

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022



VISITATION REPORT

To the School of Veterinary Science, University of Liverpool, Liverpool, UK

On 10 – 14 October 2022

By the Visitation Team:

Ana María Bravo Moral (Chairperson), Lugo, Spain: Visitor in Basic Sciences

Karine Portier, Lyon, France: Visitor in Clinical Sciences in Companion Animals

Arcangelo Gentile, Bologna, Italy: Visitor in Clinical Sciences in Food-Producing Animals

John Elmerdahl Olsen, Copenhagen, Denmark: Visitor in Food Safety and Quality

Danijela Horvatek Tomic, Zagreb, Croatia: Visitor in Quality Assurance

Theofanis Liatis, London, United Kingdom: Practitioner

Elwin van Oldenborgh, Utrecht, The Netherlands: Student

Hans Henrik Dietz, Copenhagen, Denmark: ESEVT Coordinator

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

Contents of the Visitation Report

- Introduction
 - 1. Objectives, Organisation and QA Policy
 - 2. Finances
 - 3. Curriculum
 - 4. Facilities and equipment
 - 5. Animal resources and teaching material of animal origin
 - 6. Learning resources
 - 7. Student admission, progression and welfare
 - 8. Student assessment
 - 9. Academic and support staff
 - 10. Research programmes, continuing and postgraduate education
 - 11. ESEVT Indicators
 - 12. ESEVT Rubrics
- Executive Summary
- Glossary

Introduction

The School of Veterinary Science in Liverpool (SVS) (called the Veterinary Education Establishment (VEE) in this Report) was founded in 1904 and the present structure was created in 2020 to integrate research in human and animal infectious diseases, veterinary science, ecology and evolution to benefit people, animals and ecosystems, nationally and globally.

The [Faculty of Health and Life Sciences](#) (FHLS) is led by Professor Louise Kenny, and in turn is made up of four institutes: [Institute of Infection, Veterinary and Ecological Sciences](#) (IVES); Institute of Population Health; Institute of Life Course and Medical Sciences and Institute of Systems, Molecular and Integrative Biology.

The School of Veterinary Science (SVS) is located within IVES. The Institute is focused on multidisciplinary approaches integrating medical, veterinary, and environmental studies, and has seven departments of which four sit within the SVS: Department of Small Animal Clinical Science (DSACS); Department of Livestock and One Health (LOH); Department of Equine Clinical Science (DECS) and Department of Veterinary Anatomy, Physiology and Pathology (VAPP).

The IVES departments that are not in the SVS are: Infection Biology and Microbiomes; Evolution, Ecology and Behaviour and Clinical Infection, Microbiology and Immunology.

The latest ESEVT Visitation in November 2012 was conducted in collaboration with the Royal College of Veterinary Surgeons (RCVS) visitation. The final version of the report was fully approved by ECOVE in August 2013. AVMA-COE undertook a pre-visit in 2019.

The Liverpool VEE is one of 11 VEEs delivering veterinary education in the UK (<https://www.bva.co.uk/your-career/becoming-a-vet/>).

The VEE has been led by Dean, Professor Paul Lunn since January 2022.

The VEE offers a 5-year veterinary study programme. The mean number of students admitted every year is 203 and the mean number of veterinary students graduating annually is 153.

The learning objectives are mapped to the various programme-specific regulating bodies' Day One Competences (ESEVT, RCVS and AVMA-COE).

The overall assessment strategy complies with University, ESEVT, RCVS and AVMA requirements.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

The VEE has an intern programme (18 interns on average during the last 3 years), a residency programme (31 residents on average during the last 3 years), and a PhD-programme (36 PhD-students on average during the last 3 years). The VEE has an extensive publication record in peer reviewed journals.

The VEE is physically split between the main University site, where most of the first three years of the curriculum are delivered, and the Leahurst campus on the Wirral, where the final two clinical years of the curriculum are delivered. The VEE operates three referral hospitals (small animal, equine, and production animal) and two ambulatory practices (equine and production animal) from Leahurst, and one small animal first opinion clinic (University Veterinary Practice) in Liverpool.

A new curriculum was rolled out across all five years of the curriculum, starting in September 2013, and was fully implemented in 2016. The Henry Edwards Learning Centre was opened in 2013, and the Leahurst lecture theatre and student common room were refurbished and expanded in 2015. The Equine Isolation Unit was opened in 2021.

The major problems currently encountered by the VEE are:

- The COVID-19 pandemic had a significant disruptive impact on the VEE and management included social distancing, testing and isolation protocols, remote and hybrid online teaching. Lessons learnt will lead to additional live-streaming of teaching, and recording of didactic materials.
- Class size grew substantially for cohorts in 2020-21 and 2021-2022 as a result of COVID-related modifications to grading of school exams. These large cohorts have been managed by investing additional resources in education delivery. Class cohort size is expected to reduce this year, and new staff funding is available to address any future increases in class cohort size.
- Recruitment and retention, particularly of clinical educators, is a significant challenge. Competition from private practices and an inadequate number of trained specialists in some disciplines continues to significantly impact the teaching hospitals.

The ESEVT SOP 2019 as amended in September 2021 was valid for this Visitation.

Area 1. Objectives, Organisation and QA Policy

Standard 1.1: The VEE must have as its main objective the provision, in agreement with the EU Directives and ESG recommendations, of adequate, ethical, research-based, evidence-based veterinary training that enables the new graduate to perform as a veterinarian capable of entering all commonly recognised branches of the veterinary profession and to be aware of the importance of lifelong learning.

The VEE must develop and follow its mission statement which must embrace all the ESEVT Standards.

1.1.1. Findings

The VEE ensures that the graduates perform well as veterinarians through the curriculum developed in 2013 and fully implemented in 2016, based on learning outcomes and Day One Competencies as outlined by EAEVE and RCVS. This curriculum is also aligned with the Liverpool Curriculum Framework and University of Liverpool Strategy 2026.

The curriculum aims to deliver the standards defined by the UK Quality Assurance Agency for Higher Education (QAA) Subject Benchmark Statement for Veterinary Science.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

Both Vision and Mission statements are available on the official web page, embracing a One Health principle (health and wellbeing of animals, people and environment), as well as excellence in education, research and clinical service.

Goal statements of the VEE are divided into Teaching, Research and Impact, Clinical Services, Culture, and Institutional and Professional Services.

1.1.2. Comments

The curriculum conforms to the duration, and contents, addressed in the Directive EC/2005/36 (as amended by EU Directive 2013/5/EU), ESG 2015 Standards, and covers all domestic species.

The Mission and Vision demonstrate the VEE's aspiration towards a position of global leader in veterinary medicine, while respecting the principles of One Health and all ESEVT standards. The new curriculum, implemented in 2016, is regularly evolving and changing through the feedback from internal and external stakeholders, and it ensures that new graduates perform well in the veterinary profession.

1.1.3. Suggestions for improvement

None.

1.1.4. Decision

The VEE is compliant with Standard 1.1.

Standard 1.2: The VEE must be part of a university or a higher education institution providing training recognised as being of an equivalent level and formally recognised as such in the respective country.

The person responsible for the veterinary curriculum and the person(s) responsible for the professional, ethical, and academic affairs of the Veterinary Teaching Hospital (VTH) must hold a veterinary degree.

The decision-making process, organisation and management of the VEE must allow implementation of its strategic plan and of a cohesive study programme, in compliance with the ESEVT Standards.

1.2.1. Findings

The VEE is part of University of Liverpool, Faculty of Health and Life Sciences, Institute of Infection, Veterinary and Ecological Sciences (IVES), named the School of Veterinary Sciences. Persons responsible for curriculum and VTH (all clinics at the VEE) hold the titles of BVSc, DVM, PhD and/or are specialists of different disciplines under the EBVS.

The organisational chart of the VEE describes the decision-making process, connecting the VEE Dean with 4 departments (Livestock and One Health; Veterinary Anatomy, Physiology and Pathology; Small Animal Clinical Science and Equine Clinical Science), Veterinary Clinical Research Lead, Head of Veterinary Education and upper level of management (IVES Head of Operation and School Manager).

The BVSc programme is managed by i) SVS Curriculum Board, ii) SVS Undergraduate Board of Studies (with 4 sub-committees dealing with recruitment, admission, students, extramural studies), iii) BVSc Board of Examiners, iv) Veterinary Education Senior Leaders Group, and v) Veterinary Education Management Group.

Some committees have responsibilities related to both SVS and IVES, such as i) Leahurst Campus and SVS Health and Safety Committee, ii) Ethics Committee, iii) Equality and Diversity Committee, iv) Wellbeing Group and v) Space and Infrastructure Committees.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

The organisational scheme of the VEE and the decision-making process is allowing implementation of the newly developed strategic plan.

1.2.2. Comments

Compliance with the ESEVT Standards is clearly seen through the organisational structure, decision-making processes, and responsibility for the curriculum.

1.2.3. Suggestions for improvement

None.

1.2.4. Decision

The VEE is compliant with Standard 1.2.

Standard 1.3: The VEE must have a strategic plan, which includes a SWOT analysis of its current activities, a list of objectives, and an operating plan with a timeframe and indicators for its implementation.

1.3.1. Findings

The new strategic or operational plan is currently being developed, expected to be publicly available in September 2022 (SER page 11, standard 1.3 and page 15 standard 1.7).

On the site, during the Visitation, a document named Strategic Framework was presented in the electronic form, available on the official webpage of the VEE ([Liverpool-SVS-Strategic-FINAL.pdf](#)). Briefly, the Dean has led the development of this strategic plan facilitated by an external consultant company, after the draft version was developed by VSET. The Strategic Framework was revised by all staff and students through organised workshops and online feedback, gathered through those activities all in all more than 200 comments. A public meeting (so called “Town Hall” meeting) was held afterwards and finally the amended document was sent to approval by VSET.

A summary of the SWOT analysis shows 7 Strengths, 7 Weaknesses, 4 Opportunities and 6 Threats, detected by the VEE.

1.3.2. Comments

The SWOT analysis is comprehensive and reflects the major issues covered in the SER. The operational plan of the Strategic Framework is still under development, specifically the timeframe that will include all relevant indicators, more detailed activities and responsible persons. The duration of the Strategic Framework is not specified and the operating plan will be developed within the next two to three years.

1.3.3. Suggestions for improvement

None.

1.3.4. Decision

The VEE is compliant with Standard 1.3.

Standard 1.4: The VEE must have a policy and associated written procedures for the assurance of the quality and standards of its programmes and awards. It must also commit itself explicitly to the development of a culture which recognises the importance of quality, and quality assurance, within their VEE. To achieve this, the VEE must

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

develop and implement a strategy for the continuous enhancement of quality. The development and implementation of the VEE’s strategy must include a role for students and other stakeholders, both internal and external, and the strategy must have a formal status and be publicly available.

1.4.1. Findings

The QA processes of the VEE are directly linked to the University of Liverpool “Quality and Enhancement Framework”. Two main documents related to QA are the University Framework for Quality and Standards and Academic Codes of Practice (specifically Code of Practice on Assessment), both available on the University web page.

The Framework specifies responsibilities, and how study programme standards as well as student learning experiences are managed, assured and enhanced.

The VEE is implementing its QA culture through student involvement (different types of feedback and surveys, student representation), staff involvement (participation in boards and committees, feedback), cyclical outcome assessments and quality enhancement mechanisms (Annual Subject Action Plan, Internal Periodic Review, programme monitoring). Internal and external reviews are used for continuous improvement of the study programme, through student feedback (internal outcome assessment), external stakeholder feedback (external outcome) and external visitations (EAeve, RCVS, AVMA).

Development of the VEE Strategic Framework includes students and stakeholders, as described in Standard 1.3. The Strategic Framework is publicly available through the VEE official web page ([Liverpool-SVS-Strategic-FINAL.pdf](#)).

1.4.2. Comments

As stated in the University Framework for Quality and Standards, QA processes should lead to the continuous enhancement of learning, teaching and assessment, should be regularly reviewed and be evidence-based. This is in agreement with the Policy on Academic Quality and Enhancement in Learning and Teaching of the VEE.

PDCA cycles of the VEE can be defined as a short PDCA loop (example is annual subject action plan, ASAP) and long PDCA loop (internal periodic review, IPR) and are fully closed. The quality culture is visible through the significant participation of students and staff in the QA processes, and is supported by transparent assessments.

1.4.3. Suggestions for improvement

None.

1.4.4. Decision

The VEE is compliant with Standard 1.4.

Standard 1.5: The VEE must provide evidence that it interacts with its stakeholders and the wider society. Such public information must be clear, objective and readily accessible; the information must include up-to-date information about the study programme, views and employment destinations of past students as well as the profile of the current student population.

The VEE’s website must mention the ESEVT VEE’s status and its last Self Evaluation Report and Visitation Report must be easily available for the public.

1.5.1. Findings

On the VEE webpage, the information on study, research, clinical services, lifelong education,

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

student life and both campuses (Leahurst and Liverpool) can be found. Furthermore, as already mentioned under 1.4, VEE interacts with stakeholders, seen through the internal and external reviews and visitations (EAEVE, RCVS, AVMA).

On <https://www.liverpool.ac.uk/veterinary-science/education/accreditation/> the current VEE EAEVE status is mentioned (fully approved), and the SER and EAEVE Report, both from 2012, are available.

The University of Liverpool Veterinary Alumni Association (ULVAA) was established in 1991, and is presented on the VEE official web page ([Veterinary Alumni Association - Alumni - University of Liverpool](#)). It publishes a newsletter, and runs the Vets Student Experience Fund.

1.5.2. Comments

VEE benefits from the interactions with various stakeholders, such as alumni or external examiners on an annual basis and in a beneficial way to improve its QA system and curriculum. Both University and VEE web pages provide up-to-date information and are wider society friendly.

1.5.3. Suggestions for improvement

None.

1.5.4. Decision

The VEE is compliant with Standard 1.5.

Standard 1.6: The VEE must monitor and periodically review its activities, both quantitative and qualitative, to ensure that they achieve the objectives set for them and respond to the needs of students and society. The VEE must make public how this analysis of information has been utilised in the further development of its activities and provide evidence as to the involvement of both students and staff in the provision, analysis and implementation of such data.

Any action planned or taken as a result of this data analysis must be communicated to all those concerned.

1.6.1. Findings

The VEE monitors and periodically reviews its activities in the form of internal and external outcome assessments (also see 1.4 and 1.5). The Dean and the Veterinary Senior Executive Team (VSET) are responsible for the development and revision of the strategic plan and the VEE mission.

Through the Annual Subject Action Plan (ASAP) the VEE monitors the achievement of all set objectives related to teaching (undergraduate and postgraduate). Both students and staff can participate in the development of ASAP (through Guild of Students and Staff-Student Liaison Committee). The Completed Plan is submitted to the Faculty Committee (FAQSC), checked, and then returned to the VEE for the finalisation and publication.

Every 6 years the VEE is preparing an Internal periodic review (IPR), by nominated VEE staff and external advisors, to monitor the quality and standards of all the undergraduate and modular postgraduate programmes ([pr_gls.pdf\(liverpool.ac.uk\)](pr_gls.pdf(liverpool.ac.uk))). The last IPR took place in April 2021.

1.6.2. Comments

VEE uses periodical reviews as a tool for further development and improvement. Students and staff are involved in its provision, analysis and implementation.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

1.6.3. Suggestions for improvement

None.

1.6.4. Decision

The VEE is compliant with Standard 1.6.

Standard 1.7: The VEE must undergo external review through the ESEVT on a cyclical basis. Evidence must be provided of such external evaluation with the assurance that the progress made since the last ESEVT evaluation was linked to a continuous quality assurance process.

1.7.1. Findings

The last EAEVE visitation in 2012 was a joint visitation with RCVS. Full approval status was granted in 2013. The VEE was re-visited by RCVS in 2016 and pre-visited by AVMA-COE in 2019.

Seven recommendations given during the EAEVE visitation in 2012 have been addressed in the current SER in the form of activities conducted by the VEE, related to strategy planning, staff retention, resource allocation, support to veterinary clinical research, EPT (EMS for the VEE), and outcome assessment.

The last Internal Periodic Review and Action Plan were launched in 2021, both approved by FHLS QA.

1.7.2. Comments

Continuous and improved QA processes are visible through the progress following recommendations after external reviews.

1.7.3. Suggestions for improvement

None.

1.7.4. Decision

The VEE is compliant with Standard 1.7.

Area 2. Finances

Standard 2.1: Finances must be demonstrably adequate to sustain the requirements for the VEE to meet its mission and to achieve its objectives for education, research and services. The description must include both expenditures (separated into personnel costs, operating costs, maintenance costs and equipment) and revenues (separated into public funding, tuition fees, services, research grants and other sources).

2.1.1. Findings

Income is from tuition fees, government funds for UK students, clinical and diagnostic services, continuous education, research grants and donations. A five year planning cycle is used, which includes a plan for equipment replacements. In case of an extraordinary situation, the VEE can ask for changes and amendments to the plan via the Faculty board. Extraordinary investments are dealt with outside the planning cycle. For example, a major programme for renovation of the Leahurst Campus is currently initiated, with a budget of 2.4 million Euros each year for three years. Upkeep and maintenance of buildings is budgeted centrally at the University. Overview of expenditure and the last three years is described in Tables 2.1.1-2.1.2 of the SER.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

During the visit, the VEE presented updated figures, since information on the academic year 2021-2022 is now available. An increase in expenditures from 27 mill Euros to 29 mill Euros is seen from the academic year 2020-2021 to 2021-2022, while income has remained stable at 38 mill Euros. As seen in the updated table 2.1.3 below, the annual balance has been between 9 and 11.6 mill Euros during the four years. This money is retained by the Faculty as the contribution of the VEE to the general running of the University, corresponding to a net revenue contribution between 23% and 30%.

Table 2.1.3. (based upon material received during the visitation)

	2019	2020	2021	2022	Mean
Balance (Mill Euro)	10.4	9.2	11.6	9.0	10.0
% revenue contribution	28	25	30	23	27

2.1.2. Comments

The VEE is sufficiently supported financially to sustain the BVSc programme, research and services. For the period reported in the SER and the year where information was added during the visitation, the balance has been positive each year. There is a well defined procedure for budgeting and how to address unexpected situations outside the normal procedures.

2.1.3. Suggestions for improvement

None.

2.1.4. Decision

The VEE is compliant with Standard 2.1.

Standard 2.2: Clinical and field services must function as instructional resources. Instructional integrity of these resources must take priority over financial self-sufficiency of clinical services operations.

The VEE must have sufficient autonomy in order to use the resources to implement its strategic plan and to meet the ESEVT Standards.

2.2.1. Findings

The veterinary clinics and field services clearly function as instructional resources. Nevertheless, a substantial income is generated from these activities (average income over the last four years 13.1 million Euros). The Department which is responsible for running a particular clinic/field service is also responsible for financial planning of the clinic/service. Within the limits of the five-year financial plan, the VEE has full autonomy to use this money to implement the BVSc programme and its strategic plan.

2.2.2. Comments

The VEE incorporates the expected income from clinics, and clinical services in its expenditure plan, and income from clinics, clinical and other services are handled as an integrated part of the budget, used to cover running costs. For example, clinics are staffed partly based on this

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

income. The VEE has full right to spend the money provided by the University as well as the income from clinics, clinical and other services to obtain its strategic plans and to sustain the teaching programme.

2.2.3. Suggestions for improvement

None

2.2.4. Decision

The VEE is compliant with Standard 2.2.

Standard 2.3: Resources allocation must be regularly reviewed to ensure that available resources meet the requirements.

2.3.1. Findings

The finances are considered in a running five-year cycle. A close follow up of resource allocation and spendings is undertaken quarterly with an opportunity to adjust plans. Clinics and clinical and diagnostic services are run according to business plans, and these plans are likewise subject to a close follow up via quarterly reviews.

2.3.2. Comments

Procedures for budgeting and for close follow up on spendings are in place according to modern standards and leave no doubt that the VEE has an in-depth overview of the economic situation at any given time.

2.3.3. Suggestions for improvement

None.

2.3.4. Decision

The VEE is compliant with Standard 2.3.

Area 3. Curriculum

Standard 3.1: The curriculum must be designed, resourced and managed to ensure all graduates have achieved the graduate attributes expected to be fully compliant with the EU Directive 2005/36/EC (as amended by directive 2013/55/EU) and its Annex V.4.1. The curriculum must include the subjects (input) and must allow the acquisition of the Day One Competences (output) listed in Annex 2. This concerns Basic Sciences, Clinical Sciences in companion animals (including equine and exotic pets), Clinical Sciences in food-producing animals (including Animal Production and Herd Health Management), Food Safety and Quality, and Professional Knowledge.

3.1.1. General findings

3.1.1.1. Findings

Education of veterinary students in the UK is ruled by the Veterinary Surgeons Act 1966 UK legislation and the EU Directive 2005/36/EC and its Annex V.4.1, as transposed into UK law. The degree granted by the VEE, and accredited by the Statutory Body (Royal College of

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

Veterinary Surgeons, RCVS), is the “Bachelor in Veterinary Science” (BVSc).

Duration of the BVSc course is five years full-time of intramural training, organised in 10 semesters, plus a minimum of 38 weeks (35 working hours per week) of extramural training (EPT)(EMS for the VEE) required by the RCVS, which must be carried out during University vacations but not during term time weekends, days or evenings, from 1st to 5th Year (for further information see Standard 3.5 in this report).

During the onsite visit the Team detected some errors in the figures provided in Table 3.1.1 since, as a consequence of misunderstanding the VEE included only the hours of training in core subjects but not the total number of hours of training to get the Diploma. In the corrected SER provided onsite, in Table 3.1.1 students must complete before graduation a total of 5,593 hours organised in a spiral integrated curriculum under 6 themes that run throughout all 5 years of the programme: (i) Normal Structure and Function, (ii) Animal Husbandry and Welfare, (iii) Disease Processes, (iv) Epidemiology and Public Health, (v) Skills (Clinical Skills, Professional Skills, Study Skills), and (vi) Management of Disease, plus EPT training and Electives.

Studies are considered as Pre-clinical studies during Years 1 and 2, Para-clinical studies in Year 3 and 1st semester of Year 4, and Clinical studies in the 2nd semester of Year 4 and Year 5, including 30 weeks of practical rotation to take during Year 4 and Year 5, 3 weeks in Elective subjects to take during 2nd semester of Year 4 and Year 5, and the 38 weeks of EPT (see above). Theoretical training (lectures, seminars, self-learning) amounts to 2,420 hours and practicals (laboratory/desk, non-clinical, clinical and other-EPT) to 3,165 hours (ratio 1:1.3).

The curriculum has the following number of hours of training, (Table 3.1.1, SER): 1st year 1,093h, 2nd year 1,046h; 3rd year 1,083h; 4th year 1,211h, and 5th year 1,160h.

At the time of the visitation the curriculum in place was developed in 2013 with a major review in 2018.

The Head of Veterinary Education is responsible for the veterinary curriculum as a member of the VEE’s Executive Team that meets every 2 weeks.

The VEE Curriculum Board oversees the BVSc and other degrees granted by the VEE; this committee scrutinises and approves recommendations for changes in the BVSc made by the Undergraduate Board of Studies, before sending them to the Faculty of Health and Life Science for approval; the Undergraduate Board of Studies collects the reports and recommendations from 5 Undergraduate sub-committees and the BVSc Board of Examiners (for further information see Standard 1.2 and Appendices 1.1.A and 1.1.B); a separate programme strategy is developed at VEE level to focus on strategy and curriculum development (see Appendix 1.1.C). Administrative changes in the curriculum are approved directly by the Curriculum Board. Other minor and major changes require the approval of the VEE’s Scrutiny Panel, and the VEE’s QA committee.

3.1.1.2. Comments

Considering the 38 weeks of mandatory extramural training (EPT) required by the RCVS to develop during holidays, the 5 years of full-time training to achieve the Diploma of BVSc are equivalent to 6 years of studies, which may promote burnout of students, however, during the onsite visitation students were not complaining on the workload since the VEE applies a lot of flexibility and support to encourage them starting with 8 weeks of EPT per vacation every year from Year 1 to Year 3.

All groups of subjects addressed in the SOP 2019 are covered, except the basic subjects (Medical Physics, Chemistry, Animal Biology, Plant Biology and Biomedical Statistics) that must be completed prior to enrolment in Year 1 as the VEE’s entrance requirement (see Table 3.1.2 of the SER, and Appendix 3.1).

The curriculum conforms to the duration, and contents, addressed in the Directive EC/2005/36 (as amended by EU Directive 2013/5/EU), and covers all domestic species.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

There is a sufficient integration and balance among core, electives & EPT training.

3.1.1.3. Suggestions for improvement

None.

3.1.1.4. Decision

The VEE is compliant with Standard 3.1.1.

3.1.2. Basic Sciences

3.1.2.1. Findings

All Basic Sciences (Anatomy, Histology & Embryology, Physiology, Biochemistry, Genetics, Pharmacology, Pharmacy and Pharmacotherapy, Pathology, Toxicology, Parasitology, Microbiology, Immunology, Epidemiology, Information literacy and data management, Professional Ethics and communication, Animal health economics and practice management, Animal ethology, Animal Welfare and Animal nutrition) addressed in the SOP 2019 are covered (also see Comments 3.1.1.2). The teaching of Basic Sciences is included in the Preclinical and Paraclinical studies which develop from Year 1 to the first semester of Year 4.

3.1.2.2. Comments

The curriculum includes the major Basic Sciences subjects, as required for veterinary training, so all important items of the basic disciplines are taught.

3.1.2.3. Suggestions for improvement

None.

3.1.2.4. Decision

The VEE is compliant with Standard 3.1.2.

3.1.3. Clinical Sciences in companion animals (including equine and exotic pets)

3.1.3.1. Findings

Training in clinical sciences in companion animals (including equine and exotic pets) is subject to UK legislation, e.g. The Veterinary Surgeons Act 1966 and allows the acquisition of Day One Competences.

Clinical development is reviewed and expanded each year as part of the curriculum design and development described in this report under standards 1.2 and 3.1.1.

Students receive a total of 2,823.3 hours of theoretical and practical clinical training (Table 3.1.2 of the SER) in all animal species (companion, horses, exotics and food-producing animals) which is about 50.5% of the total hours provided in the curriculum (5,593 hours)

Students have mandatory practical rotations in the VEE's hospitals and ambulatory clinics as follows: 8 weeks (35h per week) in Equine (280h), and 11 weeks (385h) in companion animals and exotics.

Clinical animal work starts in the 3rd year with a few hours (7 hours) and continues in the 4th and 5th years with a total of 802.5 hours (Table 3.1.1 of the SER).

In the first three years, students have around 10% = 100 hours per year of their time dedicated to non-clinical animal work, mainly in the different Skills Labs. In the 4th the number of hours of non-clinical animal work is 59.5 h, and 82 hours in the 5th year (Table 3.1.1 of the SER).

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

During a 3-week mandatory elective period, students can choose an intramural or extramural study. A total of 120 intramural hours is offered in clinical sciences as electives for each student. In addition, they can take a year away to do one of the three additional, proposed optional courses (about 10 students per year chose this option).

Apart from this intramural clinical training, students must have 2 mandatory weeks of EPT in Animal Husbandry of Companion animals (1 week) and Equine (1 week), plus 26 weeks of hands-on clinical experience on the animal species chosen by the student (companion, horses, livestock or others) (see standard 3.5).

From the first year, ‘Clinical Skills’ course supported by consolidation sessions prepares students for clinical rotations. Students from the first to the third year are brought to the Leahurst campus for animal handling and clinical examination classes using live animals. Finally, immediately prior to the start of clinical rotations students undertake a week of ‘Preparation for Rotations’.

3.1.3.2. Comments

All groups of Clinical Sciences addressed in the SOP 2019 are covered for companion animals and equines.

The hours of training in clinical sciences in companion animals and equines are considered sufficient and allow the student a progressive acquisition of Day One Clinical Competences. The main clinical disciplines of veterinary medicine are taught intramurally, except for ophthalmology. However, the VEE provides an extramural mandatory rotation covering this. During their preclinical programme the students are well prepared before entering the clinical hands-on part of the curriculum.

3.1.3.3. Suggestions for improvement

None.

3.1.3.4 Decision

The VEE is compliant with Standard 3.1.3.

3.1.4. Clinical Sciences in food-producing animals (including Animal Production and Herd Health Management)

3.1.4.1. Findings

“Animal Husbandry and Welfare (AHW)” is one of the 6 broad themes delivered longitudinally throughout the programme.

In particular, husbandry of healthy animals, together with the fundamentals of animal care and management, nutrition, and breeding is taught in the 1st year. The association between husbandry, environment and disease processes are presented in the 2nd and 3rd year, whereas, finally, herd health topics are presented during the last 2 years.

91 out of the 153 hours related to the theme “Animal Husbandry and Welfare” in the first two years are devoted to food-producing animals.

Animal Production (including herd health) is provided to the students with a total of 201 hours. “Disease processes (DP)” and “Management of disease MOD” are the two broad themes that encompass the paraclinical (year 3 and first semester of year 4) and clinical subjects (second semester of year 4 and year 5). They also run longitudinally throughout the programme. The study of disease processes (infectious diseases, parasitology and pathology) is presented to the students as a starting point for applying the acquired knowledge during the final clinical rotations and electives. However, development of clinical practical skills is longitudinally

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

extended throughout the entire programme.

During the first 4 years, students attend one week per year at the Leahurst campus to train animal handling and clinical examination.

A total of 333,5 hours are devoted to “Disease processes (Infectious diseases, pathology and parasitology)”. During the visitation an estimation of how many hours are devoted to food-producing animals is given: 44 out of the 80 hours in infectious diseases, 47.5 out of the 70.15 hours in parasitology, 35.9 out of the 197.5 hours in pathology.

In the theme “Management of disease (Clinical theory, medicine, surgery, anaesthesia, therapeutics)” the hours devoted to food-producing animals are 17 in the third year and 132 in the fourth year.

Practical rotations (clinical rotations, emergency services, farm visits for herd health) with groups of 5-6 students under academic staff supervision (excluding EPT) are organised during the 4th and 5th year of the programme. No lectures are provided during the second half of fourth year and the fifth year.

Farm animals belong to one of the three clinical rotation blocks (the others being equine and small animals). Practically, from Easter of 4th year, each student spends 10 weeks (split into 2 x 5-week blocks) in each of the 3 rotations.

The 10 weeks rotation in Food-producing animals is divided into 3 weeks for livestock intramural clinics, 1 week for ambulatory clinics in livestock practice, 4 weeks for livestock herd health management, 1 week for livestock disease investigation, and 1 week of Veterinary Public Health. Additionally, there is 1 week, in the Equine rotation block, of clinical pathology (and microbiology) of all species, other than production animal necropsies.

As for horses and small animals, students are provided with indications of clinical and professional tasks (including the relative descriptors) they will be running during their rotation. Also, the practical competency assessments (PCA) are listed. All this information is presented in detail in the “Clinical Studies Handbook”.

Within the 38 weeks of EPT, 12 weeks are devoted to animal husbandry (Preclinical Extramural Studies, including also food producing animals), and one week for each of the following animal categories as Clinical Extramural Studies: pig, poultry, sheep, cattle (for further information see standard 3.5).

3.1.4.2. Comments

The curriculum for teaching clinical science, food producing animals, animal production and herd health management is designed to provide all subjects listed in the SOP 2019 and managed in an outcomes-based way, focused to provide students with the Day One Clinical competencies in food-producing animals, as requested by EAEVE and RCVS. The different aspects are adequately balanced in respect both to the disciplines and the food-producing animal species.

The curriculum for food producing animals is outcomes- and competency-based. The qualification resulting from the programme is specified and communicated to the students. Details of the learning opportunities and of the practical competences and development that will be acquired are described in detail.

The development of the BVSc programme is themes-oriented and therefore the education in clinical sciences in food producing animals is embedded in spiral-integrated themes which makes it difficult to precisely calculate the amount of hours devoted to food producing animals in respect to companion animals and horses.

3.1.4.3. Suggestions for improvement

None.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

3.1.4.4. Decision

The VEE is compliant with Standard 3.1.4.

3.1.5. Food Safety and Quality

3.1.5.1. Findings

Veterinary Public Health (including Food Safety and Quality) with Epidemiology forms one of the six main themes running longitudinally through the BVSc programme. Teaching in Food Safety and Quality includes veterinary legislation, control of food, feed and byproducts, zoonoses, food hygiene and microbiology, and food technology. The basic parts are mainly taught integrated in the course in epidemiology, and the practical parts in the clinical rotations. An overview of key Veterinary Public Health and One Health principles are covered in year 1, identifying the responsibilities and contribution of the veterinary profession to these areas. Basic studies on food production and meat quality are covered in year 2, and food safety is covered using a risk-based approach in years 3 and 4. All students undertake Food Safety and Quality training during clinical rotations in years 4 and 5. In the original SER, 170.4 hours were listed in the curriculum as teaching in Food Safety and Quality. During the visit, the Team asked for an overview of the full teaching in Veterinary Public Health, including topics that were taught integrated with other subjects. The VEE responded that 345.2 hours of teaching were given in total in VPH. One week of the clinical rotation in farm animals is devoted to practical teaching in Food Safety and Quality, and parts of the diagnostic pathology and microbiology week also includes teaching in VPH. There are no electives within this area. The VEE has agreements with one red meat plant (cattle, pigs, sheep) and two large chicken abattoirs. Students visit a red meat or poultry abattoir once during the Food Safety and Quality week. They perform mock ante mortem and post mortem inspections, and on campus, they perform training in meat inspection on specimens from slaughterhouses. To prepare students for slaughterhouse visit, and to supplement the hands-on training in abattoirs, students have access to 2-D (with instructions) and 3-D virtual abattoir platforms for all species. Students can choose to supplement with EMS in Veterinary Public Health between 3rd year and 5th year, as part of the EPT. In the SER, the VEE has declared a shortage of staff for teaching in Food safety and quality, however, at the time of the visit, extra manpower had been hired in.

3.1.5.2. Comments

The teaching in VPH covers the areas of Food Safety and Quality mentioned in the SOP. According to the indicators, the hours spent in food producing factories is low. It is a deliberate decision by the VEE that knowledge of food production chains is covered by use of videos and pictures. These materials are used in tutorials and lectures during teaching on campus, as this is considered a better environment for discussion with students. All students acquire knowledge in meat, milk, cheese, egg and fish production, hygiene and control, as well as general principles of hazard identification, control and communication.

3.1.5.3. Suggestions for improvement

None.

3.1.5.4. Decision

The VEE is compliant with Standard 3.1

3.1.6. Professional Knowledge

3.1.6.1. Findings

Within the current curriculum, a total of 217.7 hours (theoretical and practical) have been allocated to the Professional Knowledge field distributed in multiple compulsory subjects and covering Student preparation for transition from school-type learning to higher education-type learning (e.g. managing workload & resources, preparing for exams etc.) taught early in the course in the subject “Support” (42 hours); Information literacy/Data management (102 hours); Professional ethics/communication (23 hours); Veterinary legislation (50.7 hours); Preparation for rotations (1 week), a course provided prior to the start of clinical rotations which among others includes sessions on “how to make use of feedback”, “biosecurity and health and safety”. Students’ clinical training includes Communication skills (history taking) (Year 1); Scenario-based communication (Year 2); Scenario based communication – the difficult conversation/situation (Year 3).

The aforementioned professional skills are taught within the structured curricular subjects Professional, clinical and study skills (Year 1), Professional, clinical and research skills (Year 2), and Professional (including business), clinical and research skills (Year 3).

3.1.6.2. Comments

Overall, Professional Knowledge is taught either as independent subjects or integrated as a part of other subjects. Communication skills also have a well-structured practical component.

3.1.6.3. Suggestions for improvement

None.

3.1.6.4 Decision

The VEE is compliant with Standard 3.1.6.

Standard 3.2: Each study programme provided by the VEE must be competency-based and designed so that it meets the objectives set for it, including the intended learning outcomes. The qualification resulting from a programme must be clearly specified and communicated and must refer to the correct level of the national qualifications framework for higher education and, consequently, to the Framework for Qualifications of the European Higher Education Area.

The VEE must provide proof of a QA system that promotes and monitors the presence of an academic environment highly conducive to learning including self-learning. Details of the type, provision and updating of appropriate learning opportunities for the students must be clearly described, as well as the involvement of students.

The VEE must also describe how it encourages and prepares students for self-learning and lifelong learning.

3.2.1. Findings

The VEE offers a five-year BVSc study programme to students from UK and abroad aiming to achieve Day One Competencies based on EAEVE and RCVS standards. The programme also refers to the national qualifications framework (QAA Subject Benchmark). QA processes of the study programme are related to the FHLS and University of Liverpool. Also, the curriculum is developed according to the University strategic educational objectives stated in Liverpool Curriculum Framework, based on 7 core principles: Inclusivity, Research-connected teaching, Active learning, Authentic assessment, Confidence, Digital fluency and Global citizenship.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

From Year 1, a subject titled “Support” (852h, Table 3.1.2 of the SER) helps freshmen to engage more into student-independent learning and lifelong learning processes.

Lifelong learning is promoted through the tutoring system. Students must monitor and reflect on their progress during the semesters, which is discussed in a meeting with the tutor (Personal Development Planning).

3.2.2. Comments

The study programme that the VEE offers enables students to meet Day One Competences and learning outcomes after 5 years of study. This is also in agreement with the national qualification framework.

It is commendable that the VEE has developed a support mechanism for freshmen through the subject "Support", thus introducing them to self-learning and lifelong learning from the first year of study programme.

3.2.3. Suggestions for improvement

None.

3.2.4. Decision

The VEE is compliant with Standard 3.2.

Standard 3.3: Programme learning outcomes must:

- ensure the effective alignment of all content, teaching, learning and assessment activities of the degree programme to form a cohesive framework
- include a description of Day One Competences
- form the basis for explicit statements of the objectives and learning outcomes of individual units of study
- be communicated to staff and students
- be regularly reviewed, managed and updated to ensure they remain relevant, adequate and are effectively achieved.

3.3.1. Findings

Programme learning outcomes are divided into two groups: i) Underpinning knowledge, clinical and study skills (containing 10 learning outcomes related to basic and advanced knowledge of basic, clinical and professional skills) and ii) Professional Attributes (14 learning outcomes, described as the basis for day-one competent veterinarians).

Programme learning outcomes are subdivided according to each study year forming a cohesive framework. Also, they are further linked to the subjects through which they are acquired, and finally to Day One Competences and underpinning knowledge.

The body responsible for the review, management and improvement of the curriculum is the Curriculum Development Group. Those activities are based on input from internal and external outcomes. Changed or newly developed curriculum and/or learning outcomes should be accepted by the FHLS and the University of Liverpool.

Learning outcomes and related areas relevant for Day One Competences are communicated to students and staff via VLE and different committees.

3.3.2. Comments

Programme learning outcomes are well aligned and form a cohesive framework, and, through the mapped database, the acquiring of the ESEVT and RCVS Day One Competences can be clearly detected and monitored.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

3.3.3. Suggestions for improvement

None.

3.3.4. Decision

The VEE is compliant with Standard 3.3.

Standard 3.4: The VEE must have a formally constituted committee structure (which includes effective student representation), with clear and empowered reporting lines, to oversee and manage the curriculum and its delivery. The committee(s) must:

- determine the pedagogical basis, design, delivery methods and assessment methods of the curriculum
- oversee QA of the curriculum, particularly gathering, evaluating, making change and responding to feedback from stakeholders, peer reviewers and external assessors, and data from examination/assessment outcomes
- perform ongoing and periodic review of the curriculum at least every seven years by involving staff, students and stakeholders; these reviews must lead to continuous improvement. Any action taken or planned as a result of such a review must be communicated to all those concerned
- identify and meet training needs for all types of staff, maintaining and enhancing their competence for the ongoing curriculum development.

3.4.1. Findings

The VEE committee structures that oversee and manage the curriculum are based on University of Liverpool Governance structure and supported by the SVS and FHLS management.

The Code of Practice on student representations of the University of Liverpool describe the student participation in different committees of the VEE (as the Undergraduate Board of Studies, Curriculum board, Recruitment, Admissions and Widening Participation Committee and FAQSC).

The committee at the VEE level responsible for development of a new or evaluation of the already present curriculum is the Curriculum Development Group (CDG), with involvement of different internal and external stakeholders. The Board of Studies and Undergraduate Education Committee are responsible for implementation of the newly developed curriculum, after approval of the FHLS and the University of Liverpool, as well as of the delivery and assessment methods.

QA principles are embedded in different surveys, such as i) student feedback on course delivery, ii) national student survey data, iii) recent graduates and employers survey, all analysed by internal and external outcomes assessment groups.

There are different ongoing and periodic reviews of curriculum - continuous one performed by the Board of Studies and Undergraduate Education Committee, the annual review (ASAP) at the FHLS level and a periodic review performed every 6 years (IPR).

3.4.2. Comments

The committee structure of the VEE that oversees and manages the curriculum has clear and empowered reporting lines, includes student representatives, and is directly linked to the QA processes (regular periodic reviews that include different stakeholders).

Regularly collected feedback from various stakeholders are continuously used for improving the curriculum.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

3.4.3. Suggestions for improvement

None.

3.4.4. Decision

The VEE is compliant with Standard 3.4.

Standard 3.5: External Practical Training (EPT) is compulsory training activities organised outside the VEE, the student being under the direct supervision of a non-academic person (e.g. a practitioner). EPT cannot replace the core intramural training nor the extramural training under the close supervision of academic staff (e.g. ambulatory clinics, herd health management, practical training in FSQ and VPH).

Since the veterinary degree is a professional qualification with Day One Competences, EPT must complement and strengthen the academic education inter alia by enhancing student's professional knowledge.

3.5.1. Findings

EPT is regulated by the Royal College of Veterinary Surgeons (RCVS) which requires students to complete 38 weeks of extra mural studies (EMS) during the BVSc programme: 12/38 weeks in animal husbandry (AHEMS) (minimum of 1 week at each species: small animals, production animals, equines, as an obligation by RCVS) and 26/38 in clinical studies (CEMS) (animal species of student's choice). EPT must be carried out during published University vacations: AHEMS in the first 2 years and CEMS in the last 3 years of the BVSc programme. AHEMS is mainly based on animal husbandry and handling, whilst CEMS is mainly based on hands-on clinical experience. CEMS might include non-clinical placements such as: (a) research placement (up to 6/26 weeks), (b) professional EMS (e.g. Public Health, governmental bodies etc.) (up to 2/26 weeks), or other types of EMS (e.g. leadership) due to particular interest could be at the VEE's discretion.

3.5.2. Comments

EPT is structured and regulated formally by RCVS via the form of EMS which covers both small animals and production animals as obligatory. EPT is organised in a way that students can get animal husbandry and handling experience in all species, whilst clinical experience of students' choice.

3.5.3. Suggestions for improvement

None.

3.5.4. Decision

The VEE is compliant with Standard 3.5.

Standard 3.6: The EPT providers must have an agreement with the VEE and the student (in order to state their respective rights and duties, including insurance matters), provide a standardised evaluation of the performance of the student during their EPT and be allowed to provide feedback to the VEE on the EPT programme.

There must be a member of the academic staff responsible for the overall supervision of the EPT, including liaison with EPT providers.

3.6.1. Findings

EPT providers have an agreement with the VEE and the students reflected in the student

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

agreement form (SAF) which is completed by each EMS provider. The SAF details requirements for health and safety, equality / diversity and inclusion, employers' liability insurance, working hours and feedback processes. Students find placements through an online database of providers maintained by the VEE or through personal contacts. Each EPT provider has to sign a SAF and each student has to declare that they have received health and safety instructions. Personal liability insurance is the students' own responsibility and is usually provided through the British Veterinary Association (BVA). Employer liability insurance is covered by the EPT provider while public liability insurance is covered by the VEE.

EPT is monitored by the "Extra Mural Studies (EMS) Office". Prior to EPT students are taught and assessed in animal handling and husbandry and receive teaching on EMS health & safety, conduct and expectations.

3.6.2. Comments

Agreements between the VEE and students are well structured and inclusive and with a clear focus to support and protect the student. There is a specific EPT Office (EMS Office) including academic and administrative staff which is exclusively dealing with EPT training.

The exit of the UK from the European Union has made the funding of EMS in European partner institutions more complicated, but students have still been able to complete these placements in 2021-22.

3.6.3. Suggestions for improvement

None.

3.6.4. Decision

The VEE is compliant with Standard 3.6.

Standard 3.7: Students must take responsibility for their own learning during EPT. This includes preparing properly before each placement, keeping a proper record of their experience during EPT by using a logbook provided by the VEE and evaluating the EPT. Students must be allowed to complain officially and/or anonymously about issues occurring during EPT. The VEE must have a system of QA to monitor the implementation, progress and then feedback within the EPT activities.

3.7.1. Findings

Students are provided with an EMS Handbook with details regarding EPT training. Students devise their own EPT programme and create a list of expected learning outcomes. Students are expected to keep an EPT logbook during the placement.

Assessment of EPT includes (a) presentation of a personal student logbook (online portfolio), (b) self-reflection on the placement, how they met the expected learning outcomes and devise of a plan for further development, and (c) a completed feedback form from the EPT provider to confirm attendance and advise on further development at the end of the placement. EPT logbooks and self-reflection journals are reviewed once per semester during students' personal development plan (PDP) meetings with their personal tutor and, if required, by the EMS panel. Students have the opportunity to provide feedback for the EPT provider or the placement at the time of the logbook completion. Students are advised to contact University security in out-of-hours by telephone or online via University's 'Report and Support' Service in case of an emergency situation (e.g. wellbeing, bullying, harassment etc.). Further help can be sought from personal tutors and EMS coordinators, whilst formal complaints can be submitted via the

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

EMS Office or the EMS coordinators.

The EMS Panel meets at least yearly and interviews several students which are randomly chosen, referred by their personal tutor or selected because of an unusual placement or pattern of placements, because they have failed to comply with the EPT regulations or if checks with placement providers reveal inadequate attendance and performance regarding their placements.

3.7.2. Comments

The EMS handbook is a comprehensive guide for students regarding EPT training. The EMS Office offers qualified access to the students for advice or complaints regarding their EPT providers or their placement.

3.7.3. Suggestions for improvement

None.

3.7.4. Decision

The VEE is compliant with Standard 3.7.

Area 4. Facilities and equipment

Standard 4.1: All aspects of the physical facilities must provide an environment conducive to learning, including internet access. The veterinary VEE must have a clear strategy and programme for maintaining and upgrading its buildings and equipment. Facilities must comply with all relevant legislation including health, safety, biosecurity, accessibility to people with reduced mobility, and EU animal welfare and care standards.

4.1.1. Findings

The VEE consists of two campuses 19 km apart. The campus located in the city of Liverpool presents areas dedicated to veterinary education with access to all the facilities of the University of Liverpool. This campus also includes the first opinion small animal and exotics practice. Ophthalmology is taught in a private specialist clinic 30 km from Leahurst. Out of hours service of the first opinion small animal practice is provided by a private company. The final 2 years of the BVSc curriculum are held on the 80 hectares campus of Leahurst.

These campus facilities work all year round and include an equine teaching hospital, an equine first opinion ambulatory practice, a farm animal ambulatory practice, a small animal teaching hospital, and two farms. Several Clinical skills labs are scattered throughout the Liverpool and Leahurst campuses. Associated diagnostic services (microbiology, pathology, clinical pathology, and diagnostic imaging) as well as clinical research laboratories support the clinical work on-site. The Central University Facilities, Residential and Commercial Services have allocated a budget of £2 million per year over the next three years for maintenance and refurbishment of the Leahurst campus site.

Hands-on food inspection is carried out 14-130 km away in ten abattoirs, food processing and cheese making facilities.

There are building managers and a technical team responsible for each sector which is in contact with the Facilities, Residential and Commercial Services (FRCS) to maintain the buildings. The condition of the buildings is monitored by dedicated staff who carry out regular inspections and report to the heads of departments and operations in accordance with the University's technical offices.

In addition, hospital and clinical practices are accredited by the RCVS Practice Standards Scheme and are inspected for legal compliance, including medicines storage regulations.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

4.1.2. Comments

The vicinity of the University facilities offers a very good working and learning environment. The Leahurst campus offers the opportunity for in-depth clinical learning with small animals, equines and farm animals. This clinical training is complemented by the private, specialist ophthalmology clinic (EyeVet) and, for exotic animals, by the Liverpool Small Animal Clinic. Buildings are in compliance with legislation and regularly maintained and upgraded. It is commendable that all physical facilities provide a student friendly environment conducive to learning (24/7 open library for example).

4.1.3. Suggestions for improvement

None.

4.1.4. Decision

The VEE is compliant with Standard 4.1.

Standard 4.2: Lecture theatres, teaching laboratories, tutorial rooms, clinical facilities and other teaching spaces must be adequate in number, size and equipped for the instructional purposes and must be well maintained. The facilities must be adapted for the number of students enrolled. Students must have ready access to adequate and sufficient study, self-learning, recreation, locker, sanitary and food service facilities. Offices, teaching preparation and research laboratories must be sufficient for the needs of the academic and support staff.

4.2.1. Findings

The Liverpool Teaching facilities include a learning zone with 6 computers, two study rooms each with capacity 30, one social learning zone capacity 100, two large clinical skills labs capacity 80, a dissection room (capacity 150) (2*75 possible) with video equipment and a teaching microscope, laboratories (shared across the FHLS) for paraclinical or preclinical practical classes are networked with AV equipment. They are equipped with 300 microscopes for students, 24 dissection microscopes, two microscopes with digital video cameras, PCs and visualizers used to demonstrate material.

On the Leahurst campus (years 4-5) the learning environment comprises the Leahurst Lecture Theatre (capacity 181) for didactic lectures, a social learning zone and common room (capacity 50) for private study and breaks between lectures, a student Laboratory (capacity 30) for dry practicals, a small animal clinical skills lab (capacity 8) for small animal clinical skills, the Leahurst library (capacity 20) for private study, the Leahurst computer room (12 computers), the Henry Edwards Learning Centre (3 tutorial rooms + clinical skills lab), the Leahurst House (4 tutorial rooms), the Zoonosis Centre meeting room and a main building meeting room.

The VEE has three referral hospitals (small animal, equine, and production animal) and two ambulatory practices (equine and production animal) at the Leahurst campus, and one small animal first opinion clinic (University Veterinary Practice) in Liverpool.

All teaching hospitals have small group teaching areas for case discussions.

Each clinic on the Leahurst campus has its own clinical skills lab with models and mannequins to train students without the use of animals.

Veterinary pathology and microbiology diagnostic facilities (equipped with AV, cameras, microscopes, workstations) include two post-mortem rooms with changing facilities, two microbiology labs and a new digital morphology lab.

Catering, accommodations, and leisure places are available and second- and third-year students can be accommodated on the University of Liverpool campus or in Greenbank Student Village.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

This accommodation is close to sports facilities and food outlets. The Leahurst Campus has a café open 9 - 14.30 on weekdays with an eating area. This campus has a floodlight grass lawn for recreation. Toilets, showers and lockers are available on both campuses near the activity areas. Dedicated rest rooms for students on call are available in the equine and small animal hospitals.

Staff offices are located in the main buildings on both campuses according to discipline and close to the laboratories for researchers. Clinicians' offices are located in, or very close to, the hospitals. Shared "hot" offices are also available in the Veterinary School administration building and in the hospital.

4.2.2. Comments

The teaching spaces are well equipped and maintained and adequate in number and size for the number of students.

Veterinary pathology and microbiology diagnostic laboratories are well equipped.

Students have access to a number of study rooms, self-study rooms, skills labs, laboratories, large and small animal clinics. They also have easy access to sanitary facilities and lockers for their personal belongings, leisure and sports areas, food and rest areas.

Second- and third-year students can be accommodated on (or near) the Liverpool campus.

Academic staff have access to offices close to their work (clinics or laboratories). Rotating offices within the SAVTH are available to be closer to clinical activities during their rotations.

4.2.3. Suggestions for improvement

None.

4.2.4. Decision

The VEE is compliant with Standard 4.2.

Standard 4.3: The livestock facilities, animal housing, core clinical teaching facilities and equipment used by the VEE for teaching purposes must:

- be sufficient in capacity and adapted for the number of students enrolled in order to allow safe hands-on training for all students
- be of a high standard, well maintained and fit for the purpose
- promote best husbandry, welfare and management practices
- ensure relevant biosecurity and biocontainment
- be designed to enhance learning.

4.3.1. Findings

For healthy animals students have access to two farms belonging to the University located near the Leahurst campus. One farm breeds Holstein cows (220 adults 250 young) the other farm produces sheep (450 ewes), pigs (22 sows and piglets) and houses 30-50 Aberdeen Angus crossbred Holsteins coming from the first farm. Healthy ponies and horses (7) are also available at The Philip Leverhulme Equine Hospital to train students.

The Leahurst campus (under specific conditions determined by UK Government Home Office Scientific Procedures Act Establishment licence) houses designated areas for research animals including large animals, facilities for small groups of housed poultry, a Mammalian Biology unit (small rodent behaviour research), a temperature-controlled Snail room and an Insectary. The Liverpool Campus houses a Biological Services Unit (9,300 m², including CL3 facilities) and a state-of-the-art facility for rodent and rabbit research.

With respect to hospitalised animals The Philip Leverhulme Equine Hospital on the Leahurst

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

campus contains two operating theatres, a standing surgery suite, four indoor examination areas, a scintigraphy suite, a CT scanner, a standing MRI, digital radiography, fluoroscopy, ultrasonography, stabling (42 in-patients), hard and soft lunge areas, one trot-up strip, grazing paddocks and eight turn-out paddocks, an intensive care unit (11 stables including two stables to accommodate mare and foals), radiation therapy facility (one isolation stable), an isolation unit (four stables with a high level of biosecurity), an equine clinical skills lab, five dedicated ‘service rooms’.

The Leahurst Equine Practice (ambulatory) has three equipped practice vehicles and a dedicated study room with computer/wi-fi access.

The Small Animal Teaching Hospital (SATH), at Leahurst campus (2,500 m²) consists of three parts and has space for 72 in-patients, a reception, a pharmacy, accounts, consult rooms (7), student accommodation, staff accommodation and kitchen, seminar rooms, two hot desk areas, dermatology, cardiology, anaesthesia, intensive care units, recovery room, a laboratory, a gait analysis, student locker area, a linear accelerator, 2 digital radiography systems, three ultrasound machines, 1.5 Tesla MRI scanner, CT scanner, video endoscopes including video otoscopy, fluoroscopy (C-arm), radiation oncology, cat wards (22 places), dog wards (46 places), isolation ward (four places), dog wash, chemotherapy, laundry and food preparation rooms, sterilising rooms and outdoor dog exercise area in the isolation ward. The SATH also has a fully equipped first aid allocated space for human accidents supported by specifically trained staff. The SATH is a multidisciplinary hospital which provides a variety of services including internal medicine, dermatology, soft tissue surgery, orthopaedics, neurology and neurosurgery, oncology and radiation oncology, cardiology, anaesthesiology and analgesia, and also has two special clinics: weight management clinic and pain clinic.

The University Veterinary Practice on the Liverpool campus has two operating theatres, a dental suite with dental radiography, ultrasound and digital radiography.

The Henry Edwards Learning Centre and adjacent building (production animals) contains three seminar rooms, a clinical skills lab, farm animal practice facilities and office space for clinicians and academics, the Cow Lab (for additional clinical skills), a cadaver cattle foot trimming area, a disinfection and cleaning area and vehicle cleaning facilities (outside near parking area), five ultrasound machines and a digital radiography.

The clinical yard area has two bull pens with bedded area, restraint crushes to perform standing surgery, a large pen for cows with calves, two boxes for cows, four smaller boxes for large calves and camelids, a room with 11 individual calf or sheep pens, a room with 3 pig pens, two surgery rooms (for general anaesthesia and standing surgery) and a mobile milking machine. FSQ and VPH is taught by means of a dedicated vehicle which is available to bring specimens from a local abattoir, a virtual abattoir system (3D Visual Simulations Ltd) and visits to red/white meat abattoirs and a cheese processing plant.

4.3.2. Comments

All the elements at the service of clinical teaching e.g. buildings, equipment, high standard diagnostic means, animal housing, external spaces, management of clients (first opinion or referred), autopsy, biosecurity are of excellent quality to ensure a very good level of teaching in farm, equine and small animals.

Healthy animals (farm animals and equine) are available to train students and promote best husbandry, welfare and management practices.

High-level animal facilities allow students to acquire good laboratory practices with animals dedicated to research (mainly rodents and rabbits).

The state-of-the-art equipment at the Leahurst equine and small animal teaching hospitals is commendable.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

4.3.3. Suggestions for improvement

None.

4.3.4. Decision

The VEE is compliant with Standard 4.3.

Standard 4.4: Core clinical teaching facilities must be provided in a veterinary teaching hospital (VTH) with 24/7 emergency services at least for companion animals and equines. Within the VTH, the VEE must unequivocally demonstrate that standard of education and clinical research are compliant with all ESEVT Standards, e.g. research-based and evidence-based clinical training supervised by academic staff trained to teach and to assess, availability for staff and students of facilities and patients for performing clinical research and relevant QA procedures.

For ruminants, on-call service must be available if emergency services do not exist for those species in a VTH.

The VEE must ensure state-of-the-art standards of teaching clinics which remain comparable with or exceeding the best available in the private sector.

The VTH and any hospitals, practices and facilities (including EPT) which are involved with the curriculum must meet the relevant national Practice Standards.

4.4.1. Findings

Each of the three clinical teaching Departments (Department of Small Animal Clinical Science (DSACS), Department of Livestock and One Health (LOH), Department of Equine Clinical Science (DECS)) is associated with a VTH (as well as an ambulatory or a SA city clinic) on the basis of the species studied. This facilitates the transfer from theoretical to practical clinical teaching. The VEE meets the National Practice Standards as all the hospitals are accredited by RCVS in 2020.

The Philip Leverhulme Equine Hospital and the Leahurst Equine Practice both provide a 24/7, 365 days emergency service.

Students are involved in one week of soft tissue surgery, one week in orthopaedics (with farriery clinic every Thursday), one week in equine medicine, a week of a mix of surgery, lameness and imaging, one week in equine oriented clinical skills training, one week out of hours clinical rotation week. They participate in companion animal necropsies (including equines) and clinical microbiology experience during the equine rotation block.

The Small Animal Teaching Hospital (Leahurst) and University Veterinary Practice (Liverpool) provides 24/7, 365 days emergency service. VetsNow, a commercial service provider, provides emergency service at UVP for the first-opinion Small Animal Hospital. There are two additional clinics operating in the SATH; the Obesity Clinic and the Pain Clinic (run in conjunction with the Anaesthesia service).

During their 10 weeks of clinical rotation students are involved in one week of internal medicine, one week cardiology, one week dermatology, one week soft tissue surgery, one week orthopaedics (+ one day weekend out of hours), one week neurology (+ one day weekend out of hours), one week imaging, one week oncology (3 days) and ophthalmology (2 days at EyeVet), one week of first opinion consultations and surgery at UVP, one week of exotic animal medicine at UVP.

Farm animal clinical service is provided by an ambulatory service. Animals referred or from the farms visited can be hospitalised at The Leahurst farm practice. An emergency service is also offered.

During their 10 weeks (2 x 5 week blocks) of clinical rotation students are involved in 3 weeks

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

at the Leahurst Farm Animal Practice ambulatory clinic (one clinical practice week, one week in reproduction, one week in orthopaedics), 4 weeks of herd health (a herd monitor week, a dairy studies week, one youngstock week, one beef and sheep week), a week of veterinary public health training, a week of “Disease Investigation” (production animal necropsies and pathology interpretation), one week supervised production animals clinical skills using simulators and other learning support materials available in the clinical skills laboratory and visits to the SVS farms.

Students have an opportunity for a further three weeks of elective experience (in clinical area, farm practice, dairy herd management or non-traditional farmed species).

Students have 2 weeks in anaesthesia rotations and out-of-hours: One week in small animals and one week in equine during which other large animal cases may be seen.

4.4.2. Comments

24/7/365 emergencies are provided for equines, small animals and farm animals with the participation of students.

The clinical service provided to patients and devoted to the training of students is compliant with ESEVT and national Practice standards.

4.4.3. Suggestions for improvement

None.

4.4.4. Decision

The VEE is compliant with Standard 4.4.

Standard 4.5: The VEE must ensure that students have access to a broad range of diagnostic and therapeutic facilities, including but not limited to: diagnostic imaging, anaesthesia, clinical pathology, intensive/critical care, surgeries and treatment facilities, ambulatory services, pharmacy and necropsy facilities.

4.5.1. Findings

The students, supervised by a qualified staff, are involved in all cases received in the clinics (live, intensive care or dead), all species including zoo animals. The clinics are fully equipped with state-of-the-art diagnostic and imaging tools, a pharmacy and a laboratory. For example, in the equine clinic there is a scintigraphy suite and equine CT and MRI scanners including digital radiography (Sound Eklin Sprint Air DR system) including additional portable DR system, fluoroscopy, ultrasonography (GE Logic e, S7, S8 and Vivid i Ultrasound Scanners), nuclear scintigraphy (MiE camera/ Southern Scientific), Magnetic Resonance Imaging (Hallmarq) and state-of-the-art large bore computed tomography (Canon Large Bore) on a sliding gantry system unique to the UK. The small animal clinic (SATH) is equipped with a linear accelerator (Varian Vitalbeam), 2 digital radiography systems (Fujifilm FDR) Dexa scanner (GE GE Lunar Prodigy Advance), three ultrasound machines (Samsung RS80a, GE Logiq S7 Expert Easote Mylab 6), 1.5 Tesla MRI scanner (Philips Ingenia), 80-slice CT scanner (Canon Aqilion Prime) and three Karl Storz rigid and four flexible video endoscopes in various sizes for gastroscopy, ureteroscopy and bronchoscopy. The UVT works with ultrasound (Mindray Z5), digital radiography (Siemens Polydorous IT 3166 with AGFA CR30-X viewer) and dental radiography (Aribex Nomad Pro).

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

4.5.2. Comments

The students have access to a broad range of state-of-the-art diagnostic, imaging tools and therapeutic facilities and equipment as has been described in other parts of this Area.

4.5.3. Suggestions for improvement

None.

4.5.4. Decision

The VEE is compliant with Standard 4.5.

Standard 4.6: Appropriate isolation facilities must be provided to meet the need for the isolation and containment of animals with communicable diseases. Such isolation facilities must be properly constructed, ventilated, maintained and operated to provide for animal care and for prevention of spread of infectious agents. They must be adapted to all animal species commonly handled in the VTH.

4.6.1. Findings

There are three isolation facilities at Leahurst VTH. One for equine (176 m^2) with four isolation stables ($3 \times 14\text{ m}^2$ and $1 \times 16\text{ m}^2$), a treatment area (34 m^2) each, a separate changing area ($7-9\text{ m}^2$) and a circulation area (35 m^2) to allow infection control to be practised through risk zones. One in the small animal hospital (22 m^2) which includes a preparation area to change into PPE, an external isolated area for dog walk, but a shared entrance with the rest of the hospital. It has two large kennels, two small kennels (that can be used for cats) and a separate solid walled outside run. One is in the farm animal hospital.

The Small Animal first opinion clinic (UVP) has six cages that can be used for isolation, one larger and five smaller.

In the Farm Animal Clinical area individual stables for bulls, cows and calves or smaller production animals can be isolated with individual drainage.

4.6.2. Comments

There are biosecurity procedures and well adapted isolation buildings for small animals and horses (separate from the hospital for this species).

The access of the small animal isolation unit is suboptimal as it is shared with other hospital areas, however, when needed there are standard operating procedures and staff to ensure biosecurity for patients' handling in the hospital.

4.6.3. Suggestions for improvement

None.

4.6.4. Decision

The VEE is compliant with Standard 4.6.

Standard 4.7: The VEE must have an ambulatory clinic for production animals or equivalent facilities so that students can practise field veterinary medicine and Herd Health Management under academic supervision.

4.7.1. Findings

Students follow a 10-week rotation in animal production (see details in chapter 4.1), of which

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

3 weeks are ambulatory and 4 weeks are in herd health management under VEE employee supervision.

Farm animal clinical ambulatory service is provided by The Leahurst farm practice. It has 245 registered clients within a 25 Km radius.

4.7.2. Comments

The ambulatory clinic for production animals allows students to evaluate diseased animals extramurally and hands-on training on emergency cases.

4.7.3. Suggestions for improvement

None.

4.7.4. Decision

The VEE is compliant with Standard 4.7.

Standard 4.8: The transport of students, live animals, cadavers, materials from animal origin and other teaching materials must be done in agreement with national and EU standards, to ensure the safety of students and staff and to prevent the spread of infectious agents.

4.8.1. Findings

The Leahurst Farm Animal Ambulatory Clinic has 2 Renault Master minibuses fully equipped and with refrigerated storage and locker for pharmaceuticals, another Renault Master and a Ford Custom Combi minibus used to transport students, two further Ford Custom Combi minibuses are used for herd health farm trips, a Ford Transit minibus with foot trimming crush A, 2 m long cattle/sheep trailer can move cases from farms and a Renault Trafic minibus is used for visits by VPH staff to abattoirs and food processing plants.

Transportation of students from the Liverpool campus to the Leahurst campus, 11 km away, depends on the number of students. They can go either by train (reimbursed) and a walk of about 4 km from the station to the campus or by their own means (to go to the UVP or Eye Vet) or by bus (big groups).

Students are taken to the outpatient department in faculty-owned cars equipped with clinical equipment.

To transport cadavers and abattoir material a specific van is dedicated and based at Leahurst campus.

4.8.2. Comments

Visits to the farms outside are carried out with a number of specially equipped 9-seats vehicles, no more than 12 years old.

There are dedicated vehicles for transporting students safely to and from campus and outpatient facilities, and well maintained. However, students may be required to travel alone to teaching sites such as the UVP and Eye Vet as well as to the Leahurst campus if it is a small group. One vehicle is dedicated to the transport of cadavers.

4.8.3. Suggestions for improvement

None.

4.8.4. Decision

The VEE is compliant with Standard 4.8.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

Standard 4.9: Operational policies and procedures (including e.g. biosecurity, good laboratory practice and good clinical practice) must be taught and posted for students, staff and visitors and a Biosafety manual must be available. The VEE must demonstrate a clear commitment for the delivery of biosafety and biosecurity, e.g. by a specific committee structure. The VEE must have a system of QA to monitor and assure clinical, laboratory and farm services, including a regular monitoring of the feedback from students, staff and clients.

4.9.1. Findings

Committees assisted by faculty experts from the Central University Safety Committee monitor risk prevention on each campus. A 41 pages Safety and Biosecurity Code of Practice is available online for staff and students.

Each campus has a Safety and Regulatory Compliance Coordinator reporting to the IVES Institute technical manager and working closely with Departmental Safety Coordinators nominated by each Head of Department. Leahurst Campus and SVS Health & Safety Committee, chaired by the Dean, has oversight of safety within the VEE and reports to the Institute Leadership Team.

A clinical microbiologist chairs the Biosecurity and Infection control group.

There is also a contingency plan for outbreak of notifiable diseases.

"SafetyNet" is a platform for managing safety-related documents. Individual staff and students must sign it before being allowed to work in the specific area.

Students receive an introduction to biosecurity and safety in their first year and on arrival at the Leahurst campus in years 4 and 5.

The University's "Quality and Enhancement Framework" outlines the overall QA structure which is implemented in the VEE. All assessments are subject to QA processes under the remit of the Head of Undergraduate QA. The codes of practice for assessment are set by the academic quality and standard division of the university who set out the relevant QA processes for assessment. Historically, the veterinary school undertook surveys to assess employer satisfaction, where graduate responders could volunteer the contact details of their employer, who were then sent the survey.

Students are formally and regularly invited to give feedback on their courses weekly during clinical rotations, as well as on two larger focus groups twice annually in the final year for more in-depth exploration of clinical rotation teaching.

Feedback is gained from students on clinical rotations thanks to the setting up discussions in those focus groups which are facilitated by colleagues from the Centre for lifelong learning. Students who are randomly selected to participate in focus group sessions are excused from rotations for that period. Following the focus groups, staff reply to any concerns raised in a short turnaround time, thus improving response to feedback and enabling changes to be made "in due course" if required.

The VEE has a QA system in place that assure clients satisfaction with clinical, laboratory and other services. The Client service manager is responsible for training of the staff working at the reception desks, collection and resolving of positive and negative feedback. Clients can submit their complaints and compliments on the work of the VEE service via email, in person upon arrival or via the electronic system used in the clinic for patient registration.

4.9.2. Comments

Operational policies and procedures are taught and available online for staff and students thanks to a Safety and Biosecurity Code of Practice manual also available online (www.liv.ac.uk/vets/safety) (annex 4.8). They are monitored by specific committees (see Findings) and the University central organisation.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

The VEE has a QA system to monitor and ensure clinical teaching which includes feedback from the students.

“SafetyNet” presents an operational online platform for staff and students, enabling constant availability of necessary safety-related documents.

4.9.3. Suggestions for improvement

None.

4.9.4. Decision

The VEE is compliant with Standard 4.9.

Area 5. Animal resources and teaching material of animal origin

Standard 5.1: The number and variety of healthy and diseased animals, cadavers, and material of animal origin must be adequate for providing the practical and safe hands-on training (in the areas of Basic Sciences, Clinical Sciences, Pathology, Animal Production, Food Safety and Quality) and adapted to the number of students enrolled.

Evidence must be provided that these data are regularly recorded and that procedures are in place for correcting any deficiencies.

5.1.1. Findings

Animals and materials of animal origin are provided for the training across all years, satisfying the needs for preclinical and paraclinical practicals as well as for clinical rotations.

The main sources of animals, both healthy and diseased, as well as materials of animal origin are the following: The Wood Park Farm (healthy dairy cattle but also herd health experience and reproduction teaching resources); the Ness Heath Farm (healthy beef cattle, small ruminants, and pigs, but also animal handling and herd health management experience); the Philip Leverhulme Equine Hospital (both for healthy equine handling experience and clinical training on referred patients); the Leahurst Equine Practice (first opinion ambulatory horse clinic for clinical training); the Small Animal Teaching Hospital in Leahurst (for clinical intramural training in small animals, mostly on referred, highly specialised cases); the University Veterinary Practice in Liverpool (for clinical intramural training in small animals and exotics, mostly first opinion cases); the EyeVet private practice (for small animals ophthalmology); the Leahurst farm practice (ambulatory service to local farms for clinical training in diseased animals and herd health); the Henry Edwards learning Centre (for clinical skills teaching in farm animals and clinical practicals on hospitalised patients); the Chester Zoo for exotics and related necropsies; local abattoirs (weekly collections during the teaching period) and food processing facilities; local butchers, pest controllers (collection of fish, rabbits and chicken during the teaching period); external referred materials for post-mortem investigation, donated cadavers for teaching such as dogs from authorised council pounds, and stored material for both “wet” practicals and “dry” practicals; the Royal Society for the Prevention of Cruelty to Animals (RSPCA, animals for necropsies); animal charities, police forces and the Animal and Plant Research Agency for production animal necropsies and activities during the extra mural practical training (EPT).

During the Visitation the eam experienced a class of students attending a 3 hours practical session in Anatomy of Rabbits, Birds and Rodents in the VTS where each group of students was examining dissected cadavers of rabbits, chickens or rodents, fresh or preserved using the Klotz solution. The class consisted of about 90 students (half of one year students group) who were divided over 2 circuits of 15 stations (table+cadaver+equipment+visual information) each

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

(max 4 students per station), spending 10 minutes per station, under the supervision of academic and support staff who were available for questions on the material that they were provided with. The Animal Welfare and Ethical Review Body supervises activities related to experimental animal work. All research projects must obtain Ethical Approval and the person carrying out a procedure must hold a personal licence and have statutory training.

Table 5.1.1 of the SER details and gives evidence of the adequacy of cadavers and material of animal origin used in practical anatomy training.

Table 5.1.2 of the SER details and gives evidence of the adequacy of the number of healthy animals used for preclinical training. All species are represented.

The internal facilities (Liverpool and Leahurst) and the ambulatory clinics provide the students with learning resources that cover all major veterinary disciplines, both for companion animals (including horses and exotics) and food producing animals.

The in-house caseload is a combination of first opinion and referred cases. The same can be said for the ambulatory clinics. First opinion patients represent 2/3 of the total patients.

Tables 5.1.3 and 5.1.4 of the SER detail the number of patients seen intramurally and extramurally, respectively.

The exposure of students to cattle is mostly based on the activity of the ambulatory clinic. In fact, whereas the number of intramural cases is relatively low (mean 32 in the last three years), the number of cattle patients visited extramurally is very high (mean 7,779).

The extramural activity does also provide adequate exposure to pig patients.

The exposure of students to companion animals is mostly based on the intramural activities of the Small Animal Teaching Hospital in Leahurst and the University Veterinary Practice in Liverpool, the latter providing also the majority of the caseload for exotic animals.

The exposure of students to equine is high in respect to both the intramural and extramural activities.

Table 5.1.7. of the SER gives the number of visits in herds/flocks/units for training in Animal Production and Herd Health Management. More information on this was given during the visitation. Besides a pre-fixed programme of herds/flocks visits, students have the possibility to visit the farm served by the ambulatory clinic to produce farm assurance reports. The number of these visits is not reported in table 5.1.7. but included in the number of bovine seen extramurally. During the Visitation the team was conducted to visit the Wood Park teaching farm and two other private farm clients of the ambulatory clinic. In the latter two farms there were students, under teacher supervision, who were respectively doing pregnancy diagnosis and blood sampling, in the context of their rotation (Livestock reproduction, livestock dairy practice).

Students visit poultry farms only during the preclinical practical training, whereas - as depicted in table 5.1.7 - due to biosecurity reasons students are not regularly brought to visit poultry units during the rotations. Clinical cases of backyard poultry can eventually be seen in the farm animal ambulatory clinic and other avian species are seen during the exotic pet rotation. Students get poultry handling experience in 4th year during the clinical theory course alongside the poultry diseases lectures. During the visitation the VEE explained that it compensates the suboptimal exposure to poultry farm visits by offering interactive poultry health sessions in the rotation week devoted to Livestock Diseases Investigation, including sample collection and submission for disease investigation and surveillance. The disease investigation week has a 3 hours morning session of poultry necropsy and discussion of common diseases and management including vaccination.

Another form of compensation adopted by the VEE is to enhance the experience of students to poultry necropsies. If this is not possible (e.g. the Avian Flu outbreak in winter 2021-22) the teaching is further compensated by photographs and demonstrations.

If students are specifically interested in poultry the VEE facilitates contacts in the industry that

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

can help them gain further experience during pre-clinical and clinical EPT.

In the UK, rabbits are not considered food producing animals and therefore students do not have the possibility of visiting rabbit farms. This animal species is included in the caseload of exotic animals in the category small mammals. They are used in this region mostly as pets, food for snakes or as game. Rabbits are widely used in the preclinical practicals and are mostly obtained from the wild population.

Pet rabbits are seen in the University first opinion veterinary practice and included in exotic animal handling classes.

The number of companion animal necropsies was reduced during COVID-19 as the occupancy rate of the post-mortem rooms was capped and only one necropsy was undertaken at a time after cleaning, as a result many potential cases were refused, and some large stakeholders (e.g. the RSPCA) were restricted to submitting a maximum of three cases per week. This reduced submission rate is reflected in the overall numbers of companion animal cadavers used in the necropsy (Table 5.1.6) in 2019-20 and 2020-21. Numbers have increased in 2021-22 and, if these are maintained, numbers are above minimal value.

During the visitation the team was informed that an important source of animals for necropsy is RSPCA. Cadavers with suspicion of unlawful killing or mistreatment are sent to the VEE for post mortem investigation.

Animals and teaching material of animal origin used by the VEE are recorded. The VEE try to utilise the same cadavers as much as possible.

5.1.2. Comments

The VEE has different possibilities to expose students to a more than adequate number and variety of healthy and diseased animals, as well as cadavers, and other material of animal origin for the practical hands-on training. All major domestic species (companion and farm animals) and exotics are included in the learning resources. This is valid for all areas throughout the 5 years.

The rotation in the Leahurst farm animal practice provides intensive exposure to population medicine (herd health) issues.

It is particularly commendable that the ambulatory practices for equine and farm animals operate like private practices and the high caseload guarantees hands-on training for students. The VEE is aware that the number of poultry herd visits is below the minimum expected by the corresponding indicators, and therefore has set corrective procedures based on interactive poultry health sessions in the rotation week devoted to Livestock Diseases Investigation, on presentation of iconographic materials and on a more in-depth discussion of the clinical cases that can be seen during the activities of the farm animal ambulatory clinic. The team considers the compensation activities adopted by the VEE as adequate.

The number of necropsies is more than adequate, with the exception of the companion animals, whose number is slightly below the expected range. The VEE is also discussing strategies to increase the proportion of fatal cases seen in the Companion animal VTH that undergo necropsy since, even when the number of cases for the academic year 2021-22 has increased, it is not yet considered the usual target satisfactory level. The number of cases will be addressed further by promoting the pathology diagnostic service to external practitioners from first opinion and private referral hospitals, and an effort was made to increase cases donated for necropsy from the VEE hospitals by increased liaison with clinicians and other staff. The team considers the impact of COVID-19 as the cause of the decrease of the number of necropsies in companion animals and is satisfied with the current number of necropsies and the strategies developed by the VEE to increase them even more.

The clinical teaching staff is strongly committed to let the students be involved in all aspects of patient care and management.

5.1.3. Suggestions for improvement

None.

5.1.4. Decision

The VEE is compliant with Standard 5.1.

Standard 5.2: In addition to the training provided in the VEE, experience can include practical training at external sites, provided this training is organised under direct academic supervision and following the same standards as those applied in the VEE.

5.2.1. Findings

The students have many options for acquiring practical experience in external sites. The EyeVet private practice offers two-days mandatory training in ophthalmology in the rotation. Although more difficult to be organised due to Brexit, students are encouraged to undertake some of their clinical rotations at one of the VEE's partner institutions in Europe (7 students took advantage of this possibility in 2021/22).

The Wood Park Farm and the Ness Heath Farm are two teaching farms widely used in the training for exposing students to food producing animals under the direct supervision of academic staff. Moreover, at the time of the visitation, 16 cattle farms were used for herd health training not directly attached to the ambulatory clinic. These farms, whose location is presented in Annex 4.6, are visited on rotation every week with staff members during the Herd Health Dairy Studies week, and student reports are produced.

5.2.2. Comments

The VEE provides the students with many possibilities of relevant extramural training at external sites under the direct supervision of teaching staff. This is particularly valid for food producing animals, as students encounter many different types of farms with various levels of production and biosecurity standards, therefore preparing them for their professional careers.

5.2.3. Suggestions for improvement

None.

5.2.4. Decision

The VEE is compliant with Standard 5.2.

Standard 5.3: The VTH must provide nursing care skills and instruction in nursing procedures. Under all situations students must be active participants in the clinical workup of patients, including problem-oriented diagnostic approach together with diagnostic decision-making.

5.3.1. Findings

The students are actively involved in the clinical workup of patients in the VTH and in the ambulatory clinics, not only in diagnostic decision-making and practical intervention on the animals, but also in nursing, handling, communication with owners, reporting (unofficial), and team discussions. During the visitation, the team repeatedly observed students, in small groups, discussing with teaching staff or interviewing the owners of patients.

Animal nurses and animal care technicians directly participate in teaching students on how to handle patients.

5.3.2. Comments

The VTH provides nursing care skills and instruction in nursing procedures to the students. The active participation of the students to the clinical workup of patients is evident in all parts of the clinical structures.

Animal nurses and technicians are strongly committed in integrating the veterinary teaching with the direct involvement of the students in delivery of the day-to-day care of hospitalised animals.

5.3.3. Suggestions for improvement

None.

5.3.4. Decision

The VEE is compliant with Standard 5.3.

Standard 5.4: Medical records must be comprehensive and maintained in an effective retrieval system (preferably an electronic patient record system) to efficiently support the teaching, research, and service programmes of the VEE.

5.4.1. Findings

Different electronic recording systems are available in all clinical settings. They are retrievable by students, but for the moment not completely integrated (“Beagle” for pathology and microbiology; “Tristan” for clinics). The VEE is in a process to migrate to a new system (ProVet Cloud) that will be shared by all clinical structures.

5.4.2. Comments

Although the electronic systems currently utilised for the recording of the clinical activities are adequate, they are not communicating with each other. However, the VEE is moving to a completely new system (ProVet Cloud) that will integrate the clinical information gained in the clinics and laboratories in only one medical database, and also store all data in the cloud, making the information even more retrievable from wherever teaching staff and students are.

5.4.3. Suggestions for improvement

None.

5.4.4. Decision

The VEE is compliant with Standard 5.4.

Area 6. Learning resources

Standard 6.1: State-of-the-art learning resources must be adequate and available to support veterinary education, research, services and continuing education. When the study programme is provided in several tracks/languages, the learning resources must be available in all used languages. Timely access to learning resources, whether through print, electronic media or other means, must be available to students and staff and, when appropriate, to stakeholders. State-of-the-art procedures for bibliographical search and for access to databases and learning resources must be taught to undergraduate students.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

6.1.1. Findings

Different learning resources are available to support veterinary education. The study programme is monolingual (English). The VEE provides a free-of-charge online guidance on how to access and use the e-learning resources in the [University's Centre for Innovation in Education \(CIE\)](#) website, as well as provides the strategic planning in e-learning accessible to everyone.

More specifically, the VEE provides e-learning resources and tools to aid the students with their studies such as: (a) Digital Interactive Veterinary Anatomy (DIVA), (b) digital histology/histopathology slides, (c) 3D modelling of anatomical and pathological specimens, (d) epicardio for ECG/cardiology teaching, (e) interactive cases, as well as usage of other softwares such as virtual learning environment (VLE) in the CANVAS© platform, Microsoft Office© and data analysis software, Zoom©, Microsoft Teams© and cloud-based Provet© clinical records software (being rolled out in 2022).

Learning material (e.g. PowerPoint presentations) from lectures are uploaded on CANVAS© prior to the lectures so the students can make notes. Lectures are recorded and uploaded within 24 hours from the time of the lecture.

6.1.2. Comments

The VEE provides an abundance of state-of-the-art e-learning and searching resources free-of-charge and easily available to all students aiding their studies.

The VEE provides teaching material to the students timely.

6.1.3. Suggestions for improvement

None

6.1.4. Decision

The VEE is compliant with Standard 6.1.

Standard 6.2: Staff and students must have full access on site to an academic library administered by a qualified librarian, an Information Technology (IT) unit managed by an IT expert, an e-learning platform, and all the relevant human and physical resources necessary for the development of instructional materials by the staff and their use by the students.

The relevant electronic information, database and other intranet resources must be easily available for students and staff both in the VEE's core facilities via wireless connection (Wi-Fi) and from outside the VEE through a hosted secured connection, e.g. Virtual Private Network (VPN).

6.2.1. Findings

The Liverpool University has three libraries: the Harold Cohen and Sydney Jones Libraries on the main Liverpool campus and the Leahurst Campus Library. The VEE's university library employs 99.4 full-time staff, of which 3 are subject (veterinary) dedicated and qualified staff. The two main libraries are open 24/7, whilst the Leahurst Library is open specific times on weekdays. The Harold Cohen Library and the Leahurst Library contain the veterinary science related collections. The libraries are networked with Wi-Fi (Eduroam), laptops, PCs and group work or quiet rooms for studying. The VEE's library also facilitates a veterinary specific [website](#) which provides teaching material, course specific reading lists with recommendations, e-books, and access to online databases (e.g. Scopus) with learning resources. Additionally, there is a unified search tool named 'DISCOVER' which is a customised index of the VEE's

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

library print and e-resources, including books and journal articles. Both Harold Cohen (Liverpool campus) and Leahurst libraries are fully staffed with librarians and administrative staff. More specifically, the Leahurst library has an appointed veterinary-specific librarian very approachable for students during in-hours service, and offers access to the students at a 24/7 basis.

The VEE staff and students have access 24/7 to the university's IT Service Desk (via telephone, email or website) for IT advice, help and support. The IT Service Desk has specialised units for virtual learning environments, supporting IT in lectures and teaching rooms and a Leahurst campus-based team for specialised areas (e.g. medical record system, hospital equipment etc.). The IT Service Desk is fully staffed with IT experts both in Liverpool and Leahurst campuses. The VEE's e-learning platform is the virtual learning environment (VLE) in [CANVAS](#)©.

Wi-Fi is accessible via Eduroam in all areas of both Liverpool and Leahurst campuses.

The VEE provides remote VPN access. University services and online resources can be accessed via the Digital University homepage for staff or students. Alternatively, a portal called Apps Anywhere can be used to access any online resources. Apps Anywhere is available either through a web browser or through a stand-alone application (Citrix Receiver).

6.2.2. Comments

The VEE has a veterinary-specific subwebsite of the VEE's library website that is dedicated to veterinary material, which is very well structured and includes specific recommendations from teaching staff, and is therefore helpful to the user.

It is commendable that the VEE's library has highly dedicated and approachable staff, is operating and providing a veterinary-specific website 24/7.

6.2.3. Suggestions for improvement

None

6.2.4. Decision

The VEE is compliant with Standard 6.2.

Standard 6.3: The VEE must provide students with unimpeded access to learning resources, internet and internal study resources, and equipment for the development of procedural skills (e.g. models). The use of these resources must be aligned with the pedagogical environment and learning outcomes within the programme and have mechanisms in place to evaluate the teaching value of changes in learning resources.

6.3.1. Findings

Veterinary students have access on and off campus to 1,051,228 and 145,783 veterinary and non-veterinary electronic books and journals respectively. There is also an online 'Reading List' which is suggested by academics to guide students learning within the taught modules. Additionally, there is the 'Get it for me' service in case an item is not in the collection or additional copies are needed. If digital versions are not available or it is impossible to collect a hardcopy, there is a 'Book and Copy Delivery' service available to staff and students.

The VEE has clinical skills laboratories at the main Liverpool campus which are accessible by students from 1st to 3rd year in a timetabled schedule as well as during revision periods for further practice. Each student is timetabled for 2 hours per week in the clinical skills lab throughout year 1-3, where they follow a peer-assisted learning approach supported by online and physical resources and a personal reflective skills diary. The clinical skills lab is staffed with academic and technical staff. Specific live and online sessions are pursued to introduce lab

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

rules, to ensure expectations are clear and the labs used appropriately. For 4th and 5th year, there are designated species-specific clinical skills labs including two farm animal based clinical skills labs, one equine clinical skills lab and one small animal clinical skills lab, in which an abundance of models and simulators are provided. In small animal studies, students have 2 hours designated time within rotation weeks to visit the clinical skills lab, using mannequin-based and virtual patients to develop their skills. The designated time is partially self-directed learning with some guided tutorials and a clinical staff member is at hand to answer questions and provide advice where necessary and guidance on specific skills. The Clinical Skills labs implement students' opinion for the designation of its skills and stations variety by providing in situ an anonymous open ideas and suggestion box.

CANVAS© is the online supportive platform used for teaching which among others contains teaching material, lecture notes, lecture recordings, as well as guidelines regarding curriculum modules and examinations. CANVAS© is a user-friendly environment with a plethora of learning resources.

The Department of Veterinary Anatomy, Physiology & Pathology, in collaboration with external sponsors, has developed a laboratory of Digital Morphology (DiMo) which although it is a research laboratory generates teaching material to be used in the VEE curriculum. This project has a direct reflection on the learning experience of students on anatomy and pathology. More specifically, students have access to QR codes either from posters throughout the school or electronically through CANVAS© which directly navigate them into a 3-dimensional experience of a particular organ or a post-mortem examination case assisting their learning process.

6.3.2. Comments

The Clinical Skills labs are commendable, fully equipped, organised, staffed, dedicated to all animal species, and available around the campuses.

E-learning, hardcopy and clinical skill lab resources provided are aligned with the pedagogical environment and learning outcomes of the programme.

Implementation of DiMo in teaching and use in e-learning resources levels up students' learning experience in anatomy and pathology and is therefore commendable.

6.3.3. Suggestions for improvement

None.

6.3.4. Decision

The VEE is compliant with Standard 6.3.

Area 7. Student admission, progression and welfare

Standard 7.1: The VEE must consistently apply pre-defined and published regulations covering all phases of the student "life cycle", e.g. student admission, progression and certification.

In relation to enrolment, the VEE must provide accurate and complete information regarding all aspects of the educational programme in all advertisements for prospective national and international students.

Formal cooperations with other VEEs must also be clearly advertised.

7.1.1. Findings

The VEE study programmes, admission and certification procedures are publicly available on

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

University of Liverpool and VEE official website, together with more detailed information for the national and international students. Information on admission fees and reduction offers are easily available. Optional activity is Open Day, held virtually or in person, combining visits to the Liverpool and Leahurst campuses to get more information about the admission to the VEE. Prospectus or course leaflets are available on the official website after the registration. Progression criteria are available to the students via VLE, under Programme specifications. The progression criteria and procedures are described in more detail under standard 7.5.

7.1.2. Comments

Both University of Liverpool and VEE websites are informative enough and provide all information needed for potential students and the wider community. Also, CANVAS© and VLE are practical sources for distribution of all internal information available to staff and students.

The VEE is very active in numerous outreach activities reaching a wide range of potential future students. Feedback from dedicated events is regularly collected and analysed.

7.1.3. Suggestions for improvement

None.

7.1.4. Decision

The VEE is compliant with Standard 7.1.

Standard 7.2: The number of students admitted must be consistent with the resources available at the VEE for staff, buildings, equipment, healthy and diseased animals, and materials of animal origin.

7.2.1. Findings

Mean number of students admitted to the VEE during the last five academic years is 201 (from 165 in 2018-19 to 214 in 2021-22). Mean number of veterinary undergraduate students in the academic year 2021-22 is 897, spread over five study years.

Annually, between 148 and 150 students are graduating.

Average duration of the studies for 87.3% of students is 5 to 6 years.

Postgraduate students are divided into interns, residents, PhD students, PgCert and/or MSc study programme students.

The number of accepted students into the first year of BVSc programme is set by the Dean, taking into consideration the finances, staff and case numbers, and number of resit students.

7.2.2. Comments

During the last two academic years there has been an increase in the number of admitted students due to the COVID-19 and national issues with graduating students' grades. However, this increase did not have a negative effect on the implementation of the study programme, as it was compensated by hiring of extra staff. Also, the VEE decided to offer a few new teaching places for the academic year 2022/2023.

The number of admitted students is consistent with the resources available at the VEE.

7.2.3. Suggestions for improvement

None.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

7.2.4. Decision

The VEE is compliant with Standard 7.2.

Standard 7.3: The selection and progression criteria must be clearly defined, consistent, and defensible, be free of discrimination or bias, and take into account the fact that students are admitted with a view to their entry to the veterinary profession in due course. The VEE must regularly review and reflect on the selection processes to ensure they are appropriate for students to complete the programme successfully. If the selection processes are decided by another authority, the latter must regularly receive feedback from the VEE.

Adequate training (including periodic refresher training) must be provided for those involved in the selection process to ensure applicants are evaluated fairly and consistently.

7.3.1. Findings

Universities and Colleges Admission Service (UCAS) is the official application site for all potential students, from the UK and abroad.

Academic entrance requirements consist of General Certificate of Education, A-level examinations (Biology, Chemistry), Work experience (minimum 15 days) and an Interview process (currently via an online platform, both for full fee and standard applicants).

According to the Liverpool University's policy on Contextual Data for Fair Access, the VEE is also accepting secondary school students from low socioeconomic areas (two point reduction of A-level academic entrance). Moreover, adult learners can apply for admittance to the VEE via alternative routes.

The admission strategy and selection criteria are decided by the Recruitment, Admission and Widening Participation Committee.

Internal staff and external veterinarians are participating in the interview process. They are trained by the Recruitment, Admission and Widening Participation Committee and are also obliged to take online training in Equality, Diversity and Unconscious Bias. Documents as written instructions, rubrics and video training are also available.

Admission appeals are submitted to the Recruitment, Admission and Widening Participation Committee or to University of Liverpool Undergraduate Appeals and Complaint Policy.

Progression criteria are described in the Programme specifications under the Chapter 6. Learning, Teaching and Assessment Strategies and Methods, and in the University Code of Practice on Assessments. In general, students must pass all the examinations and assessments in order to progress to the next year of study.

7.3.2. Comments

If a candidate meets the minimal selection criteria, they are invited for an interview. The ones with the highest scores at the interview (100%) are given an offer, but on the other hand, the applicants with borderline scores at the interview are also further reviewed, and then demographic contextual data and prior academic performance are taken into account.

Internal staff and external veterinarians are satisfied with the interviews held online.

7.3.3. Suggestions for improvement

None.

7.3.4. Decision

The VEE is compliant with Standard 7.3.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

Standard 7.4: There must be clear policies and procedures on how applicants with disabilities or illnesses are considered and, if appropriate, accommodated in the programme, taking into account the requirement that all students must be capable of meeting the ESEVT Day One Competences by the time they graduate.

7.4.1. Findings

The VEE accepts students with disabilities, offering personalised support during the study process. Already during the interview process, there is a possibility for a potential student to address their health issues (first step in identification of student disabilities). However, if a student is not able to work safely with patients or to acquire skills necessary to practise veterinary medicine, s/he will not be accepted to the BVSc programme. Fitness standards of veterinary students are described in the document Higher Education Occupational Physicians /Practitioners, and the Occupational Health Unit of University of Liverpool is responsible for the assessment of student fitness.

Health questionnaires must be submitted by all students and further assessed by the Occupational Health Unit.

Assistance to students with disabilities is also provided through the Request for Support system, Disability Advice and Guidance team, the disability advisor, the Disability Support Plan, and the Departmental Disability Contact.

7.4.2. Comments

It is commendable that at the VEE, policies, procedures, committees and support structure for students with difficulties are well established.

7.4.3. Suggestions for improvement

None.

7.4.4. Decision

The VEE is compliant with Standard 7.4.

Standard 7.5: The basis for decisions on progression (including academic progression and professional fitness to practise) must be explicit and readily available to the students. The VEE must provide evidence that it has mechanisms in place to identify and provide remediation and appropriate support (including termination) for students who are not performing adequately.

The VEE must have mechanisms in place to monitor attrition and progression and be able to respond and amend admission selection criteria (if permitted by national or university law) and student support if required.

7.5.1. Findings

The VEE publishes progression criteria on the VLE. Each student must pass all professional examinations and rotations to obtain the degree. Student progression is monitored through assessments and a tutor system. According to the rules of the VEE, students are allowed to have two attempts at each summative assessment. Students who fail, have the opportunity to terminate the study or to take a repeat year (if so, they will have the possibility to take only one repeat year and will be obliged to finish the study programme in eight years). Such a decision is made by the Board of Examiners.

The Extenuating Circumstances Committee can grant an additional opportunity for a student to sit at the same attempt status.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

Support activities for students who fail assessment consists of feedback, meeting with Year Lead or personal tutor or senior tutor. If a student is already in the repeat year, they would have a Progress Meeting with the assessment officer, chair of Board of Examiners and Year Lead before taking the new assessment (signed Resitter Agreement is also needed).

The Resitter Portfolio is a tool to support the students in their learning process and is available to the tutor and Year Lead for feedback on student progress.

Students are obliged to sign a Student Agreement for each academic year in which all fitness requirements are stated. If a student fails those requirements, they are taken care of through the Engagement and Professionalism process, by using tariff points (TPs can be scaled from 1-2 to 5-6 and are cumulative).

Students are informed about the support measures and the conditions for the advancement through the study via Student Handbook, student agreement and VLE.

The Recruitment, Admission and Widening Participation Committee is responsible for reviewing policies and practices for recruitment and admission of students.

Reasons for attrition are divided into academic and personal.

7.5.2. Comments

The attrition rate of the VEE is very low (from 4.7% to 6.1%).

Although the conditions for progression to the higher years of study are strict, it is commendable that a very small number of students do not regularly advance, which is the consequence of a well-established support system.

Student Progression Decision Framework is a good tool for understanding the progression mechanism all through the study programme.

7.5.3. Suggestions for improvement

None.

7.5.4. Decision

The VEE is compliant with Standard 7.5.

Standard 7.6: Mechanisms for the exclusion of students from the programme for any reason must be explicit.

The VEE's policies for managing appeals against decisions, including admissions, academic and progression decisions and exclusion, must be transparent and publicly available.

7.6.1. Findings

The Code of Practice on Progression regulates academic progression and exclusion. The Student Monitoring Sub-Committee monitors academic progression and professionalism issues of the students. The VEE can exclude a student due to insufficient academic progress (exclusion decided by the Undergraduate Board of Examiners) or insufficient fitness to practise (exclusion decided by the Faculty Health and Conduct Panel).

Students can appeal to the Faculty Progress Committee within 10 days of decision of termination, and if unsuccessful, to the Senate Progress Committee. In the case of professionalism issues, students can appeal to the Professional Appeals Board.

7.6.2. Comments

The policies for managing appeals described in Code of Practice on Appeals are transparent and available to staff and students via VLE. During the last 5 academic years altogether 8

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

students were excluded due to insufficient academic progress.

7.6.3. Suggestions for improvement

None.

7.6.4. Decision

The VEE is compliant with Standard 7.6.

Standard 7.7: Provisions must be made by the VEE to support the physical, emotional and welfare needs of students. This includes, but is not limited to, learning support and counselling services, career advice, and fair and transparent mechanisms for dealing with student illness, impairment and disability during the programme. This shall include provision of reasonable adjustments for disabled students, consistent with all relevant equality and/or human rights legislation.

There must be effective mechanisms for resolution of student grievances (e.g. interpersonal conflict or harassment).

7.7.1. Findings

The VEE organises a Welcome Week, run by different staff and students, aiming to provide support to freshmen, in order to establish contacts and connections with colleagues from the first days at the VEE.

The Year Lead is a senior staff member responsible for teaching and assessment of the specific study year, working together with the Student Experience Administrator, giving introductory courses.

Each year of the study programme has also a Senior Tutor appointed, supporting students through personal or virtual sessions.

A personal tutor is responsible for a maximum of 10 students throughout the full course of their studies and has the obligation to meet with their respective students at least once per semester. A Personal Development Plan is designed for each student during a session.

Students can also seek peer support, in the form of a Peer Support Team, a Peer Academic Mentoring Team, and a Buddy Family System. A therapist is available to the students once per week, offering personal sessions at Leahurst campus or online.

Career advice is offered to the students via the study programme and specific Professional skills session. Also, Careers Fair and University central careers service are available.

A Wellbeing team offers further support and mental health advisory service to students one-to-one, with the cooperation of the Director of Student Experience and senior tutors.

If the student misses classes or other obligations during the course of their study, they are obliged to complete an absence form and present medical evidence.

Students can join different student societies offered at the VEE or University of Liverpool. Liverpool University Veterinary Society (LUVS) is the central body responsible for all social and extracurricular student activities. Clinical and scientific sub-societies are also active at the VEE, related to farm animals, horses, anatomy, zoology, emergency and critical care.

All VEE students are members of the Liverpool Guild of Students.

If an interpersonal conflict or harassment occurs, students can seek support by the tutor, peers or student experience team or go directly to the University student services.

7.7.2. Comments

The mentoring and tutoring system, including the active participation of trained peer students is well defined and useful for all students throughout the programme, and it is commendable.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

7.7.3. Suggestions for improvement

None.

7.7.4. Decision

The VEE is compliant with Standard 7.7.

Standard 7.8: Mechanisms must be in place by which students can convey their needs and wants to the VEE. The VEE must provide students with a mechanism, anonymously if they wish, to offer suggestions, comments and complaints regarding compliance of the VEE with national and international legislation and the ESEVT Standards.

7.8.1. Findings

Students at the VEE have a couple of opportunities and mechanisms in place to convey their needs and wants. Student representatives in different committees and year representatives gather feedback, and act on the students' behalf in any issues. Student surveys include i) course evaluations at the end of each semester (from year 1 to 4), ii) rotation evaluations (at the end of each rotation block) and iii) focus groups (run during clinical rotations).

Another possibility for students and staff to address their concerns is through the SSLC forum, chaired by LUVS, and through the Town Halls open meetings held by the Dean.

Student complaints and grievances can be managed through the Student Charter, the VEE Support Office and Guild of Students, according to the Student Complaint Policy and Procedure.

7.8.2. Comments

The results of student surveys and evaluations are used as an internal QA mechanism, with the aim of continuous improvement.

From 2017-18 to 2020-21 the VEE received 8 student complaints (5 of the same topic - a central administrative error; 6 out of 8 complaints were managed at the stage 1 level, one at the faculty stage 2 level and one was partially upheld by the Office of the Independent Adjudicator for Higher Education).

7.8.3. Suggestions for improvement

None.

7.8.4. Decision

The VEE is compliant with Standard 7.8.

Area 8. Student assessment

Standard 8.1: The VEE must ensure that there is a clearly identified structure within the VEE showing lines of responsibility for the assessment strategy to ensure coherence of the overall assessment regime and to allow the demonstration of progressive development across the programme towards entry-level competence.

8.1.1. Findings

The responsibility and the processes to manage, ensure, and enhance the standards of the academic programmes and the quality of the learning experience of students, including

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

assessment, are specified in the University's Quality and Enhancement Framework <https://www.liverpool.ac.uk/aqsd/quality-and-enhancement-framework/>. One of the main purposes is to ensure that students receive appropriate and effective assessment through the implementation of evidence-based QA processes.

The University's Senate approves major changes and additional appendices to the Code of Practice on Assessment, which is the common framework for its taught awards, and delegates in Sub-Committees the operation of QA processes: the Academic Quality and Standards Committee, and the Postgraduate Research Committee, each one including an ad hoc Assessment and Feedback Working Group.

The Director of Student Experience and Enhancement, supported by the Director of Academic Quality, has responsibility for operation and maintenance of the University's Code of Practice on Assessment, the Postgraduate Research Code of Practice, and associated quality management processes. External Reference Points are the Programme specifications for taught programmes which are available via Curriculum Manager, as well as detailed assessment strategies. Both Code of Practices on Assessment for Undergraduates, and Postgraduate Research are regularly reviewed to ensure currency and relevance for the University. The VEE applies the policy of the University Code of Practice on Assessment undergraduates in conjunction with the BVSc Programme Specification (Appendix 3.1 of the SER) and Student Handbook (Appendix 7.1).

At VEE level, the BVSc Board of Examiners, together with the Progression Board and Extenuating Circumstances Committee, are responsible for the assessment of students and Diploma award, the progression of students to the next year, and the monitoring of students' performance, dealing with progress failure and remedial actions where appropriate.

The Code of Practice on Assessment (Appendix 1.3 of the SER) has many QA processes for assessment, for example, the University Marks Scale, Marking descriptors and Qualification Descriptors (Appendix A), the regulations for the conduct of examinations (Appendix D), the Assessment Appeals Procedure for Undergraduate and Taught Postgraduate Programmes (Appendix F), the Policy on Assessment of Group-Work for Taught Provision (Appendix G), the External Examiner System for Taught Provision (Appendix H), the Policy on Adjustments and Assessment to Examination Arrangements for Disabled Students (Appendix K), the Academic Integrity Policy (Appendix L), the Policy on Extenuating Circumstances in Relation to Performance in Assessments and Examinations (Appendix M), the Policy on Feedback on Assessment (Appendix N).

Twelve external examiners are available for the assessment of Preclinical and Paraclinical Years (1-3) on Animal Husbandry (year 1&2), Normal Structure and Function (year 1&2), Infectious Diseases/Management of Disease (year 3), Epidemiology, Public Health and Welfare (years 1-3), Pathology (years 2&3), Parasitology (years 2&3), Continuous assessment and projects (years 1-3), and 4 external examiners for the assessment of Clinical Years (4-5) on Equines, Farm Animals, and Small Animals. External examiners come from academia (other UK VEEs) or the veterinary profession familiar with the area of study, and have a tenure of 4 years. There are strict criteria for the appointment of external examiners.

The assessment is not based on isolated subjects, but on the integrated knowledge across the following 6 areas of study: Normal structure and function, Animal Husbandry and Welfare, Disease processes, Epidemiology and Public Health, Skills (Professional, Study, and Research Skills), and Management of Disease.

The VEE uses a range of assessment methods to assess students' knowledge and acquisition of skills.

For theoretical knowledge, examinations are based on short answer questions, single best answer questions (multiple choice or extended matching questions), data interpretation questions, practical spot questions, objective structured preclinical examinations (OSPEs) and

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

continuous assessment including essay questions, presentation, tutorial contributions, drawing tasks, written reports and case-based application including the use of LiftUpp during clinical rotations (see Standard 3.1).

For assessing the Preclinical practical skills students must follow OSPEs, practical spot questions and research projects.

For the assessment of Clinical practical skills students follow OSPEs, LiftUpp and directly observed procedures (Practical Competency Assessments, PCAs; See Standard 3.1; Appendix 3.5).

For assessing Soft skills students develop simulated client interactions, reflective portfolios, clinical skills diaries, self and peer review of contribution to group tasks, outbreak investigations, LiftUpp, written communication assessments and PCAs.

8.1.2. Comments

The VEE's and University assessment strategy defines lines of responsibility, ensures coherence of the overall assessment policy applied for students' assessment, and demonstrates progressive development of undergraduates from Year 1 to Year 5.

8.1.3. Suggestions for improvement

None.

8.1.4. Decision

The VEE is compliant with Standard 8.1.

Standard 8.2: The assessment tasks and grading criteria for each unit of study in the programme must be published, applied consistently, clearly identified and available to students in a timely manner well in advance of the assessment. Requirements to pass must be explicit.

The VEE must properly document the results of assessment and provide the students with timely feedback on their assessments.

Mechanisms for students to appeal against assessment outcomes must be explicit.

8.2.1. Findings

Students are given an overview of assessment processes and requirements published on the students' site of the Virtual Learning Environment (VLE), i.e. format and weighting of assessments, programme specification, Student Handbook (Appendix 7.1), and links to the University assessment policies. The Student Handbook offers quantitative guidelines of the assessments, procedures for handling request for extensions to course submission deadlines, penalties for late submission of coursework, exemption from late penalties, failing assessments, feedback on assessment and procedure for obtaining feedback after formative examinations, marking descriptors for continuous assessment tasks, and variations from the University Code of Practice on Assessment.

In addition, Year 1 students attend a session detailing this information. The session is recorded and made available to all years' students via the VLE.

Apart from this general information on the assessments, students are provided with specific guidance for in-course assessment tasks and exams which are published in the specific year course page on the VLE, where students find clear instructions ahead of time, and marking rubrics. Via VLE students are informed of the process for application for extenuating circumstances in exams and how they may apply for extensions to or exemption from late penalties for in-course assessments.

The Clinical Studies Handbook (Appendix 8.1) is a guide to Years 4 and 5 students; it includes

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

the ‘Fit-to-Sit’ policy applying for clinical rotations and final exams which is presented by the year lead and assessment officer to the clinical students prior to the start of rotations. This Handbook inform on the written exams in Years 4 and 5, the attendance to compulsory practicals, and the practical assessments in the 5th Year that are based on a combination of PCAs (developed during rotations, see 8.5.1 of this report) and a computer-based OSCE exam on practical questions about interpreting videos, images, radiographs, ECGs, making drug calculations, etc. The Clinical Studies Handbook also reports on the use of LiftUpp, an app-based feedback and development platform to record student progression in the acquisition of clinical competencies. Before being eligible to sit final summative exams, students must complete all PCAs and demonstrate appropriate development as judged by LiftUpp feedback. Both Student Handbook and Clinical Studies Handbook specify the barrier assessments required at the end of each year and the specific requirements for progression, i.e: summative exams and in-course assessment tasks which are marked according to marking rubrics and with specific assessment criteria published in advance of the submission date.

The VEE also provides online discussion boards to facilitate communications between students and staff.

The VEE provides students with several opportunities for feedback post-assessment and guidance for improvement: (i) verbal feedback in teaching sessions, (ii) individual and cohort feedback of formative assessment submissions, (iii) self-assessment, (iv) peer-assessment, (v) ongoing feedback on clinical rotations via LiftUpp, (vi) feedback on continuous assessment via the VLE. All students can request feedback on his/her summative exam performance and personal feedback from the Year Lead or exam-coordinator is provided when the student fails, to help him/her reinforce the weaknesses prior to resitting the exam. The VEE also provides generic and specific personal feedback on the performance of students in the activities of formative assessment for Years 1-3 prior to the summative assessments.

Any student has the right to appeal against any feedback or assessment of an individual piece of work, being directed first to the member of staff in charge of administering the assessment who has to clarify the basis of the feedback or assessment. If the student wishes to appeal, s/he is directed to the Programme Director and Assessment Officer for further clarification. On application of the University Code of Practice on Assessment (Appendix 1.3, Appendix F), students may submit an appeal against an individual assessment mark, LiftUpp panel decision or termination of studies on the grounds of academic integrity; if the case, the formal process, guidance and support of the student is provided by the VEE’s Student Administration Office, University’s Academic Compliance Team and Liverpool Guild of Students.

8.2.2. Comments

The regulations, criteria and methods for the assessment of Theoretical knowledge, Preclinical and Clinical practical skills, and Soft skills are transparent, harmonised, and clear.

The VEE makes available in advance all information to the students on the overview of assessment processes and requirements, and specific guidance for in-course assessment tasks and exams, including the requirements to pass, through the VLE, Student Handbook, Clinical Studies Handbook and sessions of staff with Year 1 students or before starting the clinical rotations.

It is commendable that the LiftUpp platform is used to record student progression in acquisition of clinical competencies, a supportive tool which helps students to understand their current learning and skills development.

The VEE offers verbal and online feedback on assessments and development to the students, individually or as a cohort, including continuous assessment.

The procedures for students to appeal against assessment are clear, published and communicated to students.

8.2.3. Suggestions for improvement

None.

8.2.4. Decision

The VEE is compliant with Standard 8.2.

Standard 8.3: The VEE must have a process in place to review assessment outcomes, to change assessment strategies and to ensure the accuracy of the procedures when required. Programme learning outcomes covering the full range of professional knowledge, skills, competences and attributes must form the basis for assessment design and underpin decisions on progression.

8.3.1. Findings

The VEE has QA processes to review internal and external outcomes, including assessment outcomes. Every year, the Curriculum Development Group assess the outcomes and feedback collected from; (i) students (internal outcomes assessment), (ii) external stakeholders (external outcomes) such as alumni, employers and external examiners, (iii) National Student Survey for graduating final year students, and (iv) professional accreditation bodies (EAUVE, RCVS, AVMA).

The VEE's Board of Studies authorised the Assessment Policy that is available to staff and external examiners (via the VLE) and students (via the Student Handbook, and student year representatives at the Staff-Student Liaison Committee). External examiners are provided also with responses to their reports and updates to Assessment Policy based on this. The Undergraduate Education Committee, chaired by a Year Lead, has overall responsibility, along with Subjects Leads, for devising assessments in line with the assessment strategy, and blue-printing of each assessment to the overall programme outcomes to ensure all subjects areas are covered by the appropriate types of assessment. The day-to-day implementation of the Assessment Policy is the responsibility of the Veterinary Education Management Group. The dissemination of decisions based on the Assessment Policy to teaching staff and students is the responsibility of the Year Leads.

The Senior Leaders Group proposes changes to the overall design or implementation of assessment which are ratified by the Board of Studies and the VEE's Curriculum Board before its approval by the Faculty of Health Science Scrutiny Panel, and VEE's and University Academic Quality and Standards Committees.

The University Code of Practice on Assessment promotes the use of a range of assessment techniques to ensure assessments are appropriate to the intended learning outcomes (addressed in Appendix 3.1 pp 7-9, mapping pp 10-13), and teaching and learning methods. The VEE is aligned with the Liverpool Curriculum Hallmark of authentic assessment and utilises constructive alignments to allow appropriate fit of assessment questions in the exam database with the learning outcomes mapped to competences within the programme specifications. Learning outcomes are stated by the staff within each lecture and are communicated to staff and students via VLE; they are reviewed annually by the Subject Lead. Any issues or developments are reported to the Undergraduate Education Committee. Any revisions to learning outcomes are the responsibility of the Curriculum Board and have to be approved by the Academic Quality and Standards Committee. Major revision of learning outcomes needs of the programme is done by the Faculty of Health and Life Sciences (occurred in 2018 and 2019).

8.3.2. Comments

The VEE has a complex QA system to review assessment outcomes, change assessment

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

strategies, and ensure the accuracy of the procedures.

The learning outcomes, mapped to competencies (as described by the RCVS and EAEVE) within the programme specifications are the basis for the design of assessments and underpin decisions on students' progression.

8.3.3. Suggestions for improvement

None.

8.3.4. Decision

The VEE is compliant with Standard 8.3

Standard 8.4: Assessment strategies must allow the VEE to certify student achievement of learning objectives at the level of the programme and individual units of study. The VEE must ensure that the programmes are delivered in a way that encourages students to take an active role in creating the learning process, and that the assessment of students reflects this approach.

8.4.1. Findings

The VEE certifies student achievement of the learning objectives for summative assessment and in-course assessments.

(i) For summative assessment, written exams undergo internal review (via statistical analysis) and external review by external examiners, prior to its approval, just to ensure that the standards of assessment are appropriate to the learning outcomes. The scoring range is 35-85%: pass mark 50%, credit mark 65%, distinction mark 75%. Statistical analysis of cohort performances are around 5% fail (slightly higher in earlier years), 55% pass, 28% credit, 12% distinction. Some summative assessments are graded on a pass/fail basis, like the assessment of the LiftUpp portfolio before being allowed to take the final exams.

(ii) Scoring of in-course assessments is based on the published rubric and aligned with the University standards; the VEE analyses internally any piece of work which contributes to a minimum of eight credits. Pass mark in Years 1-3 is set as a standard at 50%. Assessment processes are reviewed with feedback internally from the Year Leads, and externally from the Board of Examiners Subject Review Board, prior to ratification of marks at Progress Boards. Students are trained to take an active role in the learning process by several means:

(i) Attend Workshops on workload management and improving focus which guide students on resources, approaches to study and methods to work efficiently and maximise wellbeing.

(ii) Use of online resources. For example, use of notes, image guides, videos, provided by staff to learn 8-10 clinical skills per year, from Year 1-3, before using the Clinical Skills Lab.

(iii) Problem-Based Learning. For example, students investigate a series of Disease Outbreak scenarios in small groups in order to "manage" the outbreak, and present an investigation dossier to a panel of experts and other students.

(iv) Use of the Clinical Skills Lab for learning sessions where the student is peer-assisted.

(v) Student written reflection on their developments. Students have to complete a reflective diary on their development of Clinical Skills from Year 1-3. Students also complete a Portfolio linked to the ESEVT and RCVS Day One Competences reflecting on their progression each year. They have to reflect and formulate plans for skills development. A Resitter Portfolio is another tool for reflection and evaluation of their mindset dedicated to students who fail exams and do not progress as expected on summative assessments. LiftUpp is another tool for student written reflection on his/her performance during clinical rotations; students get feedback from a review panel at the end of each rotation block and score in relation to his/her level of

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

independence as D dependent, PD partially dependent, I independent.

(vi) Role Plays. From Year 1 to 5 students train written and verbal communication skills after being introduced to a consultation scenario where they interact with actors and peer-role play, providing constructive feedback.

(vii) Formative Objective Structured Preclinical Exams (OSPEs). Here students act as peer assessors under staff supervision to improve their understanding of assessment practice while promoting reflection on their knowledge and skills.

8.4.2. Comments

The assessment strategies used by the VEE are objective and suitable to certify student achievement of the learning objectives at the level of the programme and individual units of study that contribute to a minimum of eight credits.

It is commendable that the VEE uses several activities to encourage students' active role in the learning processes which are very efficient for personal reflection and constitute a basis for students' assessment and scoring.

8.4.3. Suggestions for improvement

None

8.4.4. Decision

The VEE is compliant with Standard 8.4.

Standard 8.5: Methods of formative and summative assessment must be valid and reliable and comprise a variety of approaches. Direct assessment of clinical skills and Day One Competences (some of which may be on simulated patients), must form a significant component of the overall process of assessment. It must also include the quality control of the student logbooks in order to ensure that all clinical procedures, practical and hands-on training planned in the study programme have been fully completed by each individual student.

8.5.1. Findings

Several formative assessment methods to monitor and improve student's learning are applied:

(i) Attendance of students to Preclinical compulsory sessions (other than lectures) are monitored; when missed the student is first contacted by e-mail and advised to catch up with the missed activities via available resources, in close contact with the teacher; if there is a pattern of non-attendance a second summon for a meeting of the student with the year lead and senior tutor for the year is set up, where support issues are identified and a catch-up plan is drawn up.

(ii) A logbook records all clinical activities developed by the student from years 1 to 3, reflecting on further development of these skills, which is revised every Semester by the academic staff.

(iii) Extra Mural Studies (EMS) office is in charge of EPT monitoring; EPT is recorded in an EMS Logbook which could be the student's own logbook or the EMS online portfolio. Before starting the EPT students are expected to: 1. Device their own EPT programme, 2. Log the selected placements on the EMS Database, 3. Create a list of the expected learning outcomes for that placement. After each EPT placement students are expected to: (i) reflect on that placement, (ii) return a completed feedback form from the EPT provider to demonstrate attendance, (iii) devise a plan for further development based on the feedback form. EPT logbooks are reviewed every Semester with the student' personal tutor.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

(iv) LiftUpp is the online development software to record clinical activities. Each clinical activity has feedback recorded by the supervising member of staff specifying the tasks completed/skills achieved, and the level of development of the competence category in LiftUpp; students use this feedback for further development. Clinical activities are organised in rotation blocks, 5 week duration each; after completing a block, the activities of every student are reviewed by a panel of 7 staff (subject leads from Equine, Small and Large Animals, the LiftUpp lead, Programme Director, Assessment lead, Technical and administration support staff) to determine if the appropriate level was reached; if not, the given student is offered a second opportunity to repeat relevant activities through a tailored repeat rotation week devised by clinical staff to reinforce the weak areas.

(v) Students are assessed by direct staff observation undertaking 19 PCAs, which are graded as “Developing” (needs to repeat), “Meets”, or “Exceeds”, during specific rotation weeks (see Appendix 3.5). In these PCAs students have to communicate with “client” actors (played by staff), sedate or anaesthetised a toy pet, prepare a blood smear, perform and ECG on a cuddly toy dog, perform a dermatological study, set up the anaesthetic machine, perform suitable restraining for a calf and a sheep, treat a lame cow using a cadaver, assess the quality of cattle ratios and common forages, surgical hand preparation and gloving, skin suturing on a foam pad, calculation and preparation of anaesthetic drugs for a horse, take a skin biopsy from a skin sample, complete an equine identification form of a live horse, etc.

Assessment of students also includes summative methods (page 75 of the SER) as (i) Theoretical knowledge is assessed via written exams, using essay questions, short-answer questions, single best answer questions (multiple choice questions MCQs, or extended matching items EMIs), data interpretation questions, practical spot questions, OSPEs, and continuous assessment including essay questions, presentation, tutorial contributions, drawing tasks, written reports and case-based application, including the use of LiftUpp during clinical rotations, (ii) Preclinical practical skills via OSPEs, practical spot questions and research projects, (iii) Clinical practical skills via OSPEs, LiftUpp and directly observed procedures PCAs, (iv) Soft Skills via simulated client interactions, reflective portfolios, clinical skills diaries, self and peer review of contribution to group tasks, outbreak investigations, LiftUpp, written communication assessments and PCAs.

The choice of methods of assessment has to be justified in the course documentation.

For years 1-3 the formative assessments do not contribute any marks to the final assessment mark, but do give students the opportunity to experience the exam process (SER page 77, Standard 8.2).

The University has two assessment periods, in January and May, and a resit assessment period in August. Students are assessed using exams at the end of Semester One and at the end of Semester Two (Appendix 7.1 pp 16-17). Semester One assessment is formative, and Semester Two assessment is summative and includes material of the whole year.

For the first 3 years of the course, assessment is based on: (i) Theory Exam (40 credits), (ii) Equal weighting between Exam 3 SPOT Practical Examination 100 minutes, and Exam 4 OSPE) 30 minutes, (iii) Continuous Assessment Coursework (40 credits). Moreover, specific for 1st Year: MCQs (12 credits), Portfolio (5 credits), Tasks (23 credits); for 2nd Year: Literature Review (10 credits), MCQs (12 credits), Portfolio (5 credits), Tasks (13 credits); for 3rd Year: MCQs (12 credits), Portfolio (5 credits), Research project (15 credits), Tasks (8 credits).

In 4th and 5th Year there are three Examination Subjects (Appendix 8.2 pp 14-15): (i) Equine Studies, (ii) Livestock Health and Welfare, and (iii) Small Animal Studies. Each one is examined via a computer-based written exam using MCQs and EMIs (3 hours) in 4th year along February (content of Management of Disease and VPH courses), and both a computer-based written exam in May based on problem-solving questions in the format of MCQs and EMIs, plus short Answer Questions, and practical assessment in 5th Year. Written examinations,

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

MCQs and EMIs are computer-marked. Practical assessment in 5th Year uses a combination of (i) PCAs during rotations (see 8.1 and 8.2 of this report), and (ii) a computer-based OSCE exam in May which covers all species (see 8.2 of this report).

All assessments are subject to QA processes led by the Head of Undergraduate QA. The Assessment Policy guides staff on responsibilities regarding marking and moderation of assessment. Assessments via summative written exams are submitted to internal and external review (see 8.3 of this report) generating reports that are submitted to the VEE's Academic and Quality Standards Committee. Assessment is part of the PDCA annual cycle and gets feedback from all stakeholders (see Appendix 1.2).

Assessment of clinical skills and Day-One Competences is based on OSPEs, PCAs, feedback on LiftUpp by the LiftUpp Review Panel after each rotation block, and the undergraduate portfolio. Successful completion of all PCAs and learning outcomes related to LiftUpp is prerequisite to sit final year exams. Only students who meet all the competences in their portfolio can graduate.

8.5.2. Comments

The VEE uses a great variety of formative assessment methods, including attendance to preclinical compulsory sessions, logbook recording, review, and feedback of all clinical skills (Intra and Extra Mural), and direct assessment of clinical skills and Day One Competences, some of them on simulated patients, that are valid and reliable to monitor and improve student's learning.

The VEE uses several approaches for summative assessment which are based on computer-based written exams, and practical assessment via practical exams, continuous assessment coursework, Portfolio, Tasks, Research Project, PCAs and OSCE exam. These assessment methods are justified in the course documentation and are valid and reliable to monitor student's progression.

The VEE guarantees that all clinical procedures, practicals and hands-on training programmed in the course are fully complete by each student through the review of the Undergraduate Portfolio and Liftupp, which may be considered as equivalent to Logbooks.

8.5.3. Suggestions for improvement

None.

8.5.4. Decision

The VEE is compliant with Standard 8.5.

Area 9. Academic and support staff

Standard 9.1: The VEE must ensure that all staff are appropriately qualified and prepared for their roles, in agreement with national and EU regulations and must apply fair and transparent processes for the recruitment and development of staff.

A formal training (including good teaching and evaluation practices, learning and e-learning resources, biosecurity and QA procedures) must be in place for all staff involved with teaching.

Most academic staff (calculated as FTE) involved in veterinary training must be veterinarians. It is expected that more than 2/3 of the instruction that the students receive, as determined by student teaching hours, is delivered by qualified veterinarians.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

9.1.1. Findings

The academic staff (95% are veterinarians) do cover all the competences needed for the veterinary programme. Only the practical training in ophthalmology is outsourced (private practice EyeVet). Veterinarians involved in the EPT training are not included in the teaching staff and therefore are not counted in table 9.2.1. They are not contracted and serve on a voluntary basis. The EPT is regulated at UK level by the RCVS.

The VEE has a mandatory system to provide the teaching staff (but also other staff) with continuing updating in teaching. Senior staff must hold a Post-graduate Certificate in Academic Practice delivered by the University. Moreover, all staff must undertake Diversity and Equality training at least every three years. Also, the external teachers (e.g. veterinarians at the Eye Vet clinic) must undergo teaching training.

As indicated in the detailed Safety and Biosecurity Code of Practice, all persons participating in the activities (including students) are given instruction about the hazards and the risks associated with their respective work. These persons are required to sign a statement that they have read and understood this code. Moreover, training on health and safety is provided to staff according to their role. Training records are kept locally and reviewed annually. Every three years all staff should undertake a training on Diversity and Equality.

Also, junior staff involved on a voluntary basis in the teaching have to attend a formal training. Moreover, many courses and training opportunities are offered by the UoL, many of them organised through the CANVAS[©] platform.

The support staff is offered many learning opportunities to increase their competences and skills in their different environment and place of work. During the meeting with the support staff, all participants evidenced the importance of their role and their feeling of being part of the mission of the SVS, emphasising the fact that their continuing professional development and assessment is part of their work.

Students evidenced how easily approachable and available they are, to help and support them, as well as to help them solve their problems.

A learning agreement between teaching staff and students sets out the expectations from both sides' perspective.

The Veterinary School Executive Team (VSET) discusses the need for new staff, in coordination with the Head of the Departments, and the Faculty Leadership Team (FLT). In case of particular need, qualified individuals are approached directly. The recruitment process is subject to UK law and this is also valid for the support staff.

The SER presents details on future staff investments. It is the responsibility of each Head of Department to identify the specific needs for their departments and then to discuss with the VSET. Finally, it is the Dean who forwards the request to the ILT and the FLT.

9.1.2. Comments

The academic staff is qualified and the VEE requires teaching qualification training for all new academic staff.

The appropriate qualifications of the staff is evident, as confirmed also by the number of diplomates both in European and American colleges. The veterinary teaching activities are almost entirely provided by veterinarians.

The VEE requires adequate training for new academic staff and requires further teaching training to all staff. Several approaches on formal training are present for ensuring that both teaching and support staff are qualified and continuously trained for running their duty in an adequate way. Depending on the category of staff this is valid for teaching, biosecurity and QA and are provided both on a mandatory and a voluntary level.

The VEE has a structured and organised process for the staffing plan replacement that, in case of particular needs, may follow a direct approach.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

Many opportunities are offered to the support staff in order to increase their competences and skills in their respective environment.

During the visitation students appreciated a lot the commitment of the support staff. It is commendable that the enthusiastic academic and support staff, proud of their institution, are strongly committed to take an active role in the VEE's activities at all levels - administration, teaching, research and clinical services.

9.1.3. Suggestions for improvement

None.

9.1.4. Decision

The VEE is compliant with Standard 9.1.

Standard 9.2: The total number, qualifications and skills of all staff involved with the programme, including teaching staff, ‘adjunct’ staff, technical, administrative and support staff, must be sufficient and appropriate to deliver the educational programme and fulfil the VEE’s mission.

A procedure must be in place to assess if the staff involved with teaching display competence and effective teaching skills in all relevant aspects of the curriculum that they teach, regardless of whether they are full or part time, residents, interns or other postgraduate students, adjuncts or off-campus contracted teachers.

9.2.1. Findings

Table 9.2.1. shows that the number of academic staff involved in the veterinary programme is above the expected median values.

Table 9.2.3. shows that the number of support staff involved in the veterinary programme is within the expected range.

Appendix 9.1 to the SER shows that there are more than 45 diplomates of European or American colleges among the academic staff.

A specific procedure performed by a panel of senior staff from across the VEE is organised for assessing the teaching competences and skills of all lecturer grade staff after three years in a position.

In case of negative results, an extension of a year is given to the lecturer in order to have another possibility for being assessed and having the appointment confirmed.

Depending on the type of the activities, the junior staff participating in the teaching activities are differently assessed in respect to their effective teaching skills: this might be from their supervisor but also from external assessors.

All external work has to be registered on a University online portal - CONSULT. The staff member is asked to state the type of work, likely duration, any suggested fee, the organisation requesting the work and if it competes with the University activity. There are options for where the income goes, to a departmental account to be shared between staff and other activity, to be kept in a cost centre (account) for the member of staff or their research group, or taken home in extra salary (this will be taxed by the government). The Head of Department is responsible for the authorisation.

9.2.2. Comments

The total number of academic and support staff involved in the veterinary programme is more than sufficient and appropriate to deliver the educational programme and fulfil the VEE's mission.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

The VEE has in place adequate procedures to assess the staff involved with teaching, together with the possibility of awarding staff members with recognition in Teaching and Learning. Teaching competencies are assessed in a structured way especially after three years in a teaching position.

9.2.3. Suggestions for improvement

None.

9.2.4. Decision

The VEE is compliant with Standard 9.2.

Standard 9.3: Staff must be given opportunities to develop and extend their teaching and assessment knowledge and must be encouraged to improve their skills. Opportunities for didactic and pedagogic training and specialisation must be available. The VEE must clearly define any systems of reward for teaching excellence in operation.

Academic positions must offer the security and benefits necessary to maintain stability, continuity, and competence of the academic staff. They must have a balanced workload of teaching, research and service depending on their role. They must have reasonable opportunities and resources for participation in scholarly activities.

9.3.1. Findings

The SER describes a “developed structure for promotion on both the Teaching and Research (T&R) and Teaching and Scholarship (T&S) tracks”.

During the visitation supplemental information was provided to the team.

All staff are expected to obtain a teaching qualification and the University runs different levels of teaching qualification and specific courses in teaching. These are arranged and advertised by the central University. There is also a system to allow recognition of teaching experience with additional reflection to gain a teaching qualification.

Staff is strongly encouraged to improve their skills also by participating in IT training available on the LinkedIn Learning platform via their University computer system login.

Staff in clinical areas have a continuing professional development allowance funded from clinical income to obtain the CPD needed for revalidation of RCVS and ECVS qualifications and to further develop. There is also an Institute training fund open for applications from all staff to fund development opportunities from attending courses to visits to other organisations to gain skills.

The VEE presented to the team the example of a staff member visiting the Veterinary Medicines Directorate UK government department for 5 days to work with and become accustomed to UK medicines regulation funded by the IVES training budget as part of European College of Veterinary Public Health Residency.

The University has teaching excellence awards and VEE staff have been successful in 2021 for developing the tool DiMo on “Virtual anatomy and pathology”.

9.3.2. Comments

The Staff is given many opportunities to increase their specific competences and knowledge, and improve general skills, also in respect to IT. A system of reward for teaching excellence is set at the level of the University and the VEE was awarded for teaching excellence in 2021.

9.3.3. Suggestions for improvement

None.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

9.3.4. Decision

The VEE is compliant with Standard 9.3

Standard 9.4: The VEE must provide evidence that it utilises a well-defined, comprehensive and publicised programme for the professional growth and development of academic and support staff, including formal appraisal and informal mentoring procedures.

Staff must have the opportunity to contribute to the VEE's direction and decision-making processes.

Promotion criteria for academic and support staff must be clear and explicit. Promotions for teaching staff must recognise excellence in, and (if permitted by the national or university law) place equal emphasis on all aspects of teaching (including clinical teaching), research, service and other scholarly activities.

9.4.1. Findings

There are two academic careers and pathways: Teaching & Scholarship (T&S) and Teaching and Research (T&R). These profiles are described in the UoL intranet. The SER describes the split of work between the two profiles. Regardless of the profiles, the academic positions are: lecturer, senior lecturer, reader and professor, the latter being divided into four levels of professional contribution: professor, accomplished professor, highly accomplished professor and eminent professor. Lecturer and Tenure Track Fellow are subject to Confirmation in Appointment based on appropriate performance. Senior lecturers generally have a permanent position.

For both profile tracks the VEE SVS has developed a structure for promotion. During the Visitation the VEE supplied details to the Team on the promotion criteria.

The promotion criteria are based on teaching, research and scholarly activities. These activities can be considered in a flexible way in order to enhance the individual characteristic and build strong teams accordingly. During the visitation the VEE demonstrated the criteria utilised in the promotion process in detail. The table indicates all the excellences that the applicants for promotion should demonstrate according to their position. In the case of the professors' level promotion of the candidates should evidence their eligibility including factors such as: Publications, Citations or H Index, KE Impact, Modules (proportion of) taught, Teaching Awards, Leadership responsibilities, Evidence of 'Esteem', Other income generation, PhD supervision, CPD/Consultancy, Contribution to research impact.

The University expects that professors will typically have one lead domain but recognises the importance of major contributions in other areas as well. Professors must be able to show that they contribute in the other domains and how they demonstrate leadership at the same Level as in their lead domain.

Applications for progression are open annually and are under the direct initiative of the individual with the support of the appropriate unit lead.

Staff contribute to the VEE's management by participating in different committees.

A Professional Development Review is conducted for all staff (support staff included) every year for overseeing the professional development and opportunities, supporting the staff and determining mentoring requirements.

The students' evaluation is also used to review the annual professional development of the teachers.

Support staff also have an annual personal development plan discussed with the line manager. This will determine training needs and if they wish to develop their role and seek promotion.

All roles are graded (Support Staff - Human Resources Intranet - University of Liverpool) so

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

obtaining promotion requires that the person has outperformed the grade expectations or that they change role to one of a higher grade when such a role becomes available.

Criteria are openly published on the University website and discussed with staff during PDR interview.

9.4.2. Comments

The VEE has a well-defined programme for professional growth that is valid both for academic and support staff, named Professional Development Review.

The promotion criteria for teaching and support staff are clearly spelled out.

9.4.3. Suggestions for improvement

None.

9.4.4. Decision

The VEE is compliant with Standard 9.4.

Standard 9.5: A system for assessment of teaching staff must be in operation and must include student participation. Results must be available to those undertaking external reviews and commented upon in reports.

9.5.1. Findings

Teachers of the years 1 to 4 are evaluated by students every 2 years. This evaluation is based on a Likert scale and includes pedagogical skills, individual skills progression and reporting of successes and challenges. The results are returned to the individual teacher and their line manager for use in their annual professional development reviews.

Teachers of the 5th year (rotations) are evaluated week by week in order to give the possibility to the subject Lead to better identify who the student's evaluation is referred to.

Every two years teachers across all years are also subject to a peer observation from academics that have been trained to carry out this kind of observation.

Moreover, every year students evaluate the relationship with their personal tutor with an end-of-year questionnaire that is returned to the individual staff member.

The Director of student experience receives and analyses yearly in an anonymous way both the individual teacher evaluation and the tutor feedback in order to have the possibility of identifying trends and training needs.

The individual teaching evaluation is a survey sent out at a time requested by the individual teacher after they have taught a specific group to ensure their teaching is fresh in the students' minds. The SE administration team manages the creation and sending of these surveys and the returning of the results to individual staff and their line manager. The content of the survey is based on published evidence of the best metrics for evaluation of staff performance and support of staff development. The anonymised results are retained and returned to the director of student experience who undertakes an annual analysis of average performance which is shared to allow staff to consider their feedback in light of overall results.

Evaluation for rotation teachers presents challenges due to the variable staffing of many rotations and the very low student:staff ratio. Feedback for this teaching is obtained via a survey sent at the end of each 5 week block, in which students' give feedback on the teaching in that rotation. Students include which week they attended, enabling identification of staff involved in each week by the rotation leads and the individual staff themselves. Rotation staff additionally have peer observations of their teaching, to support this student feedback.

During the visitation the team saw anonymous example of students' teachers evaluation that

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

evidenced that students are asked - among others - how they feel engaged in classes delivered by the teacher, how the learning activities provided by the teacher are appropriate and well presented, how they feel enabled to meet the learning outcomes, how they are made able to evaluate their learning in the activities delivered by the teacher, how the content delivered by the teacher is explained at a level they can understand. And moreover, the questionnaire enables the students to comment on issues that the teachers do particularly well and to suggest if there are things that the teachers can do better.

The student evaluations are considered during the annual Professional Development Review (PDR) for each member of staff, undertaken with the line manager. The form submitted for promotion has a specific section for teaching for applicants to provide information regarding their teaching quality. The peer review of teaching is confidential but staff can use the outcome in promotion forms, if they choose to.

A virtual suggestion box is also available for students to communicate comments or suggestions to the teaching staff.

9.5.2. Comments

A detailed and structured system for assessment of teaching staff is in operation and regularly considered by the VEE.

Teaching staff pays a lot of attention to the students' evaluation. The student evaluations are considered during the annual Professional Development Review (PDR) for each member of staff.

9.5.3. Suggestions for improvement

None.

9.5.4. Decision

The VEE is compliant with Standard 9.5.

Area 10. Research programmes, continuing and postgraduate education

Standard 10.1: The VEE must demonstrate significant and broad research activities of staff that integrate with and strengthen the veterinary degree programme through research-based teaching.

10.1.1. Findings

The VEE has a research output in the form of 726 peer reviewed articles over 3 years, just as the number of externally funded grants is high. Many of the 726 peer reviewed publications were published in high-ranking journals. The VEE is ranked number one veterinary establishment in the UK based on research quality and output in the latest National research evaluation. The VEE has pointed to the challenge of giving enough "free" time to clinicians to be able to engage in research. A series of symposia and seminars, either within or across Departments ensures dissemination of research results.

10.1.2. Comments

The research output from the VEE is impressive with a high output in terms of numbers of peer reviewed articles. The research covers most aspects of veterinary science, and veterinary public health, suggesting that research is a priority at all Departments of the VEE. The author list of the majority of articles shows international collaborations, indicative of an internationally competitive research environment. The teachers are directly involved in the research, ensuring

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

a research base for the teaching on the BVSc programme. Even though the VEE recognises the difficulties of creating time for clinicians to carry out research, no solutions are suggested in the SER.

10.1.3. Suggestions for improvement

None.

10.1.4. Decision

The VEE is compliant with Standard 10.1.

Standard 10.2: All students must be trained in scientific method and research techniques relevant to evidence-based veterinary medicine and must have opportunities to participate in research programmes.

10.2.1. Findings

Students are taught basic research methodology as an integrated part of the course in Epidemiology, and Information searches are taught to the students in the first semester in preparation of involvement in research. In the second year, all students carry out a 10 ECTS theoretical project, where they review a topic decided in agreement with a supervisor. This is followed by a supervised research project in year 3 (15 credits), which can take the form of a systematic review, a clinical audit, analysis of already produced research data or an actual wet science project. There is a fixed format for reporting, demonstrating the normal (journal) format for scientific communication. In addition, students can participate in research during vacations, and there are funds available for small research projects to stimulate student engagement in research. According to the SER, since 2016, 114 students have participated in projects supported in this way. The VEE also strives to increase the interest for research through special events such as research talks, research summer schools, abstract-writing workshops, public engagement training, and undergraduate research conferences.

10.2.2. Comments

It is commendable that the VEE has a focus on and success with stimulating the interest of students to participate in research.

10.2.3. Suggestions for improvement

None.

10.2.4. Decision

The VEE is compliant with Standard 10.2.

Standard 10.3: The VEE must provide advanced postgraduate degree programmes, e.g. PhD, internships, residencies and continuing education programmes that complement and strengthen the veterinary degree programme and are relevant to the needs of the profession and society.

10.3.1. Findings

In the latest year (2021-2022), the VEE personal list included 20 persons performing an internship, 30 persons in residency programmes, 35 PhD students and 7 MPhil students. There are few residency students in pathology and VPH, while the majority of intern and residency

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

fellows are in clinical subjects.

A high number (973) of professionals are registered as participants in further education programmes offered by the VEE (Veterinary professional studies, Veterinary Business Management, Veterinary Physiology and Diploma in Bovine Reproduction) and the VEE offers several continuing education courses and small workshops with update on newest knowledge with a high number of attendances (2021-2022 679 participants in total). Several of these courses that are parts of the further education studies, are offered as stand alone continuous education courses.

10.3.2. Comments

The VEE has a high volume of activities which communicates research results to practitioners and the number of post graduate students at the VEE is impressive.

10.3.3. Suggestions for improvement

None.

10.3.4. Decision

The VEE is compliant with Standard 10.3.

Standard 10.4: The VEE must have a system of QA to evaluate how research activities provide opportunities for student training and staff promotion, and how research approaches, methods and results are integrated into the veterinary teaching programmes.

10.4.1. Findings

The expectation for research performance in relation to promotion is clearly laid out for staff. It varies depending on the track of the position (teaching and research or teaching and service), and performance in relation to promotion is discussed yearly with the line manager at the PDR. Research funds are available to support priming of research if a teacher lacks funding. The quality of the further and continuous education programmes are governed by shared Curriculum and strategic boards, following the same principles as for undergraduate courses. The students' research activities are an integrated part of the curriculum, and is quality assured using the same methods and procedures as other "courses" in the curriculum

10.4.2. Comments

The VEE has implemented regular assessment of performance in its promotion system. The system is transparent and known to staff. The QA procedures for student's involvement in research follows clearly defined procedures.

10.4.3. Suggestions for improvement

None.

10.4.4. Decision

The VEE is compliant with Standard 10.4.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

11. ESEVT Indicators

NEW INDICATORS (FRIDAY 13 OCTOBER)

Name of the Establishment:	University of Liverpool																																																																																																																													
Name & mail of the Head:	Paul Lunn (paul.lunn@liverpool.ac.uk)																																																																																																																													
Date of the form filling:	04-08-2022																																																																																																																													
Raw data from the last 3 full academic years	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">Year -1</th> <th style="text-align: center;">Year -2</th> <th style="text-align: center;">Year -3</th> <th style="text-align: center;">Mean</th> </tr> </thead> <tbody> <tr><td>1 n° of FTE academic staff involved in veterinary training</td><td style="text-align: center;">194,2</td><td style="text-align: center;">164,7</td><td style="text-align: center;">185</td><td style="text-align: center;">181,30</td></tr> <tr><td>2 n° of undergraduate students</td><td style="text-align: center;">897</td><td style="text-align: center;">851</td><td style="text-align: center;">805</td><td style="text-align: center;">851,00</td></tr> <tr><td>3 n° of FTE veterinarians involved in veterinary training</td><td style="text-align: center;">147</td><td style="text-align: center;">135</td><td style="text-align: center;">134</td><td style="text-align: center;">138,67</td></tr> <tr><td>4 n° of students graduating annually</td><td style="text-align: center;">150</td><td style="text-align: center;">150</td><td style="text-align: center;">158</td><td style="text-align: center;">152,67</td></tr> <tr><td>5 n° of FTE support staff involved in veterinary training</td><td style="text-align: center;">119,1</td><td style="text-align: center;">139,1</td><td style="text-align: center;">145,5</td><td style="text-align: center;">134,57</td></tr> <tr><td>6 n° of hours of practical (non-clinical) training</td><td style="text-align: center;">721,5</td><td style="text-align: center;">721,5</td><td style="text-align: center;">721,5</td><td style="text-align: center;">721,50</td></tr> <tr><td>7 n° of hours of clinical training</td><td style="text-align: center;">714,5</td><td style="text-align: center;">714,5</td><td style="text-align: center;">714,5</td><td style="text-align: center;">714,50</td></tr> <tr><td>8 n° of hours of FSQ & VPH training</td><td style="text-align: center;">345,2</td><td style="text-align: center;">345,2</td><td style="text-align: center;">345,2</td><td style="text-align: center;">345,20</td></tr> <tr><td>9 n° of hours of extra-mural practical training in FSQ & VPH</td><td style="text-align: center;">4</td><td style="text-align: center;">0</td><td style="text-align: center;">8</td><td style="text-align: center;">4,00</td></tr> <tr><td>10 n° of companion animal patients seen intra-murally</td><td style="text-align: center;">7053</td><td style="text-align: center;">7095</td><td style="text-align: center;">6715</td><td style="text-align: center;">6905,00</td></tr> <tr><td>11 n° of ruminant and pig patients seen intra-murally</td><td style="text-align: center;">158</td><td style="text-align: center;">150</td><td style="text-align: center;">129</td><td style="text-align: center;">145,67</td></tr> <tr><td>12 n° of equine patients seen intra-murally</td><td style="text-align: center;">1706</td><td style="text-align: center;">1678</td><td style="text-align: center;">1421</td><td style="text-align: center;">1601,67</td></tr> <tr><td>13 n° of rabbit, rodent, bird and exotic patients seen intra-murally</td><td style="text-align: center;">618</td><td style="text-align: center;">359</td><td style="text-align: center;">146</td><td style="text-align: center;">374,33</td></tr> <tr><td>14 n° of companion animal patients seen extra-murally</td><td style="text-align: center;">60</td><td style="text-align: center;">0</td><td style="text-align: center;">240</td><td style="text-align: center;">100,00</td></tr> <tr><td>15 n° of individual ruminants and pig patients seen extra-murally</td><td style="text-align: center;">5992</td><td style="text-align: center;">8892</td><td style="text-align: center;">11113</td><td style="text-align: center;">8665,67</td></tr> <tr><td>16 n° of equine patients seen extra-murally</td><td style="text-align: center;">4212</td><td style="text-align: center;">4665</td><td style="text-align: center;">3457</td><td style="text-align: center;">4111,33</td></tr> <tr><td>17 n° of visits to ruminant and pig herds</td><td style="text-align: center;">180</td><td style="text-align: center;">180</td><td style="text-align: center;">180</td><td style="text-align: center;">180,00</td></tr> <tr><td>18 n° of visits of poultry and farmed rabbit units</td><td style="text-align: center;">0</td><td style="text-align: center;">0</td><td style="text-align: center;">0</td><td style="text-align: center;">0,00</td></tr> <tr><td>19 n° of companion animal necropsies</td><td style="text-align: center;">237</td><td style="text-align: center;">147</td><td style="text-align: center;">194</td><td style="text-align: center;">192,67</td></tr> <tr><td>20 n° of ruminant and pig necropsies</td><td style="text-align: center;">409</td><td style="text-align: center;">405</td><td style="text-align: center;">320</td><td style="text-align: center;">378,00</td></tr> <tr><td>21 n° of equine necropsies</td><td style="text-align: center;">54</td><td style="text-align: center;">32</td><td style="text-align: center;">67</td><td style="text-align: center;">51,00</td></tr> <tr><td>22 n° of rabbit, rodent, bird and exotic pet necropsies</td><td style="text-align: center;">361</td><td style="text-align: center;">475</td><td style="text-align: center;">361</td><td style="text-align: center;">399,00</td></tr> <tr><td>23 n° of FTE specialised veterinarians involved in veterinary training</td><td style="text-align: center;">57</td><td style="text-align: center;">52</td><td style="text-align: center;">52</td><td style="text-align: center;">53,67</td></tr> <tr><td>24 n° of PhD graduating annually</td><td style="text-align: center;">6</td><td style="text-align: center;">6</td><td style="text-align: center;">14</td><td style="text-align: center;">8,7</td></tr> </tbody> </table>		Year -1	Year -2	Year -3	Mean	1 n° of FTE academic staff involved in veterinary training	194,2	164,7	185	181,30	2 n° of undergraduate students	897	851	805	851,00	3 n° of FTE veterinarians involved in veterinary training	147	135	134	138,67	4 n° of students graduating annually	150	150	158	152,67	5 n° of FTE support staff involved in veterinary training	119,1	139,1	145,5	134,57	6 n° of hours of practical (non-clinical) training	721,5	721,5	721,5	721,50	7 n° of hours of clinical training	714,5	714,5	714,5	714,50	8 n° of hours of FSQ & VPH training	345,2	345,2	345,2	345,20	9 n° of hours of extra-mural practical training in FSQ & VPH	4	0	8	4,00	10 n° of companion animal patients seen intra-murally	7053	7095	6715	6905,00	11 n° of ruminant and pig patients seen intra-murally	158	150	129	145,67	12 n° of equine patients seen intra-murally	1706	1678	1421	1601,67	13 n° of rabbit, rodent, bird and exotic patients seen intra-murally	618	359	146	374,33	14 n° of companion animal patients seen extra-murally	60	0	240	100,00	15 n° of individual ruminants and pig patients seen extra-murally	5992	8892	11113	8665,67	16 n° of equine patients seen extra-murally	4212	4665	3457	4111,33	17 n° of visits to ruminant and pig herds	180	180	180	180,00	18 n° of visits of poultry and farmed rabbit units	0	0	0	0,00	19 n° of companion animal necropsies	237	147	194	192,67	20 n° of ruminant and pig necropsies	409	405	320	378,00	21 n° of equine necropsies	54	32	67	51,00	22 n° of rabbit, rodent, bird and exotic pet necropsies	361	475	361	399,00	23 n° of FTE specialised veterinarians involved in veterinary training	57	52	52	53,67	24 n° of PhD graduating annually	6	6	14	8,7
	Year -1	Year -2	Year -3	Mean																																																																																																																										
1 n° of FTE academic staff involved in veterinary training	194,2	164,7	185	181,30																																																																																																																										
2 n° of undergraduate students	897	851	805	851,00																																																																																																																										
3 n° of FTE veterinarians involved in veterinary training	147	135	134	138,67																																																																																																																										
4 n° of students graduating annually	150	150	158	152,67																																																																																																																										
5 n° of FTE support staff involved in veterinary training	119,1	139,1	145,5	134,57																																																																																																																										
6 n° of hours of practical (non-clinical) training	721,5	721,5	721,5	721,50																																																																																																																										
7 n° of hours of clinical training	714,5	714,5	714,5	714,50																																																																																																																										
8 n° of hours of FSQ & VPH training	345,2	345,2	345,2	345,20																																																																																																																										
9 n° of hours of extra-mural practical training in FSQ & VPH	4	0	8	4,00																																																																																																																										
10 n° of companion animal patients seen intra-murally	7053	7095	6715	6905,00																																																																																																																										
11 n° of ruminant and pig patients seen intra-murally	158	150	129	145,67																																																																																																																										
12 n° of equine patients seen intra-murally	1706	1678	1421	1601,67																																																																																																																										
13 n° of rabbit, rodent, bird and exotic patients seen intra-murally	618	359	146	374,33																																																																																																																										
14 n° of companion animal patients seen extra-murally	60	0	240	100,00																																																																																																																										
15 n° of individual ruminants and pig patients seen extra-murally	5992	8892	11113	8665,67																																																																																																																										
16 n° of equine patients seen extra-murally	4212	4665	3457	4111,33																																																																																																																										
17 n° of visits to ruminant and pig herds	180	180	180	180,00																																																																																																																										
18 n° of visits of poultry and farmed rabbit units	0	0	0	0,00																																																																																																																										
19 n° of companion animal necropsies	237	147	194	192,67																																																																																																																										
20 n° of ruminant and pig necropsies	409	405	320	378,00																																																																																																																										
21 n° of equine necropsies	54	32	67	51,00																																																																																																																										
22 n° of rabbit, rodent, bird and exotic pet necropsies	361	475	361	399,00																																																																																																																										
23 n° of FTE specialised veterinarians involved in veterinary training	57	52	52	53,67																																																																																																																										
24 n° of PhD graduating annually	6	6	14	8,7																																																																																																																										
Name of the Establishment:	University of Liverpool																																																																																																																													
Date of the form filling:	04-08-2022																																																																																																																													

Calculated Indicators from raw data		Establishment	Median	Minimal	Balance ³
		values	values ¹	values ²	
I1	n° of FTE academic staff involved in veterinary training / n° of undergraduate students	0,213	0,16	0,13	0,087
I2	n° of FTE veterinarians involved in veterinary training / n° of students graduating annually	0,908	0,87	0,59	0,319
I3	n° of FTE support staff involved in veterinary training / n° of students graduating annually	0,881	0,94	0,57	0,315
I4	n° of hours of practical (non-clinical) training	721,500	905,67	595,00	126,500
I5	n° of hours of clinical training	714,500	932,92	670,00	44,500
I6	n° of hours of FSQ & VPH training	345,200	287,00	174,40	170,800
I7	n° of hours of extra-mural practical training in FSQ & VPH	4,000	68,00	28,80	-24,800
I8	n° of companion animal patients seen intra-murally / n° of students graduating annually	45,229	70,48	42,01	3,220
I9	n° of ruminant and pig patients seen intra-murally / n° of students graduating annually	0,954	2,69	0,46	0,491
I10	n° of equine patients seen intra-murally / n° of students graduating annually	10,491	5,05	1,30	9,193
I11	n° of rabbit, rodent, bird and exotic seen intra-murally / n° of students graduating annually	2,452	3,35	1,55	0,907
I12	n° of companion animal patients seen extra-murally / n° of students graduating annually	0,655	6,80	0,22	0,432
I13	n° of individual ruminants and pig patients seen extra-murally / n° of students graduating annually	56,762	15,95	6,29	50,467
I14	n° of equine patients seen extra-murally / n° of students graduating annually	26,930	2,11	0,60	26,335
I15	n° of visits to ruminant and pig herds / n° of students graduating annually	1,179	1,33	0,55	0,632
I16	n° of visits of poultry and farmed rabbit units / n° of students graduating annually	0,000	0,12	0,04	-0,045
I17	n° of companion animal necropsies / n° of students graduating annually	1,262	2,07	1,40	-0,138
I18	n° of ruminant and pig necropsies / n° of students graduating annually	2,476	2,32	0,97	1,506
I19	n° of equine necropsies / n° of students graduating annually	0,334	0,30	0,09	0,241
I20	n° of rabbit, rodent, bird and exotic pet necropsies / n° of students graduating annually	2,614	2,05	0,69	1,921
I21*	n° of FTE specialised veterinarians involved in veterinary training / n° of students graduating annually	0,352	0,20	0,06	0,288
I22*	n° of PhD graduating annually / n° of students graduating annually	0,057	0,15	0,09	-0,031

- The low number of hours of extramural practical training in FSQ & VPH (Indicator I7) is a consequence of the impact of COVID-19 restrictions to visit abattoirs in the UK. To compensate for that, students perform mock ante mortem and post mortem inspections, and on campus, they perform training in meat inspection on specimens from slaughterhouses. Moreover, to supplement the hands-on training in abattoirs, students have access to 2-D and 3-D virtual abattoir platforms for all species.
- The number of visits to poultry and farmed rabbit units (Indicator I16) falls very close to but below the minimal values. This is a consequence of biosecurity rules limiting students' visits to poultry farms and the fact that there aren't any rabbits farms for meat production in the UK (see 5.1.1 for further explanation). However, the VEE has set

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

corrective measures based on interactive poultry health sessions in the rotation week devoted to Livestock Diseases Investigation, on presentation of iconographic materials and on a more in depth discussion of the clinical cases that can be seen during the activities of the farm animal ambulatory clinic.

- The number of necropsies in companion animals (Indicator I17) falls very close to but below the minimal values because of the restriction to 1 cadaver per day and person at the necropsy room as a consequence of the COVID-19 risk assessment of facilities at the VEE set by the government for two academic years (2019-20 and 2020-21) however, the VEE has increased the caseload in 2021-22 to values above the minimal ones and has a plan for increasing the donation of pets cadavers from the VEE's hospitals even further.
- The number of PhD students graduating annually falls below the minimum values (median of 6 on a total of 152 students) (Indicator I22) but the VEE has 20 graduates following internship courses, 30 on residency programmes and 7 enrolled in Masters. Globally the VEE offers substantial places for postgraduate education and on site the team verified that even when students in Internships and Residency programmes are offered to develop a PhD study in parallel, but often students decline this offer as a consequence of the highly demanding workload for residents.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

12. ESEVT Rubrics (summary of the decision on the compliance of the VEE for each ESEVT Standard, i.e. (total or substantial) compliance (C), partial compliance (PC) (Minor Deficiency) or non-compliance (NC) (Major Deficiency))

Area 1. Objectives, Organisation and QA Policy	C	PC	NC
Standard 1.1: The VEE must have as its main objective the provision, in agreement with the EU Directives and ESG recommendations, of adequate, ethical, research-based, evidence-based veterinary training that enables the new graduate to perform as a veterinarian capable of entering all commonly recognised branches of the veterinary profession and to be aware of the importance of lifelong learning. The VEE must develop and follow its mission statement which must embrace all the ESEVT Standards.	X		
Standard 1.2: The VEE must be part of a university or a higher education institution providing training recognised as being of an equivalent level and formally recognised as such in the respective country. The person responsible for the veterinary curriculum and the person(s) responsible for the professional, ethical, and academic affairs of the Veterinary Teaching Hospital (VTH) must hold a veterinary degree. The decision-making process, organisation and management of the VEE must allow implementation of its strategic plan and of a cohesive study programme, in compliance with the ESEVT Standards.	X		
Standard 1.3: The VEE must have a strategic plan, which includes a SWOT analysis of its current activities, a list of objectives, and an operating plan with a timeframe and indicators for its implementation.	X		
Standard 1.4: The VEE must have a policy and associated written procedures for the assurance of the quality and Standards of its programmes and awards. It must also commit itself explicitly to the development of a culture which recognises the importance of quality, and quality assurance, within their VEE. To achieve this, the VEE must develop and implement a strategy for the continuous enhancement of quality. The development and implementation of the VEE's strategy must include a role for students and other stakeholders, both internal and external, and the strategy must have a formal status and be publicly available.	X		
Standard 1.5: The VEE must provide evidence that it interacts with its stakeholders and the wider society. Such public information must be clear, objective and readily accessible; the information must include up-to-date information about the study programme, views and employment destinations of past students as well as the profile of the current student population. The VEE's website must mention the ESEVT VEE's status and its last Self Evaluation Report and Visitation Report must be easily available for the public.	X		
Standard 1.6: The VEE must monitor and periodically review its activities, both quantitative and qualitative, to ensure that they achieve the objectives set for them and respond to the needs of students and society. The VEE must make public how this analysis of information has been utilised in the further development of its activities and provide evidence as to the involvement of both students and staff in the provision, analysis and implementation of such data. Any action planned or taken as a result of this data analysis must be communicated to all those concerned.	X		
Standard 1.7: The VEE must undergo external review through the ESEVT on a cyclical basis. Evidence must be provided of such external evaluation with the assurance that the progress made since the last ESEVT evaluation was linked to a continuous quality assurance process.	X		
Area 2. Finances	C	PC	NC
Standard 2.1: Finances must be demonstrably adequate to sustain the requirements for the VEE to meet its mission and to achieve its objectives for education, research and services. The description must include both expenditures (separated into personnel costs, operating costs, maintenance costs and equipment) and revenues (separated into public funding, tuition fees, services, research grants and other sources).	X		
Standard 2.2: Clinical and field services must function as instructional resources. Instructional integrity of these resources must take priority over financial self-sufficiency of clinical services operations. The VEE must have sufficient autonomy in order to use the resources to implement its strategic plan and to meet the ESEVT Standards.	X		
Standard 2.3: Resources allocation must be regularly reviewed to ensure that available resources meet the requirements.	X		
Area 3. Curriculum	C	PC	NC
Standard 3.1: The curriculum must be designed, resourced and managed to ensure all graduates have achieved the graduate attributes expected to be fully compliant with the EU Directive 2005/36/EC (as amended by directive 2013/55/EU) and its Annex V.4.1. The curriculum must include the subjects (input) and must allow the acquisition of the Day One Competences (output) listed in Annex 2. This concerns Basic Sciences, Clinical Sciences in companion animals (including equine and exotic pets), Clinical Sciences in food-producing animals (including Animal Production and Herd Health Management), Food Safety and Quality, and Professional Knowledge.	X		
3.1.1. General findings			
3.1.2. Basic sciences	X		
3.1.3. Clinical Sciences in companion animals (including equine and exotic pets)	X		
3.1.4. Clinical Sciences in food-producing animals (including Animal Production and Herd Health Management)	X		
3.1.5. Food Safety and Quality	X		

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

3.1.6. Professional Knowledge	X		
<p>Standard 3.2: Each study programme provided by the VEE must be competency-based and designed so that it meets the objectives set for it, including the intended learning outcomes. The qualification resulting from a programme must be clearly specified and communicated and must refer to the correct level of the national qualifications framework for higher education and, consequently, to the Framework for Qualifications of the European Higher Education Area.</p> <p>The VEE must provide proof of a QA system that promotes and monitors the presence of an academic environment highly conducive to learning including self-learning. Details of the type, provision and updating of appropriate learning opportunities for the students must be clearly described, as well as the involvement of students.</p> <p>The VEE must also describe how it encourages and prepares students for self-learning and lifelong learning.</p>	X		
<p>Standard 3.3: Programme learning outcomes must:</p> <ul style="list-style-type: none"> ensure the effective alignment of all content, teaching, learning and assessment activities of the degree programme to form a cohesive framework include a description of Day One Competences form the basis for explicit statements of the objectives and learning outcomes of individual units of study be communicated to staff and students be regularly reviewed, managed and updated to ensure they remain relevant, adequate and are effectively achieved. 	X		
<p>Standard 3.4: The VEE must have a formally constituted committee structure (which includes effective student representation), with clear and empowered reporting lines, to oversee and manage the curriculum and its delivery. The committee(s) must:</p> <ul style="list-style-type: none"> determine the pedagogical basis, design, delivery methods and assessment methods of the curriculum oversee QA of the curriculum, particularly gathering, evaluating, making change and responding to feedback from stakeholders, peer reviewers and external assessors, and data from examination/assessment outcomes perform ongoing and periodic review of the curriculum at least every seven years by involving staff, students and stakeholders; these reviews must lead to continuous improvement. Any action taken or planned as a result of such a review must be communicated to all those concerned identify and meet training needs for all types of staff, maintaining and enhancing their competence for the ongoing curriculum development. 	X		
<p>Standard 3.5: External Practical Training (EPT) is compulsory training activities organised outside the VEE, the student being under the direct supervision of a non-academic person (e.g. a practitioner). EPT cannot replace the core intramural training nor the extramural training under the close supervision of academic staff (e.g. ambulatory clinics, herd health management, practical training in FSQ and VPH).</p> <p>Since the veterinary degree is a professional qualification with Day One Competences, EPT must complement and strengthen the academic education <i>inter alia</i> by enhancing student's professional knowledge.</p>	X		
<p>Standard 3.6: The EPT providers must have an agreement with the VEE and the student (in order to state their respective rights and duties, including insurance matters), provide a standardised evaluation of the performance of the student during their EPT and be allowed to provide feedback to the VEE on the EPT programme.</p> <p>There must be a member of the academic staff responsible for the overall supervision of the EPT, including liaison with EPT providers.</p>	X		
<p>Standard 3.7: Students must take responsibility for their own learning during EPT. This includes preparing properly before each placement, keeping a proper record of their experience during EPT by using a logbook provided by the VEE and evaluating the EPT. Students must be allowed to complain officially and/or anonymously about issues occurring during EPT. The VEE must have a system of QA to monitor the implementation, progress and then feedback within the EPT activities.</p>	X		
Area 4. Facilities and equipment	C	PC	NC
<p>Standard 4.1: All aspects of the physical facilities must provide an environment conducive to learning, including internet access. The veterinary VEE must have a clear strategy and programme for maintaining and upgrading its buildings and equipment. Facilities must comply with all relevant legislation including health, safety, biosecurity, accessibility to people with reduced mobility, and EU animal welfare and care standards.</p>	X		
<p>Standard 4.2: Lecture theatres, teaching laboratories, tutorial rooms, clinical facilities and other teaching spaces must be adequate in number, size and equipped for the instructional purposes and must be well maintained. The facilities must be adapted for the number of students enrolled. Students must have ready access to adequate and sufficient study, self-learning, recreation, locker, sanitary and food service facilities.</p> <p>Offices, teaching preparation and research laboratories must be sufficient for the needs of the academic and support staff.</p>	X		
<p>Standard 4.3: The livestock facilities, animal housing, core clinical teaching facilities and equipment used by the VEE for teaching purposes must:</p> <ul style="list-style-type: none"> be sufficient in capacity and adapted for the number of students enrolled in order to allow safe hands-on training for all students be of a high standard, well maintained and fit for the purpose promote best husbandry, welfare and management practices ensure relevant biosecurity and bio-containment be designed to enhance learning. 	X		
<p>Standard 4.4: Core clinical teaching facilities must be provided in a veterinary teaching hospital (VTH) with 24/7 emergency services at least for companion animals and equines. Within the VTH, the VEE must unequivocally demonstrate that standard of education and clinical research are compliant with all ESEVT Standards, e.g. research-based and evidence-based clinical training supervised by academic staff trained to teach and to assess, availability for staff and students of facilities and patients for performing clinical research and relevant QA procedures.</p>	X		

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

For ruminants, on-call service must be available if emergency services do not exist for those species in a VTH. The VEE must ensure state-of-the-art standards of teaching clinics which remain comparable with or exceeding the best available in the private sector. The VTH and any hospitals, practices and facilities (including EPT) which are involved with the curriculum must meet the relevant national Practice Standards.			
Standard 4.5: The VEE must ensure that students have access to a broad range of diagnostic and therapeutic facilities, including but not limited to: diagnostic imaging, anaesthesia, clinical pathology, intensive/critical care, surgeries and treatment facilities, ambulatory services, pharmacy and necropsy facilities.	X		
Standard 4.6: Appropriate isolation facilities must be provided to meet the need for the isolation and containment of animals with communicable diseases. Such isolation facilities must be properly constructed, ventilated, maintained and operated to provide for animal care and for prevention of spread of infectious agents. They must be adapted to all animal species commonly handled in the VTH.	X		
Standard 4.7: The VEE must have an ambulatory clinic for production animals or equivalent facilities so that students can practise field veterinary medicine and Herd Health Management under academic supervision.	X		
Standard 4.8: The transport of students, live animals, cadavers, materials from animal origin and other teaching materials must be done in agreement with national and EU standards, to ensure the safety of students and staff and to prevent the spread of infectious agents.	X		
Standard 4.9: Operational policies and procedures (including e.g. biosecurity, good laboratory practice and good clinical practice) must be taught and posted for students, staff and visitors and a Biosafety manual must be available. The VEE must demonstrate a clear commitment for the delivery of biosafety and biosecurity, e.g. by a specific committee structure. The VEE must have a system of QA to monitor and assure clinical, laboratory and farm services, including a regular monitoring of the feedback from students, staff and clients.	X		
Area 5. Animal resources and teaching material of animal origin	C	PC	NC
Standard 5.1: The number and variety of healthy and diseased animals, cadavers, and material of animal origin must be adequate for providing the practical and safe hands-on training (in the areas of Basic Sciences, Clinical Sciences, Pathology, Animal Production, Food Safety and Quality) and adapted to the number of students enrolled. Evidence must be provided that these data are regularly recorded and that procedures are in place for correcting any deficiencies.	X		
Standard 5.2: In addition to the training provided in the VEE, experience can include practical training at external sites, provided this training is organised under direct academic supervision and following the same standards as those applied in the VEE.	X		
Standard 5.3: The VTH must provide nursing care skills and instruction in nursing procedures. Under all situations students must be active participants in the clinical workup of patients, including problem-oriented diagnostic approach together with diagnostic decision-making.	X		
Standard 5.4: Medical records must be comprehensive and maintained in an effective retrieval system (preferably an electronic patient record system) to efficiently support the teaching, research, and service programmes of the VEE.	X		
Area 6. Learning resources	C	PC	NC
Standard 6.1: State-of-the-art learning resources must be adequate and available to support veterinary education, research, services and continuing education. When the study programme is provided in several tracks/languages, the learning resources must be available in all used languages. Timely access to learning resources, whether through print, electronic media or other means, must be available to students and staff and, when appropriate, to stakeholders. State-of-the-art procedures for bibliographical search and for access to databases and learning resources must be taught to undergraduate students.	X		
Standard 6.2: Staff and students must have full access on site to an academic library administered by a qualified librarian, an Information Technology (IT) unit managed by an IT expert, an e-learning platform, and all the relevant human and physical resources necessary for the development of instructional materials by the staff and their use by the students. The relevant electronic information, database and other intranet resources must be easily available for students and staff both in the VEE's core facilities via wireless connection (Wi-Fi) and from outside the VEE through a hosted secured connection, e.g. Virtual Private Network (VPN).	X		
Standard 6.3: The VEE must provide students with unimpeded access to learning resources, internet and internal study resources, and equipment for the development of procedural skills (e.g. models). The use of these resources must be aligned with the pedagogical environment and learning outcomes within the programme and have mechanisms in place to evaluate the teaching value of changes in learning resources.	X		
Area 7. Student admission, progression and welfare	C	PC	NC
Standard 7.1: The VEE must consistently apply pre-defined and published regulations covering all phases of the student "life cycle", e.g. student admission, progression and certification. In relation to enrolment, the VEE must provide accurate and complete information regarding all aspects of the educational programme in all advertisings for prospective national and international students. Formal cooperations with other VEEs must also be clearly advertised.	X		
Standard 7.2: The number of students admitted must be consistent with the resources available at the VEE for staff, buildings, equipment, healthy and diseased animals, and materials of animal origin.	X		
Standard 7.3: The selection and progression criteria must be clearly defined, consistent, and defensible, be free of discrimination or bias, and take into account the fact that students are admitted with a view to their entry to the veterinary profession in due course. The VEE must regularly review and reflect on the selection processes to ensure they are appropriate for students to complete the programme successfully. If the selection processes are decided by another authority, the latter must regularly receive feedback from the VEE. Adequate training (including periodic refresher training) must be provided for those involved in the selection process to ensure applicants are evaluated fairly and consistently.	X		

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

Standard 7.4: There must be clear policies and procedures on how applicants with disabilities or illnesses are considered and, if appropriate, accommodated in the programme, taking into account the requirement that all students must be capable of meeting the ESEVT Day One Competences by the time they graduate.	X		
Standard 7.5: The basis for decisions on progression (including academic progression and professional fitness to practise) must be explicit and readily available to the students. The VEE must provide evidence that it has mechanisms in place to identify and provide remediation and appropriate support (including termination) for students who are not performing adequately. The VEE must have mechanisms in place to monitor attrition and progression and be able to respond and amend admission selection criteria (if permitted by national or university law) and student support if required.	X		
Standard 7.6: Mechanisms for the exclusion of students from the programme for any reason must be explicit. The VEE's policies for managing appeals against decisions, including admissions, academic and progression decisions and exclusion, must be transparent and publicly available.	X		
Standard 7.7: Provisions must be made by the VEE to support the physical, emotional and welfare needs of students. This includes, but is not limited to, learning support and counselling services, career advice, and fair and transparent mechanisms for dealing with student illness, impairment and disability during the programme. This shall include provision of reasonable adjustments for disabled students, consistent with all relevant equality and/or human rights legislation. There must be effective mechanisms for resolution of student grievances (e.g. interpersonal conflict or harassment).	X		
Standard 7.8: Mechanisms must be in place by which students can convey their needs and wants to the VEE. The VEE must provide students with a mechanism, anonymously if they wish, to offer suggestions, comments and complaints regarding compliance of the VEE with national and international legislation and the ESEVT Standards.	X		
Area 8. Student assessment	C	PC	NC
Standard 8.1: The VEE must ensure that there is a clearly identified structure within the VEE showing lines of responsibility for the assessment strategy to ensure coherence of the overall assessment regime and to allow the demonstration of progressive development across the programme towards entry-level competence.	X		
Standard 8.2: The assessment tasks and grading criteria for each unit of study in the programme must be published, applied consistently, clearly identified and available to students in a timely manner well in advance of the assessment. Requirements to pass must be explicit. The VEE must properly document the results of assessment and provide the students with timely feedback on their assessments. Mechanisms for students to appeal against assessment outcomes must be explicit.	X		
Standard 8.3: The VEE must have a process in place to review assessment outcomes, to change assessment strategies and to ensure the accuracy of the procedures when required. Programme learning outcomes covering the full range of professional knowledge, skills, competences and attributes must form the basis for assessment design and underpin decisions on progression.	X		
Standard 8.4: Assessment strategies must allow the VEE to certify student achievement of learning objectives at the level of the programme and individual units of study. The VEE must ensure that the programmes are delivered in a way that encourages students to take an active role in creating the learning process, and that the assessment of students reflects this approach.	X		
Standard 8.5: Methods of formative and summative assessment must be valid and reliable and comprise a variety of approaches. Direct assessment of clinical skills and Day One Competences (some of which may be on simulated patients), must form a significant component of the overall process of assessment. It must also include the quality control of the student logbooks in order to ensure that all clinical procedures, practical and hands-on training planned in the study programme have been fully completed by each individual student.	X		
Area 9. Academic and support staff	C	PC	NC
Standard 9.1: The VEE must ensure that all staff are appropriately qualified and prepared for their roles, in agreement with national and EU regulations and must apply fair and transparent processes for the recruitment and development of staff. A formal training (including good teaching and evaluation practices, learning and e-learning resources, biosecurity and QA procedures) must be in place for all staff involved with teaching. Most academic staff (calculated as FTE) involved in veterinary training must be veterinarians. It is expected that more than 2/3 of the instruction that the students receive, as determined by student teaching hours, is delivered by qualified veterinarians.	X		
Standard 9.2: The total number, qualifications and skills of all staff involved with the programme, including teaching staff, 'adjunct' staff, technical, administrative and support staff, must be sufficient and appropriate to deliver the educational programme and fulfil the VEE's mission. A procedure must be in place to assess if they display competence and effective teaching skills in all relevant aspects of the curriculum that they teach, regardless of whether they are full or part time, residents, interns or other postgraduate students, adjuncts or off-campus contracted teachers.	X		
Standard 9.3: Staff must be given opportunities to develop and extend their teaching and assessment knowledge and must be encouraged to improve their skills. Opportunities for didactic and pedagogic training and specialisation must be available. The VEE must clearly define systems of reward for teaching excellence in operation. Academic positions must offer the security and benefits necessary to maintain stability, continuity, and competence of the academic staff. Academic staff must have a balanced workload of teaching, research and service depending on their role. They must have reasonable opportunities and resources for participation in scholarly activities.	X		
Standard 9.4: The VEE must provide evidence that it utilises a well-defined, comprehensive and publicised programme for the professional growth and development of academic and support staff, including formal appraisal and informal mentoring procedures.	X		

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

Staff must have the opportunity to contribute to the VEE's direction and decision-making processes. Promotion criteria for academic and support staff must be clear and explicit. Promotions for teaching staff must recognise excellence in, and (if permitted by the national or university law) place equal emphasis on all aspects of teaching (including clinical teaching), research, service and other scholarly activities.		
Standard 9.5: A system for assessment of teaching staff must be in operation and must include student participation. Results must be available to those undertaking external reviews and commented upon in reports.	X	
Area 10. Research programmes, continuing and postgraduate education	C	PC NC
Standard 10.1: The VEE must demonstrate significant and broad research activities of staff that integrate with and strengthen the veterinary degree programme through research-based teaching.	X	
Standard 10.2: All students must be trained in scientific method and research techniques relevant to evidence-based veterinary medicine and must have opportunities to participate in research programmes.	X	
Standard 10.3: The VEE must provide advanced postgraduate degree programmes, e.g. PhD, internships, residencies and continuing education programmes that complement and strengthen the veterinary degree programme and are relevant to the needs of the profession and society.	X	
Standard 10.4: The VEE must have a system of QA to evaluate how research activities provide opportunities for student training and staff promotion, and how research approaches, methods and results are integrated into the veterinary teaching programmes.	X	
<i>C: (total or substantial) compliance; PC: partial compliance (Minor Deficiency); NC: non-compliance (Major Deficiency)</i>		

Executive Summary

The School of Veterinary Science in Liverpool (SVS) (called the Veterinary Education Establishment (VEE) in this Report) was founded in 1904 and the present structure was created in 2020 to integrate research in human and animal infectious diseases, veterinary science, ecology and evolution to benefit people, animals and ecosystems, nationally and globally.

The latest EAEVE Visitation in November 2012 was conducted in collaboration with the Royal College of Veterinary Surgeons (RCVS) visitation. The final version of the report was fully approved by ECOVE in August 2013.

The SER was provided on time and written in agreement with the SOP 2019 as amended in September 2021. Replies to the pre-Visitation questions from the experts were provided before the start of the Visitation. Ambiguities, contradictions and errors in the SER identified by the experts were communicated to the VEE who circulated a new version of the corrected SER to the team before the end of the visit.

The Visitation was well organised and the Liaison Officer and his team did a great job to adapt the schedule of the Visitation, to search for the requested information, to organise the relevant meetings, and to ensure the wellbeing, health and safety of the Visitors.

Areas worthy of praise (i.e. Commendations), e.g.:

Area 3. Curriculum

- The VEE has developed a support mechanism for freshmen through the subject "Support", thus introducing them to self-learning and lifelong learning from the first year of study programme.
- Programme learning outcomes are well aligned and form a cohesive framework, and, through the mapped database, the acquiring of the ESEVT, and RCVS Day One Competences can be clearly detected and monitored

Area 4. Facilities and equipment

- All physical facilities provide a student friendly environment conducive to learning
- There is state-of-the-art equipment at the Leahurst equine and small animal teaching hospitals

Area 5. Animal resources and teaching material of animal origin

- The ambulatory practices for equine and farm animals operate like private practices and the high caseload guarantees hands-on training for students

Area 6. Learning Resources

- The Clinical Skills Labs are fully equipped, organised, staffed, dedicated to all animal species and available around the campuses
- Implementation of DIMO in teaching and use in e-learning resources levels up students' learning experience in anatomy and pathology
- The VEE's library has highly dedicated and approachable staff, is operating and providing a veterinary-specific website 24/7

Area 7. Student admission, progression and welfare

- Policies, procedures, committees and support structures for the students with difficulties are well established
- A very small number of students fail to progress which is the consequence of a well established support system
- A mentoring and tutoring system, including the active participation of trained peer students, is well defined and useful for all students throughout the programme

Area 8. Student Assessment

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

- The LiftUpp platform used to record student progression in acquisition of clinical competencies is a supportive tool which helps students to understand their current learning and skills development
- The VEE uses several activities to encourage students' active role in the learning processes which are very efficient for personal reflection and constitute a basis for students' assessment and scoring

Area 9. Academic and support staff

- The enthusiastic academic and support staff, proud of their institution, are strongly committed to take an active role in the VEE's activities at all levels - administration, teaching, research and clinical services

Area 10. Research programmes, continuing and postgraduate education

- The VEE has a focus on and success with stimulating the interest of students to participate in research

Areas of concern (i.e. Minor Deficiencies):

None.

Items of non-compliance with the ESEVT Standards (i.e. Major Deficiencies):

None.

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

Glossary

AHEMS	-	Animal Husbandry Extra-mural Studies
AQSC	-	University Academic Quality and Standards Committee
ASAP	-	Annual Subject Action Plan
AVMA-COE	-	American Veterinary Medical Association, Council on Education
BVA	-	British Veterinary Association
BVSc	-	Bachelor in Veterinary Science
CBF	-	Computational Biology Facility
CBL	-	Case-based learning
CDG	-	Curriculum Development Group
CEMS	-	Clinical Extramural Studies (EPT)
CGR	-	Centre for Genome Research
CiA	-	Confirmation in Appointment
CPR	-	Centre for Proteome Research
DECS	-	Department of Equine Clinical Science
DSACS	-	Department of Small Animal Clinical Science
EAEVE	-	European Association of Establishments for Veterinary Education
ECOVE	-	European Committee of Veterinary Education
EMS	-	Extra Mural Studies (term used for EPT by the VEE and RCVS)
ESG	-	Standards and Guidelines for Quality Assurance in the European Higher Education Area
FAQSC	-	Faculty Academic Quality and Standards Committee
FHEQ	-	Framework for Higher Education Qualifications
FHLS	-	Faculty of Health and Life Sciences
FLT	-	Faculty Leadership Team
FRCS	-	Central University Facilities, Residential and Commercial Services
FSLT	-	University Faculty Senior Leadership Team
GDP	-	Graduate Development Phase
HASMAP	-	Health and Safety Management Profile
IMT	-	IVES Institute management team
IPR	-	Internal Periodic Review
IVES	-	Institute of Infection, Veterinary and Ecological Sciences
LEP	-	Leahurst Equine Practice
LIVERG	-	Liverpool Veterinary Education Research Group
LOH	-	Department of Livestock and One Health
LUVS	-	Liverpool University Veterinary Society
MSC	-	microbiological safety cabinet
PCA	-	Practical Competency Assessments
PDCA	-	Plan-Do-Check-Adjust
PDP	-	Personal Development Planning
PDR	-	Professional Development Review of staff annually
PLEH	-	Philip Leverhulme Equine Hospital
QAA	-	UK Quality Assurance Agency for Higher Education.
OV	-	Official Veterinarian
RAWP	-	Recruitment, Admissions and Widening Participation Committee
RCVS	-	Royal College of Veterinary Surgeons
RSPCA	-	Royal Society for the Prevention of Cruelty to Animals
SAF	-	Student Agreement Forms – agreement with EPT provider
SATH	-	Small Animal Teaching Hospital

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

SP	-	Faculty of Health and Life Sciences Scrutiny Panel
SSLC	-	Guild of Students and the Staff-Student Liaison Committee
SVS	-	School of Veterinary Science, Liverpool
T&R	-	Teaching and Research career pathway for VEE academic staff
T&S	-	Teaching and Scholarship career pathway for VEE academic staff
UAP	-	University Approval Panel
UCAS	-	Universities and Colleges Admissions Service
UEC	-	Undergraduate Education Committee
UKRI REF	-	UK Research and Innovation Research Excellence Framework
UoL	-	University of Liverpool
UVF	-	University Small Animal Veterinary Practice
VAPP	-	Department of Veterinary Anatomy, Physiology and Pathology
VEE	-	Veterinary Education Establishment
VLE	-	virtual learning environment
VSET	-	Veterinary School Executive Team
VSC	-	Veterinary Schools Council
VTS	-	Veterinary Teaching Suite

FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

Decision of ECOVE

The Committee concluded that no Major Deficiencies had been identified.

The Veterinary Education Establishment (VEE) of the University of Liverpool is therefore classified as holding the status of: **ACCREDITATION**.