



VISITATION REPORT

**To the Faculty of Veterinary Medicine, Justus-Liebig University of Giessen,
Giessen, Germany**

On 24 – 28 January 2022

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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

Brief history of the Veterinary Education Establishment (VEE) and of its previous ESEVT Visitations

Any introduction to the VEE at Giessen requires a history lesson! The origin of the Faculty of Veterinary Medicine actually dates back to 1777, when the first lectures in the field of veterinary medicine were offered by the Giessen University Faculty of Economics in a subject called “animal healing”. At some stage this early veterinary education was merged into a Medical Faculty, with regular classes starting in 1828.

In 1914 the Faculty of Veterinary Medicine emerged as an independent faculty. However, as a result of the political situation after World War II, the “Ludwigs-Universität” in Giessen was suspended with exception of the Faculties of Veterinary Medicine and Agricultural Sciences, whose cooperation led to the formation of a combined college for agriculture and veterinary medicine. This combined college was then able to form the nucleus for the restoration of the whole university in 1957 and given the new name “Justus-Liebig-Universität Gießen” in honour of the great Chemistry Scientist Justus von Liebig who conducted much of his groundbreaking research in Giessen. The fruitful link with Agricultural Science has continued to this day with the two “Faculties” sharing facilities such as the University Farm.

The city of Giessen is located in the centre of Germany in the Federal state of Hesse with a population of about 90.000 inhabitants and about 40.000 students. The Faculty of Veterinary Medicine of Justus-Liebig-University Giessen (JLU) (called the VEE in this Report) is one of the five veterinary medical training and research facilities in Germany and approximately 210 over

FINAL REPORT AS ISSUED BY ECOVE ON 30 MARCH 2022

1000 students admitted to German veterinary schools each year start their education at JLU Giessen.

The VEE was first evaluated by EAEVE in 1993, with a second evaluation in 2003 and a 3rd evaluation in 2012. All three of these evaluations resulted in an “approval”. The current evaluation in 2022 is based on the SOP approved by the EAEVE General Assembly at Zagreb in 2019 and amended in September 2021.

Main developments since the last Visitation

Substantial progress has been made by opening in January 2020 of the new Clinical Unit for Small Animals (internal medicine and surgery) and the Clinical Unit for Birds, Reptiles, Amphibians and Fish. Some of the old buildings were partially refurbished for the Equine clinic, but due to financial restrictions the plan to complete this facility has had to be postponed. Additionally, after the last abattoir closed in Giessen, in 2016 a new building for practical exercises in meat hygiene and meat inspection was opened.

Further developments have included:

- Clinical rotations - already introduced in 2006 - were adjusted to grant more time for electives and self-directed learning
- For the extramural practical training (EPT) learning objectives have been defined and an evaluation system established
- A skills lab was opened in 2016 and training has been gradually introduced into the curriculum
- A broad range of E-learning modules with an increasing range of topics and ongoing projects (ILIAS) have been introduced
- With Animal Welfare, a centre was established in cooperation with the Faculty of Human Medicine to strengthen the awareness of staff and students for animal welfare issues

Main features of the VEE

The main features of the VEE are discussed within the different Areas in the Report. However, some fundamental problems currently encountered by the VEE are similar to some of those identified during previous site visitations, which cannot be solved solely by the VEE, but would need considerable support from the JLU to reach agreement with the federal government. These fundamental problems would include:

- Basic financing of the VEE which remains somewhat limited
- Financial resources for maintenance and repairs of the modern research infrastructure
- Problems with timely appointment of open professorship positions with eligible candidates
- The regulatory link between available teaching capacity (core-funded staff), curriculum hours and number of students (capacity guidelines) does not allow to recruit additional staff for teaching or to change the number of incoming students
- The low number of permanent positions for non-professorial scientific staff (NPSS)

impedes job perspectives of highly qualified young scientists

For this current ESEVT evaluation, the VEE's SER follows the requirements as set out in ESEVT 2019 SOP, as amended by the EAEVE General Assembly in Turin, in September 2021.

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

Veterinary training is governed by the “Verordnung zur Approbation von Tierärztinnen und Tierärzten” (Ordinance concerning the Certification of Veterinary Surgeons of 27 July 2006, TAppV) which also defines the mission and main goals and objectives of veterinary training (SER Appendix F). The regulations of the State of Hesse, and the JLU must also be considered. The VEE follows the specifications in the TAppV laying emphasis on the One Health approach and with focus on evidence-based patient care; production of safe and high-quality food of animal origin; concern for human health and well-being; scientific approach to animal welfare; and interdisciplinary engagement. Both graduate and postgraduate training is offered. The VEE has freedom to formulate its own goals in the field of research and service.

1.1.2. Comments

- The goals of veterinary training formulated in the TAppV and explained by the VEE are in harmony with the EU Directives and the ESG standards.

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 one of the 11 faculties of the Justus-Liebig-University Giessen (JLU). Its Dean and the Vice Dean for Study Affairs, hold a veterinary degree, the Vice Dean for Research holds a medical degree. There is a director for the VTH holding a veterinary degree, responsible for the management of the services. However, the organisation of the practical training at the VTH is the responsibility of the Vice Dean for Study Affairs.

The JLU has an Extended Presidency involving the 11 deans, the members of the Presidium and deals with common matters (finance, human resources, management). The Central Administration at the university level is headed by the Chancellor and has four main departments and several units serving the whole university.

The VEE is represented by the Dean who is responsible for the VEE's performing its teaching and examination duties. The Deanery manages the VEE (implementation of the target agreements, allocating budget, assignment of non-professional personnel, division of income). It includes the Office of Study Affairs, the Office for Postgraduate Matters, Support for teaching innovation, Student advice in IT-matters.

The most important decision-making body of the VEE is the Faculty Council which consists of 7 academic, 2 scientific, 1 administrative staff members and 3 students. It is entitled to make final decisions in organisational, study and personnel related matters as well as in the field of coordination of research projects. It discusses the "target agreements" between the President and the Dean of the VEE.

The Committee of Study Affairs (3 academic, 1 scientific, 3 student members) monitors the execution of the curriculum and makes decisions in minor matters, while more fundamental issues are forwarded to the Faculty Council.

The Faculty Council has advisory subcommittees: The QSL-Commission (for the improvement of study conditions); the Committee for Strategic Planning of the Faculty; the Committee for Financial Matters; the Committee for Price-Granting; and an *ad hoc* Committee for Research Matters.

There is a Graduation Committee (implementing the order of graduation by the Hessian Ministry for Science and Art).

There is also a State Examination Office to organise and supervise the examinations to be taken after the 2nd and 4th semesters, and the final examination.

The Committee for Strategic Planning is negotiating strategic planning within the VEE concerning decisions on professorships, other personnel measures (permanent positions), budget decisions, and making proposals for the Faculty Council in these matters.

Departments and Institutes are headed by an Acting Director elected by the unit representatives (*directorium*) which is also the platform to discuss department/institute matters. The Acting Director is responsible for the fulfilment of teaching obligations. Individual professorships may have great financial independence especially in the clinics and clinical subdivisions. The Acting Director reports to the Dean.

1.2.2. Comments

- The relation of the JLU and the VEE as well as the organisation of the VEE and the lines of authority are straightforward and effective.

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

A SWOT analysis (see also SER Appendix to 1.3 a) was made for the period 2007–2018 and updated in 2020 in which strengths and weaknesses of the VEE were surveyed, and options for development were outlined.

The VEE strives to meet challenges and expectations in close cooperation with the JLU which has a strategic plan. A strategic target agreement (*Zielvereinbarungen*) is made between the JLU and the VEE about every five years. The main targets are high quality curriculum, excellence in research and teaching, expanding support of young scientists, and high-quality services. The target agreement contains (quality) indicators to be achieved as well as deadlines. An interim and a final report ensures the follow-up of the achievement of the targets.

The TAppV does not require system accreditation where there are state examinations, and this is the case with veterinary training, too. However, the JLU has started to review its quality assurance

instruments in 2019 in order to achieve system accreditation in the coming years. The main quality cycle (see SER Appendix D) includes the definition of strategic and quality goals and making target agreements with faculties; the control and support measures ensuring implementation of the target agreements; an ongoing (annual) review of the measures; regular presentation and discussion of development progress and results; interim and final reports (every two years) from faculties; the adjustments of goals and measures after five years. As part of these developments, the JLU is developing a more effective administrative system making data gathering and controlling easier.

JLU's Institute for Didactics of Higher Education offers programmes to improve the quality of teaching (innovative curricula and formats), and the JLU is introducing other measures to improve teaching organisation and quality such as restructuring the organisation and processes of examination offices, and audit of these procedures, implementation of new information systems (Stud.IP, FlexNow, ILIAS), etc.

1.3.2. Comments

- Though the SWOT analysis is not a classical one, it may serve as the basis of strategic planning. The strategic goals and shorter-term objectives are enumerated in the five-year target agreement with the JLU with indicators of success if appropriate. Their achievement is monitored.

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 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 VEE has a philosophy that "all staff develop a high responsibility towards the need to assure a high level of quality within their respective specialisation". There is continuous review of the quality of teaching, of clinical and para-clinical services, and of research, and an "inherent check of all quality issues".

The main procedures of the VEE are regulated by the study and examination regulations of the

VEE and are also described on infographics in the framework of the PDCA-cycle. There are examples of the PDCA cycle under other standards like the use of budget, curriculum development, and monitoring of multiple-choice questionnaires, and SER Appendix D provides a detailed flowchart for the procedure of evaluation.

The JLU organises different surveys of which the faculties benefit. The most important is an annual student survey in which 20–30% of the students participate. It covers general aspects of studying at JLU and results in a student satisfaction index. This index was 89% for veterinary medicine. Another criterion used to assess the quality of the study program is the percentage of students graduating within the official time allotted to the veterinary curriculum (5.5 years). 85% of the students successfully graduate within this time. The basis of the calculation is the number of students entering the clinical part of the curriculum (there is regular drop-out until semester 4).

The assessment of teaching quality is the responsibility of the Office of Study Affairs and the Vice Dean for Study affairs. They decide on corrective actions. Regarding state exams, it is possible for the examiners – approved by the state authority – to supervise their series of questions for the tests by means of the KLAUS system, and modify questions if they seem to be inappropriate.

1.4.2. Comments

- Calculating the rate of students entering semester 5 and graduating in time may be misleading considering the inevitable drop-out rate before semester 5.

1.4.3. Suggestions for improvement

- A consideration of possible remedies for low performing students in the first four semesters could be beneficial.

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

The TAppV was elaborated after consultations and discussions with the Federal Veterinary Chamber, the Association of Practising Veterinarians, and the Council of Veterinary Establishments. Thus, TAppV reflects the opinion of the most significant stakeholders.

The veterinary curriculum is influenced by the Assembly of German Veterinary Establishments, the Federal Veterinary Chamber and the State Veterinary Chamber of Hesse, and the German Veterinary Association and its sections. Regular meetings are organised to discuss matters related to the curriculum.

The interaction with stakeholders on behalf of the VEE takes place through the VEE's representatives being involved in different veterinary associations and bodies, legislative or scientific organisations as presidents or members.

Many local events are open to a special audience or the general public. Interaction with the farming community is important also to attract them as clients. Presentations and practical courses are organised for them. There are other events for the veterinary community (e. g. short CE courses) and other clients.

Complete information is provided about the study programme and the profession on the VEE's website as well as the previous self-evaluation reports prepared for the EAEVE Visitations, and the status of the VEE. However, the Visitation Reports are not linked in.

1.5.2. Comments

- Since the curriculum is developed at national level, it is commended that the relevant professional organisations are invited to take an active role in the shaping of veterinary training in Germany.
- The SER has not consistently followed *Annex 6. Template and guidelines for the writing of the SER* of the SOP.

1.5.3. Suggestions for improvement

- The SER should be restructured on the basis of the template to make it easier to follow.

1.5.4. Decision

The VEE is partially compliant with Standard 1.5 because of a suboptimal SER (confusing titles and numbering of Standards, especially in areas 1, 3, 4).

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 does not have detailed information concerning the employment and professional life of

its graduates. There is a 2.3% unemployment rate among veterinarians, and there are plenty of job advertisements in the professional journals. However, the VEE has received much informal feedback from alumni returning for CE courses.

The success rate in teaching and research is considered almost 100 and dependent on the professional staff, thus recruitment of the appropriate personnel seems to be the most important.

All courses are checked at least once every three years. Besides, teachers may ask for student feedback as they wish by using and tailoring the questionnaire provided by the JLU Teaching Evaluation Service which also provides a guide to performing such surveys. Since the winter semester of 2020/2021 the VEE has implemented an evaluation procedure of all lectures, seminars and practical courses in a triannual cycle. The questions regarding the teaching formats were compiled by the Committee of Study Affairs. There were special feedback evaluations and sessions during the COVID-19 pandemic for each semester. The Office of Study Affairs takes an active part in the registration for the surveys, as well as mediating between the VEE and the JLU Central Service Unit who perform most of the monitoring activities.

In September 2021 evaluation statutes for teaching and study were established and their application started in the winter semester. Data will be used to promote continuous development as well as for internal and external reporting and will be part of the quality management of the VEE. All courses will undergo such evaluation every three years. The lecturer, the Office of Study Affairs and the Vice Dean of Study Affairs can view the results. In case there seems to be a problem with the course or the teaching, the Vice Dean of Study Affairs discusses the issue with the lecturer. Teachers may share and discuss the results of evaluations with the students on one of the last lectures/practicals.

There are at least two meetings per semester between the Committee for Study Affairs and the Vice Dean for Study Affairs where problems are discussed, and students may raise issues they consider important. In the organ-centred teaching blocks module representatives discuss problems which arose during the previous semester. A process is also established for the monitoring of the quality of exams (see 1.4.1 and SER Appendix D, figure 2 on page 308).

1.6.2. Comments

- The VEE, partly relying on the JLU assessment unit, carries out output assessments and participates in others involving all the German veterinary schools.

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 VEE has achieved approval status by EAEVE three times since 1993. During the last Visitation in 2012 it went through the Stage 1 accreditation process. There were no deficiencies found in 2012. The VEE has followed up the suggestions and made several corrections accordingly. Since the veterinary curriculum and training is a state-controlled one, there is no need for a German accreditation of the VEE. However, JLU has the intention of having institutional accreditation in the near future which would make the accreditation of each individual course unnecessary.

Subunits of the VEE such as laboratories, the meat plant, pharmacies, etc. are subject to regular external checks and inspections with special respect to safety and security aspects.

1.7.2. Comments

- The VEE has been approved by EAEVE for almost three decades.

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

The regular funding of the Justus-Liebig-University is delivered by the Hessian Ministry for Science and Arts and is based on the total number of students within the regular study schedule, weighted by a factor for “norm student costs per year”. This regular funding makes up about 80 % of the total funding of the university. It is supplemented by a success-based funding, which considers the aspects of research, gender, teaching and internationalisation. After subtraction of the central costs of the university, the remaining amount provided by the ministry is distributed to the different faculties of the JLU. The JLU participates in the program for reinvestments set up by the State of Hesse (HEUREKA) which allowed spending of 540 Mio € per year until 2020 for all

educational institutions; e.g. the reconstruction of the Clinical Unit for Small Animals and the Clinical Unit for Birds, Reptiles, Amphibians and Fish (opened January 2020) was supported by this program. Additional income (revenue from clinical and diagnostic activities) is retained by each institute or clinical unit. Two to 10 % of this income is “centralised” and put under the authority of the Dean for general purposes of the VEE. Some money to support research originates from two endowment funds donated to the VEE (Engemann-Stiftung, Hilde und Ewald Berge-Stiftung). The mean annual expenditures and revenues during the last 3 years were: 24,889,857 and 26,444,219. Euro. The annual balance between expenditures and revenues in all the last 3 years was positive.

2.1.2. Comments

None.

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

According to the university law of the state of Hesse, the Deanery has full autonomy to distribute the revenues from public authorities, including the financing of non-professorial staff. According to recent regulation by the Hessian Ministry for Science and Arts, only 30 % of an annual revenue generated can be transferred into the next year. Each clinical unit is fully responsible and has full autonomy in the management of its revenues and expenditures from clinical or diagnostic processes. The head of each clinical unit is allowed to employ staff from clinical income. There are two limitations to this autonomy: a certain percentage of the income (amounting up to 210,000 € in the years 2018 to 2020) is centralized by the Deanery to cover general costs of the VEE. Another limitation results from a regulation passed by the Hessian Ministry for Science and Arts in 2019, which only allows 30 % of an annual revenue to be transferred into the next year. In case of special high-cost instruments (e.g. MRI) revenues may be accumulated over several years.

2.2.2. Comments

None.

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 Committee for Strategic Planning, which is composed of members of the professorial and non-professorial scientific staff, students and technical staff is responsible for revision of the resources. Another advisory committee taking part in this area is the Ad Hoc Committee for Research Matters. Final decisions are made by the Faculty Council. All groups of the Faculty participate in these processes securing the necessary communication among groups. The dean has to forward and discuss decisions on the most important investments with the presidency of the university. The distribution of the revenue forwarded to the Faculty from the central administration of the JLU is under the responsibility of the Deanery. About 90 % of this income is used to cover costs for personnel. The remaining budget is distributed according to a scheme approved by the Committee of Financial Matters.

2.3.2. Comments

None

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.

It is important to note that the hours that must be spent on EPT are laid down in the national regulation “Verordnung zur Approbation von Tierärztinnen und Tierärzten (TAppV)” and cannot be changed by the University/ Faculty.

3.1.1. General findings

3.1.1.1. Findings

The curriculum of the VEE of Justus-Liebig University is subjected to national regulation according to the “Ordinance concerning the Certification of Veterinary Surgeons (TAppV)”. TAppV establishes a number of hours which must be devoted to the intramural training component (3850 hours), as well as the practical extramural component (1170 hours). The VEE includes a total of 5148 hours of training distributed in 5,5 years (11 semesters). The excess of 128 hours over the 5020 hours established by TAppV was corrected in 2020 by reducing the number of weeks in rotation in the clinics of small animals from 8 weeks to 4 weeks.

The curriculum has not been substantially changed since the last EAEVE Visitation; however, some improvements have been made. Changes include regulations to oral and written exams according to TAppV, introduction of new interdisciplinary courses and organ-centred teaching modules (blocks), definition of learning objectives and evaluation for EPT, a new skills lab and a high number of new e-learning modules.

The structure of the curriculum is based on a wide number of compulsory subjects (courses), an extensive offer of electives and a total of 1,170 hours of training as EPT. Learning outcomes for each particular course are defined as aims and objectives in the so-called Units of Study (SER Appendix B). The number of ECTS, syllabus, reading list, learning recommendations, assessment method, etc., as well as the alignment of each particular Unit of Study with the list of Day One Competences is shown in detail. Students have access to this information through the JLU website and the virtual campus Stud-IP. The list of Electives including details of the teaching modalities is shown in SER Appendix Table 3.1.4.

The distribution of the degree courses through the curriculum is the following. Courses of Basic Sciences are assigned to semesters 1st to 5th. From the 6th to 8th semester there is a combination of regular courses and the so-called blocks, which are organ-based interdisciplinary courses closely coordinated by defined module representatives. Clinical rotations are concentrated in the 5th year, intramural during the 9th winter semester, and extramural in the 10th semester mainly. The last semester (11th) is devoted to self-learning and state examinations. A Dissertation Degree prior to graduation is not included in the curriculum.

Extramural training - EPT- is mainly concentrated in the 5th year (10th semester) but students are also requested to do some extramural training (either at the university’s teaching farm or on a farm outside the university) during the 1st year (2 or 4 weeks depending on the placement) and the 5th-6th semesters (4 weeks). Due to national regulations agreements between the extramural placements for training and the VEE are not allowed. For the same reason, it is not also possible to oblige the EPT providers to issue assessment on the students’ performance and their direct involvement in the ongoing work.

Teaching-learning process in each course is directly coordinated and supervised by the corresponding subject or module representatives. They are the first contact for students in case of

any issue, comment or suggestion with regards to the subject development. They are also a cornerstone in the process of checking the existence of overlaps or redundancies in the curriculum. All this activity is directly communicated to the Office of Study Affairs and the Dean, and then properly assessed by the Committee of Study Affairs during its regular meetings (at least two per semester).

3.1.1.2. Comments

- Since the latest Visitation the VEE has introduced relevant improvements in the curriculum which facilitate the coordination of contents, self-directed learning and training (i.e. e-learning modules, skills lab).
- Numbering of sections in the SER does not always fit with the expected order established in the template. Some sub-sections of standard 3.1 and Standards 3.4, 3.5, 3.6 and 3.7 are not correctly numbered or have not been numbered.

3.1.1.3. Suggestions for improvement

None.

3.1.1.4. Decision

The VEE is compliant with Standard 3.1.

3.1.2. Basic Sciences

3.1.2.1. Findings

Training in Basic Sciences is concentrated in semesters 1st to 5th of the curriculum. A wide number of Study Units are included. The amount of teaching hours, ECTS, learning outcomes, reading lists, etc. are described in detail in SER Annex B. Training of Basic Sciences is carried out under the modality of lectures, practises (lab, desk-based or non-clinical animal work) and seminars, with lectures being the main teaching modality (around 60% of hours). The Study Units of Medical Physics, Chemistry, Animal Biology, Zoology, Cell Biology and Feed Plant Biology and Toxic plants are taught in premises of the JLU external to the VEE.

Most of the competences on Basic Sciences are examined in the Section I of the Veterinary State Examination. This compulsory exam consists of two parts: “pre-intermediate” at the end of the 2nd semester and “intermediate”, after the 3rd and 4th semester. Subjects included in these exams are: Physics, Chemistry, Zoology, Botany, Anatomy, Histology, Embryology, Physiology, Biochemistry and Animal Breeding and Genetics. Passing these two exams is a prerequisite for the progress in the following courses of the degree.

3.1.2.2. Comments

- The VEE assures a robust knowledge and acquisition of competences on Basic Sciences prior to the start of clinical rotations. Only students passing Section I of the Veterinary State Examination are allowed to proceed.

FINAL REPORT AS ISSUED BY ECOVE ON 30 MARCH 2022

- In addition to an intensive training on Basic Sciences, from the 2nd semester students are allowed to start simulated and/or tutored training of clinical competences in the skills lab (PETS).
- Students have extensive access to teaching materials through the virtual campus. This has been extensively developed during the last months due to the COVID-19 pandemic situation.
- Although the VEE considers the time devoted to basic natural sciences is too extensive, a potential reduction in these disciplines could impair a correct training of those students whose background was not fully covered by their pre-university curriculum.

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

The teaching of clinical sciences, with teaching in companion animals is included in the following subjects (for hours, see SER Table 3.1.2): diagnostic pathology, therapy in all common species. Medicine, anaesthesiology, surgery, preventive medicine, clinical practical training and diagnostic imaging. The clinical rotations commence in the 5th year of study (semester 9) and, before this, students must have core clinical knowledge and skills introduced earlier in the course. For example, in 2nd year, small groups of students undertake theoretical training complemented by practical training both on University-owned animals and in the practical skills laboratory. Most of the didactic teaching (lectures and seminars taking an organ-system approach) occur in years 3 and 4, where subjects covered include internal medicine and laboratory diagnostics, surgery and anaesthesia, radiology, ophthalmology and clinical demonstrations. This is complemented by a 4-week block in a veterinary practice (on VPT); it is important to note that the hours that must be spent on EPT are laid down in the national regulation “Verordnung zur Approbation von Tierärztinnen und Tierärzten (TAppV)” and cannot be changed by the University/ VEE.

Time is also spent in the skills lab, which appears to include the use of various simulators (facilitated by tutors, peer tutors or by self-learning instructions) and communication skills training (involving patient owners and actors). Professional ethics training is provided as part of two courses: Ethics in Veterinary Medicine (semesters 1-4) and Animal Welfare (semester 5).

Many of the clinical rotations (see SER Table 3.1.3) undertaken in 5th year involve companion animals scheduled, including 120 hours of equine (medicine and surgery), 240 hours of small animal (internal medicine and surgery) and 60 hours of exotic animal (birds, reptiles, amphibians and fish) training. Companion animals are also covered in the obstetrics, gynaecology and andrology rotation (120 hours) and ambulatory (8 hours) clinics. The bulk of these activities

involves referral cases; there is very limited exposure of students to basic first opinion cases during intramural rotations. Activities undertaken by students on rotations include gathering information (taking histories and performing physical examinations), diagnostic investigations (including clinical pathology), patient care (including out-of-hours work at night and weekend), occasionally assisting with surgical procedures, seminars, case rounds and other activities such as writing case reports. Students learn the problem-oriented approach and have patient responsibility including examining patients, creating a differential diagnosis, developing diagnostic and therapeutic plans and communicating with clients. Although there are some opportunities to assist with surgical procedures, there is very limited opportunity for students to perform basic surgical procedures (stitch-ups, benign mass removal, surgical sterilisation etc.) under supervision. Surgical sterilisation is predominantly performed at the Obstetrics, Gynaecology and Andrology Unit, the students confirmed that very few sterilisation procedures involve companion animals; instead, most of these procedures involve small ruminants. Sterilisation of stallions is carried out at the Equine clinical unit.

In addition to the clinical rotations, the bulk (224/308 hours) of elective time is devoted to clinical studies, and many companion animal disciplines are available, enabling students to top up their experience (see appendix to SER Table 3.1.4).

There is close supervision by staff, the staff student ratio during clinical rotations being typically 1:2-3. Each rotation is monitored using a logbook, where students detail both the training and procedures that they have undertaken or observed. Some of the cases (typically 1-2 per week) are emergencies. However, these are not used to verify that individual students are competent in critical clinical skills.

3.1.3.2. Comments

- Although students have opportunities to practise or observe various clinical skills on rotations, there is inconsistency amongst students and competence in these tasks is not objectively assessed in a consistent manner during rotations. Such skills are also not covered by the oral examinations.
- The lack of first-opinion patients available for intra-mural rotations (see Standard 4.5) limits the opportunities for students to gain supervised training in primary care practice.

3.1.3.3. Suggestions for improvement

- The VEE should strongly consider purchasing (or building) first opinion practises for companion animals to ensure more opportunities for students to practise supervised primary care during intramural rotations (see Standard 4.5).
- The VEE should consider implementing additional evidence-based assessments for clinical skills and Day One Competences to ensure that they can verify that students are competent (see Standard 8.5).

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

One of the main objectives set by the VEE, throughout the entire curriculum, is the acquisition of clinical knowledge, skills and competences; successful passing of the preceding parts of the state examination(s) until year 5 is a prerequisite for taking part in the 5th year clinical rotation(s). The various steps for the acquisition of clinical knowledge, skills and competences in Clinical Sciences are described well in the SER. Practical training on university owned animals is organised from year 2; students are encouraged to use skills labs and simulators; in years 3 & 4, students are involved in clinical core subjects, they have to spend a 4-week (150 hours) EPT in a veterinary practice; simulation on communication skills is also organised.

Details on the organisation and implementation of clinical rotation/practical clinical training are provided (Standard 3.1.5): clinical rotations are scheduled in year 5, and all students rotate in clinical stations at all VTH clinical units/institutes (small groups, 8 students; smaller sub-groups of 2-3 students are supervised by teaching staff); a logbook is provided to students. All students acquire hands-on experience on common domestic animal species, often in contact with patient owners; students are stimulated to write case reports, and every student receives individual feedback from teachers.

During clinical rotation/clinical training, students can apply the knowledge so far acquired (problem-based approach) and are guided to recognise clinical problems, develop a differential diagnostic approach and propose a therapeutic plan; students participate in regular clinical duties and patient care (including 1-2 emergency services) and in night/week-end shifts (24 hrs emergency service); students must accompany patients throughout their stay at VTH and clinics – including communicating with owners – to be acquainted with their future role as professional vets.

Before starting each rotation, students are informed on their duties and rights, and are instructed on biosecurity, hygiene measures to be implemented during practical activities.

In addition to the core clinical rotations at VTH and Institutes, students have to perform compulsory EPT (External Practical Training) periods (e.g. 2 weeks, pre-clinical; 4 weeks + 16 weeks, clinical; 2 weeks, VPH issues; 2 weeks + 4 weeks, FSQ) which serve to complete in a comprehensive way the overall practical/clinical training (ref. SER table 3.5.1). A total of 20 weeks of EPT clinical activities are done at private practises/clinics (both companion animals or production animals), under the supervision of the practitioner in charge.

Two additional weeks on Veterinary Public Health (VPH) topics are performed at Veterinary inspection offices: VPH activities do include epidemiological surveillance, prophylaxis/ control of reportable livestock diseases, etc., which are relevant for Animal Production and Herd Health Management. The hours that must be spent on EPT are laid down in the national regulation “Verordnung zur Approbation von Tierärztinnen und Tierärzten (TAppV)” and cannot be changed by the University/ VEE.

3.1.4.2. Comments

- Standards 3.1.4 and 3.1.5 in the SER were reviewed as a unique component as there is complete integration/complementarity between the two.
- Before starting each rotation, all students are instructed on biosecurity, hygiene measures to be implemented during practical/clinical activities, however, it is not specified whether the actual level of knowledge acquired by the students on the relevant biosafety/biosecurity measures.
- Overall, the curriculum contents and hours dedicated to Clinical Sciences in Food-producing animals, Animal Production and Herd health Management (detailed in SER Tables 3.1.2., 3.1.3., 3.1.4., and courses/ETCS catalogue) are adequate to acquire the basic preclinical and clinical knowledge needed for further developing the overall practical skills and competences in clinical sciences in food-producing animals.
- The overall organisation of the core clinical rotations and other practical/clinical activities for clinical training in food-producing animals meet high standards. It is deemed interesting and useful that students can be allowed to voluntarily extend shifting hours in the clinics, including food-producing animals, thus making it possible to further deepen their knowledge and practical skills (e.g. to follow highly interesting clinical cases).

3.1.4.3. Suggestions for improvement

- Curricular hours and clinical/practical activities are overall adequate for acquiring the relevant Day One Competences in clinical sciences of food-producing animals; however, more emphasis on Preventive Veterinary Medicine issues would reinforce the curricular component in animal production/herd health management.

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

The curriculum in this area is in accordance with TAppV and corresponds with the teaching catalogue in Food-, Meat- and Dairy developed for Germany, Austria and Switzerland. The subjects Food Science and Food Hygiene including Food Legislation consists of intra- and extramural parts and are taught in the 6th, 7th and 8th semesters with lectures (223 hrs) and practical classes (47 hrs). Meat Hygiene is divided into an intramural and an extramural section. Intramurally, the lectures given in the 6th and 7th semester, in the 7th semester students have to also take a basic practical training which is held in the new meat hygiene facility of the VEE (an officially recognized EU cold storage facility suitable for meat inspection). Students are taught in groups (8-15 students per teacher). They make post-mortem examinations of carcasses and offals, which are possessed (after official veterinary inspections) from abattoirs and returned into the food chain.

FINAL REPORT AS ISSUED BY ECOVE ON 30 MARCH 2022

There are no abattoirs near the VEE so students go to the slaughterhouses during the EPT only. They are obliged to take 100 hrs of practical training in EU-approved slaughterhouses, during which they are supervised by an official veterinary inspector. Food Science and Food Hygiene including Food Legislation also consist of an intra- and an extra-mural part.

Classes are held in 6th and 8th semesters. During the intramural part, students have lectures on various areas of food science and food hygiene (including food microbiology, food legislation, poultry and fish hygiene and technology). Because of the logistic problems students visit meat processing plants and poultry slaughterhouses only during EPT or electives. Exams on FSQ related subjects are after the 10th semester. In addition to the mandatory courses, there are also electives on FSQ (81 hrs).

As an extramural part of Food Safety, students have to carry out a practical training in a food control laboratory or in the food industry (75h). Another practical training has to be carried out (75h) in the public veterinary service and administration. Milk Hygiene is taught during the subjects: Dairy Science and Milk Examinations which are held in 6th and 7th semester (all together 42 hrs split into 28 hrs of lectures and 14 hrs of seminars/practicals). During the practical training students make microbiological, chemical and sensory evaluations of milk and dairy products. Because of logistic problems visits in dairy plants are available only for volunteers, during elective courses.

3.1.5.2. Comments

- There is a paucity in performing ante-mortem inspection of animals destined for the food-chain and correct identification of animals/carcasses/offals unsuitable for the food-chain, because of a reduction in practical training delivered by the VEE under **academic** supervision.
- These findings are partially compensated by the teaching delivered, under academic supervision, within the new meat hygiene facility of the VEE.

3.1.5.3. Suggestions for improvement

- Virtual Reality and/or video transmission taken in real time from the slaughterhouses and/or meat processing plants can be a useful tool for more practical teaching.
- The VEE could consider arranging large groups of students to undertake, under academic supervision, day trips to a local abattoir to visualise some aspects of VPH.

3.1.5.4. Decision

The VEE is partially compliant with Standard 3.1.5 because of a paucity in performing ante-mortem inspection of animals destined for the food-chain and correct identification of animals/carcasses/offal unsuitable for the food-chain, due to a reduction in practical training delivered by the VEE.

3.1.6. Professional Knowledge

3.1.6.1. Findings

Subject	Lectures	Seminars	Supervised self learning	Laboratory and deskbased work	Non-clinical animal work	Clinical animal work	Others	Total (rounded)
Information literacy and data management	10.25			6				16.3
Professional ethics and communication	47							44
Animal health economics and practice management	12	2.75						14.8
Clinical practical training in common animal species	5	34	24	24	10	533		630
Herd Health Management	43.8	4.85						48.7
Veterinary legislation including official controls and regulatory veterinary services	86							86

Professional knowledge covers several subjects:

- Information literacy and data management have 10 hrs of lectures and 6 hrs of desk-based work
- Professional ethics and communication have 44 h of lectures. An external expert teaches communication. Communication and ethics are taught in an interdisciplinary manner by the Clinic for Small Animals, Clinic for Horses, Clinic for Obstetrics and the Department of Animal Welfare
- Animal health economics and practice management have 12 h of lectures, 2.75 h of seminars
- Clinical practical training in common animal species have 533 h of clinical animal work on a total of 630 h
- Herd health management has 43.8 h of lectures and 4.85 h of seminars
- Veterinary legislation including official controls and regulatory veterinary services have 86 h of lectures.

The practice management software “EASYVET”, used in the VTH, is also common in private veterinary practises.

Students are taught how to communicate and “behave” with the animal owners or farmers.

The content of education of these topics can be found in the SER appendices.

All subjects mentioned in the EU Directive are covered.

3.1.6.2. Comments

- The figures about professional ethics and communication are not correct: 47 hours of lectures and 44 hours in total.

3.1.6.3. Suggestions for improvement

- Figures about professional ethics and communication should be corrected

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 objectives of the study programme as well as the qualification achieved (veterinary surgeon) are defined by federal law in the TAppV (cf. 1.1), which is harmonised with EU regulations (Directives 2005/36 and 2013/55). They also comply with the Federal Veterinary Regulation, and are finetuned by the VEE's Study and Examination Order (StuPo-Vet). The competence-based learning outcomes and the curriculum are described in "Units of study of the core veterinary programme" (ECTS Catalogue, see SER Appendix B) which contains the detailed description of each course and clinical rotation. These are all communicated to students and partly to the wider audience on the homepage of the VEE, including regulations concerning post-graduate studies to achieve the qualification of Dr. vet. med. and PhD in Veterinary Medicine.

The QA mechanisms related to curriculum development are described in 3.1.3 of the SER. It is the Vice Dean for Study Affairs and the Committee of Study Affairs which is responsible for the improvement of the course of study.

The ECTS catalogue was developed and coordinated by the Dean, the Dean of Study Affairs and the Office of Study Affairs, which is also responsible for its communication. Improvements will

be based on students' and teachers' feedback and the ECTS catalogue will be updated bi-annually. However, revision suggestions will be assessed at least twice a semester by the Committee of Study Affairs, and may be incorporated immediately.

Students are encouraged to take an active part in their learning through different ways. In the first year they are offered study skill courses introducing them to learning strategies and time management. A Self Learning Centre is available for students where they have access to self-learning programmes and other teaching material, microscopes with slides, etc. There are self-test kits to several subjects offered in the course descriptions, and there is also a Progress Test in Veterinary Medicine (PTT) which allows students to monitor their own learning progression throughout their studies. Students take responsibility for their own learning, and time is devoted in the curriculum for self-learning also in the skills lab.

To prepare students for evidence-based decision-making, biostatistics, research and clinical question formulation, bibliographic search and critical reading skills are developed early, and during clinical rotations many case reports are written.

Veterinarians are bound to participate in continuous education (CE) to keep their licence. As an introduction to these, students are invited to participate in CE courses offered by the VEE.

3.2.2. Comments

- The intended learning outcomes formulated usually as competencies and mapped to Day One Competences are clearly defined both in the TAppV and in detail in the ECTS catalogue. They are harmonised with EU Directives.

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

The cohesion of the curriculum is ensured by the Committee of Study Affairs and the Vice Dean for Study Affairs. Subject and module representatives develop and coordinate learning objectives and examination subjects.

The ultimate learning outcomes of veterinary training are regulated by the TAppV. The “Units of study of the core veterinary program...” (in short ECTS Catalogue, see SER Appendix B) contains the detailed description of each course and clinical rotation with the coordinator, instructor, course type, ECTS, content, aims and objectives (learning outcomes), reading list, electronic sources, scripts, learning recommendations, methods of assessment, and their relation to EA EVE’s Day One Competences. It is available to staff and students.

State examinations are the main points of assessment of the learning outcomes. Since the success rate is over 80%, the VEE is convinced that its teaching is effective. Feedback is gathered from subject and module coordinators, and the chairpersons of examinations which is used to improve the curriculum including learning outcomes. There is informal feedback from stakeholders who deal with students after graduation which show that graduates are well accepted by the profession.

There are mechanisms established for continuous improvement as described under 3.2. Overall, the monitoring and development of learning outcomes takes part as modifications of TAppV based upon feedback from the VEEs and the professional organisations (see also 1.5.1).

3.3.2. Comments

- Learning outcomes are clearly identified and are monitored by the VEE.

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 Committee of Study Affairs – headed by the Vice Dean for Study Affairs – is the body responsible for the quality assurance of the teaching programme and its outcome, as well as the management, monitoring and improvement of the curriculum. It is also responsible for the elaboration of the Study Regulations (StuPo-Vet). There are three students among the 7 members of the Committee. The Committee meets regularly or upon request, and reports to the Dean and the Faculty Council.

Subject and module representatives work on the development and coordination of learning objectives and are the main contact persons among the Office of Study Affairs, the Dean of Study Affairs, lecturers, and students. Students may submit questions, suggestions, wishes to the subject and module representatives and the Office of Study Affairs. There are meetings of each subject focus where they get oral feedback from the students. These meetings are attended by all the academic staff involved in the teaching of the subject.

There are mechanisms in place for the continuous improvement of the curriculum described under 3.1.3 and summarised in Figure 3.1 of the SER. Feedback from students, staff, chairpersons of examination committees, and external experts are considered by the Committee of Study Affairs. Decisions may be made by the Committee in minor issues. Major issues are forwarded to the Faculty Council for approval, and some still further to the corresponding committee or the senate of the JLU. The ECTS catalogue is reviewed bi-annually and is subject to continuous improvement. Major changes are governed by the TAppV.

Most of the core funded permanent academic staff is habilitated. Though it is not mandatory, teaching staff is required to maintain and improve didactic competences. The JLU offers special courses in soft skill development and didactics, Human Resources, E-Learning & New Media support for teaching staff, and education in all matters of administration and personal development to support staff. Completion of the courses is certified.

The VEE is participating in the “KELDAT” (Kompetenzzentrum E-Learning, Didaktik und Ausbildungsforschung in der Tiermedizin) project. As part of this it contributes to the development of PTTs for self-evaluation.

A university-based teaching qualification program has been available to interested staff since 2007. There is a Zfbk-Kurse for Didaktik on how to lead a course open to all.

3.4.2. Comments

- The VEE is commendable for offering the possibility for the self-testing to students throughout their studies which supplements formal evaluations and examinations very well

and contributes to developing the responsibility of students for their own learning.

- The variety of opportunities for staff training especially in didactics (but embracing many fields from safety to foreign languages) is commendable and well used by many staff members and student tutors.
- In spite of its positive features, the nationwide regulation of the curriculum by TAppV makes any alteration difficult and rather slow, therefore some emerging or marginal topics (e.g. latest surgical methods, bibliographic searching) have to be taught in the framework of electives before they can be incorporated into the main curriculum and made mandatory.
- The VEE continuously monitors the curriculum and supplements it in the ways allowed by TAppV.

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

The German veterinary medical licensure law (TAppV) provides requirements for content and training places of mandatory 1170 hours of EPT:

1. Exercise in agriculture, animal breeding and animal husbandry (70 hrs)
2. Practical training in a private veterinary practice or veterinary hospital /clinic (850 hrs)
3. Practical training in hygiene control, control of foodstuffs, inspection of animals for slaughter and meat inspection (175 hrs)
4. Practical training in the public veterinary service (75 hrs)

Students can find EPT providers in different lists given by the student's association, the veterinary association (BPT) and the German Veterinary Organisation (DVG).

Students can also follow their EPT at an international level, for example the College of Veterinary

Medicine at the University of Tennessee, Knoxville, USA, and the College of Veterinary Medicine at the University of Georgia, Athens, USA.

According to chapter 3.1.6, FSQ and VPH are taught intra- and extra-murally. Students have access to an EU-approved facility intra-murally to perform post mortem inspection of carcasses.

Students must spend 75 h in an abattoir and 75 h in a veterinary public service, which is part of EPT and under the supervision of the official veterinarian of the abattoir and veterinary service.

3.5.2. Comments

- EPT cannot replace the core intramural training nor the extramural training under the close supervision of academic staff.
- The Visitation Team confirmed that there is no visit to slaughterhouses under academic supervision.

3.5.3. Suggestions for improvement

- As mentioned above, the VEE could organise in groups visits, or the virtual visits of an abattoir showing all aspects related to food safety, food security, food quality, and animal welfare, under academic staff supervision.
- The VEE must also organise the same kind of visits in an official veterinary service under academic supervision. Students should learn how the official local veterinary services are working in Germany: official tasks, not only meat inspection, but checks at the borders, if any, checks for imports or exports of animals or products of animal origin, official certification and organisation of the prophylaxis of regulated diseases, etc..

3.5.4. Decision

The VEE is partially compliant with Standard 3.5 because of an absence of academic supervision of practical training in FSQ and VPH.

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

An individual member of academic staff is responsible for the overall supervision of the mandatory EPT followed by students.

The VEE provides logbooks to students, in order that they are able to check the tasks that they have to perform or achieve during their EPT. These logbooks are for EPT in private veterinary practice, in slaughterhouse or processing food-plants, and in veterinary services. The students believe that

the logbooks indicate to themselves that they have seen, or personally performed the tasks, or by ticking the box where they have already performed this task somewhere else.

The students evaluate themselves for the EPT activities. (see SER Appendices page 510)

The EPT providers certify that a given student, personally identified, spent his/her EPT in their establishment from date to date.

The concept of external veterinary practises that are contractually bound to veterinary establishments and that often are financially rewarded for the implementation of extramural training currently cannot be implemented in Germany, since it does not agree with the legislation concerning the organisation of extramural training required by German universities.

3.6.2. Comments

- The Visitation Team acknowledged the specific situation in Germany, due to legal restrictions.
- However, there is neither evaluation, nor reports of the activities performed during EPT by students. The logbooks are anonymous, and are only used for statistics, but not for individual evaluation of students.
- The EPT providers just certify the presence of students during their EPT, but do not evaluate their work.

3.6.3. Suggestions for improvement

- There must be at least a written report of activities performed by students that the VEE could check and evaluate. The ESEVT SOP requires an assessment of these activities.

3.6.4. Decision

The VEE is partially compliant with Standard 3.6 because of the absence of a standardised evaluation of the performance of the student during their EPT.

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 responsible for organising their own learning during EPT. They have access to different associations mentioned above to find EPT providers. They tick boxes in the logbook provided by the VEE. It is considered as a self-evaluation.

All clinical and VPH EPT are evaluated by the students with evaluation forms provided by the Office of Study Affairs. Evaluations are collected and summaries are presented to the senior

specialist representatives (VPH, Meat Hygiene, Animal Hygiene) and the Dean of Study Affairs.

However, and unfortunately, due to data protection legislation, assessments of individual external training institutions have to remain confidential.

3.7.2. Comments

- The Visitation Team acknowledged that the German legislation does not allow any personal feed-back from their activities during EPT. This is a major concern that the German government should take into consideration for the future.
- EPT is part of the curriculum in the ESEVT SOP. And a system of QA must monitor the EPT activities which is impossible for the moment.

3.7.3. Suggestions for improvement

- The VEE should try to find a solution, safeguarding the data protection, with QA experts, in order to comply with the ESEVT SOP.
- Written reports, given by students, signed by EPT providers, could be sent to the VEE coordinator, and feed-back to the EPT provider via the student, in order to have a correct PDCA cycle.

3.7.4. Decision

The VEE is partially compliant with Standard 3.7 because of the absence of QA to monitor the feedback within the EPT activities.

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 veterinary faculty at JLU is extensive, covering approximately 37,000 m², with most facilities being in the same location. These include all clinical facilities, the Institutes of Veterinary Anatomy, Veterinary Physiology and Biochemistry, the Institute of Veterinary Pathology, the “Meat Science Section” of the Institute of Veterinary Food Science, the Professorship for Experimental Animal Science, Animal Protection and 3R Centre, the Skills Lab, the Institute of Hygiene and Infectious Diseases of Animals, meat hygiene facilities and the Unit of Biomathematics and Data Processing. Close by (~500 m), there are the Institute of Virology, Parasitology, Veterinary Pharmacology, the Institute of Toxicology and the Biomedical Research Centre Seltersberg (BFS). The remaining facilities are ~2 km (Institutes of Chemistry, Physics,

Zoology and Animal Nutrition; library, specialised on natural and veterinary sciences; Institute of Veterinary Food Science) and ~ 5 km (the teaching farm belonging to the Faculty of Agricultural and Nutritional Sciences and Environmental Management, at the “Oberer Hardthof) away.

Ensuring maintenance and development of the facilities is somewhat challenging at JLU, not least because of the complicated ownership and financing model. JLU buildings are owned by the federal state of Hesse, but managed by JLU, where regular checks and audits are conducted, and maintenance work undertaken as required. However, it can be challenging for major upgrades to the facilities to be undertaken because such work is financed from revenues provided by the state of Hesse. There is a lengthy lead preparatory period for any major developments (e.g., Clinic of Small Animals and Birds, Reptiles, Amphibians and Fish) because they must be listed as a priority and require the approval of both the state government and state parliament. The federal government may provide financial support to the federal states for structural development of universities, whilst the VEE may use revenues from clinical and diagnostic services to construction measures and equipment replacement/new acquisitions. University building projects must be tendered publicly and follow open, transparent and objective procedures because taxpayers’ money is invested in public buildings. Equipment for lecture halls, seminar rooms etc., like beamers, speaker and web cameras, is provided by Division E (Premises management) of JLU and maintained by the IT Service Centre. These are up to date and well maintained.

The VEE is responsible for the maintenance and replacement of all other equipment, with expenditure being controlled regularly by internal and external auditors. In situations where major renovation is necessary, the VEE informs the university but, often, funds are too limited to be funded. Such projects are then listed and pursued according to priority ranking of the administration.

The facilities for large animals and horses are generally good, including having well-established farrier facilities integrated within the veterinary school, which is a real strength. As acknowledged by the VEE, many buildings need upgrading, with the most pressing veterinary project being the renovation and expansion of the equine unit, where there is only a single operating theatre. The main hurdle to undertaking such projects has been the chronic underfinancing of university buildings in Germany, exacerbated by costs of both the IT crash and COVID-19 pandemic. Further, building the new Small Animal Clinic was much more expensive than expected, whilst significant costs are needed for the intended renovation of one of the largest JLU lecture halls (on need of demolition and reconstruction). The effect has been a shift in priority of projects away from the veterinary campus to other sites. Despite this, approval has now been received for the building the new equine clinic, and this will greatly improve capacity in equine clinical work, as well as the student experience. The project is due to be completed in the next 12-24 months.

Responsibility for complying with EU and national legal regulations lie with JLU Division E - (Real Estate) and Division B3 - (Safety and Environment), who ensure that regular inspections are conducted, whilst acting directors/heads implement safety regulations and report defaults. Legal requirements are laid out in the Act on the Implementation of Measures of Occupational Safety and Health to Encourage Improvements in the Safety and Health Protection of Workers at Work

(Arbeitsschutzgesetz: ArbSchG) and the Act on Occupational Physicians, Safety Engineers and Other Occupational Safety Specialists (Gesetz über Betriebsärzte, Sicherheitsingenieure und andere Fachkräfte für Arbeitssicherheit: ASiG). Whilst most equipment (including health and safety related equipment) is well maintained, the servicing of some items (e.g., fire extinguishers, water cleaning systems, electrical items) has lapsed in some areas. Further, occasionally, seals on fire hydrants are broken, suggesting that their correct functionality cannot be guaranteed. Moreover, some items such as hand hygiene products, medical supplies (e.g., hypodermic needles) and pharmaceuticals (in the equine pharmacy) are past their use-by dates.

Finally, whilst access to the newer buildings is good, including for people with reduced mobility, this is not possible in some of the older buildings.

4.1.2. Comments

- Although procedures are in place to service and maintain equipment, some items are not serviced according to planned schedules. Similarly, there are issues with stock control for various disposables (including medical supplies) and some pharmaceutical products. This demonstrates that protocols for monitoring servicing and stock control are suboptimal. Therefore, the VEE is only partially compliant with the need to have an effective programme for maintaining and upgrading its equipment.

4.1.3. Suggestions for improvement

- The VEE should review procedures for maintaining and upgrading all equipment such as fire extinguishers and water cleaning systems. The VEE could consider having a single person responsible for checking that all servicing is followed, and record that this is done.
- The VEE should also review procedures for stocking and maintaining disposable clinical items and pharmaceuticals to ensure that out-of-date items do not remain in use. Again, the VEE could consider having a single person responsible for checking that all servicing is followed, and record that this is done.

4.1.4. Decision

The VEE is partially compliant with Standard 4.1 because the servicing of occasional items of equipment has lapsed (including fire extinguishers, oxygen cylinders, water cleansing systems). Some disposable clinical items (e.g., hand hygiene equipment, hypodermic needles, some pharmaceuticals) are out of date.

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

Details of all premises used to house lectures, seminars, group work and skills training are provided in the SER (section 4.2.1; Tables 4.2.1-4.2.3). These lecture halls are well maintained and are fit for purpose. Significant numbers of seminar rooms are available, whilst there are only a small number of larger spaces (~2) capable of accommodating whole-year groups. However, this does not appear to present issues with capacity, partly because students are not obliged to attend lectures in person and can view online instead. If attendance of all students for a year is required (e.g., for information about EPT), appropriately sized lecture halls are booked in the BFS or other facilities. Further, some of the teaching is delivered multiple times to part year groups. Since attendance at lectures is not monitored, it is unclear as to whether either capacity or attendance is an issue; the VEE assured the panel that this was not an issue, and no specific concerns were raised by students.

The laboratories used for teaching in the BFS are excellent, being both modern and well maintained. Laboratories for anatomy, physiology and biochemistry are older, and are fit for purpose, but some are in need of refurbishment.

There is a large clinical veterinary skills laboratory available, and several other skills spaces in the clinical units. All these facilities are excellent with a good use of dummies and simulators. In this respect, the main skills lab comprises 12 teaching stations that accommodate 4 students at a time (maximum capacity 48; Appendix 3.1.4 a and b). Several dummies and simulators are used in bespoke skills spaces in different units. For example, the clinic for Obstetrics and Gynaecology has simulators for obstetric training, equine gynaecological examinations, *in utero* calf positioning, canine gynaecological examination and venepuncture. Various dummies are also available in the large animal facilities for training of skin suture techniques. For small animals, there are 7 animal dummies for various activities, whilst there are 2 iPad-based training systems, which help to simulate monitoring (e.g. ECG, End-TidalCO₂, SpO₂, blood pressure) and defibrillation measures during emergency situations. A dissection room, which can house >180 students, is available for practical anatomy classes. Again, these resources are excellent.

Regarding self-study, round-the-clock access to 52 self-directed learning seats is available for veterinary students on campus, and an unspecified number of other spaces available in other buildings including libraries. Use of space for self-directed learning on the VEE premises, therefore, is largely restricted to break times during lectures or clinical rounds, and the VEE reports no shortage of space for students. Given that the visit was held during the COVID-19 pandemic, it is unclear whether such space is sufficient for the number of students on site in normal times.

Some options are available for catering both on campus (Mensa, Cafeteria BioMediCa, Cafeteria Mensa Mildred-Harnack-Fish-Haus (MHFH) and the Cafeteria CaRé. There is also a food truck that visits the campus in the morning and provides snacks and coffee. However, there is no cafeteria on the veterinary campus, and this was an issue clearly highlighted by students as a problem.

Changing rooms, lockers and bathrooms are available in all institutes and clinics, although the exact number, location and adequacy was not described in the SER. However, such facilities were adequate in all areas. There is also accommodation for students that are on call (including social

rooms, cooking, leisure and bathrooms); again, the exact number and details are not specified. Limited information was provided in the SER about leisure activities; there are sporting facilities, a botanical garden and various other options in the city of Giessen itself.

According to the SER, IT facilities for staff are adequate for needs, including those in staff offices, university library and elsewhere. The University has ensured that staff can access key databases, online journals and software as needed. Judging by the information in SER Appendix 10.1, a range of laboratory equipment is available in the research facilities affiliated to the JLU.

4.2.2. Comments

- The clinical skills laboratories are an excellent teaching resource, providing great opportunity for students to develop many important clinical skills.
- The laboratories used for teaching in the BFS are also excellent, being both modern and well maintained. Once again, the panel was confident that the teaching experience delivered using these facilities was excellent.
- The lack of cafeteria facilities on the veterinary campus makes it challenging for students to buy affordable food and refreshments and is problematic. Students felt strongly that this was needed; all unanimously agreed that this would be the most important thing to improve their quality of life on campus.

4.2.3. Suggestions for improvement

- The VEE should strongly consider the comments of students regarding cafeteria facilities on the veterinary campus. It is recommended that such a facility should be developed if at all possible.

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 practises**
- **ensure relevant biosecurity and biocontainment**
- **be designed to enhance learning.**

4.3.1. Findings

JLU has a range of facilities designed for housing livestock, including both healthy animals, research animals and those with disease that are attending the University hospitals. Besides the University's farm animals (including cows, sheep, goats, sows and rabbits), a modest number of healthy animals are housed and used in veterinary education (SER Table 4.3.1); these limited numbers likely reflect the legislative requirements in Germany, whereby animals used in teaching

are classed as experimental animals, and use of such animals must be balanced against benefits to student education. University farms are in excellent order and are well maintained. However, these sites lack a disinfection post at their entrance. Further, farrowing crates are still used which are compliant with current national legislation but do not promote best welfare practises. However, these are due to be phased out within the next 2 years.

Hospitalisation facilities (including isolation and research) are available for companion animals, exotic animals, wildlife, horses and various farm species (SER Table 4.3.2), and these are extensively used for teaching purposes in the clinical stage of the veterinary degree. In 2019 and 2020, the number of birds, reptiles and rodents was limited; however, the Clinical Unit for Birds, Reptiles, Amphibians and Fish was opened in 2020 and provides truly state-of-the-art equipment. Such facilities ensure that student teaching in these species is good. The clinical unit for small animals (dogs, cats and small mammals) was also opened in 2020, and the facilities for hospitalisation are excellent.

There is limited space available on the main campus for housing large animals, especially horses, and financial issues (see above) have made it difficult for the VEE to resolve this issue. Further, many of the buildings are old and in need of maintenance or renovation.

The most extensive facility for housing research animals (small rodents) is in the Central Facility for Laboratory Animals (ZVTH), where there is capacity for ~11,000 animals. However, these animals do not play much of a part in veterinary education (besides research students). Within the VEE, small numbers of calves, small ruminants and pigs are often housed when participating in parasitological research. Again, the extent to which these are used for teaching is limited.

4.3.2. Comments

- Housing and hospitalisation facilities generally meet or exceed expected standards for veterinary education. Both the new Small Animal Clinic and the Unit for Birds, Reptiles, Amphibians and Fish provide excellent hospitalisation facilities and are a great resource for the University.
- Although the large animal hospitalisation facilities are older and in need of refurbishment, they do largely meet the needs of teaching students. This issue should be resolved when the plans for developing the new equine unit and updating housing are implemented (see: [4_1_Development_Veterinary_Campus_180410_Bauliche_Entwicklung_Veterinärmedizin_Ausbaukonzept.pdf](#))
- Although farrowing crates are still used on the University farm, the Visitation Team was pleased to hear that these will be phased out within the next two years.

4.3.3. Suggestions for improvement

- The VEE should ensure that there are disinfection posts at the entrance of the University farms.
- It is also important that the plans for development of the veterinary campus be realised, to ensure that facilities remain state-of-the-art and suitable for students. Most pressing is the equine clinical unit, but it is important that large animal housing facilities be improved.

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, practises and facilities (including EPT) which are involved with the curriculum must meet the relevant national Practice Standards.

4.4.1. Findings

The facilities and equipment (section 4.3.4) available in the clinical units are extensive and are state-of-the-art as well as comparable to those available in private referral practises. There are 22 polyclinics for consultations, with two emergency polyclinics being available near the entrance on the ground floor of the small animal hospital. There are plentiful consulting rooms, procedures rooms, diagnostic suites, and rooms for student teaching. Surgical facilities are well developed, except within the equine unit where there is only one operating theatre. The VEE has identified this as an area in need of further development, to ensure that student education is not compromised.

There are many academics with specialist training in a range of fields (SER Appendix A), including anaesthesia, avian medicine, clinical nutrition, clinical pathology, diagnostic imaging, internal medicine, neurology, parasitology, pathology, public health, and Zoo and Wildlife Medicine.

Fully functioning ICU facilities are available which, in the small animal hospital, can accommodate 22 cats and 23 dogs. Many academics engage in research, which informs teaching, although the process is an informal one and the responsibility of the individual. Twenty-four-hour emergency services are provided for companion animals and equines, whilst an on-call emergency service is available for farm animal species.

The VEE has stated that their facilities are likely to meet or exceed relevant standards such as EPT. There are no national practice standards to be met, although there are many legal requirements which the VEE must follow including radiation protection, pharmacy, other safety issues and patient/animal housing. Compliance with such standards is monitored by state representatives from the Regierungspräsidium at regular intervals. However, as discussed above, some drugs and disposable equipment (hypodermic needles) are out of date, whilst servicing of some equipment (fire extinguishers) has lapsed. Further, some disposable clinical items (e.g., hand hygiene

equipment) have expired, yet remain in use in clinical areas.

4.4.2. Comments

- Both the Clinical Unit for Small Animals and the Clinical Unit for Birds, Reptiles, Amphibians and Fish provide truly state-of-the-art equipment. This is a clear area of commendation
- As discussed above (Standard 4.1), there are some issues with servicing of equipment and in stock control (medical supplies and pharmaceuticals).

4.4.3. Suggestions for improvement

- As discussed above (Standard 4.1), procedures for equipment servicing and stock control should be reviewed to ensure compliance with relevant standards.

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

Although not covered in a specific section in the SER details of diagnostic and therapeutic details are provided elsewhere. From a diagnostic perspective, there are significant facilities available for diagnostic imaging (sections 4.3.4 & 5.3.2), clinical pathology (section, 4.3.5) and necropsy (sections 4.3.5 & 5.1.4, Table 5.1.6, section 5.3.2). An emergency laboratory is also available for diagnostic investigations required in urgent cases. Diagnostic imaging and other diagnostic facilities and equipment are available in several locations including the Small Animal Clinical Unit (8 rooms including 16-slice CT scanner, 3T MRI, fluoroscopy, ultrasonography, digital X-ray, scintigraphy and reading rooms), Clinical Unit for Birds, Reptiles, Amphibians and Fish (endoscopy, ultrasound and X-ray), Equine Clinical Unit (digital X-ray, ultrasonography, scintigraphy, cone beam CT scanner, endoscopy [airway GIT, urinary tract, dental], lameness locator and gait analysis) and the Clinical Unit for Reproductive Medicine (X-ray, ultrasound), as are in the Clinical pathology facilities (mainly in the Clinical Pathology Platform [accredited laboratory covering haematology, clinical biochemistry, coagulation analysis, and cytology] but also in the clinical units [small animals equine, obstetrics, swine and exotics], including laboratory equipment for emergencies). Most necropsy and histology facilities are the responsibility of the Institute of Pathology located in two buildings:

- a) Frankfurter Str. 96 (234.19 sqm) including examination room (135 sqm), preparation room (23.13 sqm), Cold room for cadavers (24.63 sqm), cold room for collected organs and tissue (9.42 sqm), Freezing room (4.11 sqm), Equipment room (5.66 sqm), Foto room (5.4 sqm), locker room (6.84 sqm) and a cold storage room (25 sqm).
- b) Frankfurter Str. 110 (103.16 sqm), Examination room (94.4 sqm) and a Locker room

(8.76 sqm).

Parasitology diagnosis is conducted by the Institute of Parasitology.

Full *post mortem* diagnostic equipment is available with cranes, height adjustable tables for small and large animals (up to 1500 kg), motor saws, laminar flow (for BSL-3 cases), microscope. Laboratory facilities include full histopathology equipment: Paraffin embedding, sectioning and staining, laboratory for special stains, microscopes, multi head microscopes, slide scanner, immunohistochemistry. Biosecurity means are described in institute specific regulations which may be provided.

Regarding therapeutics, extensive anaesthesia, surgical, critical care and treatment facilities are available in the clinical units (mainly small animal and equine), with full details extensively listed in section 4.3.4. The hospital facilities can support a considerable caseload as well as undergraduate and postgraduate veterinary education. Although this ensures good case exposure, the bulk of the cases seen are referral cases. Opportunities for students to engage in first opinion work in companion animals during intramural rotations is extremely limited given the lack of first opinion clinics on or close to the veterinary campus.

There are opportunities for students to assist with surgery and other clinical procedure, for example:

- **Clinic for Ruminants:** An average of three surgical procedures per week per student (soft tissue surgery, orthopaedics, wound revisions etc.). Depending on the procedure, there can be a sterile assistance of one or two students. Other students are involved in anaesthetics and non-sterile assistance. The ratios for sterile assistance, non-sterile assistance and observation are about 25 %, 25 % and 50 % respectively. Additionally, there are at least 3 hands-on training courses (cadaver courses) in surgical techniques in the bovine.
- **Swine Clinic:** Non-sterile assistance of four students per week in anaesthesia and castration of four male piglets.
- **Clinic for Birds, Reptiles, Amphibians.:** Students see ~10 surgeries per week; 50% just observation, 30% non-sterile assistance and 20% sterile assistance.
- **Obstetrics and Gynaecology Clinic:** all surgeries done with student assistance, but can be variable.
- **Clinic for Small Animals:** Students are obliged to spend 6 hours at two days each in the operation theatres. Each see ~2-4 surgeries, half with sterile assistance.
- **Equine Surgery:** Students can take part in ~12-13 surgeries per week, with half as sterile assistants.

Despite these facilities, there are limited opportunities for students to simple surgical procedures undertaken in primary care, and including surgical sterilisation (ovariohysterectomy and castration). This concern was echoed by students in clinical years. The issue is partly explained by the fact that the University does not currently own first opinion clinics for companion animals (including dogs, cats and horses).

4.5.2. Comments

- The lack of first-opinion facilities available for intra-mural rotations limits the opportunities for students to gain supervised training in primary care practice.

4.5.3. Suggestions for improvement

- The lack of first-opinion facilities available for intra-mural rotations limits the opportunities for students to gain supervised training in primary care practice.

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

Isolation facilities are available in relevant clinics, with designated areas for isolation of infectious patients being available, as follows: small animals (46); birds, reptiles, amphibians and fish (17); obstetrics, gynaecology and andrology (4); horses (6); and ruminants (14 places, 9 of them vector-protected). These differ in their design and the facilities available, largely related to when the facilities were developed. These are self-contained and some (for example, those in the small animal unit) have a separate entrance to ensure cases suspected to be contagious do not mix with others (large animal facilities), the infrastructure does not allow this. For these, staff do their best to minimise exposure of such animals to others in the clinics (e.g., by isolating cases straight away, and through disinfection). There are strict legal requirements to ensure that risks are controlled. The method of ventilation varies amongst facilities. For example, in-house ventilation in both the clinic for small animals is by a circulation air system, whilst large animal facilities have free air circulation. Students are only allowed to be involved in the care of infectious patients once they have had case-specific, personal and individual instruction from the attending veterinarian.

4.6.2. Comments

- The isolation facilities for large animals are suboptimal, not least because they are situated in close proximity to the carpark for companion animals. There is, however, a well-established protocol for hospitalising cases suspected of being contagious, and these should be sufficient to minimise risk to other animals and people. That said, it is not clear whether the protocol is followed to the letter for every animal.
- In the plan for developing the veterinary campus (*4_1_Development Veterinary Campus_180410_Bauliche Entwicklung Veterinärmedizin_Ausbaukonzept.pdf*), there are plans to renovate housing facilities for large animals including the isolation facilities.

4.6.3. Suggestions for improvement

- The plans for improvement of large animal housing (including isolation facilities) are welcomed. It is important for these to be implemented to ensure that issues with the design of the current facilities are resolved over the long term. In the interim, more formal procedures for ensuring compliance with isolation procedures are needed.
- It is recommended that a check-list system be implemented, outlining all steps in the isolation protocol. These checklists can then be used in quality assurance.

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 usually accompany veterinarians during the field visits of the ambulatory clinic (run by the Clinical Unit for Obstetrics, Gynaecology and Andrology of Large and Small Animals), which serves farmers and large animal holders in the Giessen area. This service includes a cattle breeding-hygiene consultation, and large animal facilities housing sheep, goats and some camelids. Twice yearly, the clinical unit for swine also visits several pig facilities including one wild pig unit (~35 visits per year), suggesting that most students will be able to participate. Students accompany the ambulance for two half days, seeing an average of 8 calls. In addition to this, within the Clinical Unit for Obstetrics and Reproduction, students have the opportunity to join the ambulatory service for additional experience (on a voluntary basis), where patients are not being used for mandatory courses (30 hours per week). Other clinics usually also allow students to attend for longer on a voluntary basis, with the extent to which this happens being down to the individual interests of the student. Such additional activity is not formally monitored.

4.7.2. Comments

None.

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

Only brief details about transport are provided in the SER concerning students, live animals and cadavers/organs. For students, local transport suffices for most purposes and the only formal transport provided is for ambulatory clinics and herd health, where 2 vans (equipped with cooling facilities for vaccines and a container to store deep frozen semen) are available. A bicycle-on-demand scheme is also operated by the University (https://www.uni-giessen.de/org/admin/dez/e/3/bike-sharing-scheme?set_language=en).

There is very little transport of live animals (usually the responsibility of clients of the hospital), although a car trailer is available if needed. Cadavers and organs are collected in special containers in a cold room (4°C) three times weekly by a purpose-equipped vehicle, and transported to a carcass disposal facility, and compliant with relevant legislation (Animal By-Products Disposal Act, amended in June 2020).

4.8.2. Comments

None.

4.8.3. Suggestions for improvement

None.

4.8.4. Decision

The VEE is compliant with Standard 4.8.

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

The central administration of JLU holds responsibility for safety management; within division B3 (“Safety and Environment”), there are various officers with responsibility for occupational health, biological safety and genetic engineering, protection from radiation and hazardous substances and fire protection. Legislation covering health and safety in Germany includes The Occupational Health and Safety Act (amended Dec. 2020), The Radiation Protection Act (amended April 2020), the Animal Disease Act (amended Nov. 2019), genetic engineering law (amended June 2020) and the Animal By-Products Disposal Act (amended June 2020). Responsibility for complying with such legislation lies with the head of the respective unit, although this might be delegated to local security officers. Radiation protection responsibility lies with the president of the university or their nominated officer, who themselves nominates qualified people as “radiation protection officers”. Genetic engineering work is overseen by the relevant laboratory facilities, and a representative for biological security is responsible, on behalf of the president. Health and Safety information (such

as laboratory safety and hygiene rules) is provided to students at the beginning of their studies. Information on insurance and professional confidentiality is again strengthened in the 5th semester, prior to mandatory practical training in the clinical rounds.

A central hygiene plan is available covering matters of biosecurity and infection control. This plan is available online (<https://www.uni-giessen.de/fbz/fb10/studium-und-pruefungen/SichHyg>). The plan was last updated in March 2021, but it is not clear how often this is reviewed and updated. There are some errors and internal inconsistencies in this document in need of correction. For example, on page 20, the reader is advised to consult the “respiratory protection” section, but this is on page 19. Information relevant to the COVID-19 pandemic is not available within this document, but has been covered by other hygiene plans, which required rapid change and updating. Students are informed about laboratory safety and hygiene both at the start of their studies and also prior to the start of mandatory practical training in 5th semester. In addition, during clinical rotations, there are bespoke instructions about hygiene during introductory lectures.

4.9.2. Comments

None.

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

In this standard the VEE reviews its Global Strategy about the Use of Animals and Material of Animal Origin for Student Education; it describes the Strategy to ensure that each student receives the relevant core clinical training before graduation, ensuring -at the same time- the welfare of animals used for educational and research activities; the VEE provides detailed info on Handling of cadavers and material of animal origin for training in anatomy and pathology (incl. summary tables with relevant numbers), the procedures for the provision of animals and animal material for preclinical/clinical training, and for clinical services.

As regards the number and variety of healthy and diseased animals, cadavers, and material of

FINAL REPORT AS ISSUED BY ECOVE ON 30 MARCH 2022

animal origin used for hands-on practical training during the period 2018-2019-2020, the VEE has provided the relevant figures in dedicated summary tables. The most significant figures (median value referred to 3 years period) are:

Numbers of healthy live animals used for pre-clinical training: Cattle: 141; Small ruminants: 842; Pigs: 1024; Dogs: 7; Cats: 4; Equine: 56; Poultry: 60; Birds: 30; Rabbits: 24; Exotic pets: 2; Camelids: 1.

Numbers of patients seen intramural at VTH: Cattle 715; Small ruminants: 528; Pigs: 60; Companion animals: 11493; Equine: 4453 (inclusive farriers); Poultry: 446; Exotic pets (guinea pigs, ferrets): 54; Birds: 778; Rabbits: 137; New/Old World camelids: 111; Fishes: 3; Wildlife animals (birds: 544; mammals: 109); Others (reptiles, amphibians, chinchilla, hamster): 251.

As regards live animals used for clinical training, the different clinical units organise the visits of patients, according to species and the specific discipline(s).

Numbers of patients seen extramurally in the ambulatory clinics: Cattle: 9557*; Small ruminants: 11357*; Pigs 324175* (*livestock are visited, inclusive vaccinations); Companion animals: 27; Equine: 312 (inclusive fertility controls); Poultry commercial (laying hens, rearing, turkeys, broilers):176; poultry backyard: 58; Exotic pets: 30; Birds (raptors, parrots, and other birds): 3772; Rabbits: 41; Camelids: 766; Others (amphibians): 280.

Percentages (%) of first opinion patients used for clinical training (both VTH and ambulatory clinics): Cattle: 93%; Small ruminants: 93; Pigs: 30; Companion animals: 30; Equine: 70; Poultry: 77; Exotic pets: n/a; Birds: 72; Rabbits: n/a; Camelids: 93; Fish: 82; Others (amphibian): 79; Wildlife animals: 83.

Numbers of visits in herds/flocks/units for training in Animal Production and Herd Health Management: Cattle: 820; Small ruminants: 598; Pigs: 150; Equine: 48; Poultry (laying hens, turkeys, broilers, pigeons, parent stocks of laying hens and turkeys): 1380; Birds (raptors, parrots, and other birds): 16; Rabbits: 3; Camelids: 118; Fish: 3.

Numbers of animals seen in herd/flock health training: i. poultry flocks (153 farms laying hens, mean size: 5000; 8 farms layers rearing, size 500-4,000; 6 farms layers parents, size 20000-5,000; 5 farms broilers, size 500-10000; 2 farms turkey fattening, size 15000-30000; 6 farms turkey parents, size 6000-10000; 1 farm quail, size 3000; backyard poultry (various species, small numbers); ii. pig herds (10 farms piglet producer (sows, mean size: 306; rearing unit, mean size: 1,860); closed herds (8 farms, sows, mean 220; rearing, mean 1150; fattening units, mean 1,350). Note: the n. of farms visited and the respective size/n. heads are only given for poultry flocks and pig herds.

Numbers of cadavers, material of animal origin –and other resources- used in practical anatomical training: Cattle: 0; Small ruminants: 12; Pigs: 4; Companion animals: 8; Equine (only parts of the cadaver: forelimbs and hind limbs, heads): 20 each; Poultry and rabbits: 19; Exotic pets: 0; Organs or animal parts (horses, ruminants, pigs, and dogs, cats and chicken): 792; Complete skeletons: 11

FINAL REPORT AS ISSUED BY ECOVE ON 30 MARCH 2022

(3 horses, 2 cattle, 4 small ruminants, 2 dogs); Anatomical sections (plastinated or PEG-impregnated specimens): 35; Models bought or in-house-made models of organs or animals: 33; Rubber or plastic models moulded from real specimens (e.g. brain, brainstem): 10; Radiographs: 12; Anatomical plates: 30 + electronic resources (interactive e-learning programs and virtual microscopy specimens).

Numbers of cadavers used in necropsy: Cattle: 244; Small ruminants and camelids: 202; Pigs: 54; Dogs: 250; Cats: 175; Equine: 263; Poultry: 435; Birds: 113; Rabbits: 97; Exotic pets: 0; Fish: 21; Wildlife animals: 8; Laboratory animals (mouse + rats): 229.

In the Summary Table-ESEVT indicators in section 11, the values of the Indicators relating to the number of animals seen intramurally + animals seen extramurally/n. of student graduating annually (I8, I9, I10, I11+ I13, I14) show that the VEE complies with the values set for those Indicators (actually exceeding the median values), while the value for companion animal patients seen extramurally (I12) is below the recommended minimum (the balance has a negative value).

The VEE evaluates the case-loads in the different clinical units on a regular basis, in order to assess the availability of patients for clinical education; the number of patients is regularly updated and reported to the Dean's Office once a year.

5.1.2. Comments

- The strategy of the VEE is to ensure that each student receives the relevant core pre-clinical and clinical training before graduation is sound.
- The VEE points out that the number of animals to be specifically used for teaching (and research) are regulated by the stringent Animal welfare regulations, and this limits the availability of an ideal number of live animals to a minimum. However, the overall numbers and variety of healthy and diseased animals, cadavers, and material of animal origin for both preclinical and clinical hand-on training can be considered sufficient for the number of students enrolled. The adequacy of these numbers is also reflected in the Summary Table-ESEVT Indicators in section 11, where the values for I15 and I16 show that the VEE complies with the values set for such Indicators.
- It is commendable that the VEE holds regular meetings with specialist practitioners and professional organisations (i.e. cattle vets, and poultry vets) to discuss and update the requirements in day-to-day vet practice: this is in order to achieve the principal aim that animals, patients and animal material used for training reflect the reality/diversity of the situations in the field.

5.1.3. Suggestions for improvement

- As the ratio “n. companion animal patients seen extramurally/n. of students graduating annually” (I12) is below the recommended minimum value, it is suggested that the VEE should pay attention to this aspect and attempt to increase such value (e.g. acquiring/managing an external veterinary practice where students can see a larger number of first opinion/routine patients).

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

In Germany, practical training at external sites (External Practical Training-EPT) is organised by vet students themselves in selected vet practises, private clinics/hospitals, Veterinary inspection offices, and abattoirs/slaughterhouses; the VEE provides a list of external EPT providers from which students can select. The VEE advises students on how to organise their EPTs; the VEE provides a list of teaching practises registered/certified by the National Organisation of German practitioners (BPT), but students can also select veterinary practises or clinics of their choice where to perform the EPT. A list with the contents of the EPT training is available to students and the EPT providers. There are no contractual agreements between the VEE and the external training facilities, and -as is it for all German veterinary faculties- the VEE has no possibility to directly influence the content and quality of EPT.

As reported in Table 3.5.1 (page 33 of the SER), there are fixed numbers of days of EPT on preclinical, clinical and FSQ & VPH activities. More in details, each student has to mandatory perform: 2 weeks (70 hours) for preclinical (agriculture, genetics, breeding, husbandry, milking techniques, etc.); 4 weeks (150 hours) + 16 weeks (700 hours) for clinical (companion animals or production animals); 2 weeks (75 hours) for Veterinary Public Health (at Veterinary inspection offices); 2 weeks (75 hours) for Food hygiene (hygiene control, food examination/monitoring); 3 weeks for Meat Control at a slaughter house (100 hours). As regards the EPT clinical training in private practises or clinics (4 + 16 weeks), students can decide to take more hours/weeks in companion animals practical training than in food-producing animals, and vice versa.

An EPT coordinator/contact person at the Office of Study Affairs is available at the VEE to assist/support students for preparation of individual EPT programmes, which can also be performed abroad. All students must keep records of their training activities and carry out EPT correctly, as it is the prerequisite for being admitted to the final examinations. EPT providers have only to confirm that students have carried out their training in their premises or at Veterinary inspection offices, abattoirs/slaughterhouses, but there is no obligation for EPT providers to issue an evaluation of student performances/involvement in their upcoming training work. Due to the legal regulations in force, the level of supervision that the VEE can carry out on EPT training is suboptimal.

Students can evaluate their experience in Extramural training. A complaint procedure concerning the EPTs is available for students: they can put their complaint to the vet in charge of the EPT establishment; then -if not successfully addressed- students may further forward their complaints and criticism to the VEE coordinator/responsible for the supervision of EPT activities.

5.2.2. Comments

- Overall, the duration (in weeks/days) for each set of EPT activities appears adequate to allow students to gain experience in the external professional world.
- Students are generally satisfied with their experiences in EPT training.
- As regards EPT days on FSQ & VPH, there are 2 weeks of training on VPH issues, and 2+3 weeks of training on FSQ issues: therefore, training is unbalanced towards FSQ activities.
- The numbers and the quality of the cases seen can vary according to the practises or clinics/hospitals where EPT is performed, but -as reported in the SER and confirmed during the auditions with the EPT coordinator/supervisor- the VEE has no possibilities to directly influence the contents and quality of EPT due to the legal obligation in force.
- The fruitful collaboration of the VEE with the BPT and the fact that a great number of practises/hospitals participating in EPTs have gained the status of approved “Teaching Practice” are important steps in the process of standardisation and quality control of extramural clinical training.

5.2.3. Suggestions for improvement

- The ongoing collaboration of the VEE with the BPT should be further expanded as it has already contributed to improve the awareness of the vet practises/hospitals/clinics participating in EPT to provide good practical clinical education.
- In order to improve the level of supervision by the VEE on EPT and better harmonise the quality of EPT training, it is suggested that the VEE –together with the other German VEEs- should make a joint work of moral suasion with the State and National governments to modify or partially amend the regulations in force in order to allow the VEEs to sign contractual agreements with the external training facilities; this will facilitate the VEE in supervising the EPT training and quality control of extramural clinical training.
- In the case that contractual agreements with the EPT providers will eventually be allowed by law, the VEE could organise *ad hoc* training courses on evaluation techniques/procedures for the EPT providers, so that they can perform a (basic) assessment of the students’ performances.

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

Starting from the first years (after the 2nd semester), students are assigned to a 2-week practical at the University Education and Research Farm “Oberer Hardthof”; the farm includes a dairy herd, a swine production unit and a sheep unit, and it is located at 5-7 km distance from the VEE. Students are trained to become familiar in handling, care and monitoring of farm animals (during the agricultural internship on farm animals), and after, in the propaedeutic courses (during semester 5).

The availability of such a teaching facility (the farm) greatly facilitates practical activities for preclinical training, including nursing, especially in food-producing animals. In early years, there are some elective courses during which students can get involved in clinical work and nursing. Further on, students can gain and/or improve nursing skills also during clinical rotations: these skills are trained under supervision of academic and non-academic clinical staff (professional animal caretakers).

Students can practice in nursing procedures also using skills labs and simulators: the Skills Lab “PETS” is available to all students, and some stations of the skill lab include procedures aimed to acquire/practice nursing skills (a detailed description of the Skills Lab is available in SER Appendix 3.1.4)

Nursing skills are also acquired and practised by students when taking part in clinical workup of patients; students undergo an *ad hoc* evaluation of their skills in nursing procedures, which is not graded. Students actively participate in clinical stations at all VTH clinical units and Institutes (small groups, 8 students, with smaller sub-groups of 2-3 students, supervised by teaching staff). All students (under strict supervision by staff members) acquire hands-on experience on common domestic animals and exotic species, often in contact with patient owners. During clinical rotation/clinical training, students can apply the knowledge so far acquired (problem-based approach) and are guided to recognise clinical problems, develop a differential diagnostic approach and propose a therapeutic plan.

A logbook for each participating clinical unit or institute is provided to students; they are stimulated to write case reports, and every student receives individual feedback from teachers.

During clinical rotation/clinical training, students participate in regular clinical duties and patient care (incl. 1-2 emergency services) and in night/week-end shifts (24 hrs emergency service); students must accompany patients throughout their stay at VTH –including communicating with owners- to be acquainted with their future role as professional vets.

5.3.2. Comments

- The size of student groups (ref. SER Table 5.3.1) during clinical training teaching, including training on nursing skills, is adequate to allow students to work individually and the teaching staff to carry out a close and efficient supervision.
- Overall, the students actively participate in the clinical workup of patients, including problem-oriented diagnostic approach together with diagnostic decision-making.

- The Skills Lab “PETS” is an outstanding teaching facility for providing nursing care skills and for instruction in nursing procedures.

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

The VEE has implemented -since 2006- an electronic Patient Record System, called “EasyVet”, where all patient files are stored. It is a commercial data system (VetZ, Isernhagen, D) which underwent various adaptations/updates in order to meet the needs of the VTH, clinical units and institutes.

The system is used to register and retrieve patient records and handle sample administration for the diagnostic facilities (e.g. access to specimens and diagnostic findings from pathology and different laboratories).

EasyVet integrates all clinical diagnostic information/data and it allows the students to access into the system during their clinical rotations (using their personal account). Via the online system, it is also possible to check the list of appointments with patients and to prepare students for clinical cases prior they get in contact with a specific patient. All patient’s data are available at about 370 PCs on campus.

The system provides up-to-date info on admitted patients and easy access to their medical records, and it also allows in-patient management, administration of stables and wards.

5.4.2. Comments

- EasyVet allows to store comprehensive medical records, to maintain them and access them effectively in real time; it is an effective electronic retrieval system which can efficiently support teaching, but also research, and service programmes.
- The fact that all institutes (except virology) and all clinical units of the VTH use the same patient information system is strategic and very useful; it is also valuable that -besides allowing the rapid extraction of patient data, number of patients attended or treated annually in the respective clinical units- such retrieval system does facilitate the registration of services and financial processing.

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.

6.1.1. Findings

The JLU Giessen has a very large central Library, and a branch dedicated to life sciences where veterinary students can find books and journals. It is open from Monday to Saturday from 8.30 am to 9.00 pm, including holidays. An advanced electronic information system gives the possibility of access to an electronic catalogue of publications.

IT services are provided by the University: an electronic card, reactivated each semester, gives access to public transportation, and many other services in the library and the city of Giessen.

Textbooks are available in German and some in English.

An extensive wi-fi network is available everywhere in the campus. Students also have access to a VPN which allows them to work at home with all documents available in the library.

There are in total 21,200 printed books and 535 printed magazines available on site in the life-science library.

Students can connect to the library from their own laptop, but also through many computers available in the central library, the branch library, the veterinary campus in different departments.

Many lectures are now available on-line and can be reviewed afterwards. JLU invests a lot of money in on-line learning formats and technical support.

Regarding learning resources, the VEE has developed several skills labs, not only for acquiring practical competencies, but also with a special focus on 3R and animal welfare. The main skills lab opened in 2016, there are 12 stations in 300 m², with access to simulators, dummies, and many more very attractive specimens. In addition, 10 student tutors are available in shifts to help students

to acquire practical skills.

Students have access to two study platforms: Stud.IP and ILIAS. They can upload teaching materials, like presentations, video files and interactive modules. Most of the departments provide such material.

6.1.2. Comments

- Electronic examination is not yet possible because of the absence of a room with 180 computers. Students prefer written examinations.

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 JLU Giessen has a very large central Library, and a branch dedicated to life sciences where veterinary students can find books and journals. It is open from Monday to Saturday from 8.30 am to 9.00 pm, including holidays. An advanced electronic information system gives the possibility of access to an electronic catalogue of publications.

The central library of the University is 5 km far from the veterinary campus, the life science library is 2 km far from the campus.

There are in total 21200 printed books, 535 printed magazines and over 51 databases as well as e-learning materials for their use available on site in the life-science library and online. Textbooks are available in German and some in English both in many print copies and in the Thieme Veterinary Collection.

Students can connect to the library from their own laptop, but also through many computers available in the central library, the branch library, the veterinary campus in different departments.

FINAL REPORT AS ISSUED BY ECOVE ON 30 MARCH 2022

IT services are provided by the University: an electronic card, reactivated each semester, gives access to library, PC-pools, cafeteria, public transportation, and many other services in the library.

An extensive Wi-Fi network is available everywhere in the campus. Students also have access to a VPN which allows them to work at home with all documents available in the library.

They can download lectures and all kinds of teaching materials from the two study platforms, Stud IP and IIAS.

6.2.2. Comments

None.

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

JLU invests a lot of money in on-line learning formats and technical support. Regarding learning resources, the VEE has developed a skills lab, not only for acquiring practical competencies, but also with a special focus on 3R and animal welfare. Opened in 2016, there are 12 stations in 300 m², with access to simulators, dummies, and many more very attractive specimens. In addition, 10 student tutors help students to acquire practical skills.

The study platforms Stud.IP and ILIAS allow for exchanges between students and teaching staff.

6.3.2. Comments

None.

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

Requirements and procedures to enrol to the VEE are published on the JLU’s and the VEE’s webpage. All information regarding the studies and the student life cycle can also be found on the website (legal regulations, subjects, ECTS catalogue, study and exam regulations, semester curricula, etc.). There is an information day for high school students interested in the veterinary profession where information is provided about the admission procedure, the curriculum and the profession. Individual consultation is also available for prospective students by the central student consultation service of the JLU, or the Office of Study Affairs and the Vice Dean of Study Affairs. The majority of information can also be found on the homepage in English. All procedures within the responsibility of the VEE must be discussed with and are regulated by the JLU.

The VEE offers many possibilities of international veterinary related programs for students not only in Europe, but all over the world (Asia, North and South America, Australia). Additionally, starting from 2020/21 the JLU has launched online courses from partner universities as part of the Virtual International Program (VIP). Formal co-operations, with special focus on possibilities to study abroad, are enumerated on the website together with practical information. The VEE also participates in the Assembly of German Veterinary Establishments.

7.1.2. Comments

- The regulations for admission and the study programme are clear and transparent as well as information on international relations.

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

There is a central selection procedure managed by the Foundation for University Admission for German and EU, and Uni Assist for non-EU citizens. After having defined the admission criteria for students enrolled by the JLU, the VEE has no role in the selection of students and their assignment to one of the five veterinary schools. The number of students to be admitted (a strict *numerus clausus*) is calculated annually by the JLU administration on the basis of the Hessian Capacity Regulation. The number of applicants by far (4.5 times) exceeds the number of study places, thus the best students are admitted. The total number of teaching hours, the fixed number of core funded academic staff in lectures, seminars and practicals, student-lecturer rate, and the resulting teaching capacity are the key factors for the calculation. The number is 182 for the VEE, however, foreseeing the usual drop-out rate in the first two years, the VEE generally accepts 210 students for the first year. There is no tuition fee at public universities in Germany thus there are no full fee students. No changes are expected in the coming years in this number.

It is the responsibility of the VEE and the JLU to secure a proper teaching environment. Special attention is paid to the biosecurity and welfare requirements during laboratory and clinical practises. Students of a year are divided into four groups, and the study regulations stipulate how many students may be at a lecture, seminar, laboratory or clinical practice, etc. Beside teaching capacity, the indicators are also above the minimum requirements with one exception.

7.2.2. Comments

- Student numbers are stable and proportionate with the available resources.

7.2.3. Suggestions for improvement

None.

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

New admission criteria were introduced for 2020/2021. Students entering veterinary education must have a) the higher education entrance qualification, b) meet admission requirements of the Foundation for University Admission and c) those of the veterinary faculties. Study places need to

be distributed according to a quota. The so-called advance quota covers 5% for foreign (non-German) students, 3% for students studying veterinary medicine as a second diploma, and 5% for students with extreme hardships. The remaining places are assigned to three categories: 30% according to grades of the high school diploma, 10% Aptitude Rating (considering waiting time, test results of medical study programmes, professional qualifications), 60% according to specifications by the university (which must be taken from a nationwide list). The specification and weight of the criteria are predefined by the VEE and communicated.

Since neither the VEE nor the JLU takes part in the admission procedures, after having selected the admission criteria for the 60%, there is no need for a selection committee.

Progression criteria are regulated in the study and examination regulations which are published at the website of the VEE.

7.3.2. Comments

- The selection process is centralised at the national level. It is well communicated.
- Progression criteria are clear and transparent.

7.3.3. Suggestions for improvement

None.

7.3.4. Decision

The VEE is compliant with Standard 7.3.

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

Students with disabilities or illnesses belong under the “advance quota”, thus 5% of the study places are reserved for them. They can apply for a reduction in the waiting period and/or grade requirements by the Foundation for University Admission. For such students the first choice university is respected.

Students with disabilities and chronic illnesses can contact the JLU Central Office for Students with Special Needs where personal counselling is available regarding access, applications, compensations, and flexible composition of the course of study. If students with physical disability cannot sit for an examination, they are allowed to take another equivalent form of examination. There are many services ensuring equal opportunities for disabled students.

7.4.2. Comments

- Students with disabilities (and other hardships) are streamlined by saving 5% of the study places for them, and get all possible help to fully participate in the courses.

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

Progression criteria and procedures, the order of examinations and criteria for expulsion, etc. are regulated by TAppV and the StuPOVet. Successful participation in practical courses is a prerequisite of examinations and is documented in the FlexNow system where students can follow their status. If eligible, students are invited by the State Examination Office to take the examinations the sequence of which is defined in TAppV and StuPOVet. Timing is organised by the Examination Office. All examinations must be passed in the preclinical part before students may go on to the clinical part of their studies (Semester 5).

Students not performing adequately may turn to the Central Study Counselling or the psychological counselling of the JLU. At the VEE students rely on the Office of Study Affairs and the examination board members if they need help. Examination progress is monitored by the State Examination Office. If a student is not progressing sufficiently, they must have a counselling session with a member of the examination board. Depending on the case, the result of the counselling may be the postponement of examinations, the semester, or transfer to other specialists (study coaching, psychotherapy). It is also possible to postpone a semester for private reasons. The length of postponement is unlimited, students are allowed to return to their studies after years.

The JLU annually compiles key figures on academic progress in a quality report. The VEE has achieved the best rates among faculties with respect to students finishing their studies within the regular study time (75–90%). According to the annual university student survey, the main causes for attrition are the pressure to perform and doubts about personal suitability. However, some students leave the VEE because they continue their studies at other VEEs.

7.5.2. Comments

- The VEE is to be commended for the attention they pay to the progress of individual students which is enhanced by small group sizes in practical and clinical training.
- The count for students finishing in time does not include the first four semesters, when dropout is 10-15%.
- The regulations for progression are clearly set in the StuPOVet, and students may find a diversity of remedial services in case of difficulties.

7.5.3. Suggestions for improvement

- A deeper analysis of the reasons for drop-out in the first four semesters could lead to remedial actions for those students as well.

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

Appeals against decisions regarding non-admission may be submitted to the local court.

If a student does not turn up at the exam without an acceptable (medical) excuse or cheats at the examination, the examination is considered "failed". Students who fail in the third attempt of an examination receive a written notice of final examination failure and are excluded from further veterinary studies in Germany. Students may submit an objection in writing within one month to the chair of the examining board. If this is rejected, the case may be brought to the administrative court of Giessen. To prevent ultimate failure, after the first two failures the examiners usually consult the students to see if a last attempt is worth making, or if some remedial actions are required.

Exclusion may also follow if a student fails to pay the semester fee.

7.6.2. Comments

- The VEE is commended for its student focus in examinations, which leads to very rare cases of appeal.

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

Most of the services for students are provided by the university. The JLU offers a wide range of these for students which are presented on its website under “Studium”. These include information and counselling services (hotline for freshmen, counselling for students, information about study matters, international office for international students).

As a matter of fact, the departments and institutes as well as Offices for Study Affairs, and examination committees are also open to give information and advice regarding study matters. There are special services for coping with stress, coaching in learning, solving social issues, raising funds for living during studies, opportunities for student work, information about scholarships or research financing.

There are special counselling services for students with disabilities or chronic illness, and students with children/family. There is extensive help for ensuring equal opportunities following the relevant policy and regulations of JLU. These are presented on the website: <https://www.uni-giessen.de/studium/beratung/studmitbehinderung>. Similarly, both the JLU and the Student Organisation of Giessen provide advice and services for students with children. The JLU is a family friendly university. There are childcare facilities available from 7:30 to 18:30, and a parent-child room in the Learning Centrum. There are special regulations reflecting positive discrimination of both groups among others regarding the organisation of examinations.

Students are accident insured, and financial support was provided for students in need during the COVID-19 pandemic by the friends' association of the VEE.

The JLU provides information about the student life, and courses outside the curriculum, such as foreign language, creative writing, computer applications, etc courses. There is a Career Centre Plus supporting students from job orientation till they become employed. The International Office deals with Intercultural Career Orientation including the planning and organisation of work at other European countries. The local unit of the Giessen Employment Agency organises events and provides information regarding professional orientation, the labour market, etc.

FINAL REPORT AS ISSUED BY ECOVE ON 30 MARCH 2022

Student life is enriched by communities, sport facilities, an orchestra of the JLU, international contacts (ERASMUS, bilateral exchange). There are individual members of the International Veterinary Students' Association (IVSA).

The Student Organisation of Giessen (Studentenwerk Giessen) runs a dining hall and canteens, as well as hostels for about 2500 students, and helps the others to find accommodation. However, there is no canteen at the VEE's localities. Students engaged in clinical rotations may use the comfortable resting (sleeping) and kitchen area at the new Small Animal Clinic.

Students may meet spontaneously at the basement of the facility of the Student Council where they can spend time together. It is also a place for the exchange of used textbooks which students find very useful.

Students are well organised: there is a student parliament, a general student committee, student councils, and a conference of student representatives. Student representatives to the Student Council are elected, then the representatives are assigned by the Council to different forums.

Students may address contact points at the VEE or the JLU in case of personal problems, e.g. overwork, conflict with teachers. It has been confirmed by students that this representation is very effective.

7.7.2. Comments

- There are many services and facilities serving the welfare of students and providing learning opportunities.

7.7.3. Suggestions for improvement

- Since veterinary studies and the work of employees at the VEE involve spending long hours at the campus without much time to go out to eat, both students and staff would benefit from a canteen serving both warm and cold food and refreshments, as well as places assigned for eating like the one at the clinic.
- International relations could be further enhanced by a more formal participation in the International Veterinary Students' Association.

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 may complain first to the lecturer or department head where the problem occurred. If they wish, they may ask the representative of the student association to stand up for their case, thus they can remain anonymous. The representative may forward the complaint to the Office of Study Affairs, or the Vice Dean for Study Affairs directly. The Vice Dean for Study Affairs will clarify the case with the lecturer involved and provide feedback for the students.

Students may submit their wishes as active voting members of the various committees including the Faculty Council or the Committee of Study Affairs. They are able to turn to the semester representative student as a mediator and remain anonymous.

Students participate in annual student surveys at JLU about the general aspects of studying at the JLU, the attitude towards the chosen study programme, the course of study, financial aspects and some issues concerning their personal situation. The VEE gets generally favourable feedback through these surveys.

7.8.2. Comments

- The VEE is commended for the effective student representation which is considered satisfactory both by students and by the academic staff.
- There are effective mechanisms to convey the needs and ideas of students through student representation and good communication between students and the academic staff.

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 general strategy to assess the student's progression across the programme is established at national level by the Ordinance Concerning the Certification of Veterinary Surgeons (TAppV). TAppV establishes two levels of state examinations, section I (*preclinical*) and section II (*clinical*). Section I, consists of two parts. Part 1, includes general basic scientific disciplines such as Physics, Chemistry, Botany and Zoology. This part is assessed at the end of the 2nd semester. Part 2 includes Anatomy, Histology and Embryology, Physiology, Biochemistry, as well as Animal Breeding and

Genetics. This 2nd part of section I is assessed at the end of the 3rd and 4th semester. Only after having passed all exams of Section I, students are allowed to progress to Section II. Examinations of Section II (clinical) extend from the 5th to the 10th semester under the form of separate exams for blocks of courses, plus a final examination that ends after the 11th semester. After graduation, students are expected to be familiar with the veterinary disciplines, including public health aspects, and to be ready for progression in advanced studies and further qualifications.

At the highest-level state exams are supervised by the Hessian State Authority and the State Examination Office. At VEE level the regulation of the exams is detailed in the StuPOVet form, which is in accordance with the legal requirements of TAppV. Within those regulations the VEE has a well-defined structure of responsibility with regards to the state exams (sections I and II). According to TAappV, two State Examination Committees (examination boards) are established. For the preclinical exam (Section I) it involves 1 chairperson and 2 vice-chairpersons, while for the clinical (section II) there is 1 chair and 4 vice-chairpersons. All members of the examination boards are recruited from the professional staff and must be finally appointed by the State Examination Office.

The content of each state exam is also regulated by TAppV. Details of the courses included and modality of exams are described in detail in the SER (pages 74-75). As it is described, the progressive assessment of competences is coherent with the curriculum structure and, as shown in Annex B.

In addition to the state exams, in many individual courses, students can be assessed either by the academics in charge of the course or by using self-assessment tools. This way students are able to monitor their progress and knowledge with the purpose of efficiently preparing for the state examinations.

8.1.2. Comments

None.

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

There is national regulation (TAppV) of the criteria and procedures of the assessment, which is complemented by the StuPoVet regulation of the VEE (Appendixes F & G of SER). These regulations also include the criteria for awarding the different grades and the requirements to pass the examinations. Students have direct access to this information on the web page of the VEE.

The protocol of each examination and the results are communicated to the State Examination Office and then published in the examination management system “FlexNow”, which is accessible to the students.

Students receive a report from the examiner about their performance and have the opportunity to contact the examiner for a review. In case of conflicts students can officially appeal to the chair of the examination board, and at a higher level to the State Examination Office or even the Administrative Court.

The VEE has an established Quality Assurance strategy to overview the results of the exams. Examination results are analysed at least once a year by the chairperson of each state exam. Potential issues are discussed with the Dean of Study Affairs and the examination board. Finally, the situation is communicated to the Committee of Study Affairs for final analysis and potential implementation of corrective measures.

8.2.2. Comments

None.

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

TAppV explicitly defines the learning outcomes to be considered in the state examinations. Those learning outcomes cover the required knowledge, skills and competences to help progression of students towards the final achievement of Day One Competences. The VEE has a very restricted capacity for changing the assessment strategy (only minor changes allowed). After internal

discussion of the examination boards any recommendation is submitted to the Committee of Study Affairs, then to the Faculty Council, the Committee for Degree Courses of the JLU, and finally to the Senate of the JLU.

8.3.2. Comments

- While changes in the assessment strategy of state exams are very restricted, the VEE can still use assessment prior to state exams as a preparatory way to assure the achievement of learning outcomes.

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 official state examinations plus formative and summative assessments carried out during the teaching of courses give the students feedback and individual information of their progress in all individual units of study. Grades and comments of their achievements are given via FlexNow software. Students have also access to the Progress Test in Veterinary Medicine (PTT) for self-assessment of professional competences.

8.4.2. Comments

- During the COVID-19 pandemic delivery of programmes under blended learning has been partly compensated by creating a large number of new learning resources. Those educational materials may help the students to further being involved in creating their particular learning process.

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

The VEE uses a variety of methodologies of assessment. Theoretical knowledge is tested by written and oral exams. A comprehensive methodology, involving a representative person, is followed to create, select and check the difficulty of the multiple-choice questions. Preclinical practical skills are mainly assessed by formative and summative tests, as well as by practical demonstrations. Clinical skills are mainly assessed by oral-practical direct supervision, which currently involves a case-based approach, covering history, physical examination, creation of a list of differential diagnoses as well as creating a treatment plan. In some areas there is limited assessment of practical clinical skills (e.g., sampling, catheter placement, operating, etc). Further, many different staff members undertake oral examinations with students, but these are not standardised or moderated amongst examiners.

Assessment of soft skills is not included in the state examinations, although the VEE does it in a formative way as individual feedback for students, and in some Electives.

Logbooks are used in clinical rotations and EPT, but they have no impact on the marks. Instead students self-certify clinical tasks undertaken (performed under supervision, observed, or already undertaken). Although forms should be countersigned by members of staff, this is inconsistently performed. Data from the logbooks are used by the VEE to determine clinical activities that are performed during intramural rotations. However, these are not used to verify that individual students are competent in the required clinical activities.

8.5.2. Comments

- Although students have opportunities to undertake varied clinical competencies on rotations, there is some inconsistency amongst students and competence in these tasks is not objectively assessed in a systematic manner.
- Some Day One Competences are examined in the oral examinations, but there is no standardisation amongst examiners and across disciplines.
- The quality control of clinical skills (via logbooks) is not adequate.

8.5.3. Suggestions for improvement

- The VEE may consider implementing additional evidence-based assessments for clinical skills and Day One Competences to ensure that they can verify that students are competent. Although it is up to the VEE to decide how to do this, options could include:
 - Introducing objective structured clinical examinations (OSCEs;

<https://jvme.utpjournals.press/doi/pdf/10.3138/jvme.33.4.578>) as part of the practical examinations

- Directly observed procedural skills (DOPS) / workplace-based assessments (<https://jvme.utpjournals.press/doi/full/10.3138/jvme.0612.054R>). These should be mapped to day-one competences to ensure appropriate coverage
- Completion of logbooks could be verified by countersigning by a member of staff responsible for the rotation and, ideally, stamped (with clinic details). The process can be quality assured to ensure compliance. Further, the logbooks may be regularly reviewed to verify that each student has received appropriate training across all day-one competences.

8.5.4. Decision

The VEE is partially compliant with Standard 8.5 because the competence in performing a number of practical skills is not objectively assessed. Furthermore, the quality control of clinical skills (via logbooks) is suboptimal.

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.

9.1.1. Findings

Main criterion to enter the academic track and become a professor is the “*habilitation*”: candidates who wish to obtain habilitation must hold a Dr.med.vet or PhD diploma, and prove to be able to perform independent research and research based academic teaching.

Recruitment and appointment of professors is done according to the rules set by the Hessian University Law (*Hochschulgesetz*): a committee – formed by 5 professors, 2 members of non-professorial scientific staff, and 2 students – must be set up. Then the position(s) are publicly posted at national level, but also internationally; the committee evaluates the applications and makes a ranking (top 3-5 applicants); thereafter the shortlisted candidates have to give a public scientific presentation, plus a sample of teaching. A ranked final list (best if formed by at least 3 applicants) has to be confirmed by the Faculty Council, University Senate and President; then the position is offered for acceptance, and further negotiations are with the Dean and President.

Presently, at the VEE there are 35 professorial positions that are “fixed”, as it is fixed the number of students to be admitted every year (*numerus clausus*) according to the National and Hessian university law; however, it is also possible – under special circumstances – to appoint special professorships financed by extramural funding. These extra professorships are not capacity relevant.

Also, non-professorial staff have teaching duties, which are generally appointed by the head of the respective unit. All staff involved in teaching is requested to maintain and further develop their qualifications and skills: JLU and the VEE offers a wide spectrum of interdisciplinary training (intramural or extramural); training for trainers includes soft skill development didactics, human resources, e-learning & new media support; after successful completion of the courses, teaching staff can obtain certificates. Senior professorial staff provides on-service training and tutoring to young non-professorial staff involved in teaching.

On request, the VEE organises specific didactic courses for the required speciality; besides the VEE is also engaged in the trainee program for animal caretakers and veterinary assistants. Courses on biosecurity and safety at work are regularly offered and are compulsory for all staff.

Most academic staff involved in veterinary training are veterinarians, the highest percentage being amongst temporary staff (88.3%), while the permanent staff accounts for 77.6% (ref. SER Table 9.2.2). Out of 35 professorial positions, 7 professorships are held by non-veterinarians. According to the figures provided by the VEE, more than 2/3 of the training that students do receive is delivered by qualified veterinarians.

9.1.2. Comments

- The selection and recruitment procedures to select academic staff who are qualified and prepared for their roles is done according to quality rules, and in agreement with national legislation. However, the rigid framework defined by the Hessian University Law and the legal regulations of the Federal States make it difficult to recruit more academic staff outside the numbers defined under the legal regulation of “calculated teaching capacity” of the VEE.
- Although there is no (mandatory) special programme to improve and develop qualifications and skills of teaching staff, all members of the teaching and support staff are strongly recommended to attend the intramural or extramural training offered by JLU. It was not possible to find out specific information/data on the numbers of teaching and support staff who successfully attended the courses offered, however members of staff interviewed during the Visitation reported being satisfied about recruitment procedures and training opportunities.
- The VEE declares that the academic and non-academic staff of the "Faculty of Veterinary Medicine" is highly competent to successfully meet the challenges of “good teaching” (ref. 9.2 Academic and Non-Academic Staff, Qualifications, SER, page 81), which is certainly true, but not enough specific evidence is provided in the SER.

9.1.3. Suggestions for improvement

- More flexibility and alternative options for recruitment of additional highly qualified academic staff – when required – should be searched; a possible solution could be creating positions that do not add to the “fixed” number of FTE (e.g. post-docs or clinical experts); actually, this is an approach suggested by the VEE itself, and it is considered sound and it would help to improve the academic and professional post-graduation track.

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

At present, the teaching staff of the VEE can guarantee a total of 222 FTE. Details on the FTE figures for Professorial staff, Non-Professorial Scientific Staff, Interns, Residents, Practitioners, and other categories of teaching staff are provided in SER Tables 1.1 and 9.2.1. In particular the permanent academic teaching staff accounts for 122 FTE, while temporary teaching staff accounts for the remaining 100 FTE.

All research-employees working at German VEEs, and paid by the State, must be also involved in teaching (no distinction between research and teaching staff). The VEE requires an official teaching load of 8 hours per week (SWS); considering the lecture preparation and post-processing, the total time allotted for teaching is about 20 to 25 hours per week; there is a reduction of 2h/week if clinical and diagnostic services have to be provided. Academic teaching is offered by both professorial staff (P) and non-professorial scientific staff (NPSS).

Support staff (incl. permanent staff – which is the majority – and temporary staff) accounts for about 162 FTE (ref. SER Table 9.2.3.); the number of support staff is limited as it must conform with the budget for personnel assigned to the VEE.

Research staff (including temporary -which is the majority- and permanent staff) accounts for about 25 FTE (ref. SER Table 9.2.4).

As regards the procedure to assess that teaching staff displays effective teaching skills in all relevant aspects of the curriculum, the VEE makes sure that the curriculum and interconnections of the topics/courses taught are well known to the teaching staff; the VEE has put in place a

procedure to evaluate staff involved with teaching by a formal evaluation of the performance of teaching staff that is carried out by the students (at least every 3 years); good teaching is also appraised in a non-formal way –but reportedly effective – by selecting/appointing the “best teacher of the year”. The students also evaluate animal caretakers and veterinary assistants, and those of them who performed better, are selected and appointed the “best animal caretaker of the year”. Complementary information on the system put in operation by the VEE for the assessment of teaching staff is available in section 9.5.1.

In Germany, University education is based on the principle of freedom of teaching by professorial staff, as confirmed by court ruling. Thus, it is quite delicate to officially intervene in teaching in case a non-positive evaluation is issued; the Deanery and Office of study affairs can intervene in case of negative evaluations, and after discussion and suggestions provided the problematic situation are usually solved. In case of non-permanent teaching staff, the contract is not renewed in case of repeated poor performances.

9.2.2. Comments

- Overall, the total number (expressed as FTE), qualification and skills of the VEE staff (teaching, adjunct, technical, administrative and support staff) – according to the information/data made available in the SER – can be considered sufficient for the VEE to deliver the educational programme and accomplish its mission.
- The numbers of academic teaching staff and the respective FTE are not expected to change due to the legal link between the number of students enrolled and the teaching capacity of the VEE itself.
- The members of staff interviewed during the Visitation have reported that the number of teaching and non-teaching staff – in their respective positions and roles – is overall deemed sufficient to provide the required teaching, clinical and research activities, under normal conditions; during the COVID-19 pandemic, more staff members might have helped to cope better with the emergency situation.
- There is nearly no flexibility for increasing the number of teaching staff and support staff due to the rigid legal framework defined by the Hessian University Law, and the availability of a dedicated budget.

9.2.3. Suggestions for improvement

- Some of the suggestions for improvement provided in section 9.5.3 are also deemed relevant for this Standard.
- Formal appraisal of the performance of the teaching staff – done by students – should be carried out on a yearly basis, instead of at least once every three years; it is deemed useful that staff involved in teaching should perform a satisfaction and self-evaluation.

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 VEE has designed different actions for the development and the professional growth of academic and support staff. All teachers and staff members employed at the VEE, and in general at the JLU are encouraged to improve their skills and are given the opportunity to access a large number of qualification and support programmes; this provides a possibility to increase individual qualification. Staff can ask for individual advice, coaching, training and further education at any time. JLU offers coaching strategies and careers outlooks for younger scientist staff.

Professors are generally employed starting from W1 or W2 scale, according the W-pay salary system in force in Germany; grades W2 and W3 apply to all professors with civil servant status, in a permanent position; employees move up to the next salary level after five to seven years, in the same way as the experience levels for research staff.

Some NPSS members – mainly the younger ones – are either on academic or professional track for further qualification; in order to further support successful young scientists, the VEE may arrange that their teaching load is decreased. Some of them are expected to reach or may have already reached the respective academic qualification or habilitation to further develop in the academic career and become professors (a small group of NPSS is on a tenured position); however, the majority of young academic scientists – ready to continue their academic career – have to do it at another VEE due to the stringent rules in force in Germany.

The VEE is allowed to reward for teaching excellence in operation as set by the national W-pay system, common to all HEIs in Germany and to all civil servants (however, there are differences amongst Federation/Bundesländer); special engagements in academic matters or outstanding success in research may result in a temporary salary increase within the same basic salary grade. Professorial staff on the W1 payment level are usually not tenured, but they may become tenured and – depending on the contract – upgraded to a W2 professorship following a successful evaluation after 3 and 6 years (success in teaching and in meeting the target agreements made with the president as assessed by internal and external reviewers).

Most NPSS are employees with a temporary contract of minimal duration 3 + 2 years, maximal duration 12 years; extension of additional 3 years is possible in case of clinical positions. There is a small number of highly qualified civil servants (permanent contract) among the NPSS, filling strategic positions/services of general interest and highly demanded, like biomathematics and statistical services, radiology and other diagnostics.

9.3.2. Comments

- The VEE states that teaching and support staff are given the opportunity to access a large number of qualification and support programmes, however in the SER only few examples of such qualification/ support programmes are reported. During the onsite Visitation, more information – useful to integrate and complement the findings – was made available during discussions and meetings with the colleagues.
- The VEE does not have enough flexibility to guarantee the ideal stability, continuity at work of the academic staff – especially amongst the NPSS – due to the stringent and rigid rules for recruitment which apply at the VEEs and Universities in Germany.
- It was reported that most members of NPSS are in a non-tenured position with strict employment deadlines; as a result, it happens that highly qualified staff (amongst them, young scientists) must leave the VEE when the end of the contract is reached.
- Some of the requirements and contents of Substandard 9.3 and 9.4 are quite similar and partially overlap; some information provided and some of the actions taken by the VEE to fulfil the Substandard 9.3 are relevant also for Sub-standards 9.4 and vice-versa; therefore, a partial overlap can be observed in the findings and the comments sections relating to both Sub-standards.

9.3.3. Suggestions for improvement

None.

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

A set of different actions has been designed by the VEE for the development and the professional growth of academic and support staff. Newly appointed professors receive double career support. JLU provides a wide spectrum of interdisciplinary training for all teaching personnel. To increase the attractiveness of the academic career for junior scientists, W1 professorships (temporary positions for 6 years) have been created and financed by the Federal Republic of Germany and State of Hesse with the perspective to enter the tenure track system.

As regards the progression in the career and the contractual conditions, the academic staff (professors and junior professors) receive their salary on the basis of the W-pay scale. There are three levels of pay: W1 applies to junior professors, whereas grades W2 and W3 apply to all other professors with civil servant status; employees move up to the next salary level after 5 to 7 years, in the same way as the experience levels for research staff. The basic salary varies in each federal state; professors may also be eligible for performance bonuses, which must be negotiated.

Members of the NPSS with teaching duties are generally appointed by the head of the respective unit. A small group of NPSS who is on a tenured position and who has reached a high academic and professional qualification can enter the academic track and become a professor (procedures to get the “*habilitation*” and for the recruitment are described in section 9.1.1)

As regards recruitment or promotion of the support staff, the Dean, who is responsible for the personnel budget, decides whether a position can be occupied or not. The appointment procedure is regulated by Hessian laws, the collective agreement of public service employees and the JLU regulations. Generally, the selection of a candidate (NPSS, ATS) needs approval by the Equal Opportunity Officer.

9.4.2. Comments

- The promotion criteria for academic and support staff – alike the procedures for recruitment – do comply with the stringent and quite rigid rules for universities and VEEs set at national/federation level in Germany. Promotions for teaching staff at the VEE do recognise excellence; the progression in career for the non-professorial scientific staff to become professors is quite well defined, although the VEE does not provide much details and parameters about the process (e.g. a predefined number of scientific papers published on internationally recognised journals, being responsible for a predefined number of national/international competitive research projects, other specific requisites which may vary according the different disciplines/scientific sectors, etc.). Once a position of professor is reached, the steps in the career development mostly proceed according to the W-pay system (every 5 years of service); also, in this case, the VEE does not provide much details on the promotion/career process.
- The VEE reports that its philosophy is that all staff acquire high responsibility towards the need to assure a high level of quality within their respective specialisation. The quality of teaching, clinical and para-clinical services and of research is under continuous review.
- Some of the requirements and contents of Standard 9.3 and 9.4 are quite similar and partially overlap; some information provided and some of the actions taken by the VEE to fulfil the Standard 9.3 are relevant also for Standards 9.4 and vice-versa; therefore, a partial overlap could be observed in the findings and the comments sections relating to both Standards.

9.4.3. Suggestions for improvement

- Although the VEE states that “all academic staff has developed a high responsibility towards their assignment, and there is no need to further formalise the evaluation procedures”, it is suggested instead that a quality controlled procedure for evaluation should

be formalised and implemented.

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

A system for assessing the teaching staff is in operation; a formal appraisal of the performance of all teaching staff is carried out by students through an anonymous evaluation of the courses and teaching; such appraisal should occur at least every 3 years. The evaluation sheets are developed by the Office of Study Affairs of the VEE.

Teachers are not forced to submit themselves to the evaluation, however, they are strongly encouraged to do so. In addition to that, good teaching is also appraised in a non-formal way –but reportedly effective – which is the selection and the appointment of the “best teacher of the year”, done by the students.

The results of the evaluation are conveyed to the teachers, and in case of a “non-satisfying” outcome, an improvement is usually observed. The Dean can call upon for personal hearings those teachers with “non-satisfying” outcomes, but these are exceptions and such procedure is rarely implemented.

Another method that the VEE has adopted to evaluate the quality and success of teaching is the passing or non-passing of students of the series of more than 30 state examinations; in case of proportionally high failures, the teacher/examiner is notified, questioned and suggestions for improvement are made.

Complementary information on the system put in operation by the VEE for the assessment of teaching staff is available at par. 9.2.1.

9.5.2. Comments

- Although members of teaching staff are not forced to submit themselves to the evaluation by students, teachers they are strongly encouraged to do so, and the evaluation has become a routine.
- The VEE states that the participation of students pulls like a red thread, not only in teaching evaluation but through all academic matters. In this section of the SER (related to Area 9) it is not stated whether the data originating from the students’ evaluation sheets undergo a descriptive/statistical analysis and thereafter a specific report is produced and sent to JLU; besides it is not stated whether such report –if produced- can be made readily available to external evaluators. The VEE states that “*all academic staff have developed a high*

responsibility towards their assignment, and there is no need to formalise the evaluation procedures”.

9.5.3. Suggestions for improvement

- It is suggested that the formal appraisal of the teaching staff performance (done by students) should be carried out on a yearly basis, rather than at least once every 3 years, as this could allow to identify possible critical aspects in training at the very onset.
- In addition to the evaluation done by students on the quality of teaching, it is advisable that all staff involved in teaching (practical and theoretical topics) do perform themselves an evaluation: a satisfaction and self-evaluation questionnaire is widely recognised as an important tool to retrieve useful information and get feedback from the teachers on different aspects of their own work. This would provide valuable information on possible problems and constraints faced during the teaching activities (including logistical, technical and organisational aspects), the level of satisfaction or dissatisfaction about the own course/teaching, the self-confidence or frustration, etc.
- Although the VEE states that “*all academic staff has developed a high responsibility towards their assignment, and there is no need to formalise the evaluation procedures*”, it is suggested instead that a quality-controlled procedure for evaluation should be formalised and implemented.

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 is involved in high-quality research well recognized at national and international levels. In the latest report of the German Research Foundation (Deutsche Forschungsgemeinschaft, DFG), the University Giessen is ranked at place two in the sector Agriculture, Forest Sciences and Veterinary Medicine. The principle of research-based teaching and integration of recent scientific data is related to the veterinary training program at the VEE. This is assured by the fact that in Germany academic teaching staff is obliged to perform high quality research and to apply recent scientific knowledge to their lectures, seminars and courses. The scientific staff involved in scientific grants are involved in teaching undergraduate students, which provides a direct personal contact for undergraduate students with persons involved in basic and clinical research. Data obtained during these research activities are integrated in the lectures and seminars of the individual subjects in order to give the students the most actual and modern knowledge.

10.1.2. Comments

- The VEE has a lot of grants and is involved in many scientific projects related to the veterinary medicine area.

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

All students are made aware of the importance of evidence-based veterinary medicine in all subjects of their clinical-, para- and preclinical training. Special emphasis on therapeutic strategies based on state-of-the art clinical studies is laid e.g. in pharmacology and toxicology and all internal or surgical subjects. In many lectures and seminars bibliographic search, scientific methods, research techniques, statistical methods and writing are taught. Students are made aware of the importance of lifelong learning already during the first year of study in the subject “Professional ethics and communication”. Furthermore, students have the possibility to participate in ongoing continuing education programs offered by the VEE to practitioners, either as free participants or as paid support staff giving them the possibility to get direct insight into modes of lifelong learning. The TAppV does not foresee an obligatory active involvement of undergraduate students in research. However, the VEE is open to allow student participation in research activities during their undergraduate education. There are two possibilities to achieve this: firstly, according to the TAppV, 350 hours of the compulsory of 1170 hrs of extramural practical training may also be spent at an institute of a university with a scientific medical discipline (e.g. Inst. of Virology). Students choosing this type of practical training are automatically involved in ongoing research projects. Secondly, those students who decide to take their practical training in a university veterinary hospital have access to ongoing research projects. However, it is up to the individual student to take advantage of these chances. There are some electives which are research oriented.

10.2.2. Comments

- As regulated by TAppV, veterinary graduates are not obliged to present a master thesis for graduations and no curriculum hours are devoted to assure that all students are trained in scientific method and research techniques.
- Students have many chances to be involved in research-based activities, but neither structured training nor assessment is included in the veterinary programme.

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

The VEE provides training for veterinary specialisation on the national level (Fachtierarzt/Veterinary specialist) as well as on the international level (European Diplomate). The VEE offers two degrees of postgraduate veterinary education, the degree of a Doctor in *medicinae veterinariae* (Dr. med. vet.) and a Ph.D. Both tracks require that undergraduate education has been successfully completed. For all postgraduate students (mandatory for PhD students, elective for Dr. med. vet. students) a structured training program in life sciences is offered by the Giessen Graduate School for the Life Sciences (GGL). Students willing to enter the tracks “Dr. med. vet.” or PhD must meet the criteria laid down in the order of the VEE for these graduations. Relevant for admission are the past study records, one (Dr. med. vet. program) or two (PhD program) supervisors are nominated, and an outline of the intended research project must be submitted. The training program for PhD students consists of three parts: doctoral development program (i.e. general skills such as good scientific practice, bibliographic search, analysis of and presentation of data), scientific training program (weekly seminars, practical courses, lab rotations) and reports (retreats, annual conference and thesis).

In Germany veterinary surgeons are obliged to participate in continuing education. The hours to be taken per year are 20 for veterinarians with no special accreditation and 25-40 for those with specialisation (e.g. Fachtierarzt). All events/courses officially offered for continuous education must get accreditation by the Academy for Continuous Veterinary Training. The program for continuing education originating in the VEE is permanently adapted to the needs of the profession. This is achieved in cooperation with national and international professional societies of the respective medical disciplines.

10.3.2. Comments

None.

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 Dean of Study Affairs is responsible for the coordination of teaching, also in respect to research-based education. The Committee of Study Affairs is the relevant body to deal with these aspects, too. The strong contribution via regular evaluation by students allows fast feedback about the quality of teaching in the individual subjects, including research- and evidence-based education.

10.4.2. Comments

- The VEE has recently prepared and is implementing a special programme called “Research4Vets - Science in Teaching”. Through this "research-based learning" project students can acquire scientific competences from different research areas and use them for their professional career. This programme consists of three modules:
 1. Electives for research-based teaching
 2. Research-oriented teaching in the laboratory
 3. Research-based learning as part of the 8-week elective internship in the rotation.

10.4.3. Suggestions for improvement

None.

10.4.4. Decision

The VEE is compliant with Standard 10.4.

11. ESEVT Indicators

Factual Information

Calculated Indicators from raw data		Establishment values	Median values¹	Minimal values²	Balance³
I1	n° of FTE academic staff involved in veterinary training / n° of undergraduate students	0,137	0,15	0,13	0,011
I2	n° of FTE veterinarians involved in veterinary training / n° of students graduating annually	0,889	0,84	0,63	0,256
I3	n° of FTE support staff involved in veterinary training / n° of students graduating annually	1,100	0,88	0,54	0,560

FINAL REPORT AS ISSUED BY ECOVE ON 30 MARCH 2022

I4	n° of hours of practical (non-clinical) training	702,000	953,50	700,59	1,410
I5	n° of hours of clinical training	1572,000	941,58	704,80	867,200
I6	n° of hours of FSQ & VPH training	299,200	293,50	191,80	107,400
I7	n° of hours of extra-mural practical training in FSQ & VPH	250,000	75,00	31,80	218,200
I8	n° of companion animal patients seen intra-murally / n° of students graduating annually	69,129	62,31	43,58	25,549
I9	n° of ruminant and pig patients seen intra-murally / n° of students graduating annually	7,644	2,49	0,89	6,754
I10	n° of equine patients seen intra-murally / n° of students graduating annually	27,021	4,16	1,53	25,491
I11	n° of rabbit, rodent, bird and exotic seen intra-murally / n° of students graduating annually	12,709	3,11	1,16	11,549
I12	n° of companion animal patients seen extra-murally / n° of students graduating annually	0,162	5,06	0,43	-0,286
I13	n° of individual ruminants and pig patients seen extra-murally / n° of students graduating annually	2873,482	16,26	8,85	2864,63 2
I14	n° of equine patients seen extra-murally / n° of students graduating annually	1,859	1,80	0,62	1,239
I15	n° of visits to ruminant and pig herds / n° of students graduating annually	9,359	1,29	0,54	8,819
I16	n° of visits of poultry and farmed rabbit units / n° of students graduating annually	8,241	0,11	0,04	8,197
I17	n° of companion animal necropsies / n° of students graduating annually	2,588	2,11	1,40	1,188
I18	n° of ruminant and pig necropsies / n° of students graduating annually	2,868	1,36	0,90	1,968
I19	n° of equine necropsies / n° of students graduating annually	1,579	0,18	0,10	1,479
I20	n° of rabbit, rodent, bird and exotic pet necropsies / n° of students graduating annually	1,712	2,65	0,88	0,832

FINAL REPORT AS ISSUED BY ECOVE ON 30 MARCH 2022

I21 *	n° of FTE specialised veterinarians involved in veterinary training / n° of students graduating annually	0,403	0,27	0,06	0,343
I22 *	n° of PhD graduating annually / n° of students graduating annually	0,462	0,15	0,07	0,392

1 Median values defined by data from Establishments with Accreditation/Approval status in May 2019

2 Recommended minimal values calculated as the 20th percentile of data from Establishments with Accreditation/Approval status in May 2019

3 A negative balance indicates that the Indicator is below the recommended minimal value

* Indicators used only for statistical purpose

Comments on Standard 11

- Indicator 13: as students are involved in ambulatory services the number of individual animals seen is hard to specify as large livestock units are visited.
- Indicators 12 and 14: The clinical unit for small animals and the equine clinical unit do not provide out-patient ambulatory services. The numbers given are based on the animals treated by the Clinical Unit for Obstetrics, Gynaecology and Andrology of Small and Large Animals. The number of seen equine patients extra-murally includes fertility controls.

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			
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			
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	X		

FINAL REPORT AS ISSUED BY ECOVE ON 30 MARCH 2022

(including Animal Production and Herd Health Management), Food Safety and Quality, and Professional Knowledge.			
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	
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 inter alia 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</p>		X	

FINAL REPORT AS ISSUED BY ECOVE ON 30 MARCH 2022

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

FINAL REPORT AS ISSUED BY ECOVE ON 30 MARCH 2022

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			
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			
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		
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		

FINAL REPORT AS ISSUED BY ECOVE ON 30 MARCH 2022

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			
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			
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. 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.	X		
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		

FINAL REPORT AS ISSUED BY ECOVE ON 30 MARCH 2022

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.	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

Brief history of the VEE and its previous EAEVE Visitations

The origin of the Faculty of Veterinary Medicine (called the VEE in this Report) actually dates back to 1777, when the first lectures in the field of veterinary medicine were offered by the Giessen University Faculty of Economics in a subject called “animal healing”. At some stage this early veterinary education was merged into a Medical Faculty, with regular classes starting in 1828.

In 1914 the Faculty of Veterinary Medicine emerged as an independent faculty. However, as a result of the political situation after World War II, the “Ludwigs-Universität” in Giessen was suspended with exception of the Faculties of Veterinary Medicine and Agricultural Sciences, whose cooperation led to the formation of a combined college for agriculture and veterinary medicine. This combined college was then able to form the nucleus for the restoration of the whole university in 1957 and given the new name “Justus-Liebig-Universität Gießen” in honour of the great Chemistry Scientist Justus von Liebig. The fruitful link with Agricultural Science has continued to this day with the two “Faculties” sharing facilities such as the University Farm.

The VEE was first evaluated by EAEVE in 1993, with a second evaluation in 2003 and a 3rd evaluation in 2012. All three of these evaluations resulted in an “approval”, not “accreditation” status, as the VEE never applied for a Stage 2 Visitation for evaluation of QA.

The current evaluation in 2022 is based on the SOP approved by the EAEVE General Assembly in Zagreb in 2019 and amended in September 2021.

Brief comment on the SER

Although the SER was well written and comprehensive, the team identified several gaps in the data provided. Despite a large number of questions sent to the VEE prior to the Visitation, the requested data was provided before the visit. Additional information was provided on site.

The Visitation Team came to the unanimous decision to make the gaps in the SER a Minor Deficiency in order for the VEE to be able to correct.

Brief comment on the Visitation

The Visitation was well prepared, well organised and carried out in a cordial and professional atmosphere. The Liaison Officer was easily and efficiently available when requested, either in person or by email. The programme of the Visitation was easily adapted when requested by the Visitation Team who had full access to the information, facilities and individuals they asked for.

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

- The visited VEE benefits from a strong structuring of the QA approach at university level, which is then applied at the level of faculties, schools and departments with a reasonable set of codified and formalised procedures.
- Enthusiastic students and staff (Academic and Support) who are proud of their institute
- Strong leadership and participative management with excellent student participation
- A unique (amongst European VEEs) outstanding Forge unit for training farriers and veterinary students
- An excellent new facility for meat inspection
- State-of-the-art small animal and exotic animal hospital
- Excellent use of student tutoring in anatomy, histology, 3R Skills lab
- Highly equipped Skills lab for student practical improvement
- The proportion of qualified veterinarians involved in teaching is commendable, as is also the number of European specialists, especially in the areas of food-producing animals.
- Since the curriculum is developed at national level, it is commended that the relevant professional organisations are invited to take an active role in the shaping of veterinary training in Germany.
- The VEE is commendable for offering the possibility for the self-testing to students throughout their studies, which supplements formal evaluations and examinations very well and contributes to developing the responsibility of students for their own learning.
- The variety of opportunities for staff training especially in didactics (but embracing many fields from safety to foreign languages) is commendable and well used by many staff members and student tutors.
- The VEE is to be commended for the attention they pay to the progress of individual students, which is enhanced by small group sizes in practical and clinical training.
- The VEE is commended for its student focus in examinations, which leads to very rare cases of appeal.
- The VEE is commended for the effective student representation, which is considered satisfactory both by students and by the academic staff.

Additional commendations are described in the Visitation Report.

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

1. Partial compliance with Standard 1.5 because of suboptimal SER (confusing titles and numbering of standards, especially in areas 1.3.4)
2. Partial compliance with Standard 3.1.5 because of a paucity in performing ante-mortem inspection of animals destined for the food-chain and correct identification of animals/carcasses/offal unsuitable for the food-chain due to a reduction in practical training delivered by the VEE.

FINAL REPORT AS ISSUED BY ECOVE ON 30 MARCH 2022

3. Partial compliance with Standard 3.5 because of an absence of academic supervision of practical training in FSQ and VPH.
4. Partial compliance with Standard 3.6 because of the absence of a standardised evaluation of the performance of the student during their EPT.
5. Partial compliance with Standard 3.7 because of the absence of QA to monitor the feedback within the EPT activities.
6. Partial compliance with Standard 4.1 because the servicing of occasional items of equipment has lapsed (including fire extinguishers, oxygen cylinders, water cleansing systems). Some disposable clinical items (e.g., hand hygiene equipment, hypodermic needles, some pharmaceuticals) are out of date.
7. Partial compliance with Standard 8.5 because the competence in performing a number of practical skills is not objectively assessed. Furthermore, the quality control of clinical skills (via logbooks) is suboptimal.

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

None.

Glossary

ATS: administrative-technical staff
BFS: Biomedical Research Centre Seltersberg
BPT: Bundesverband praktizierender Tierärzte (Association of Veterinary Practitioners)
CE: continuous education
DVG: Deutsche Veterinärmedizinische Gesellschaft (German Veterinary Society)
EAEVE: European Association of Establishments for Veterinary Education
ECOVE: European Committee on Veterinary Education
EPT: External Practical Training
ESEVT: European System of Evaluation of Veterinary Training
ESG: Standards and Guidelines for Quality Assurance in the European Higher Education Area
FSQ: Food Safety and Quality
FTE: Full-Time Equivalent
JLU: Justus-Liebig-University Giessen
HEI: Higher Education Institutes
IT: Information Technology
NPSS: non-professorial scientific staff
PDCA cycle: Plan-Do-Check-Adjust cycle
PTT: Progress Test Tiermedizin (Progress test in veterinary medicine)
QA: Quality Assurance
QSL: Qualitäts-Sicherung der Lehre (Quality Assurance of Teaching)
SER: Self Evaluation Report
SOP: Standard Operating Procedure
StuPOVet: Studien- und Prüfungsordnung Veterinärmedizin (education regulation)
VPH: Veterinary Public Health
VTH: Veterinary Teaching Hospital
TAppV: Tierärztliche Approbationsverordnung (Ordinance for the Certification of Veterinary Surgeons)
ECTS catalogue: European credit transfer system catalogue

Decision of ECOVE

The Committee concluded that no Major Deficiencies had been identified.

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