37. Time is spent on professional knowledge throughout the programme through a vertically integrated professional studies subject that occurs in all 5 years. One feature of this is a series of mock job applications and interviews conducted by local veterinary surgeons with all final year students.

Suggestions

- 4.38. None

Recommendations

- 4.39. The School should provide some education on veterinary certification and report writing as part of its professional knowledge teaching.

Chapter 5 – Teaching, quality and evaluation

The teaching of basic sciences

Findings

- 5.1. The School of Veterinary Sciences (SVS) has ownership of the BVSc Programme. The programme is the responsibility of the Programme Director (currently Professor Baillie) who, reporting directly to the Head of School, chairs a suitably constituted curriculum committee the Veterinary Programme Committee (VPC). All Schools involved in the delivery of the programme are represented on VPC, which is attended by student representatives and academic year leads.
- 5.2. VPC monitors all matters relating to the BVSc curriculum. Minutes of VPC meetings are made available to all members of VPC and other stakeholders (Faculty Manager, Faculty Education Director, Heads of Schools etc.) and are available on Bristol's Virtual Learning Environment (VLE).
- 5.3. Management of the delivery of teaching and assessment in SVS is the responsibility of the Head of Teaching (currently Professor Baillie, although the roles of Programme Director and Head of Teaching could be undertaken by different people). The Programme Director works with the Heads of Teaching in other Schools in the Faculty to ensure effective delivery of the Programme.
- 5.4. Teachers and where appropriate, non-academic members of staff are involved in the evaluation and discussion of teaching, learning and assessment within their own unit. Units within each year of the programme are overseen by the year lead, supported by a nominated member of the student administration team reporting through VPC to the Programme Director.
- 5.5. The new BVSc curriculum has been designed and delivered within the pedagogic framework of the University's Education Strategy that identifies priorities for education as well as the broader student experience.
- 5.6. The teaching programme is lead by Professor Joanna Price as Head of School and Professor Sarah Baillie as Programme Director. The BVSc Programme has evolved in recent years in content and in the structure of the teaching and learning opportunities it provides. The programme provides a blended approach to learning and assessment. Lectures signpost fundamental concepts and in provide a framework for directed and independent learning in which students can construct their knowledge.
- 5.7. In the new curriculum there are usually no more than three lectures per day, along with timetabled Directed Self Education (DSE) and Directed Group-based learning. Examples of contemporary approaches include: Teaching materials are delivered through Blackboard™ as the Virtual Learning Environment (VLE), providing accessibility and standardisation of quality across the programme; DSE has been adopted across all years of the Programme and effective and authentic learning opportunities have been included, with the development of re-useable computer assisted learning where appropriate. Assessment of learning has also evolved, using e-assessment (delivered through Questionmark Perception™ in many areas) to enhance the quality of the assessment process, whilst ensuring alignment with the taught curriculum.
- 5.8. Recommended text books are listed for all units in each year's BVSc Year Handbook, together with an indication as to whether they are essential or additional reading. For most taught sessions, additional teaching resources are provided, which may include notes, links to internal or external online resource, online quizzes, eBiolabs exercises etc. Lecture notes are printed and provided in advance of the session (where appropriate to do so) and all materials are released through the VLE.
- 5.9. Elements of animal handling are introduced in the first year in the live anatomy barn where a variety of species are kept. Students are required to do a week of "Barn" duty where they attend

early in the morning and provide care for the variety of small and large animal species housed in the barn. This provision is adequate currently but consideration should be given to increasing the numbers of each species available, or increasing the number of classes as student numbers increase to minimise over-use of the available stock of animals. Students also visit Langford for one day each week and instruction is also offered there. The visits to Langford serve to integrate the first year students well into the School as a whole.

Comments

- 5.10. All the major objectives associated with the teaching of basic sciences are being achieved.
- 5.11. Staff are to be congratulated on the development and delivery of a new, vertically and horizontally-integrated curriculum which integrates clinical material and the basic sciences in a relatively short time. This is especially impressive given the fact that a number of different Schools within the Faculty have had to be involved in the development and delivery of the new curriculum in years 1 and 2.
- 5.12. Year 1 and Year 2 students were very positive about the curriculum, citing the enthusiasm, dedication and involvement of staff delivering the programme as the best thing about the School.
- 5.13. Some Year 2 students felt that the course in second year was not as well integrated as that delivered in Year 1, however elements of the Year 1 course had already been delivered in an integrated way prior to the introduction of the new curriculum.
- 5.14. Excellent use is made of the Turning Point technology, not only for in-class assessments, but also for the determination of student attendance. The students are aware that the technology is being used to monitor attendance.
- 5.15. The development and use of the live animal barn in Southwell Street to consolidate and inform anatomy teaching typifies the integrated approach being developed.

Commendations

- 5.17. The use of eBiolabs prior to and after practical classes to introduce topics and formatively or summatively assess the students in Years 1 and 2 is commended.

Suggestions

- 5.18. As student numbers increase, consideration should be given to increasing numbers of live animals or increasing the number of classes in the live animal barn should occur, given the potential welfare implications on the limited number available of some species (see also comments in

Chapter 7 – Animals and teaching material of animal origin).

Recommendations

- 5.19. None.

The teaching of clinical sciences

Findings

5.20. The Head of Teaching has responsibility for the management of teaching delivery where there is collaborative provision, including that provided by LVS, and is assisted by the Head of Enterprise, Strategic Development and External Partnership.

5.21. The University uses Collaborative Provision through formal contractual arrangements with outside bodies that support its teaching in charity companion animal first opinion practice, exotics (Bristol Zoo) and farm animal practice. These arrangements are set out below and those relating to the core rotations conform with RCVS guidelines for distributed clinical teaching. The Charities are remunerated for this provision.

- **Charity Companion Animal First Opinion Practice** – The University has contractual arrangements with the RSPCA Greater Manchester Animal Hospital and the PDSA Pet Aid Hospital in Bristol. Under these agreements all final year students undertake a two-week block of charity companion animal first opinion practice under the direct supervision of the veterinary surgeons and with local oversight by a nominated Rotation Organiser who has received training in University of Bristol processes and policies. All staff who have contact with the students are briefed in those procedures and policies and are also invited to attend training classes alongside SVS clinicians as part of the ‘Teaching in clinics’ programme run by the School.

A more detailed description is provided as part of the BVSc Student Handbook which was seen by the visitors. Overall aims and objectives for this rotation are consistent between the two sites: to give students the opportunity to develop the skills required to undertake routine consultations and common anaesthetic and surgical procedures (including neutering) in small animal patients. It also provides an opportunity to develop the student’s professional skills and attributes and clinical competences, and gives students the opportunity to develop skills of problem solving and clinical reasoning. Additionally, it enhances students’ awareness of the financial restrictions of working in a charity setting.

Students maintain a log of cases seen which the School uses alongside other measures to ensure the equality of the student experience across the two sites for this rotation.

- **Farm Animal Practice** – the University has contractual arrangements with the Shepton Veterinary Group (Shepton Mallet, Somerset) and Delaware Veterinary Group (Castle Cary, Somerset) for the provision of Farm Animal teaching as part of the Farm Animal Track rotation. The practices are remunerated for this provision. A more detailed description was provided for the visitors as part in the BVSc Student Handbook. Activities and learning opportunities provided at the two sites are intended to contribute to the overall outcomes of the Track Rotations with a focus on professional skills and attributes. As a result students are able to develop and demonstrate skills and attributes of an appropriate standard for this stage of their training.
- **Bristol Zoo** – the School has a contractual agreement with Bristol Zoo Gardens under the terms of which the School pay for a 0.5FTE (a specialist in zoo medicine) for provision of undergraduate teaching in the following areas:
 - i. exotics species teaching to 2nd year students within the Animal Management unit
 - ii. exotics species teaching to 4th year students within the Companion Animal Sciences unit
 - iii. exotics species teaching in clinical examination to final year students in the track rotations
 - iv. student electives undertaken at the zoo.

- 5.22. Where SVS has identified that it would not be viable to recruit permanent specialist expertise, (e.g. for the teaching of pig medicine), external veterinary surgeons, other professionals or academics from other institutions are engaged to teach on the BVSc. Occasional teaching staff are contracted on an hourly or daily basis and are provided with the learning objectives for the session to be delivered and information on format requirements.
- 5.23. Significant investment in the development of the Clinical Skills Facility has provided the structure to allow teaching and evaluation of practical skills as part of the outcomes based philosophy that underpins the new curriculum.

Comments

- 5.24. All the major objectives associated with the teaching of clinical sciences are being achieved. Group sizes are small and there is significant opportunity for students to develop problem-solving and clinical skills through full involvement in case management in all the common domestic species.
- 5.25. The School has its own hospital facilities for the common domesticated species which are, on the whole, modern, well-maintained and well-equipped. Small animal (referral and primary care), farm and equine practices are available on site at Langford. Further details are provided in Chapter 6 below.
- 5.26. Track rotations and the electives provide opportunities for students to develop their clinical skills in areas of particular interest.
- 5.27. Use of the Clinical Skills Facility helps prepare the students for the core rotations; this facility is obviously valued by the students.
- 5.28. New contracts have recently been signed ensuring access to core small animal rotations for another three years.
- 5.29. A summary of cases recorded in the students' log of cases seen at PDSA and RSPCA suggests the case load is similar at each site although students attending PDSA would appear to have more opportunities to carry out consultations. This should be kept under review.

Commendations

- 5.30. The new Clinical Skills Facility.

Suggestions

- 5.31. There is limited in-clinic exposure to exotic species that are only seen in the one week first opinion small animal practice rotation with some seen in the charity clinics. Given their increasing popularity, consideration could be given to ways of increasing exposure to a traditional primary care exotic species caseload.
- 5.32. Additional staff from external teaching providers could usefully be encouraged to undertake training in teaching and assessment, which could be run on site by the School (see also suggestions in

Chapter 7 – Animals and teaching material of animal origin).

Recommendations

5.33. None

The teaching of animal production

Findings

5.34. Within Years 1 and 2, vertical Animal Production themes are responsible for delivery of teaching relating to animal production. The University also uses Collaborative Provision through formal contractual arrangements with the Cannington Centre (Bridgwater College) for the provision of some animal handling classes. The practical Animal Management sessions carried out at Cannington utilise their resource of 20 teaching horses and a range of exotic species and pigs. Access to this resource of teaching animals at one site is a major advantage. The practical sessions provide a structured learning opportunity for appropriate equine handling and management associated skills and techniques. The sessions are taught by Bristol Veterinary School clinical staff, with support from the staff of the Cannington Equine unit. The College is remunerated for this service. Classes which relate to cattle and sheep production are held at Wyndhurst Farm

Comments

5.35. All the major objectives associated with the teaching of animal production are being achieved. The teaching reflects the species balance seen by veterinary surgeons and management systems used in the UK. Good use of the live anatomy barn, Wyndhurst Farm and the Cannington Centre is made for practical teaching of animal production.

5.36. The group sizes are adequately small at the current time. However any further increase in student numbers may lead to “small group” sizes increasing unacceptably.

Suggestions

5.37. There is currently very little evidence of exposure to pigs and commercial poultry/egg production. This is an area where additional teaching, in particular herd/flock visits, might be considered (see also comments and suggestions in

Chapter 7 – Animals and teaching material of animal origin).

Recommendations

5.38. None

The teaching of food hygiene/public health

Findings

- 5.39. The current set-up of the School concerning veterinary public health is to provide the students with all necessary one-day skills in VPH, without the aim of a full and complete preparation to meet the official veterinarian (OV) criteria. The latter is however provided as post-graduate training at the Bristol Veterinary School and is offered to all UK veterinarians in need of meeting the criteria.
- 5.40. Practical training in food hygiene and public health is delivered to 4th and 5th year students, with final year rotations provided in the School's own slaughterhouse. The slaughterhouse is a small-scale facility, operated as a commercial food business. Students are taught and hands-on trained in the various steps of food producing including ante- and post-mortem meat inspection, meat cutting (small facility accompanying the slaughterhouse), as well as the different aspects of hygiene, quality systems and legislation. Students are grouped in small numbers, guided by the senior lecturer, a veterinarian with a huge amount of experience in meat inspection, and recently also by a VPH resident. The staff are highly experienced and dedicated to the teaching. Talking with fourth and fifth year students, VPH and the way that is it currently taught and trained is much appreciated.
- 5.41. In addition to this training in the slaughterhouse, students have access to relevant live preparations, freshly collected each week, as well as to a collection of historical preparations and photographs. In the slaughterhouse, all major animal species (including pigs) are present, except for poultry. Extramural instruction is currently not delivered.

Comments

- 5.42. Poultry slaughter is currently not covered in the practical training.
- 5.43. There are no external visits to other Food Business Operators.

Suggestions

- 5.44. Supplementary extramural visits to high throughput facilities (in particular pig and poultry slaughterhouses) would bring the students into contact with the real processing speed and the need for rapid decision making by the OV.

Recommendations

- 5.45. None.

Essential competences at graduation – the RCVS Day One Competences

Findings

- 5.46. Learning objectives are provided for all taught sessions in the School. The learning objectives for the units of the veterinary curriculum are detailed within the outcomes documentation provided by the University Education Support Unit (EU). These have been designed in order to comply with the Day One skills requirement for students.

- 5.47. Information regarding the achievement of essential competences is most commonly gleaned from the assessments (both practical and theoretical) undertaken by students on a regular basis. These data are then collated and compared to ensure that they align with the desired outcomes for each unit with the aim that, upon completion of the programme, all of the Day One competences are in place and can be readily demonstrated.

Comments

- 5.48. Discussions with students demonstrate that they are aware of the RCVS Day One competences from Year 1 and throughout the course.
- 5.49. The learning objectives of the course are mapped using an Excel spreadsheet to the Day One competences.
- 5.50. The School uses a variety of means of assessing outcomes to ensure Day One competence achievement, in particular the Directly Observed Procedural Skills (DOPS) completed in final year where the assessed areas are mapped to the competences which are being assessed.
- 5.51. The school has added additional questions to the Destination of Leavers from Higher Education survey which is sent to graduates by all Universities to canvas opinions for graduates from the School regarding how well prepared they feel for practice.
- 5.52. Discussion with employers, external core rotation providers and EMS placement providers similarly re-assured the visitors of the development of appropriate clinical competence.

Suggestions

- 5.53. Curriculum mapping software would significantly improve the School's ability to track delivery of teaching relating to the Day One competences.

Recommendations

- 5.54. None

The teaching and learning environment

Findings

- 5.55. Teaching and Learning development provision has recently been reviewed by the University. A major revision of the previous Postgraduate Certificate offered by the University as part of the Teaching and Learning in Higher Education (TLHE) programme will be launched in Autumn 2014; the Cultivating Research and Teaching Excellence (CREATE) CPD Scheme.
- 5.56. The CREATE scheme provides a framework for academic and professional services staff who are involved in teaching and supporting student learning to gain recognition across the breadth of their roles and at different stages of their careers. The scheme will be accredited by the Higher Education Academy (HEA) against the UK Professional Standards Framework (UKPSF) across all four descriptor levels.

- 5.57. A series of teaching and learning workshops (the Langford Teaching and Learning series) have been developed and delivered to address the need for context-specific training for staff involved in teaching on the BVSc and other SVS programmes and courses. These workshops are also run twice a year for new staff and post-graduate scholars and some have been included within the University's new HEA accredited CREATE structure. Additionally, a modified version of the programme has been offered to both external core rotation teachers and EMS providers.
- 5.58. The University has a number of schemes for recognising and rewarding excellence in teaching and the support of the student experience. The 'Golden Apple' annual awards were first introduced in 2013 to recognise and reward members of staff who have made an outstanding contribution to teaching, the provision of support for students and education more generally. A number are student-led and a number are staff-led. In both 2013 and 2014 an SVS academic won the FMVS Faculty prize (there is only one) and in 2014 a veterinarian in CCCA won the only Faculty student-led prize.
- 5.59. At a local level, the School of Veterinary Sciences sponsors three awards; one for excellence in teaching, one for excellence in technical support and one to a member of staff whose academic achievements have been exceptional in a given year. In addition, LVS award two prizes; one to a member of clinical staff and one to a member of support staff working within the LVS clinics. Prizes are presented during the School graduation ceremonies.
- 5.60. In the new curriculum there are usually no more than three lectures per day, complemented by timetabled Directed Self Education (DSE) and Directed Group-based learning opportunities. There are many examples of use of newer approaches: teaching materials are delivered through Blackboard™ as the VLE, providing accessibility and standardisation of quality across the programme; DSE has been adopted across all years of the programme and additional or more effective and authentic learning opportunities have been included, with the development of re-useable computer assisted learning where appropriate. Assessment of learning has also evolved, using e-assessment (delivered through Questionmark Perception™ in many areas) to enhance the quality of the assessment process, whilst still ensuring alignment with the taught curriculum.
- 5.61. Investment in the development of the Clinical Skills Facility has provided the structure to allow teaching and evaluation of practical skills as part of the outcomes based philosophy that underpins the new curriculum. On-going technology enhanced learning developments include increased adoption of audience response technology (TurningPoint) with all students issued with their own handsets, and the use of podcasting and lecture capture initiatives for which the School is part of the pilot being undertaken across the University in 2014-15.

Comments

- 5.62. Excellent facilities exist in Southwell Street and within the Faculty, particularly the new Life sciences building for teaching basic sciences, these are fit for purpose and of a very high quality (see also

Chapter 6 – Facilities and equipment).

- 5.63. There is very good use of Turning Point technology for formative and in class assessments and with each student being issued with their own handset this can also be used to record student attendance – students are aware of this.
- 5.64. There is a Clinical Skills Laboratory available at Langford, this is well-equipped, well laid out and fit for purpose which includes running the OSCE examinations. It is very much a “live” facility with new teaching aids being added all the time.
- 5.65. There is significant attention paid to teaching skills development and monitoring for staff and this forms part of the discussions which take place at annual performance reviews ensuring that attention to teaching quality is embedded in the culture of the School.
- 5.66. There has been some clever use of DSEs within the curriculum given the absence of sufficient small group teaching rooms. These are generally done in groups; there were some negative comments from students about how difficult it could be to get together as a group, but no issues regarding finding suitable space or resources to complete the tasks. The use of contribution forms ensures equitable involvement by the whole group. There were some requests for more individual assignments driven by a desire to be seen to excel individually.

Suggestions

- 5.67. None

Recommendations

- 5.68. None

Monitoring and assessment of students

Findings

- 5.69. The University assessment strategy is part of the combined Education Strategy for 2010-16 that is approved through Senate and is the responsibility of the University’s Education Committee. The examination policy, as informed by that strategy, defines the Rules for Assessment, Progression and the Award of a Qualification as part of the Regulations and code of practice for taught programmes.
- 5.70. All those teaching on the BVSc programme uphold the University’s Exam Regulations. Any changes to Unit examination procedures must be approved through the External Examiner, the VPC and the Faculty Undergraduate Study Committee. Examination regulations are included in all student handbooks.
- 5.71. Within the BVSc programme, a wide range of examination types are used, including written papers, single best response MCQs, DOPS, OSCE (including practical animal handling, clinical skills and communication skills) and the use of more innovative forms such as video capture of task performance and evaluation of self-reflection. A summary of these is available in the BVSc Assessment Matrix.

- 5.72. The primary drivers for each form of assessment are now validity (in all its aspects) including reliability. The adoption of more resource effective formats of delivery in some areas (e.g. Blackboard and QuestionMark Perception™) allows a refocusing of staff effort towards assurance of quality rather than administration of delivery. This process is on-going. In other areas the School recognises that resource intensive formats (O.S.C.E., multi-source feedback) are essential for validity and will ensure that there is resource to support effective delivery of these formats. Formative assessment occurs throughout the programme and adoption of e-assessment and greater use of the VLE aims to make this feedback more timely and effective.
- 5.73. A Code of Practice for External Examining of Taught Programmes at the University of Bristol was approved in 2102. The School aligns with the code as far as is possible for a professional veterinary undergraduate programme in the UK.
- 5.74. Each Unit of the programme has an External Examiner who is responsible for overseeing student course work, examination questions, scripts and all other aspects of work that contributes to the summative unit mark. All External Examiners are invited to attend unit meetings, with several also attending the Board of Examiners. Annual and final reports from External Examiners are reviewed as part of the APR and action taken as appropriate. The outcomes of that review are included in the formal response to the External Examiner. Through the APR committee all reports and responses are shared with the Heads of Teaching, Head of Student Experience, Head of School and Faculty Undergraduate Studies Committee.

Comments

- 5.75. All the major objectives associated with the monitoring and assessment of students are being achieved.
- 5.76. The School uses an excellent and appropriate mix of assessment methods as evidenced by the assessment matrix, including OSCEs to assess practical skills and DOPS in clinics.
- 5.77. Good use is made of formative assessments throughout the course; some students commented that the formative assessments did not always accurately reflect the summative assessments in terms of their difficulty.
- 5.78. Appropriate processes have recently been developed for ensuring timely responses to external examiners' comments.
- 5.79. The processes associated with the writing, sense-checking and standard-setting of examination questions, compiling and blue-printing of examination papers and post-hoc examination review gave the visitors confidence in the School's assessment procedures.
- 5.80. Review of the reports by the External Examiners suggests that in each of the subject areas the standards expected by external examiners are being met. There are frequent comments from External Examiners about poor administrative support for the process of examination review, but this is being addressed with clear timelines to be adhered to in the future.
- 5.81. The core rotations assessment documentation available to students is complete and provides excellent guidance for the students.

Suggestions

- 5.82. Monitor adherence to newly-established timelines for ensuring prompt and timely release of examination papers to external examiners.

Recommendations

- 5.83. None

Monitoring and assessment of teachers and instruction

Findings

- 5.84. Timely and adequate student feedback is considered essential for the monitoring and assurance of the Programme. Student attitudes to the content, delivery and overall satisfaction with the programme, are used alongside engagement with external evaluators and examiners, the FQET teams and the School's Teaching and Learning Adviser to inform a process of review and improvement. The feedback from students is collected in various ways at unit level and in a format that is most appropriate for the unit (paper, online questionnaires, focus groups etc.). Response rates are variable and the School is striving to better engage students with the feedback. One strategy has been to improve the timeliness and accessibility to the outcomes of their feedback by use of the VLE, this demonstrating the value of their efforts.
- 5.85. Data are reviewed at VPC with that obtained through the Student Course Representatives (who sit on VPC) and from the Staff Student Liaison Committee (SSLC), chaired by the Head of Student Experience that meets once or twice per term.
- 5.86. The identification of year administrators for 2013/14 has helped with the clarity of administrative responsibility that improves response time. In this capacity, the SAO may act as the portal for urgent/important issues relating to teaching and assessment. There are a series of Standard Operating Procedures in place as to how to escalate issues and to whom. These cover examination, organisational and academic queries as well as student complaints. The Student Administration Manager (SAM) also sits on VPC and therefore contributes information relating to student issues and feedback relating teaching and teachers that have been channelled through the SAO.
- 5.87. Students also play a significant role in both the periodic review of schools across the Faculty as well as the Faculty quality enhancement process (FQET). In this latter capacity, students undertaking their studies in a different School are part of the team undertaking the review and volunteer students from the School are part of the panel under inspection.
- 5.88. The Head of Teaching deals with immediate urgent issues. Any required change to teaching delivery, content or assessment is approved by the VPC before implementation and referred to the Faculty Education Director as necessary. Issues relating to teaching or the learning experience which are raised at the Staff-Student Liaison Committee will then be brought to VPC.
- 5.89. Feedback from students relating to the individual unit is collated by the Unit Organiser, discussed in the unit meetings, that include all those responsible for delivery of the unit including technical

staff, and presented at the Annual Programme Review as well as a proposed response and changes to content needed. Issues relating to the management of teaching delivery are referred to Head of Teaching. Student course representatives sit on VPC and are able to feedback outcomes directly to their peers. All available student feedback is discussed in the APR meeting at the end of the teaching year.

- 5.90. The School has adopted a 'you said we did' approach to providing feedback to the students which is delivered through the VLE in such a way as to be accessible. As far as possible the School attempts to make this response timely and accessible.

Comments

- 5.91. All the major objectives associated with the monitoring and assessment of teachers and instruction are being achieved.
- 5.92. While there has been the introduction of peer observation of teaching, the results of which forms part of the activity and performance review of staff, the visitors did not identify any formal student evaluation of teaching.
- 5.93. Currently poor teaching is addressed with the individual member of staff by the Head of School and deputy Head of School.

Suggestions

- 5.94. If it is not already in place, it may be useful to institute a formal process for student evaluation of teaching and make discussion of the results a part of the annual performance review for staff.
- 5.95. The collection and action on student feedback is currently extensive. Care is needed not to induce 'feedback fatigue' within the student body by asking for too much feedback too frequently.

Recommendations

- 5.96. None

Student welfare

Findings

- 5.97. The Student Administration Office (SAO) acts as a day-to-day point of contact for supporting students. The identification of year administrators for 2013/14 has helped with the clarity of administrative responsibility that improves response time. In this capacity, the SAO may act as the portal for urgent/important issues relating to teaching and assessment. There are a series of Standard Operating Procedures in place as to how to escalate issues and to whom. These cover examination, organisational and academic queries as well as student complaints. The Student Administration Manager (SAM) also sits on VPC and therefore contributes information relating to student issues and feedback relating teaching and teachers that have been channelled through the SAO.

- 5.98. Upon arrival at the University, students are required to make known to the School Disability Coordinator (Dr Séverine Tasker) conditions such as disabilities, allergies, etc. This will enable the student and the University to discuss and agree appropriate health and safety procedures. Students are encouraged to inform their supervisor or tutor of any circumstances or conditions that may affect their health and safety. In addition to this regular risk assessments are undertaken by the Departmental Safety Adviser (DSA), to ensure that any physical threats are minimized.
- 5.99. It is a requirement that all BVSc students are tuberculosis and tetanus vaccinated. The information for the screening will be gleaned from the pre-course health questionnaire filled out by each student, which provides vital information confirmed by a GP on the student's current immunisation status. Veterinary science students will then be called for an appointment for a tuberculosis vaccination during their first year if not already vaccinated. Failure to comply with health screening vaccination requirements will result in exclusion from core components of the taught course on health and safety grounds and a resultant failure to complete the course.
- 5.100. The most important biosecurity measures in regards to zoonoses are:
- Ensuring that methods of working are designed to minimise the movements of people, vehicles or equipment into areas where farm animals are kept. This includes fields, sheds, markets or other holding areas.
 - When students have contact with farm animals then they are required to follow best practice and cleanse and disinfect protective clothing, footwear, equipment, vehicles etc. before and after the contact with the animals. Disposable protective clothing may also be used.
 - Students and staff are required to make proper use of any control measures provided, e.g. ventilation, safety cabinets, etc. as well as any personal protective equipment provided.
 - Reporting of any symptoms of illness by the individual student as soon as possible to the Pre-clinical or Clinical Dean in the first instance, who will then inform the DSA.
- 5.101. The University's Accommodation Office guarantees rooms in Halls of Residence or Student Houses for all first year students, other than those normally resident in local Bristol or Bath postcode areas. They also help students with privately rented accommodation in Bristol in subsequent years. During the later years of study, while students spend the majority of their time at Langford, students usually arrange their own rented accommodation in surrounding villages, although hostel rooms are available on site if required. These rooms are also made available to those students undertaking time 'on call' during their studies.
- 5.102. Students in Bristol (Years 1-3) have access to the full range of University social, sports and recreational facilities, many of which are provided by the Students' Union. Membership of the Union continues for students at Langford although transport back to the centre is a recognised problem. Student recreational provision at Langford has improved dramatically in recent years with the renovation of the Langford Gym and the Student Barn study and relaxation space. In addition, the Centaur Student Society organises social and sporting events and there is a student common room, a bar, a snooker room, squash and tennis courts and a cricket/football pitch. The Langford Trust has also proved to be highly adept at organising greater student involvement with various events, both locally and further afield.
- 5.103. Teaching in Bristol occurs mainly in the School of Medical Sciences or the Pre-clinical Veterinary Science Building in Southwell Street; both sites provide a student common room and a rest area

with food and drinks machines. The former also has a dedicated canteen. The Langford site houses a newly renovated student common room, including several drinks machines and a cold water fountain, a quiet study space and several small group work rooms within the building referred to as the Student Barn. Additionally the site hosts a canteen that provides hot and cold food for the majority of the students' working day.

- 5.104. The University provides a wide range of support for students with problems (social problems, study problems, careers development, job selection) including:
- Counselling
 - A Multifaith Chaplaincy
 - Students' Health Services
 - Financial Advice
 - International
 - Careers
 - Disability services
 - Vulnerable Student Support
- 5.105. Each BVSc student is allocated a Personal Tutor within the School; the scheme is run according to University guidelines and is coordinated through the Pre-Clinical Dean for years 1-2 and the Clinical Dean for years 3-5 with the oversight of the School Senior Tutor (SST) Dr Rose Grogono-Thomas. The SST is responsible for the training and support of personal tutors within the School and is the School's single point of contact for the Faculty and University. As an MRCVS the SST is also the single point of contact for external accreditors such as RCVS. The SST sits on the University's Senior Tutor Group and is responsible for organising and presenting student feedback on the personal tutor system to the School's Annual Programme Review (APR). The SST, Pre-clinical and Clinical Dean sit on the School's extenuating circumstances committees.
- 5.106. The Personal Tutors are members of academic staff based in Bristol for students in the first two years of the programme. From the third year, when students embark upon clinical studies and spend a greater proportion of their time on the Langford site, this responsibility transfers to members of staff based at Langford. Personal Tutors receive their tutees' academic assessment results, EMS reports and professional studies portfolios and are therefore able to provide support on both personal and academic matters. The Pre-Clinical Dean has an office in Bristol and works closely with the SAO at Langford, thus ensuring good communications with the Clinical Dean and enabling them to have an overview of student academic progress and pastoral support.
- 5.107. Unit Organisers provide a support network for students experiencing academic problems. The EMS Co-ordinator and the SAO at Langford provide guidance and support for students whilst on pre-clinical and clinical placements.

Comments

- 5.108. All the major objectives associated with student welfare are being achieved.
- 5.109. Throughout the University of Bristol, SVS and Students' Union, student support systems are easily identifiable and readily accessible with appropriate processes in place to cover a wide range of potential issues where students may require support.

- 5.110. Discussions with students suggest they are very familiar with the support systems available to them. Feedback on the Year 1 and Year 2 tutors and the Pre-clinical Dean was very positive. There was more variability in tutor availability and also in the students' awareness of the support systems available reported by the students in Years 3-5.
- 5.111. Tutor training is not currently compulsory.
- 5.112. The tutor change at Year 3 is not perceived to be a problem by the students, although many mentioned how good their relationship was with their pre-clinical tutor.
- 5.113. The students were all very positive about the Vet Family system, Vet Soc and Student's Union welfare support and the extent of peer support available. Indeed there seems to be very good integration between years which is impressive given that the students are working across two campuses.
- 5.114. The centralisation of student support and course administration and the identification of year administrators has helped with the clarity of administrative responsibility and increases the likelihood of identifying struggling students.
- 5.115. The social spaces available to the students at Langford and in Bristol are well-used, very pleasant and well maintained. Students were positive about the facilities and very appreciative.
- 5.116. The establishment of a Head of Student Experience provides a useful focus for maintenance of processes and procedures which relate to student welfare.

Suggestions

- 5.117. Consideration could be given to making tutor training compulsory to improve consistency within the student support process.

Recommendations

- 5.118. None

Chapter 6 – Facilities and equipment

Findings

- 6.1. **Premises in Bristol** – The Pre-Clinical Veterinary Science Building is situated on Southwell Street and includes:
- Two lecture theatres
 - Seminar rooms
 - Computer suites
 - The museum
 - The veterinary dissection room
 - The 'Live Anatomy barn'
 - Clinical skills lab

6.2. Teaching also takes place in the School of Medical Sciences (teaching laboratories) and some in the School of Biological Sciences (parasitology) located at 31-37 St. Michael's Hill, and the AIMS CETL (Applied and Integrated Medical Sciences Centre of Excellence in Teaching and Learning) are used for some tutorials.

6.3. **Premises at Langford** – The School of Veterinary Science (SVS) is located approximately 14 miles southwest of the centre of Bristol in the village of Langford. The Langford campus occupies the grounds of the original Langford House estate and all the clinical services (see below), as well as other academic facilities, are located on this site. Facilities include;

- Two principle lecture theatres, the Hodgkin Lecture Theatre (HLT) and the Churchill Building Lecture Theatre (CBLT)
- Seminar/small group teaching rooms
- Teaching laboratory
- Clinical skills laboratory
- Computer rooms
- Library
- Small Animal Hospital (SAH)
- Small Animal Practice (SAP)
- Equine Centre
- Farm Animal Practice
- Post-mortem room, pathology wet lab and incinerator
- Abattoir
- Research laboratories
- Recreational areas (student “barn”, canteen, bar, gym, squash and tennis courts)
- Student hostels
- Administrative offices
- Animal Welfare and Behaviour Research Building

There is an adjacent livestock farm (Wyndhurst Farm) on the opposite (South) side of Langford Road with a dairy herd and sheep flock.

6.4. **Premises at Cannington** – The facilities at the Cannington Centre of Bridgwater College are used for teaching handling and husbandry of a range of species including horses, exotics and pigs. Cannington is approximately 25 miles southwest of Langford and students are taken to the Cannington Centre by bus.

6.5. Clinical services are run by Langford Veterinary Services (LVS). Small animal, equine and farm animal work are largely located in separate areas, although they also share some cross species services and their associated facilities such as imaging, anaesthesia, pathology and laboratories.

6.6. The **Small Animal Practice (SAP)** is a first-opinion practice serving the local community. It is sited in a purpose-built facility (the Mendip Building – 2006) comprising 5 consulting rooms plus one larger room which is used for teaching, behaviour consultations and ‘puppy parties’. The SAP has its own anaesthetic induction room, operating theatre, minor procedures room and dog, cat, rabbit and exotics wards immediately behind the consulting suite. Adjacent to the SAP is the Dog Hydrotherapy unit, with spa, water-walker and swimming pool.

- 6.7. The **Small Animal Hospital** houses the main reception area, 7 consulting rooms together with the pharmacy, two procedures rooms, a physiotherapy room and a dog ward. Upstairs is the 'feline area' comprising a waiting room, two consulting rooms, a procedures room and a cat ward. The immediately adjacent new small animal surgery building was a £7m investment opened in 2012. This houses 5 small animal operating theatres, 4 anaesthetic induction bays, an anaesthetic recovery room and a new ICU including an enclosed 'pod' for cats. New imaging facilities are also provided in this building comprising two ultrasound rooms, a radiography room, a CT room (on two levels making it accessible both for small animal cases and standing horses) and a radiology viewing room. MRI for small animals is provided by a permanently stationed mobile unit, sited immediately adjacent to the small animal hospital.
- 6.8. The original surgery building now houses the dog surgery ward, the day ward, two small procedures rooms and storage, laundry and sterilization facilities for surgery. There is a second (overspill) radiography room, a student computer room and teaching rooms for imaging and ophthalmology. This building also houses the new Clinical Skills Laboratory, opened in 2013 and situated in what was the large animal theatre. Small animal isolation facilities are separate from the main hospital in a wing of the Pearson Building with their own separate entrance.
- 6.9. **The Equine Diagnostic Centre (EDC)** contains three procedure rooms (one of which has stocks) for clinical examination, endoscopy, ultrasound and standing dental treatment, and a radiography room with adjacent area and offices.
- 6.10. **The new Equine Surgical Facility (The Alborada Building)** is a £3m project opened in 2012, that houses two operating theatres, one standing surgery room, three induction/recovery boxes and a large area for patient preparation prior to entering theatre

Comments

- 6.11. The facilities at both campuses are of varying vintage and reflect the time at which they were built. The new facilities such as the Wyndhurst Farm dairy and the new small animal and equine surgical facilities are state of the art. Other buildings, while older, all appeared adequate for clinical functioning and for teaching. Many had been renovated and the Langford campus had a tidy and functional appearance.
- 6.12. Some contraventions of stated policy were noted, such as eating in areas in the small animal hospital despite clearly visible notices that food and drink should not be consumed; the wearing of scrubs in designated eating areas and both staff and students wearing clothing with below-elbow sleeves in clinics.
- 6.13. A spot check of ambulatory vehicles revealed a number of shortcomings, some of which would pose risks to safety or biosecurity.
- 6.14. Although veterinary course teaching within the new Life Sciences Building teaching laboratory will be limited, it is a modern and well equipped facility for delivery of basic science teaching to the whole year group.

Commendations

- 6.15. The Live Anatomy Barn and the Clinical Skills Facility at Langford are to be commended for their innovation and ready accessibility for students.

Suggestions

- 6.16. None

Recommendations

- 6.17. Adherence to biosecurity protocols must be enforced for staff and students.
- 6.18. A barrier must be fitted to the ambulatory van to ensure that luggage cannot enter the passenger compartment in the event of sudden deceleration.

Chapter 7 – Animals and teaching material of animal origin

Findings

Anatomy

- 7.1. Thirty to forty dog cadavers are used each year and these are obtained from the local Bristol Dogs Home. The animals are received dead and are embalmed on-site. Cadavers are stored in large tanks in a 2% solution of formalin prior to being used and are rinsed in cold water for at least 24 hours before the students use them.
- 7.2. Ponies, goats/sheep and calves are sourced from auctions/local suppliers and are euthanized on-site prior to embalming. These cadavers are stored in a +4 degree cold room.
- 7.3. Thirty rabbits are collected throughout the year and embalmed and stored in tanks as above.
- 7.4. All of the embalmed cadavers are used maximally on all topographic courses e.g. when the limb is removed to access the thoracic region, it is tanked and used later on, during the locomotor practicals.
- 7.5. Thirty chickens and thirty fish are bought in for one practical session and dissected fresh.
- 7.6. Approximately 3 pigs sourced from a local supplier are dissected fresh.
- 7.7. Rodents/guinea pigs are dissected fresh.
- 7.8. A large amount of isolated fresh viscera are obtained from a local abattoir; e.g. large animal digestive tracts, kidneys and livers are used.
- 7.9. Bristol has approximately 300 stored pro-dissections, which are used repeatedly over the years. These are all catalogued with individual reference numbers. They also have approximately 500 specimens in pots, which are all catalogued and mostly digitised.

- 7.10. In addition to the cadaver material, live animals are used regularly in anatomy teaching.
- 7.11. An ultrasound scanner has recently been obtained and will be used from 2014 throughout live anatomy sessions.
- 7.12. Bristol uses a variety of computer assisted learning tutorials throughout their teaching in addition to eBiolabs pre and post practical quizzes.

Pathology

- 7.13. For the academic year 2013/2014, the AHVLA (now the AHPA) operated a farm animal surveillance post mortem service out of University facilities. This gave the students access to necropsy material provided as a result of this service and such material was used for rotation teaching under the supervision of the University pathologists. As of September 1st 2014 the University was awarded the contract with AHVLA (now the AHPA) for providing a surveillance farm animal post mortem service, for a geographical area extending to a 1 hour drive from Langford, as part of the new AHPA surveillance network structure. From 1st September 2014 the School has operated a commercial farm animal post mortem service, administered by Langford Veterinary Services (LVS), and lead by a newly appointed academic pathologist (ex AHVLA) dedicated to that role and employed in addition to the existing team of pathologists. The surveillance work represents a proportion of the throughput of this new service. Projected numbers of animals through the combined service (commercial and surveillance) are expected to equal or exceed those seen in 2013/14 and this has been supported by early analysis of throughput. On that basis the number of farm animal necropsies available for teaching is expected to result in a denominator that is within or better than, the recommended range.
- 7.14. The total of 797 necropsy cases in 2013/14 includes 203 cases of formal necropsy submissions to the University from external practices or LVS, 492 submissions to the AHVLA (now AHPA) Laboratory (including 273 ruminants, 20 pigs, 36 poultry, 81 other animals and 82 fetuses) and 102 pigs specifically sourced for final year student necropsies. The number of necropsy cases submitted to the University pathologists has increased from 2011-12, although submissions to the AHVLA Lab fell in 2013/14 having risen sharply over the previous 2-3 years. The reasons for this are unclear, but may in part be due to the emergence of the Schmallenberg virus infection in 2011-12. The School already sources pigs specifically for teaching necropsies and since 2010 every rotation student undertakes an individual supervised necropsy examination, usually of a pig or calf.
- 7.15. The School provides bovine reproductive tracts obtained from the local abattoir, for reproduction teaching. During the fourth year of the course, students undertake small group (10 sessions or less) sessions in the 'wet laboratory', during which fresh specimens obtained from the local abattoir are examined under the guidance of one of the academic pathologists.

Animal production

- 7.16. On the site of the institution, the University's Wyndhurst farm is approximately 100 Ha with a 190-200 cow high yielding Holstein-Friesian dairy herd with an average yield approaching 9,500 litres / cow / year. The farm also has approximately 150 replacement dairy young stock at any given time. Phase 2 of the Wyndhurst Farm Capital project was completed in December 2012, offering improved, safe access for students to cattle for teaching. A 100 breeding ewe flock of New

Zealand Romney sheep is also kept for teaching purposes. Surplus lambs are slaughtered through the school's own abattoir and marketed through the University caterers, allowing everything from 'conception to consumption' to be studied by the students.

- 7.17. On other sites to which the institution has access, students undertaking the Farm Animal Track rotation also attend a week at either one of two external veterinary practices (Shepton Veterinary Group and Delaware Veterinary Group) with whom the University has a contractualised collaborative agreement in place. Each practice has over 100 dairy clients, some of which are milking over 1000 cows, approximately 60 beef herds and a number of small ruminant and pig holdings. In addition, students (as part of their animal management practical teaching) travel to the Cannington site of Bridgwater College, to study species that are not kept on site in sufficient number including horses, pigs and exotics.

Food hygiene/Public health

- 7.18. The University of Bristol has its own multi-species red-meat abattoir on the Langford site (approved food business no 8037). The abattoir is operated as a commercial entity, catering for the slaughter of cattle, sheep and pigs for local farmers, smallholders, hobby farmers and butchers. In 2013 it processed 530 cattle, 2763 sheep and 2959 pigs. During the one week 5th year Veterinary Public Health rotation, the students spend time in the abattoir, during which attention is specifically given to methodologies of slaughter, dressing procedures and risk assessments in relation to Food Hygiene and Microbiology, ante- and post mortem inspection, relevant pathology and animal welfare. Didactic teaching on these subjects uses examples from the abattoir. Sample material collected from other abattoirs in the region is also used for the 5th year teaching. Where possible, aspects of meat processing are covered. As of 2013-2014, there also is VPH teaching in Year 1 including two sessions as part of anatomy practical activities. In these sessions abattoir samples are also used to demonstrate slaughter animal pathology to the students.

Consultation

- 7.19. Langford Veterinary Services (LVS) clinics are open throughout the year.
- The *Small Animal Practice* is open Monday to Friday 08.30 to 18.00 (19.00 on Thursday) and on Saturday 09.00 to 12.00, and operates a 30-minute appointment system.
 - The *Small Animal Referral Hospital Reception* is open Monday to Friday 08.00 to 19.00 and 09.00 to 13.00 Saturday and Sunday and routine appointments are scheduled Monday to Friday during these hours.
 - The *Equine First-Opinion and Referral Hospital Reception* is open from 08.30 to 17.30 Monday to Friday and routine appointments are scheduled in these hours.
 - The *Farm Animal Practice* is open from 09.00 to 17.00 Monday to Friday and routine appointments are scheduled in these hours.

Patient flow

- 7.20. The term “consultation” refers to those patients that come in and go out during daily consultation hours. “Hospitalisation” refers to those patients that are retained in the clinic as “in patients” following presentation.

Vehicles for animal transport

- 7.21. Both the ambulatory practices have an assortment of vehicles that are used to undertake home visits and can be used to transport small animals back to the surgeries if necessary. LVS owns 6 vehicles altogether. Equine and farm animals are always transported by the clients (or transporter), rather than by members of staff.

On-call emergency service

- 7.22. All of Bristol's clinics run their own out of hours emergency services. In addition LVS runs a small animal first opinion emergency service for several local practices as well as for their own first opinion practice when the SAP is closed. All services within SAH and the Equine Hospital provide an emergency service for referring vets. These cases are seen by the SCTSs initially with the backup of senior clinicians at all times. The full facilities of the Hospitals are available for these cases as part of the 24/7 coverage for clients. The SAH has both nursing and veterinary staff within the Hospital to care for patients at all times of the day and night including weekends and bank holidays. The Equine Hospital has staff on site at all times and when appropriate the veterinary and nursing staff will be managing those patients at all times.

On-farm teaching and outside patient care

Ambulatory (Mobile) clinic

- 7.23. The Ambulatory (Mobile) Clinic is defined as a unit which provides on-call outside services to farms and other institutions and is generally operated on a commercial basis. Both equine and farm ambulatory practices provide a service 24/7. A vet from the equine practice provides out of hours cover for the practice. A vet from the farm animal practice provides cover for the farm practice. The phone for both these services is taken by a specialist out of hours provider (Kernow) who then directly contact the appropriate vet on duty for that service. Students are involved in all aspects of the ambulatory services.
- 7.24. The equine mobile clinic has one Skoda estate car (5 people) and one Mitsubishi 4WD (5 seats). The farm animal mobile clinic has two, 4WD vehicles (5 seats each), a Skoda estate (5 seats) and a van (2 seats).
- 7.25. The number of sick animals seen by the ambulatory clinic per year during the past three years is given in the SER. On average the farm animal ambulatory clinic conducts approximately 2,300 visits to local farms spread across a client list of some 234 unique locations. The equine ambulatory clinic conducts approximately 2,200 visits to clients annually.

Other on-farm services and outside teaching

- 7.26. The School uses a limited semi-dispersed model to allow for outside teaching in two areas: farm animal elective teaching and first opinion companion animal charity work. To this extent, The University has contractual arrangements with the Shepton Veterinary Group (Shepton Mallet, Somerset), Delaware Veterinary Group (Castle Cary, Somerset), the RSPCA Greater

Manchester Animal Hospital and the PDSA Pet Aid Hospital in Bristol. The practices and respective charities are remunerated for this provision. Up until 2013/14 all students attended Shepton and Delaware practices as part of the final year rotations. For 2013/14, only those students on Farm Animal Track rotations attend those practices. While at the RSPCA the students are likely to triage/operate on 6000 dogs, cats, ferrets & rabbits each year. Approximately 60% cat, 20% dog, 15% rabbit and 5% ferret.

- 7.27. All the LVS clinics run as 'normal' practices and offer the same services one would expect to their level. All clinics are members of the RCVS practice Standards Scheme – The Small Animal Hospital and Equine Hospital are RCVS Accredited Hospitals and the first opinion practices have RCVS Accredited General Practice Status. All of these provide 24/7 care for Hospital's clients. The specialist services are also provided out of hours.
- 7.28. The level of clinical service delivered by the Farm Animal and Equine practices is equivalent to that of outside practice. Bristol has access (through other disciplines) to facilities/equipment and expertise and it retains a loyal and expanding client base within the clinics.

Comments

- 7.30. The access to animals is very broad and in good numbers in all species except pigs and poultry. It is understood that in the clinical years this is largely down to geography and the nature of the operations, which require high biosecurity and use specialist poultry vets. While during the pre-clinical years there are pigs and poultry at Cannington and classes are taught there, the number of animals is very small and these are not at all representative of commercial units.
- 7.31. The facilities at Cannington are excellent for giving access to a wide range of species, both the more usual household pets and the more exotic ones.
- 7.32. The new dairy unit is of a very high standard and is an excellent and well-designed teaching facility as well as being a commercial farm giving a real insight for students. Biosecurity is strict and its importance constantly emphasised.
- 7.33. The RSPCA clinic in Manchester and the PDSA in Bristol were highly valued by students and give very good access to hands-on first opinion practice, in a busy yet supported environment.
- 7.34. Although contracts were apparently agreed and appropriate for external teaching providers, not all of these were signed despite the services being delivered.

Suggestions

- 7.35. Consideration should be given to having more pigs available at Cannington, for example a group of farrowing sows, as well as trying to provide access to a small poultry flock for both animal handling and clinical experience.
- 7.36. Ensure that all staff within the external providers receive training and support in teaching and assessment.
- 7.37. Ensure that all contracts for external teaching provision are signed and up to date.

Recommendations

7.38. None

Chapter 8 – Library and learning resources

Findings

- 8.1. The School of Veterinary Sciences is served by the University of Bristol Library, which offers a wide range of information resources and services, including:
- Many thousands of electronic books, journals and databases
 - Over 1.4 million volumes of printed books and journals (via the Library Catalogue)
 - Professional subject liaison and support
 - Lending and reference facilities at ten branch libraries
 - Inter-library lending and document supply services
 - Formal arrangements for access to other university libraries (e.g. during vacations)
- 8.2. As well as extensive online resources, there are three library buildings serving the veterinary programme: the *Veterinary Sciences Library* at Langford; the main *Medical Library* in Bristol and the subsidiary *Biological Sciences Library* (Veterinary Parasitology), also in Bristol. Library provision is tailored to meet the needs of the Bristol Veterinary School, with the Medical Library in Bristol serving the units taught in years 1-3 of the BVSc, and the Veterinary Sciences Library in Langford serving all veterinary students, as well as the research and clinical communities at Langford.
- 8.3. Both libraries provide dedicated learning spaces for social, quiet and silent study; have PC rooms with high-speed internet links and lap-top loan services with Wi-Fi throughout the Library. The Veterinary Sciences Library is open 24/7 for members of the School; the Medical Library opening hours have recently been extended, and students may use any of the 10 University Libraries, as well as the Computer Centre in Bristol which offers 24/7 access to PCs. As part of its new 2014 strategic plan, the University Library is creating new and improved study spaces across the Bristol campus in response to rising student numbers, with, for example, the new Senate House Study Centre.
- 8.4. A refurbishment of the Veterinary Sciences Library took place in the summer of 2014 and reconfigured the use of space to create more study spaces; group study rooms; a larger PC Room with an additional 12 data points for students to use in conjunction with a laptop and power sockets for all study spaces reflecting a transition to a 'digital first' strategy for journals. Funding was also awarded in 2013 for creation of additional study spaces in the Medical Library, in recognition of rising student numbers.
- 8.5. There is a dedicated Subject Librarian for Veterinary Sciences (2 days per week) who has formal contact with the School via an Academic Library Representative nominated by the Head of

School. Subject Librarians for the pre-clinical units are based in the Medical Sciences Library and work with Academic Library Representatives for the relevant Schools. The Academic Representatives and the Subject Librarians sit on the Medical Libraries Liaison Committee, which looks at Faculty-wide Library provision. The Veterinary Subject Librarian also reports to the Teaching Management Committee at Langford.

- 8.6. The libraries hold at least one copy of all the books on student reading lists and multiple copies of key textbooks, with a wide range of eBooks and books for reference. The University and Library managers allocate the budget for books on an annual basis.
- 8.7. The University subscribes to large, inter-disciplinary journal and databases packages from key publishers as well as individual veterinary journal titles; students have access to resources across the medical, life and clinical sciences. Two large veterinary journal backfiles, for Wiley and Elsevier titles, provide online access to older editions. An annual Serials Review Process provides ongoing review of subscriptions in light of changing needs, and in the past 4 years there have been new subscriptions to six essential veterinary-specific titles.
- 8.8. All students receive Library induction and training in the use of eJournals, databases and the Web to support literature reviews and searches for evidence. A number of online database training guides and library video tutorials are provided.
- 8.9. A brand new Life Sciences Building opened in 2014 after a £56.5 million investment. It provides a wide range of informal learning spaces, an atrium social space open to veterinary students to use at any time. The library is open until 9pm on weekdays during term-time and 6.30pm during vacations. It is also open at the weekends.

Comments

- 8.10. The library and related services fulfil the requirements. The restructuring of the medical and recently also the veterinary library concerning the study space, enlarged number of computers, the opening hours and the easy access to textbooks and e- journals present in both Bristol and Langford are really appreciated by the students.
- 8.11. There has been a large investment in information technology facilities including the implementation of eBiolabs, TurningPoint and the virtual microscope. All have improved the teaching facilities and provide access to the study material during the whole academic year and beyond.

Commendations

- 8.12. The very enthusiastic staff and their active involvement in library induction and training of the students in searching techniques and the use of eJournals, databases and the Web are of great value.

Suggestions

- 8.13. None

Recommendations

8.14. None.

Chapter 9 – Admission and enrolment

Findings

- 9.1. The minimum number of years (MNY) allowed to successfully complete the curriculum is 5 years.
- 9.2. The school has a minimum A-level (or equivalent) academic requirement to ensure entrants have an equal knowledge base in Biology and Chemistry, and a minimum requirement for at least six A grade GCSEs in English Language, Mathematics and Physics. Various alternative qualifications are considered, including the IB Diploma, Cambridge Pre-U, Access to HE Diploma (Science or Medicine), BTEC extended level 3 diploma, SQASH, Welsh Baccalaureate, European Baccalaureate (EB) and graduate entry for holders of a relevant degree at 2i class or higher. International qualifications are assessed by specialists in the international office for equivalences to these qualifications. English Language qualifications may be required if English is not spoken as a first language.
- 9.3. In order to ensure fairness the University has a policy of supporting Widening Participation candidates, and making use of the in-house 'Access to Bristol' scheme alongside existing national initiatives. This process is overseen by the Strategic Admissions Committee.
- 9.4. **Contextual offers** - as part of its commitment to the UK national agenda on widening participation, the School considers the educational context in which grades have been achieved, particularly if there is evidence that the current or most recently attended school or college performs below a defined threshold. The University reviews its definition of educational disadvantage and low-performing schools each year and each case is considered on an individual basis. This will be further expanded by the introduction of the Gateway to the Profession programmes in 2017.
- The number of contextual offers given in 2014 was 17 out of 151 applicants from known low performance schools.
- 9.5. **Relevant Work Experience** - there is an expectation that candidates will have undertaken work experience in veterinary and other animal establishments prior to applying. The University would not offer a place to a home/ EU applicant who has no veterinary work experience however for some overseas applicant this may be waived if they come from a country with little or no existing veterinary profession.

Overall, the demographic profile of the cohort of admitted students is in line with current objectives of the School and there are no plans to introduce specific initiatives to change the profile of applicants or admitted students.

- 9.6. Starting in September 2013, the School limited the number of students admitted to Year 1 to 120, which included students progressing from the pre-vet course and any BVSc student repeating or resuming the first year. From 2014 this number increased to a maximum of 150.

A business case has been made for the increase in admitted students and the staff feel that the increased number of students can be accommodated.

- 9.7. The number of HEFCE funded positions at the School is determined centrally by the University, but may be increased by application. These applications are considered in the context of the University's overall funded targets. At the present time this number remains at 120 places, but will increase to 150 in the 2014/15 academic year.

- 9.8. After screening to ensure applicants possess the minimum academic qualifications, scores are awarded to shortlisted candidates before interview. These scores are based on GCSE results (15% towards total) predicted A level scores (15%) with the remaining 70% of the score derived from the personal statement on the UCAS form.

- 9.9. Interviews comprise a 20 minute face to face interview with 2 members of staff and 5 multiple mini interview (MMI) stations which assess the following, problem solving from first principles, communication skills, a practical task following written instructions, calculation and data handling and interpretation. The MMI resemble mini-OSCEs and participants are asked to respect rules of professional conduct and not to disclose the content of the MMI to others.

Interview panel members are selected from HEFCE funded staff members based on their availability. Care is taken to assemble a panel with a range of different research/teaching interests. Interviewers are trained (the first year, an external teacher was hired and special attention was given to the fact that the interviewees are predominantly young adults. This teaching has been repeated for all new interviewers).

- 9.10. Under exceptional circumstances it might be possible for students to enter in a year other than year one (e.g. as a transfer from another UK programme due to personal circumstances); in these cases it may be necessary for the student to enter in a lower year.

- 9.11. To this end, the School has looked at the students who were admitted initially and which year they have reached after the MNY has elapsed.

- 9.12. Students failing any unit after one resit opportunity are required to leave the Programme but may appeal the decision.

- 9.13. Overall, retention is 97%.

Comments

- 9.14. The team finds that the criteria for assessment of Admission and Enrolment are fulfilled

Suggestions

- 9.15. An analysis of the variability in scoring among interviewers is suggested to allow for standardisation

Recommendations

9.16. None

Chapter 10 – Academic and support staff

Findings

- 10.1. Academic staff from a number of other Schools teach on the BVSc programme. The total FTE contributing to teaching from Schools other than SVS is 5.1 which includes 0.6 FTE in Biochemistry, 1.51 FTE in CCCA and 2.5 FTE Physiology and Pharmacology. If academic staff contribute to teaching to multiple programmes (this is the case for the pre-clinical compartments of the BVSc), they are counted as fractional appointments for the purposes of calculating FTEs.
- 10.2. When LVS was introduced in 2009, all support staff involved in clinical service support were transferred from SVS to LVS (by TUPE³). Since then the number of support staff employed by LVS has increased and currently stands at 97.0 FTE comprising: a senior finance executive, a CPD manager, a business development manager, 42 veterinary nurses, 23 technical staff and 34 administrators (receptionists, accounts managers etc.). In addition, 15 veterinary surgeons (who were in post at the time of the introduction of LVS) remain employees of LVS. A significant change since the 2009 visitation has been the increase in the number of nursing staff in the LVS hospitals. This was in response to the specific recommendation that undergraduate students should not be required to undertake compulsory EMS within LVS. In addition, Velcourt employ the Wyndhurst Farm Manager, the stockman and general farm support; as such these staff are not University employees.

Academic Staff in SVS

- 10.3. The University defines the number of academics in each School as the Academic Establishment. Within SVS there is a sub-set of academics that fall within a Clinical Establishment. Those within the clinical establishment are all MRCVS who spend a significant proportion of their time engaged in final year clinical teaching and include academics on Pathway 1 and Pathway 3. The School also has a Clinical Training Scholar Establishment that is reviewed annually.
- 10.4. In 2007, the University introduced a teaching focused academic track (Pathway 3). In other Schools, the majority of staff on this track are in non-progressable roles. However, in SVS clinical academics appointed on this track are normally in roles that are considered progressable (i.e. staff can move up to the next level provided they meet the progression and promotion requirements). Pathway 1 is the 'standard' academic pathway and Pathway 2 the research only academic pathway (the majority of the staff on this pathway are not core funded).
- 10.5. The School has 104 academic staff, of these 42 (40%) are on Pathway 1, 28 (27%) are on Pathway 2 and 34 (33%) on Pathway 3. Of the HEFCE (core) funded staff, 52% are on Pathway 1 and 41% are on Pathway 3. At present the School has two core funded Pathway 2 posts.

³ Transfer of Undertakings (Protection of Employment) Regulations 2006

Core-funded academics and LVS clinicians are included in the academic staff student ratio calculations.

- Pathway 1 staff include: 17 professors, 21 senior lecturers and 4 lecturers.
- Pathway 2 staff include: 1 reader, 6 senior research fellows, 5 research fellows, 8 research associates and 8 research assistants.
- Pathway 3 staff include: 1 professor, 10 senior clinical/teaching fellows; 19 clinical/teaching fellows, 3 clinical/teaching associates and 1 teaching assistant (non-clinical).

10.6. The promotion process (to reader or professor) takes place annually. In the last 5 years 2 promotions to Professor have taken place and 4 to Reader. The School has also made four external Professional appointments on Pathway 1 and two on Pathway 3 since 2009 (one of these was a newly created post).

Comments

10.7. Staff of the school and those teaching and supporting the BVSc programme in all roles, appear to be satisfied with their conditions of employment and happy in their work. There appears to be good esprit de corps and a dedication to task, particularly at a time of major curriculum review which can be stressful on staff.

10.8. The roles of Head of Teaching and Programme Director represent significant workloads. During the development of the new curriculum, there has been significant advantage in both of these roles being undertaken by the same person. However, as it moves into the implementation phase, the school may wish to consider whether one person can continue to fulfil both these roles.

10.9. Staff on Pathway 3 seem to be confident of progression. While the establishment of this pathway for progression is excellent, particularly for clinical staff with a significant teaching load, its effectiveness should be monitored in the future.

10.10. There is comprehensive administrative support which seems likely to be appropriate for managing the increased student numbers. The presence of the embedded HR, IT and Finance staff, who understand the sometimes unique and specific needs of the School, represent a significant benefit.

10.11. Centralisation of the administrative staff in one building on site is an advantage, maximising access to students and optimising the delivery of student support from the various administrative elements.

Commendations

10.12. The School is to be commended on the use of a project manager in the development of the new curriculum, as the project manager represents a key element contributing to the successful development and delivery of the new curriculum.

Suggestions

10.13 The development and delivery of the new integrated curriculum currently depends on the enthusiasm and dedication of the academic staff involved. Maintenance of the delivery of the

course in future may require additional administrative support and this should be kept under review.

Recommendations

10.14. None

Chapter 11 – Continuing education

Findings

- 11.1. The School organises a wide range of Continuing Education (CE) Courses at the establishment both itself (via its CE Unit), and through LVS. These courses fall into a number of areas including clinical courses, two animal welfare modules from the RCVS Certificate in Advanced Veterinary Practice (CertAVP), SVS Continuing Education Unit which provides one of the two OV Training Courses available in the UK, an Animal Welfare Officer (AWO) training course, international conferences and externally organised CPD at Bristol.
- 11.2. The Langford CE Unit is currently providing a very simple distance learning package (its completion is a course prerequisite for the three week Official Veterinary surgeon [OV] Training Course). The School is a member of the VETNET Life Long Learning Network and funding is available to appoint a veterinary surgeon to work with existing staff to develop templates for a Foundation Degree and CPD units.
- 11.3. The School is active in organising and delivering continuing education at an international level through research symposia and congresses held at the School and the wider University.
- 11.4. Many CPD events organized by external providers are hosted at Bristol. For example, in collaboration with the BCVA, Bristol contributed a two-day Herd Health and Welfare unit for the BCVA Advanced Practitioner Course. Another example is the Modern Equine Dentistry for Veterinary Surgeons course run in association with BEVA.

Comments

- 11.5. The clinical CE is delivered by LVS mainly through staff from LVS and BVS, only supplemented with external lecturers when necessary. The programme has expanded in recent years providing professional training in all aspects of veterinary sciences. The content of the clinical courses is “bottom-up”, driven through input by evaluation forms from veterinary practitioners attending the courses.
- 11.6. The CE unit at Langford has chosen at the moment not to invest in professional technology for distance learning, and will continuing to organize the lectures and training on site.

- 11.7. The leading meat quality researcher retired recently, but was replaced by a researcher outside this field, and so the expertise in this domain has not been sustained.
- 11.8 Bristol is not currently an active provider of RCVS CertAVP modules, with only 5 candidates currently enrolled, as priority has been given in recent years to the review of the undergraduate curriculum.

Suggestions

- 11.9. None

Recommendations

- 11.10. None

Chapter 12 – Postgraduate education

Findings

- 12.1. In addition to the CPD programme, the School offers a number of postgraduate education courses:
- Clinical specialty training programmes for veterinary graduates - one year Internships as Junior Clinical Training Scholars (JCTS) and three or four year Residencies as Senior Clinical Training Scholars (SCTS).
 - MSc Global Wildlife Health & Conservation
 - MSc in Meat Science (closed for new entries, finish in 2015)
 - MSc by Research
 - Masters by Research (new program, started in 2014, intercalating veterinary and medical students)
 - Clinical Research Tasters
 - PhDs
- 12.2. This year, the Bristol Doctoral College (BDC), established in 2013 to oversee the management of all postgraduate research students, rolled out a Skills Training and Review (STaR) on-line system to record student progression information in order to reflect on their progress.

Clinical specialty training (Senior and Junior Clinical Training Scholars (interns and residents))

- 12.3. A committee was established in 2013 to oversee the way SCTS and JCTS students are managed at Bristol. This is chaired by Professor Ed Hall.
- 12.4. Both JCTSs and SCTSs involved in training receive a tax-free stipend. The majority are funded either jointly by LVS and SVS or by SVS alone, or by charities or industrial partners.

Clinical specialty training (Senior and Junior Clinical Training Scholars (interns and residents))

- 12.5. Postgraduate research students require a grant for their training programme to cover fees and subsistence expenses. The majority are funded by research grants, however some are self-funded.
- 12.6. Home students are funded from a variety of sources including: RCUK (e.g. the BBSRC DTP programme in Global Food Security), the Wellcome Trust, other charities (Pet Plan, Pet Savers etc.) and UK sector bodies (British Pig Executive, English Beef & Lamb Executive etc.). There are a small number of University-funded PhD studentships available each year (some are linked to NIHR funding), but these are highly competitive awards.
- 12.7. Most overseas students are funded by grants from their own government or relevant organisations, e.g. British Council Department for International Development.
- 12.8. Since the last full RCVS visitation 12/32 of JCTSs have already entered Residencies or PGR programmes; 31/68 of the Senior Clinical Training Scholars (SCTSs) have completed their training and have already achieved a Diploma. Another 20/68 SCTSs have registered for or have completed an MSc or PhD. Twenty-one SCTSs have found employment in Veterinary Schools, and 19 are working in private referral practices.

Comments

- 12.9. The MSc in sustainable Meat Production is closed to new entrants, as the leading meat quality researcher at Bristol retired and was replaced by an expert in another area.
- 12.10. The school now has a quota of clinical training posts that is agreed annually, with automatic reappointment of the posts.

Suggestions

- 12.11. Overloading the SCTSs with teaching of undergraduates should be avoided and sufficient opportunities for full preparation for the specialist level should be provided
- 12.12. Much of the postgraduate support is based in Bristol and consideration should be given to ways of enabling Langford-based residents to engage in the wider postgraduate training opportunities available in Bristol.
- 12.13 Provision of a designated space for postgraduates to meet would be helpful to facilitate integration and networking.

Recommendations

- 12.14. None

Chapter 13 – Research

Findings

- 13.1. **Research Projects** - Under the current, outgoing, curriculum all 3rd Year BVSc students undertake a research project, in which they are expected to work in a team of four students to write a mock grant application, as part of the Basic Clinical Science unit. This is marked by both the group's supervisor and one other member of the School's research staff.
- 13.2. **Intercalation and vacation projects** - All students have the opportunity to intercalate for the period of one year for a BSc or MSc/MRes degree with the associated substantial research projects. This opportunity to undertake research is advertised during the introductory sessions hosted for 1st and 2nd year students followed by meetings between the Head of Research and those expressing an interest as appropriate. In addition, a 'research awareness day' is held in Year 3 when staff give presentations on their research and promote intercalation opportunities.
- 13.3. Most students intercalate between years 3 and 4 of the course and in the last three years more than 25% of the year group have intercalated. Students intercalate in a range of subjects in Bristol and at other Universities, although the majority intercalate in subjects offered in FMVS. In recent years a significant proportion of these projects have been funded by the Wellcome Trust's CVTRI (unfortunately the Wellcome Trust no longer funds intercalating veterinary surgeons). The School's BSc in Animal Welfare and Behaviour has been particularly successful in attracting intercalators from other UK Vet Schools as well as from Bristol.
- 13.4. In 2014 a new MRes in Health Sciences Research will start in CCCA, being run by the FMVS, which has been designed for intercalating students on all three professional programmes. There is one veterinary student intercalating on this course in 2014-2015. A number of students are also encouraged to undertake vacation projects at the end of the second or third year.

- 13.5. **Additional Opportunities** - Students are also given the opportunity to increase their research awareness by way of the School-run research seminars. These seminars are open to all staff and students on site. As part of the new BVSc curriculum students in Years 1 and 2 have timetabled lectures from the School's research leaders who talk about their careers and introduce their research. The students in Year 4 also arrange for staff to give research seminars as part of the 'Clinical Club' series for which they have attracted Industry sponsorship, and to which all years are invited.

Comments

- 13.6. SVS has a highly research-based education and it encourages all students to gain research experience.
- 13.7. Research activity of students is very important; it widens the professional horizon of the graduates, promotes training of the next generation of scientists and helps future practitioners in understanding and evaluating results of research. Reintroduction of research projects in the new curriculum is highly welcomed by the visiting team. A higher proportion of intercalating students are likely to go on to postgraduate clinical or research qualifications.
- 13.8. The new Faculty of Health Sciences, which will include SVS from 2015, provides excellent opportunities for research collaborations.
- 13.9. The learner-centred teaching approach of SVS provides a good basis for research activity amongst undergraduate students.

Suggestions

- 13.10. None

Recommendations

- 13.11. A business case was provided for reintroduction of research projects to years 3 and 4 of the new curriculum with associated costs and there is significant buy-in from staff across the Faculty for these research projects. As the research projects will commence for year 3 undergraduates in the 2015-16 academic year it is recommended that resources are approved and implemented urgently to avoid delay in timetabling of the programme (see also recommendation in **Chapter 3 – Finances**).

Chapter 14 – Extra Mural Studies (EMS)

Findings

Pre-Clinical EMS

- 14.1. The RCVS requires that every student complete 12 weeks of pre-clinical EMS during BVSc Years 1 and 2. This must be completed by the end of August prior to enrolling for Year 3 so that registration for Year 3 can take place. To ensure a broad range of experience, students' pre-clinical EMS time should be divided into a minimum of 2, ideally consecutive, weeks of:
- Lambing
 - Equine
 - Pig or poultry (or one week of each)
 - Dairy
 - Veterinary nursing or kennels/cattery
 - A placement of their own choosing
- 14.2. In addition to attendance certification and feedback from placement providers, two written reports are required to be submitted by the student for assessment purposes; a Lambing Report in Year 1 as part of the assessment for the Animal Management-1 unit and another large animal report in Year 2 as part of the Animal Management-2 unit.

Clinical EMS

- 14.3. All students have a 'Foster Practice' for part of their clinical EMS. Students are advised to spend between 10 and 14 weeks, spread over the three-year clinical period, at their Foster Practice. This enables them to gain a continuous core of experience in a familiar practice environment.
- 14.4. Students may choose a "two-species" practice as their main Foster Practice and then spend some extra time (normally about four weeks) in a practice for the third species that their foster practice does not provide exposure to (small animal, equine or farm animal). Alternatively, they may have three single species Foster Practices, spending about four weeks in each of two species areas and then longer in the area in which they are most interested.
- 14.5. The School has built a good relationship with a number of Foster Practices, who are very supportive of the system. Students choose their Foster Practices during their second year, and arrange a one-day visit to meet the staff, usually in the Easter holidays of their second year.
- 14.6. Students may choose how to spend the remainder of their clinical EMS weeks within set guidelines that can include a limited time spent overseas (10 weeks) and undertaking research (usually 6 weeks). They are encouraged also to choose some specialist placements to match interests and complement the species areas they track in during part of their final year.
- 14.7. During the Easter and summer vacations of their third year (prior to entering Year 4) students undertake a minimum of 8-10 weeks clinical EMS, with a minimum of 6 weeks being with their Foster Practice. The remainder of their clinical EMS is undertaken prior to sitting finals. EMS time is now scheduled as part of the extended final year in up to 6-week blocks. This has helped to reduce the pressure on practices to provide placements during traditional vacation time.

Support structures for EMS

- 14.8. Professor David Barrett has very recently taken over from Professor Ed Hall as the Academic EMS Director, the senior academic responsible for the oversight of EMS. In 2013, as part of a process to improve EMS support, Ms Veronica Roberts was appointed as Academic EMS Co-

ordinator. This role was split in 2014 to further enhance student support with Ms Roberts remaining as Academic Clinical EMS Co-ordinator and Mrs Julie Macfarlane taking up the post of Academic Pre-clinical EMS Co-ordinator.

- 14.9. The EMS administration team comprising 2.5 FTE is embedded within student administration, now located in the Dolberry building, with 0.5 FTE based for much of their time in Southwell Street to specifically support pre-clinical EMS.
- 14.10. Guidance for choosing placements is available to students from the EMS administration office, the EMS Co-ordinators and personal tutors using an in-house database available through the VLE Blackboard. Guidance on how to arrange placements, Health and Safety and insurance, and how to behave professionally on placement are available in the student EMS Handbook.
- 14.11. The Handbook is available only through the University's VLE so that it can be updated as soon as required. In the same portal are attendance forms and links to the EMS "Driving Licences". Completion of the Driving Licence is checked by administrative staff for both the 1st and 3rd year of study. As far as possible, all communications regarding EMS are now electronic, allowing for better recording and traceability.
- 14.12. The student administration office arranges the students' first pre-clinical EMS placement (lambing), for them. For the majority of placements, students will contact the placement provider themselves to arrange their visits. A small number of establishments have requested that they should only be contacted by the administration office.
- 14.13. Students use the RCVS Student Experience Log (SEL) to record their experiences and reflections during EMS. The experience of particular skills, which they gain during their EMS, will be carried forward to their new graduate Professional Development Programme log. Furthermore, students develop the ability to reflect on their performance, which is vital for Clinical Governance and ensuring Day One competence.
- 14.14. The SEL is also being used to approve placements prior to the students' attendance. The School reviews the learning objectives to ensure they are appropriate and confirm that Health and Safety requirements are met. By approving Health and Safety requirements prior to a student attending a placement, the School is able to provide their students with liability insurance.
- 14.15. Students may contact the EMS administration office by visiting in person or by telephoning during office hours, or via a dedicated email address (vet-ems@bristol.ac.uk). For non-emergency enquiries they will receive a response within 3 working days. In an emergency situation students are given clear instructions to call the University security service at any time 24 hours a day. Emergency numbers are on the first page of the EMS Handbook. Security staff can then contact one of a number of academic staff using their personal mobile telephone numbers if required.
- 14.16. In response to an increasing number of overseas students, the School has made allowances where they will consider approval of some pre-clinical placements abroad. However, consideration is only given to placements where there would be very little difference in husbandry of species between the UK and the proposed country. For example, a placement at a dairy farm in the Republic of Ireland has been approved, as has equine management at a city riding school in Hong Kong. Students are required to complete a risk assessment prior to approval and work has started on making the application process electronic.

Feedback mechanisms

14.17. An EMS student focus group has been established and the Academic Director attends the staff-student liaison committee. Student feedback on recent changes in the way EMS is managed and on the SEL has so far been very good. Additionally, the School is currently developing processes whereby all students will receive their feedback from EMS placements via personal tutors and clinical deans.

Comments

14.18. Pre-clinical EMS is adequate in quantity and covers ample species areas. Students report that they feel well equipped through this EMS when advancing to the later years of the course.

14.19. The Foster Practice system works well and the students are happy with it. Students made comments about the system providing increased support and opportunity for clinical skills practice. Appropriate measures are in place where there is difficulty in obtaining a Foster Practice and there is adequate flexibility to change Foster Practices if necessary to ensure students are able to obtain maximum benefit from similar experiences.

14.20. The perennial problem of finding placements close to home and the cost of EMS were mentioned by students, and the School works hard to minimise these difficulties. The EMS hardship fund was recognised by students as an accessible means of obtaining financial support in difficult circumstances.

14.21. The School finds every student their first (lambing) placement, which was appreciated as a good introduction to EMS. There is also appropriate support for students from the EMS department within the school where there is difficulty in finding a particular placement.

14.22. The SEL has been adopted throughout all 5 years and staff are becoming more familiar with it – there was enthusiasm and commitment within the whole EMS department which has recently seen increased resource

14.23. Detailed processes are in place for problems that may be encountered whilst students are undertaking EMS. There is a clear primary contact and feedback mechanism within the school for different eventualities that may occur whilst students are on extra mural placements.

Suggestions

14.24. The School could make better use of the SEL, in particular for linking to EMS Feedback Forms, recording of students' reflective reports and filtering students by tutor group to make management of the process easier.

Recommendations

14.25. None

Executive Summary

1. The report is presented to the RCVS, to ECOVE (through EAEVE), the AVBC and the SAVC which each have separate authority to determine accreditation or approval status within their own jurisdictions. The Visitors worked together as a single team to produce this report.
2. The Visitors received a warm welcome from staff and students and are grateful to all those who were responsible for preparing the self evaluation report and arranging the very full schedule.
3. The self evaluation report outlines the changes which have taken place since the 2007 visit. The University is commended on the support it has provided to the School of Veterinary Science since 2007 to allow a significant change and improvement in the resources, facilities and organisation of the vet school activities. Recruitment of an enthusiastic and dynamic senior management team to the school has invigorated staff and students alike to create an ethos of positivity and 'can-do' attitude. The School, with support of the Faculty and the University, has responded positively to previous visitation reports and areas which were previously of concern have now shifted to examples of best practice.
4. The governance and organisation of the clinical delivery through LVS provides substantial quality caseload for undergraduate teaching and clinical research in a real commercial environment. Since the inception of LVS there has been a substantial improvement in clinical service provision with commercially successful businesses providing a high quality service. This is evidenced not only by increased throughput of cases but also by feedback from veterinary practitioners, students, clients and other stakeholders. LVS is now in a position to balance its portfolio of services to allow continued delivery of less commercially successful areas which are required for the undergraduate teaching, such as the provision of a large animal pathology service.
5. The governance and financial arrangements for Wyndhurst Farm have produced a turnaround from a loss making establishment with major biosecurity risks, as identified in the 2007 visitation report, to a financially sustainable example of best practice. The new dairy unit is of a very high standard and is an excellent and well-designed teaching facility as well as being a commercial farm giving a real insight for students. Biosecurity is strict and its importance constantly emphasised.
6. The School has undertaken a major curriculum review and is implementing a more modern and focused curriculum. The process has been rapid and intense and has benefited from excellent leadership of the school senior management team. There is obvious engagement and buy in by staff and students in the review process and appreciation of the more integrated and active learning approach being introduced. Staff are to be congratulated on the development and delivery of this new, vertically and horizontally-integrated curriculum. This is especially impressive given the fact that a number of different Schools within the Faculty have had to be involved in the development and delivery of the new curriculum in years 1 and 2. The School is to be commended on the use of a project manager in the development of the new curriculum, as the project manager represents a key element contributing to the successful development and delivery of this curriculum.

7. The Live Anatomy Barn, ebiolabs and the Clinical Skills Laboratory at Langford are to be commended for their innovation and ready accessibility for students. The Clinical Skills Laboratory is well-equipped, well laid out and fit for purpose. It is very much a “live” facility with new teaching aids being added all the time.
8. The school has a strong track record in encouraging undergraduate involvement in research activity with high numbers of students choosing intercalated degrees. A higher proportion of intercalating students is likely to go on to postgraduate clinical or research qualifications. Reintroduction of research projects in the new curriculum is highly welcomed by the visiting team.
9. In August 2015 the SVS will move to a new Faculty, The Faculty of Health Sciences, along with the Medical and Dental schools and the Centre for Comparative and Clinical Anatomy. This will provide further opportunity for collaborative research within the ‘One Health’ agenda and staff within SVS are positively engaged with this process of change. This organisational structure is seen as a good fit for developing the veterinary clinical programme, research and curriculum alongside those of their medical and dental colleagues.
10. The two major ongoing projects, the implementation of the new curriculum into years 3 and 4 and the increased undergraduate numbers, require finance to allow the projects to be successful. As this is time critical the Visitors recommend that the Faculty approve and implement the business cases for these projects urgently. The timing of the visit has meant that it has not been possible to review the detailed curriculum for years 3 and 4 and so the Visitors recommend a short focussed revisit during 2016/17 to review the implementation of the curriculum in these years.
11. The Visitors were grateful for the time afforded by the Vice-Chancellor Professor Sir Eric Thomas and the Deputy Vice-Chancellor, Professor Guy Orpen who met with the team at the conclusion of the visit to hear these summary findings. The Visitors also thanked Professor Price and her senior team for their excellent leadership of the school during a period of significant change and of course for their attention during the visit.
12. Finally, the Visitors were grateful for the time and effort of the students who met with the team during the visit. They are excellent ambassadors for the school.

Commendations

13. The Visitors commend Bristol on:
 - The support it has provided to the School of Veterinary Science since 2007 to allow a significant change and improvement in the resources, facilities and organisation of the vet school activities. Recruitment of an enthusiastic and dynamic senior management team to the school has invigorated staff and students alike to create an ethos of positivity and ‘can-do’ attitude. The School, with support of the Faculty and the University, has responded positively to previous visitation reports and areas which were previously of concern have now shifted to examples of best practice.
 - The governance and organisation of the clinical delivery through LVS, which provides substantial quality caseload for undergraduate teaching and clinical research in a real commercial

environment. Since the inception of LVS there has been a significant improvement in clinical service provision with commercially successful businesses providing a high quality service. This is evidenced not only by increased throughput of cases but also by feedback from veterinary practitioners, students, clients and other stakeholders. LVS is now in a position to balance its portfolio of services to allow continued delivery of less commercially successful areas which are required for the undergraduate teaching, such as the provision of a large animal pathology service.

- Early introduction of some features of the revised curriculum such as the extended final year and some case-based and more active learning to 3rd and 4th years.
- The enthusiastic and energetic participation of staff in the curriculum review process.
- The use of eBiolabs prior to and after practical classes to introduce topics and formatively or summatively assess the students in Years 1 and 2.
- The Live Anatomy Barn and the Clinical Skills Facility at Langford, for their innovation and ready accessibility for students.
- The very enthusiastic staff and their active involvement in library induction and training of the students in searching techniques and the use of eJournals, databases and the Web are of great value.
- The use of a project manager in the development of the new curriculum, as the project manager represents a key element contributing to the successful development and delivery of the new curriculum.

Recommendations

14. The Visitors recommend that the University addresses the following issues and reports annually on progress towards their implementation.
 - The University and Faculty should continue the support to the School to ensure sustainability and implementation of the new curriculum and the increased undergraduate numbers projects. The Faculty must approve and implement the business case for additional student numbers (HUG project) as provided by the school. This project has commenced in September 2014 with an intake to the veterinary programme of 150 students. It is therefore essential that the Faculty commits the funds to appoint the posts required by this project and secures available funds for the non-salary spend to allow sufficient resources to be available for each year of the programme as the additional students make their way through the course.
 - The Faculty must approve the additional funds required for implementation of the new curriculum. A cohesive business case was not produced for the Faculty prior to the start of the new curriculum and some resources have already been provided to cover the needs of years 1 and 2 of the new programme. However, the detail of years 3 and 4 of the new curriculum are currently

been finalised and this will commence in the autumn of 2015. This means there is an urgent need for the funds to be released to enable required resources to be in place in a timely fashion. A business case was provided for reintroduction of research projects to years 3 and 4 of the new curriculum with associated costs and there is significant buy-in from staff across the Faculty for these research projects. As the research projects will commence for year 3 undergraduates in the 2015-16 academic year it is recommended that resources are approved and implemented urgently to avoid delay in timetabling of the programme.

- Curriculum mapping software should be implemented as soon as is possible to allow interrogation of the curriculum to ensure topic coverage, outcome coverage and assistance in blueprinting examinations and assuring alignment of teaching and assessment.
- The School should provide some education on veterinary certification and report writing as part of its professional skills teaching.
- Adherence to biosecurity protocols must be enforced for staff and students.
- A barrier must be fitted to the ambulatory van to ensure that luggage cannot enter the passenger compartment in the event of sudden deceleration.

Suggestions

15. The following suggestions are drawn from the chapters of this report and the University will be invited to report on how they are being addressed at the next re-visit.
 - Within the new curriculum, aspects of the integrated learning programme could be made more explicit, for example in major areas such as Public Health and Epidemiology.
 - Given the difficulty in accessing pig herds, the Clinical Skills Facility would benefit from a model to train blood sampling in pigs.
 - As student numbers increase, consideration should be given to increasing numbers of live animals or increasing the number of classes in the live animal barn, given the potential welfare implications for the limited number available of some species.
 - There is limited in-clinic exposure to exotic species that are only seen in the one week first opinion small animal practice rotation with some seen in the charity clinics. Given their increasing popularity, consideration could be given to ways of increasing exposure to a traditional primary care exotic species caseload.
 - Additional staff from external teaching providers could usefully be encouraged to undertake training in teaching and assessment, which could be run on site by the School.
 - There is currently very little evidence of exposure to pigs and commercial poultry/egg production. This is an area where additional teaching, in particular herd/flock visits, might be considered.

- Supplementary extramural visits to high throughput facilities (in particular pig and poultry slaughterhouses) would bring the students into contact with the real processing speed and the need for rapid decision making by the OV.
- Curriculum mapping software, mentioned in the recommendations above, would significantly improve the School's ability to track delivery of teaching relating to the Day One competences.
- Monitor adherence to newly-established timelines for ensuring prompt and timely release of examination papers to external examiners.
- If it is not already in place, it may be useful to institute a formal process for student evaluation of teaching and make discussion of the results a part of the annual performance review for staff.
- The collection and action on student feedback is currently extensive. Care is needed not to induce 'feedback fatigue' within the student body by asking for too much feedback too frequently.
- Consideration could be given to making tutor training compulsory to improve consistency within the student support process.
- Consideration should be given to having more pigs available at Cannington, for example a group of farrowing sows, as well as trying to provide access to a small poultry flock for both animal handling and clinical experience.
- Ensure that all staff within the external providers receive training and support in teaching and assessment.
- Ensure that all contracts for external teaching provision are signed and up to date.
- An analysis of the variability in scoring among interviewers is suggested to allow for standardisation
- The development and delivery of the new integrated curriculum currently depends on the enthusiasm and dedication of the academic staff involved. Maintenance of the delivery of the course in future may require additional administrative support and this should be kept under review.
- Overloading the SCTSs with teaching of undergraduates should be avoided and sufficient opportunities for full preparation for the specialist level should be provided
- Much of the postgraduate support is based in Bristol and consideration should be given to ways of enabling Langford-based residents to engage in the wider postgraduate training opportunities available in Bristol.
- Provision of a designated space for postgraduates to meet would be helpful to facilitate integration and networking.

FINAL REPORT AS ISSUED BY ECOVE ON 20 MAY 2015

- The School could make better use of the SEL, in particular for linking to EMS Feedback Forms, recording of students' reflective reports and filtering students by tutor group to make management of the process easier.

The Visitation Team has raised a number of concerns, but found no major deficiencies. It is the opinion of the team that the requirements as they are laid down in the ESEVT SOP are met.

Therefore the Visitation Team recommends to the ECOVE that Veterinary School of the University of Bristol be classified as holding the status of Approval.

Annex 1: Indicators (Ratios)

	Indicators	Recommended value	VS Bristol	Result
R1	$\frac{\text{no. undergraduate veterinary students}}{\text{no. total academic FTE in veterinary training}}$	maximum 8.381	5.21	below
R2	$\frac{\text{no. undergraduate students at Faculty}}{\text{no. FTE total Faculty}}$	Maximum 9.377	2.25	below
R3	$\frac{\text{no. undergraduate veterinary students}}{\text{no. VS FTE in veterinary training}}$	Maximum 11.057	8.61	below
R4	$\frac{\text{no. of students graduating annually}^5}{\text{no. VS FTE in veterinary training}}$	Maximum 2.070	1.52	below
R5	$\frac{\text{no. total FTE support staff in veterinary training}}{\text{no. total FTE academic staff in veterinary training}}$	Recommended range 0.505-1.907	1.32	within
R6	$\frac{\text{Supervised practical training}}{\text{Theoretical training}}$	Minimum 0.602	1.11	above
R7	$\frac{\text{Laboratory and desk based work + non clinical animal work}}{\text{Clinical Work}}$	Maximum 1.809	0.51	below
R8	$\frac{\text{Teaching load}}{\text{Self directed learning}}$	Recommended range: 2.59-46.60	8.48	Within range

R9	$\frac{\text{Total no. hours vet. curriculum}}{\text{Total no. curriculum-hours Food Hygiene/Public Health}}$	Recommended range: 8.86-31.77	27.13	Within range
R10	$\frac{\text{Hours obligatory extramural work in veterinary inspection}}{\text{Total no. curriculum-hours Food Hygiene/Public Health}}$	Recommended range: 0.074-0.556	none ³	
R11	$\frac{\text{no. of food-producing animals seen at Faculty}}{\text{no. of students graduating annually}}$	Minimum 0.758	0.14 ⁴	Below ⁴
R12	$\frac{\text{no. of individual food-animals consultations outside the Faculty}}{\text{no. of students graduating annually}}$	Minimum 8.325	23.57 ⁴	Above ⁴
R13	$\frac{\text{no. of herd health visits}}{\text{no. of students graduating annually}}$	Minimum 0.326	0.82	above
R14	$\frac{\text{no. of equine cases}}{\text{no. of students graduating annually}}$	Minimum 2.700	27.28	above
R15	$\frac{\text{no. of poultry/rabbit cases}}{\text{no. of students graduating annually}}$	Minimum 0.407	3.20	above
R16	$\frac{\text{no. of companion animals seen at Faculty}}{\text{no. of students graduating annually}}$	Minimum 48.061	236.75	above

R17	$\frac{\text{Poultry (flocks)/rabbits (production units) seen}}{\text{no. of students graduating annually}}$	Minimum 0.035	0.85	above
R18	$\frac{\text{no. necropsies food producing animals + equines}}{\text{no. of students graduating annually}}$	Minimum 1.036	4.76	above
R19	$\frac{\text{no. poultry/rabbits necropsies}}{\text{no. of students graduating annually}}$	Minimum 0.601	0.84	above
R20	$\frac{\text{Necropsies companion animals}}{\text{no. of students graduating annually}}$	Minimum 1.589	1.89	above

³: Extramural veterinary inspection regarding veterinary public health is not in the curriculum, it is compensated by the work at the slaughterhouse of SVS.

⁴: Indicator R11 is below the minimum value but compensated well with R12.

⁵: Indicators calculated with number of graduates were recalculated since wrong figure was used in the SER. The right number of graduates is 98.4 (SER Table 9.4 Page 153).

Annex 2: Decision of ECOVE

No major deficiencies had been found.

The School of Veterinary Sciences, The University of Bristol is classified after Stage 1 evaluation as holding the status of: APPROVAL.