

School of Veterinary Medicine Freie Universität Berlin

Self Evaluation Report for the European Association of Establishments for Veterinary Education | **Full Visitation 10 – 14 June 2024**



Self Evaluation Report | School of Veterinary Medicine | Freie Universität Berlin

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INTRODUCTION

Preamble

In the context of this report, the terms "VEE", "School", "Establishment" and "Faculty" are used interchangeably and all refer to the School of Veterinary Medicine, Freie Universität Berlin. The term "University", if not stated otherwise, refers to Freie Universität Berlin.

Brief history of the VEE and of its previous ESEVT Visitations

The Berlin Veterinary Medicinal School was founded in 1787, opened in 1790, renamed in 1887 to Veterinary University and in 1910 permitted to award doctoral titles. In 1934 it was incorporated into the Agricultural and Veterinary Faculty of the former Friedrich-Wilhelms-Universität (now Humboldt-Universität zu Berlin). Following the division of Berlin after the Second World War, this University was located in the Soviet sector (later East Berlin), and a second veterinary faculty was established at the newly founded Freie Universität in West Berlin. After the German reunification (1990) the two veterinary faculties were first administratively merged (1992) and in 1997 fully embedded into the Freie Universität. Since then the VEE has been one of the 12 scientific departments at Freie Universität Berlin. It has been positively evaluated in 1998, 2007 and 2018 by the European Association of Establishments for Veterinary Education (EAEVE). The Interim Report was reviewed and acknowledged by the European Committee of Veterinary Education (ECOVE) in 2021.

Main features of the VEE

The VEE is one of five veterinary medical training and research facilities in Germany. It is located in North-East Germany in the Federal State and City of Berlin, the German Capital with a population of 3.9 Million inhabitants. Approx. 196 of the over 1,000 students admitted to German veterinary schools each year start their education in Berlin. Most (90%) of our veterinary students are female.

The School of Veterinary Medicine is distributed mainly over two sites: the Düppel Campus and the Dahlem Campus and divided in 14 scientific institutions, 3 clinics and the newly founded Centre for Veterinary Clinical Services that follow the structural requirements of veterinary teaching. It strives for excellence in research, teaching and services. Our objective is to develop sustainable veterinary medical science for humans and animals and to deliver outstanding teaching and services as further laid out in the mission statement (see Standard 1.1.). Our high standards of quality-assured veterinary medical training provide excellent career opportunities in relevant professional fields for our students. We offer a wide range of postgraduate training, specialisation and continued education opportunities as well as academic career paths. In addition to a comprehensive range of patient care on our campus in Düppel, we offer a wide spectrum of veterinary services for veterinary practices, clinics and the general public. We are closely linked with regional, national and international universities and nonuniversity research institutions, resident veterinarians as well as companies, enterprises and authorities.

All our activities are monitored by a permanent professional quality management systems.

- Quality assurance (QA) is a central component of Freie Universität Berlin and the VEE. We wish to provide excellent services for students, alumni, employees, customers, partners and stakeholders.
- The QA allows for monitoring and evaluation of our services to ensure a continuous improvement process. As part of the Berlin Higher Education Act (2022) the demand for measures of quality assurance within university studies and teaching is legally secured. Freie Universität Berlin is bound to this goal. The internal quality assurance system is

regularly subjected to an external assessment.

- The University was system accredited in November 2016, the first Berlin higher education institution to be awarded the quality seal of the Accreditation Council by the accreditation agency AQAS, and positively reaccredited in September 2023 by the accreditation agency ACQUIN. It has therefore been certified that Freie Universität Berlin's internal QA system for university studies and teaching ensures the quality of its degree programmes.
- The VEE is fully embedded in the University QA processes through constant interactions between the Dean's Office and relevant office holders in university management and in central university administration. The EAEVE QA processes build on and extend the general QA processes towards the special needs of veterinary education.
- The Dean's Office coordinates communication within the VEE between all university teachers, staff and students.¹

Brief summary of the main developments since the last Visitation

Objectives and Organisation

The "Mission | Strategy | Objectives" document was reviewed and revised in 2023/2024 within a VEE-wide participatory process.²

The VEE has made substantial progress in moving institutions to the location in Düppel:

- **Implementation of a centre structure:** In 2022 the School of Veterinary Medicine made a decision of a step-wise implementation of a centre structure over the years 2023 to 2030 to foster interaction in teaching and research.
- **Restructuring of the Veterinary Teaching Hospitals:** In 2020 to 2023, a VEE-wide process with support of a professional assessment company developed a concept for a common structure of the veterinary teaching hospitals with a Small Animal Clinic, an Equine Clinic, a Farm Animal Clinic and a Centre for Veterinary Clinical Services. This was linked with a substantial increase of teaching and support staff in the Veterinary Hospital Freie Universität Berlin.

Curriculum

The curriculum has been altered in several aspects and is under constant further development:

- Major amendments to the **examination regulations**:
 - Introduction of electronic examinations as equal substitutes for written examinations;
 - Transition from oral to electronic written examinations in the following subjects: Chemistry, Veterinary Legislation, Professional Knowledge and Conduct, Bacteriology and Mycology. Change to written/electronic examination for initial examination and first retest in Animal Husbandry and Animal Hygiene and as an alternative format in Physics and Zoology;
 - Definition of standard examination times for oral (15 45 min) and written examinations (30 120 min);
 - Implementation of written exams in Immunology and Medical Terminology;
 - Graded performance assessments as partial performances in the following subjects: Bacteriology and Mycology, Drug, Narcotics and Prescription Legislation, Pathology, Meat Hygiene, Milk Hygiene, Internal Medicine, Surgery and Anaesthesiology;
 - Restructuring of the examinations in the subjects of Internal Medicine as well as Surgery and Anaesthesiology;

¹ For further information, see Standard 1.4.

² See: Standard 1.1.

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- The VEE made joint efforts with the other German VEEs to establish a common strategy for quality control of the EPT. This includes a common evaluation policy and didactic training for EPT providers, as well as the development of an online tool for Germany-wide quality assurance of EPT (Service Center for Education Establishments under the patronage of the Council of Veterinary Establishments).
- Launch of the Emergency Veterinary Coach (EVC) course: The course concept focuses on practical emergency training for students in their 7th and 8th semesters. Using selected example cases that frequently occur in practice, students will understand and develop decision-making processes and learn and apply hands-on skills at a total of 16 emergency stations. The course is supported by high-quality multimedia course material. It was conducted in small groups for the first time at the end of the summer semester 2020. Student's feedback and evaluation were very positive. The EVC course consists of three consecutive course components, which all students of the 4th year pass through: 1. general coaching course, 2. specific coaching instruction at an emergency learning station and 3. applied peer-to-peer coaching and learning at emergency stations.
- Presentation of the EVC course and dialog with politicians about the development of model-based teaching in 2022.
- Perpetuation and continuous further development of the Veterinary Skills Net (VSN) with acquisition and own manufacture of models to be integrated in self-directed learning and practical examinations.
- Successful launch of the **restructured animal species-specific** final year's **clinical rotation** in the winter semester 2020/21. The revision included a much stronger involvement of all students in treating regular as well as emergency patients.
- Integration of various key competencies into mandatory and facultative courses:
 - Learning Strategies and Time Management (mandatory)
 - Basics of Communication (mandatory)
 - Communication in veterinary medicine (facultative)
 - Clinical Propaedeutics Communication [communication with patient owners] (mandatory)
 - Communication in Practice [Small Animal/Horse] (facultative)
 - Business Administration for Veterinarians (mandatory)
- Awards for excellent teaching were introduced at the School of Veterinary Medicine in 2020. The prizes are awarded annually in the two categories "lectures" and "seminars and practical classes" to honor lecturers who foster the knowledge gain of the students in a convincing didactic approach.
- Development of further e-learning and blended learning modules with an increasing range of topics and ongoing projects (e.g. the streaming service VetCam Berlin).³
- Perpetuation of the **Mentoring programme** with establishment of courses in peer-to-peer mentoring and soft skills.
- Implementation of the "**Buddy**"-**programme** for international students in cooperation with IVSA. It attempts to assist international students with a smooth integration into the study and living environment Berlin.
- Introduction of an annual **information event on the clinical part of the veterinary programme** for 3rd year students in 2019: students are informed about study organisation, elective courses, the clinical rotation, EPTs, exams and contact persons at the VEE.

³ For more information, see <u>Appendix to 3.2.1.2.</u>

Facilities and Equipment

Quality improvement and optimisation of the learning infrastructure:

- Veterinary Centre for Resistance Research (TZR): The new building was opened in 2022 on the Düppel Campus and houses research facilities for clinical as well as pre- and paraclinical working groups for interdisciplinary research and combating of anti-infective resistances.
- Renovation of the Equine Clinic (2016-2021) including a lecture hall for 174 students and state-of-the-art facilities for diagnostics and treatment of horses.
- Lavatorium: The hygiene building for students was completed in 2024 and provides students with locker rooms, showers and restrooms on the Düppel Campus.
- The contract with the Bad Saarow Equine Center was discontinued in 2023. Options for further cooperations with the Bad Saarow Equine Center are currently under exploration. The **Bad Saarow equine teaching facilities have been transferred to the Campus Düppel**, where teaching facilities are currently expanded according to the most recent advancement of equine welfare.
- Construction work for a **new building for the Institute of Food Safety and Food Hygiene** commenced in 2023. Start of operation is envisaged for 2025.

Additional Significant Improvements including Acquisition of Equipment:

- Partial renovation of the Small Animal Clinic and procurement of a CT scanner.
- Equipping lecture halls and seminar rooms with technology for hybrid teaching.
- Implementation of software for web conferencing, videoconferencing, online and hybrid teaching (Cisco Webex).
- Consequent implementation of **duty rosters** of all applicable units; introduction of MEP24 software for roster management in the clinics.
- Implementation of a state-of-the-art technology platform for shared use at the TZR, which includes as prominent examples:
 - Confocal laser scanning microscope Leica Stellaris 8 FALCON
 - MALDI-ToF/ToF ultrafleXtreme mass spectrometer (Bruker)
 - Triple Quadrupole 6495C mass spectrometer (Agilent)

Other issues of relevance

- Since 2022, regular meetings to enhance the exchange between the Dean's Office and the clinics, scientific institutions and students.
- Initiation of a **working group "Health in Studies"** in 2020: The members of the working group discussed areas of intervention and developed potential solution strategies in terms of student health management.
- In 2022, two **support.points** were established on campus **for psychosocial counseling and support**. Students and staff receive solutions and referrals to concrete offers by a psychologist and psychological psychotherapist.
- Set up of the **working group "Complaint Management"** in 2021: in regular meetings, the ombudspersons of the VEE, the Vice Dean for Study Affairs, the Study Office, Advisor for University Studies and Teaching and Liaison Students discuss student issues, concerns and requests for help.⁴
- In 2020 the Freie Universität Berlin launched a university-wide participatory process aimed at developing a shared **vision for the future of education and teaching**. Everyone at the University was invited to join in the collaborative effort of developing a mission statement for teaching and learning and an educational strategy for the whole university. Around 300

⁴ See: PDCA cycle on Complaint Management in <u>Appendix to 7.8.1.</u>

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university members took part in the process. In summer 2021, Freie Universität Berlin's Academic Senate approved the Mission Statement for Teaching and Learning, which has gone hand in hand with the development of the Teaching and Education Strategy.⁵

- Strengthening the **public and political outreach** by publishing a monthly newsletter to all members of the VEE (since 2020), the recruitment of a Coordinator for Public Relations, the establishment of the PR team and launching a VEE's Instagram Account (Fu_vetmed) in 2022.
- Increased awareness for animal welfare issues and the 3R concept, as well as changes in EU legislation 2010/63/EU⁶ and amendment of the animal welfare law⁷ required an adaptation of the use of animals for education; drafting and implementation of the Internal Guidelines for Animal Protection⁸.
- Complete revision and harmonisation of the **student selection process** between the German VEEs. The admission regulations were amended accordingly (see Standard 7.3.1.1.).
- Participation of the VEE in the **Progress Test in Veterinary Medicine (PTT)** that allows students to monitor their individual learning progression through the curriculum.
- Expansion of the structured teaching qualification programme of Freie Universität Berlin via the Dahlem Center For Academic Teaching (DCAT).⁹ DCAT supports professionalisation of teaching competence and the development of innovative teaching formats. This includes a certificate-programme of academic teaching and several didactic courses for different experience levels. As a follow-up training, DACT offers the annual "Teaching Theme Week" since 2023. The university portfolio of qualifying courses is expanded by offers from the Berlin Leadership Academy (BLA), which is devoted to excellence in leadership for professors and leading officers within the Berlin University Alliance (BUA) and offers flagship programmes and target group-specific courses.
- Strengthening of didactic continuing education at the VEE by implementation of a Coordinator for Didactic Continuing Education, enforcement of mandatory participation of all teaching and teaching support staff in the annual "Day of Teaching" and monitoring of didactic continuing education in the newly established online Didactic Center.
- **Transfer of the postgraduate M.Sc. degree programmes** in Equine Medicine and Small Animal Sciences into continuing education offers, partly in collaboration with the German Veterinary Medical Society (DVG).

Major problems encountered by the VEE

The VEE experiences a phase where many personnel, structural and organisational changes have occurred or are in process. Compliance with employment laws, the Covid-19 crisis, rigid staff budgeting, competition for staff and long recruiting procedures made the operation of the animal clinics increasingly difficult over the last years. A structure revision process with the aid of a professional assessment company was initiated in 2020; however, this process was not fast enough to prevent a discontinuation of the 24/7 services of the Small Animal Clinic in 2022. Negotiations for a sustainable solution to this problem (i.e., a substantial increase of staff in the Small Animal and Equine Clinics) were finally successful at the end of 2023. The filling of the new positions with qualified staff and resumption of 24/7 services in the Small Animal Clinic kill yet take some time due to the difficult situation at the employment market.

⁵ See: <u>https://www.fu-berlin.de/sites/zukunft-lehre/_media/teaching-and-education-web.pdf</u>

⁶ See: <u>http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:276:0033:0079:de:PDF</u> ⁷ See:

https://www.bgbl.de/xaver/bgbl/start.xav?start=%2F%2F*[%40attr_id%3D%27bgbl113s2182.pdf%27]#__bgbl___%2F%2F*[%40attr_id%3D%27bgbl113s2182.pdf%27] 1498629469304

⁸ See: <u>http://www.vetmed.fu-berlin.de/einrichtungen/institute/we11/bilder_dokumente/151221-tierschutz-richtlinie-fu-mit-praeambel-final.pdf</u>

⁹ For information about different programmes see <u>Appendix to 9.1.1.b.</u>

Retirement, recruitment and retention of qualified staff

- Attributable to the demographic structure, a great proportion of key faculty / professorial positions became vacant recently or will become vacant in the near future.
- Due to a lack of well-qualified junior scientists (especially in clinical subjects), a general shortness of veterinarians on the employment market and high competition for staff with other public and private employers, we experience substantial problems to recruit highly qualified academic staff.
- Competition for VEE staff has increased substantially, especially in clinical subjects. Of the 12 clinical professorial positions, four are currently open.
- Rigid legal framework conditions (employment law, science contract law) limit the flexibility in recruiting and retaining qualified scientific staff.

Facilities

- The VEE is still distributed over two campuses.
- The existing building stock is maintenance-intense.
- Large lecture hall capacity is still limited at the Düppel campus.
- Despite the success with key building projects, various construction projects have been protracted in recent years. Several others are in the planning stage.¹⁰

Curriculum Design

- Due to the legal framework provided by the German TAppV, substantial changes to the structure of the curriculum, even if considered necessary, are difficult to implement.
- The regulatory link between available teaching capacity (core-funded staff), curriculum hours and number of students reduces the options to recruit additional staff for teaching or to change the number of incoming students.
- The VEE does not own an agricultural teaching farm; respective curricular aspects have to be organised differently.

Research

- Freie Universität Berlin is one of the few German excellence universities. This is highly beneficial for the VEE and has clearly resulted in the promotion of interaction within and outside the university, but leads to a considerable pressure and increases the scientific gap between research-focussed and teaching / service-oriented units.
- Successful acquisition of external funding leads to competition between research and teaching, which, in addition, is intensified due to inflexible position-hiring rules.

Financial Situation

- The VEE has a global budget which gives the Dean's Office some flexibility in the setting of priorities. The budget has increased recently to finance the newly created positions in the clinics; however, the budget is not sufficient when all positions are finally filled.
- Due to the insufficient budget, the VEE is dependent on revenues from clinical services (mainly Small Animal Clinic and Equine Clinic) to finance global costs.

Version and date of the ESEVT SOP which is valid for the Visitation

The VEE is undergoing a "Full Visitation". The Self Evaluation Report follows the requirements as set out in ESEVT Standards for Accreditation 2019 (30 May 2019, amended in December 2020, as amended in September 2021).

¹⁰ See also Area 4

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AREA 1. OBJECTIVES, ORGANISATION AND QUALITY ASSURANCE POLICY

Standard 1.1.: Objectives

1.1.1. Description of the mission statement and the objectives

The Faculty Council approved the first collated document on **Mission** | **Strategy** | **Objectives** on 20.07.2017.¹¹ It is seen as a working document that will be frequently revised. Last revision took place in 2023/24 under involvement of our teaching staff, support staff, students, the Education Commission and the Faculty Council.

We aim to convey scientific knowledge, practical skills, intellectual and ethical fundamentals as well as a professional attitude committed to the well-being of animals, humans and the environment to our students. We encourage self-responsibility and self-reliant practices within the veterinary profession as well as lifelong learning. Our activities are guided by the traditional principles of Freie Universität Berlin: *veritas, iustitia, libertas* ("truth, justice and liberty").

Our activities are based on the unity of research and learning, which is directed towards contemporary and progress-oriented veterinary medicine with central relevance for animal welfare, human well-being and care for the environment ("One Health"):

- Optimal patient care by means of evidence-based veterinary medicine
- Ensuring the production of safe and high-quality food of animal origin
- Concern for the health and well-being of humans by controlling infectious diseases, zoonoses and anti-infective resistances through research on fundamental disease mechanisms and development of intervention measures
- Scientific approaches for the improvement of animal welfare
- Interdisciplinary engagement with other scientific and academic subjects

Our high standards of veterinary medical training provide excellent career opportunities in relevant professional fields for our students. We offer a wide range of postgraduate training, specialisation and continued education opportunities as well as academic career paths. Veterinary specialisation is nationally regulated and wherever possible integrated into the college system of the European Board of Veterinary Specialisation (EBVS).

Mission: Our mandate

- The School of Veterinary Medicine strives for excellence in teaching, research and services.
- We conduct research on fundamental and applied aspects of important veterinary medical and comparative biomedical topics addressing humans, animals and the environment.
- We implement our knowledge in excellent teaching and services.

Vision: Our perspective

- We aim to be one of the leading veterinary medical competence centres in Europe.
- We aim to offer first-class teaching to our students.
- We aim to make the best possible use of our capacity to guarantee the prevention and treatment of animal diseases.
- We strive to ensure that teaching and learning develop hand in hand.
- We utilise our human resources at all levels in mutual respect, trust and dialogue.
- We strive for a culture of learning, performance, competence, fairness and quality equally.

¹¹ See also <u>Appendix to 1.1.1.</u>

Objectives: Our goals

Research

• We promote clinical, fundamental and application-oriented research especially in (i) infection medicine with a particular focus on resistance research, (ii) clinical research and up-to-date veterinary medicine and (iii) animal health and welfare, food quality and safety.

Teaching

- We offer excellent training and jointly adapt teaching to meet new challenges.
- Our graduates are competent, self-responsible and solution-oriented.

Postgraduate Qualifications

- Lifelong learning is an important part of our mission.
- We provide opportunities for postgraduate qualifications, doctoral (Dr. med. vet., Dr. rer. nat., PhD) and specialists training as well as continuous education.

Patient Care

- Patients and animal owners are offered comprehensive up-to-date clinical care.
- Complex questions are competently addressed though interdisciplinary cooperation.

Social relevance

- We embrace the social demands of prevention, therapy, animal welfare and food safety.
- We strongly support the concept of "One Health" with all aspects of public, veterinary and environmental health. We also recognise and take into account the great contribution of veterinary medicine to the concept of "Global Heath".

Public Relations

- Our activities in research, teaching and services are communicated through the professional channels of Freie Universität Berlin and the Berlin University Alliance; this results in high visibility and demand for our services.
- We contribute, in cooperation with all relevant stakeholders, to the strengthening of the profession's status in public.

Financing

- Our aim is to have sufficient core funding for all units; their distribution is task-oriented.
- We support acquisition of additional resources as well as their effective utilisation.
- Innovations are promoted and outstanding achievements are rewarded.

Internationality

- We are involved in a broad range of international research groups and partnerships.
- Student and staff exchange and joint research projects are strategic objectives.

Structures and Processes

- Motivated employees form an important basis for successfully achieving our objectives.
- Structured processes allow for the effective resolution of tasks.
- Short pathways ensure transparency in decision making.
- Units work self-accountable, make use of synergies and develop relationships.

Workplace environment

- We offer a safe and pleasant working environment for people and animals.
- The VEE supports a good work-life balance, gender equality, diversity, tolerance and freedom in research and teaching.

1.1.2. Description of how the VEE ensures that the provided core curriculum enables all new graduates to perform as a veterinarian capable of entering all commonly recognised branches of the veterinary profession

The German veterinary profession is subdue to the Federal Veterinary Regulation (Bundestierärzteordnung, BTÄO). According to § 5 of this regulation, veterinary education is regulated by the German Veterinary Medical Licensure Law (Verordnung zur Approbation von Tierärztinnen und Tierärzten, TAppV) from July 27th, 2006 and as amended on August 15th, 2019, issued by the Federal Ministry of Food and Agriculture (Bundesministerium für Ernährung und Landwirtschaft, BMEL). Both regulations refer to the minimum requirements laid down in regulation 2013/55/EU for the training of veterinarians in Europe. The objectives of veterinary education in Germany are clearly laid out in § 1 TAppV:

"The objective of the training is an academically and practically trained veterinary surgeon who is capable of practising the veterinary profession responsible and independent within the meaning of Section 1 of the Federal Veterinary Code and of undergoing further training and ongoing advanced training.

- a. The basic veterinary, scientific, interdisciplinary and methodological knowledge,
- b. practical skills,
- c. intellectual and ethical basics and
- d. a professional attitude committed to the well-being of humans, animals and the environment

shall be imparted as they are necessary for the entire scope of the veterinary profession to be practised responsibly, taken special account of quality assurance."

Thus, the TAppV as the legally binding document ensures that all veterinary duties are impelemented in the German veterinary curriculum. The theoretical frame to achieve these objectives is outlaid in § 1 (2) where it is indicated that veterinary training shall comprise an academic-theoretical component with a total of 3850 hours of compulsory and elective courses and a practical component of studies lasting for 1170 hours.

At the Establishment, the TAppV, its associated <u>study</u> and <u>examination regulations</u> and a comprehensive <u>subject-specific learning objective catalogues</u> (with references to "Day One Competences" of the EAEVE) defines the organisational and content framework of the implemented curriculum in order to meet the educational objectives. Furthermore, the TAppV lists subjects and hours per subject. This adherence is supervised by governmental authorities in Berlin (Regional Office for Health and Social Affairs (LAGeSo)).

Following § 2 (1) TAppV, the Establishment runs a curriculum, that allows students to meet the educational objectives with focus on content with relevance to the veterinary field, linking theoretical and clinical subjects throughout the curriculum and a mixture of lectures, large and small group excercises, clinical case work and hands-on non-clinical and clinical animal work in all subjects. All veterinary working fields are presented in the curriculum to ensure proper reflection of the breadth of disciplines with strict observation and implementation of Day One Competences. Practical classes are implemented in all subjects with high relevance for the veterinary profession. Focus is on practical clinical training, which has been greatly revised since the last visitation to ensure highest standards with respect to content, didactics and animal welfare. Furthermore, the VEE continuously develops the Veterinary Skills Net and systematic involvement of models in teaching, achieving First Day Competences while at the same time reducing the use of live animals in teaching. As a very important model-based teaching module, an Emergency Veterinary Coach (EVC) course was introduced to teach clinical practical skills in small groups (3-5 students) with special focus on emergencies. In addition, mandatory interdisciplinary courses ("Querschnitt") deepen the understanding of complex cross-subject problems and are primary offered as seminars and blended-learning modules. Certain Day One Competences that are not explicitly covered by the TAppV (e.g., communication skills, veterinary business economics, team work, learning strategies and time management) have been implemented in propaedeutics, "Querschnitt" and the EVC course to strengthen students in professional skills. In specific courses (Veterinary legislation, professional knowledge and conduct, Career Day), students gain detailed insights into various fields of work in different years of study.

For the purpose of securing a high standard in veterinary education and improving the achievement of Day One Competences of graduates, the VEE developed a subject-specific learning objective catalogue with aims matched to Day One Competences to ensure that no competence is missed. For further information regarding the curriculum, please see Standard 3.1. and 3.2.

To support students with their study organisation, the VEE offers information events for the first and fifth semesters.

All intra- and extramural training (teaching, clinical rotations and external practical training) is monitored by a permanent professional quality assurance system (for further details, please see Standard 1.4.).

Standard 1.2.: Factual information

1.2.1. Details of the VEE

Details of the VEE	
Name	School of Veterinary Medicine, Freie Universität Berlin
Address	Oertzenweg 19b, D-14163 Berlin
Phone	+49 30 838 62646
Fax	+49 30 838 462646
E-mail	dekanat@vetmed.fu-berlin.de
Website	http://www.vetmed.fu-berlin.de/
VEE's Head (Dean)	UnivProf. Dr. med. vet. Uwe H. Rösler
Vice Dean for Study Affairs	UnivProf. Dr. med. vet. Jörg R. Aschenbach
Vice Dean for Research	UnivProf. Dr. med. vet. Marcus Fulde
Head of Administration	Dr. med. vet. Anna Kosmol; Karsten Schomaker

Person(s) responsible for the p	rolessional, ethical, and academic affairs of the VIH
Equine Clinic	UnivProf. Dr. med. vet. Christoph Lischer Dipl ECVS Assoc Dipl ECVDI (Large Animal)
Small Animal Clinic	UnivProf. Dr. med. vet. Barbara Kohn Dipl. ECVIM (Internal Medicine), Specialist Veterinarian for Small Animals
Farm Animal Clinic, Division for Ruminants und Camelids	UnivProf. Dr. Marc Drillich Dipl. ECAR, Dipl. ECBHM
Farm Animal Clinic, Division for Pigs	UnivProf. Dr. Marc Drillich (Interim management) Dipl. ECAR, Dipl. ECBHM
Farm Animal Clinic, Division for Poultry	Prof. Dr. med. vet. Isabelle Ruhnke, PhD, MSc Dipl. ECVCN, Specialist Veterinarian for Nutrition and Dietetics

Executive Board of Freie Universität Berlin			
President of the university	UnivProf. Dr. Günter M. Ziegler		
	Kaiserswerther Str. 16-18, 14195 Berlin		
	+49 30 838 731 00		
	praesident@fu-berlin.de		
Executive Board	UnivProf. Dr. Petra Knaus		
	Vice President for Research		

Official authority overseeing the VEE				
Senate of Berlin, State	Senator Dr. Ina Czyborra			
Chancellery for Science,	Oranienstr. 106, 10969 Berlin			
Health, Care and Equality	$+49\ 30\ 9028-0$			
ulrike.gote@senwgpg.berlin.de				

1.2.2. Organisational chart of the VEE with a brief description of the decision-making process

	Senate of the State of Berlin				
	Freie Universität Berlin (12 academic departments) Executive Board, Academic Senate, President and Vice Presidents, Chancelor (Head of Administration)				
	Dean's Office (Dean, Vice I	Schoo Dean for Study	l of Veterinary Medicine y Affairs, Vice Dean for Research, Heads of	Administration)	
	Scientific institutions / clinics			Commissions, Coordinators and Representatives	
Center for Biomedical Sciences	Veterinary Anatomy Veterinary Physiology Veterinary Biochemistry Animal Nutrition Veterinary Pathology			Study Programme Leader, Study Programme Coordinators, Subject Coordinators, Organ Module Coordinators, External Practical Training Coordinators	
	Pharmacology and Toxicology			Academic Advising	
đ	Virology			Student Academic Advising	
ici ,	Animal Hygiene and			Liaison teachers for students	
r fo Med	Environmental meatin		Faculty Council	Liaison students for students	
ente on <i>l</i>	Immunology		7 professors.	Education Commission	
C	Microbiology and Epizootics Parasitology and Tropical Veterinary Medicine	ss, Clinics)	2 academic employees, 2 non-academic employees, 2 students	Coordinator for International Relations and Partnerships (Erasmus, Sokrates) and Visiting Students	
т	Food Safety and Food Hygiene	itute	Representatives in the Faculty Council are elected for 2-year terms by all status erouns	BAföG (Educational Loans) Coordinator	
for VPI	Animal Welfare, Animal Behaviour and Laboratory Animal Science	its (Inst		Faculty Doctoral Committee Coordinator for Habilitation Candidates	
Cente	Veterinary Epidemiology and Biostatistics	atific Un	(employees and students)	Faculty representative in the Standing Commission of the DRS	
	Small Animal Clinic:	Scien	elects the Dean and Vice Deans	Hygiene Coordinator & Commission	
	Division for Surgery,	ofic	for 2-year terms	Continued Education Commission	
	Division for Internal Medicine, Division for Reproduction Medicine, Division for Small Mammals,	rectors	Status groups	Liaison Officers for Safeguarding Good Scientific Practice	
	Birds and Reptiles	e e	Professors (38)	Library Coordinator	
		cutiv	Academic staff (~ 220)	Animal Welfare Official	
ospital	Equine Clinic: Division for Surgery,	Exec	Exe	Non-academic staff (~ 250) Undergraduate and graduate students (~1660)	Faculty representative at the Berlin & Federal Veterinarian Chambers
Ϋ́Η	Division for Internal Medicine,		B	State Examining Boards	
inar	Division for Reproduction Medicine			Equality commission	
(etei				Local Diversity Representative	
>	> Farm Animal Clinic:		Farm Animal Clinic:		Coordinator for Didactic Continuing Education
	Division for Ruminants & Camelids,			Coordinator for Public Relations	
	Division for Pigs, Division for Poultry			Advisor for University Studies and Teaching	
	Centre for Veterinary Clinical Services			Working Group "Complaint Management"	

Figure 1: School of Veterinary Medicine Organisational Chart (additional functions are listed in <u>Appendix to 1.1.5.</u>)

According to the Partial Basic Ordinances of Freie Universität Berlin, the Academic Senat and the Faculty Council are the elected organs to create the legislative framework for academic operation under consideration of national and EU legislation. These organs are elected for a 2-year term. Based on this framework the Executive Board of Freie Universität Berlin and the Dean's Office of the VEE lead the strategic and operational processes together with their administrative support. An organisational chart of the Dean's Office is available in <u>Appendix to 1.2.2</u>.

1.2.3. List of departments/units/clinics with a very brief description of their composition and management

See Figure 1. Further information on the composition of centers and scientific units is provided in the <u>Appendix A</u> (Current academic staff, qualifications, their FTE, teaching responsibilities and their affiliations to centers and units).

The scientific units are managed by their Executive Director and interlinked to scientific centers. Each scientific center has rules of internal procedure, in which the Executive Directors agree which management competences they delegate to the scientific center. As administration processes have become much more complex over the last years, the VEE is currently developing concepts for centralised Administrative Services that provide centralised resources (e.g. car pool, onboarding experts, SAP services, etc.) and support administration of the scientific units and especially the clinics.

1.2.4. List of the councils/boards/committees with a very brief description of their composition/function/responsibilities and implication of staff, students and stakeholders

See 1.2.2.; further information is provided in the Appendix to 1.1.5.

1.2.5. Description of the formal collaborations with other VEEs

- The Establishments of veterinary education of Germany, Austria and Switzerland formed the "Council of Veterinary Establishments" (<u>Veterinärmedizinischer Fakultätentag</u>) which meets once per academic year. Establishments are represented by the deans, vice deans, representatives of the professorial and academic staff and students. Veterinary professional organisations and representatives of the Federal Government are regularly invited to paticipate. The Council serves the discussion, consultation and decision-making about common duties and topics of the German-speaking VEEs as well as the representation of interests towards federations and authorities.
- The Vice Deans for Study Affairs of the German VEEs meet regularly once or twice per semester and discuss current issues in the area of study and teaching.
- In 2022, the five German VEEs developed a joint platform for the organisation and quality assurance of the external practical training which is going to be launched at the beginning 2024.
- The five German veterinary skills labs regularly collaborate. In the summer semester of 2021 the five German veterinary skills labs developed a joint elective course. The course is open to 10 students per VEE who solve exciting clinical cases and practice practical skills.
- The VEE participates in the roundtable "Veterinary Young Scientists" and the initiative "Scientific Research Staff" in collaboration with the German Veterinary Medical Society (DVG) and the Academy for Animal Health.
- The VEE is a host institution for foreign scientific researchers as well as for foreign students and participates in numerous international exchange programmes in the fields of study and research for students, research associates and other employees. Staff and students of the VEE are highly involved and committed to a number of projects for international development aid in veterinary medicine. Numerous formal partnerships exist through the central University and the International Veterinary Students Association (IVSA). Specific agreements for close collaboration have been signed with the following veterinary establishments:
 - Cornell University (Ithaca/USA): Leadership Programme for Veterinary Students;
 - Cambridge University (Cambridge/UK): Research Summer School;
 - Kansas State University (Kansas/USA): Research Programme;
 - École Nationale Vétérinaire d'Alfort (Maisons-Alfort/France): General student exchange;

- French-German Establishments of veterinary education (France/Germany): Research Summer Schools;
- Chiang Mai University (Chiang Mai/Thailand): Research Programme
- Furthermore, the VEE is actively involved in the European university network Una Europa where eight out of 11 partners host a VEE. These are:
 - Freie Universität Berlin (Germany)
 - Universitá de Bologna (Italy)
 - University College Dublin (Ireland)
 - University of Edinburgh (UK)
 - Helsingin yliopisto (Finland)
 - Uniwersytet Jagiellonski w Krakowie (Poland)
 - Universidad Complutense de Madrid (Spain)
 - Universität Zürich (Suisse)

1.2.6. Name and degrees of the person(s) responsible for the veterinary curriculum and for the professional, ethical, and academic affairs of the VTH

See 1.2.1. The responsible persons are supported by the Vice Dean of Study Affairs, the Study Office, the Examination Board, the Subject Coordinators and the Animal Welfare Officers.

Standard 1.3.: Strategic plan and SWOT analysis

1.3.1. Summary of the VEE's strategic plan with an updated SWOT analysis

SWOT analysis

Strengths

- A University of Excellence with an international network, an outstanding personnel development programme and excellent teaching and research resources.
- System-accredited university with established quality assurance processes.
- Access to a large number of facilitation, qualification and support programmes further support quality measures.
- Strong, internationally competitive research, especially in infection medicine, antimicrobial resistances and veterinary public health.
- State-of-the-art facilities for teaching and research.
- Regular coordination of strategic objectives with the university.
- High motivation and involvement of our teaching staff, support staff and students.
- Good relationship between the student body, staff and administration.
- High percentage of teachers with veterinary training (approx. 80% of all teachers).
- Completely revised concept for the operation of the VTH with three animal clinics organised in services and staffed with a substantial number of specialists.
- Broad scientifically-based curriculum with extensive external practical training of students in several fields of veterinary medicine, including food production and safety.
- Good library facilities with an extensive bibliographical collection.
- High level of student engagement in extracurricular activities.
- Excellent university and non-university research environment in the Berlin-Brandenburg area.
- Excellent relationships with other institutions, companies and professionals.

Weaknesses

- Limited opportunities to substantially modify the curriculum due to rigid national legislation.
- Low flexibility in human resources planning specifically for training / specialisation positions due to the special framework of German employee rights.
- Lack of highly qualified scientists available for filling clinical positions, especially clinical VEE positions due to the difficult labor market.
- Long and complicated recruiting procedures.
- Legislative link between core-funded teaching staff and mandatory student admissions.
- Partial dependence on other academic departments of Freie Universität Berlin and Humboldt Universität zu Berlin (HUB) in preclinical teaching.
- Low number of junior research groups.
- Need for closer linking of clinical research with preclinical and paraclinical research.
- Lack of autonomy in management of the VEE, limited resources in administration.
- Budgetary restrictions on strategic planning.

Opportunities

- Complete revision of administrative processes, budget allocation and VEE structures with support of an external consulting agency (Nordlicht Consulting) in 2021/22. Ongoing improvement of efficiency, transparency and visibility.
- Establishment of four centres in the School of Veterinary Medicine, including the Veterinary Hospital, offering the possibility of better coordination in teaching and of more intensive and efficient cooperation in research.
- Decreasing availability of private emergency care providers could be utilised to extend emergency services and emergency training in the VTH.
- Excellent research and clinical infrastructure provides career opportunities for junior scientists.
- Governmental enforcement of career security with early permanent employement can be utilised to increase job satisfaction.
- Personnel development opportunities and career security increase employee motivation.
- Attracting excellent staff for teaching and research can expand the range of specialised clinical services.
- Development of training activities for lecturers will increase teaching quality.
- Strengthening the continuing education in accordance with the demands of profession will guarantee highest professional standards.
- Active participation in the vet-agro-food industry increases visibility.
- Enhanced monitoring of the (under)graduate progression provides information needed to further improve the curriculum.
- Development of additional online and blended training modules increases learning.
- Increasing public awareness of animal welfare and food safety can be utilised to attract public attention and funding opportunities.
- Higher visibility of the VEE fosters the public view on the veterinary profession.
- Centralised support units for fundraising, project acquisition and project administration.

Threats

- Dependency on university budget allocations as well as external resources (uncertainty).
- Increases in the costs of veterinary education and clinical services, as well as the general inflation and energy crisis, greatly impacted on budget planning and budget security.
- Increasing maintenance requirements of aging infrastructure need to be addressed.

- Restriction on personnel management and on curricular development prevent necessary adaptations.
- High complexity and centralisation of administrative processes in the university result in very long decision-making processes.
- Shortage of qualified applicants for higher levels scientific and teaching positions, attractive alternative job opportunities and long recruiting procedures result in positions remaining open for longer periods. This primarily affects the restructuring of the Small Animal Clinic, where a significant number of newly created positions are difficult to fill.
- The withdrawal of the HUB from animal science programmes makes it necessary to establish their discontinued animal science disciplines at our VEE.
- Anticipated, yet not entirely predictable, transformations in the food animal sector may necessitate swift adaptations to evolving needs.
- Further decline in the number of livestock farms in the region.

1.3.2. Summary of the VEE Operating Plan with timeframe and indicators of achievement of its objectives¹²

A detailed operating plan with strategic themes and objectives, implementation time frame and indicators has been developed by the VEE for the next 7 years, discussed at the Faculty Council and presented to Executive Board of Freie Universität Berlin. Covered topics include finances, professorial appointments, research strategy, further development of the undergraduate and graduate teaching, internationalisation, human resource development, promotion of young scientists, gender equality, electronic resources, construction and maintenance.¹³

Standard 1.4.: Quality Assurance (QA)

1.4.1. Description of the global policy and strategy of the VEE for outcome assessment and Quality Assurance (QA), in order to demonstrate that the VEE:

1.4.1.1. Has a culture of QA and continued enhancement of quality;

<u>Freie Universität Berlin's quality management system</u> follows clearly defined principles, is based on decentralisation (delegation of responsibility to the faculties) and fully embedded in the University management system. It was founded on a common understanding of quality of studies and teaching¹⁴ that was defined in University-wide discussion processes in 2012 and 2020/21, leading to the current mission statement for teaching and learning¹⁵ and an educational strategy for the university¹⁶. As described in the Introduction, Freie Universität Berlin successfully passed the procedure of system accreditation in 2016 with re-accreditation in 2023 and received the <u>seal of the German Accreditation Council</u>. The University has the tradition to continously develop its high-level quality management system as well as suitable QA devices and processes that ensure highest standards of its degree programmes. The VEE is fully integrated into this QA system which is adapted to additionally fulfill all requirements of EAEVE.

¹² For more information, see <u>Appendix to 1.3.2.a.</u> and Standard 1.5.1.

¹³ Details on the operating plan are provided in <u>Appendix to 1.3.2.b</u>

¹⁴ See: <u>Appendix to 1.4.1.a.</u>

¹⁵ See: <u>https://www.fu-berlin.de/en/universitaet/profil/studium_lehre/leitbild/index.html</u>

¹⁶ See: <u>https://www.fu-berlin.de/en/sites/zukunft-lehre/index.html</u>

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1.4.1.2. Operates cyclical, sustainable and transparent outcome assessment, QA and quality enhancement mechanisms; closes the loop of any QA Plan-Do-Check-Adjust (PDCA) cycles;

The QA system in place distinguishes between processes of strategy development (Double Loop: Are we doing the right thing?) and process-orientated quality assurance procedures (Single Loop: Are we doing it right?). Overarching objectives defined in the regulatory framework for strategy development are operationalised and implemented through defined and closed single loop processes (target agreements between the University Executive Board and the faculties, development of new degree programmes, etc.). Feedback systems such as evaluations and standardised quality monitoring approaches allow to check the processes and close the PDCA cycles. The individual quality targets of the University related to studying and teaching are clearly presented in the so-called target and operationalisation matrix.¹⁷ Processes, participants, turnus and documents of the quality management system are specified. The results of the QA procedures are fed back into the corresponding circuits. In the further development of processes, stakeholders are involved at various levels. Which internal and/or external participants have to be involved in the specific process is defined in the respective process description.

The interaction between the PDCA circuits and the interfaces are illustrated by the following QA cycle:



Double loop: Quality in university studies and teaching strategy developmentSingle loop: Quality assurance processesFigure 2: Quality management for university studies and teaching loop control system

¹⁷ See: <u>http://www.fu-berlin.de/service/zuvdocs/weitere-</u>

fu/prozessdokumentation/ziel operationalisierungsmatrix.pdf

Individual process descriptions depict the respective processes and provide an understanding of work flows, interfaces and responsibilities, taking into account the documents relevant to the process and (legal) requirements. The documentation of the relevant processes in the field of studying and teaching¹⁸ aims to (a) make processes clear and transparent, (b) maintain knowledge independent of the individuals involved and (c) ensure the continuous improvement of the process and process outcome quality. All relevant documents are published in the process portal¹⁹ of Freie Universität Berlin and on the VEE's website.²⁰ A brief description of selected QA processes is given in <u>Appendix D</u> "Written Assessment procedures for QA (Selection)".

Examples for additional processes applied at the level of the VEE are:

Process type	Process description
Key processes	 Organise and manage international student mobility Organise and manage Erasmus exchange studies (incomings) Organise and manage Erasmus exchange studies (outgoings)
	• Organise and manage Drasmus exchange studies (ourgoings)
Support	Evaluations
processes	• Evaluation of teaching (decentralised survey)
	 Monitoring of external practical training (EPT, decentralised survey) Evaluation of agricultural EPT



In the framework of decentralisation of processes, QA requirements and processes related to specific degree programmes are within the responsibility of the respective Faculty, represented by the Dean's Office and the Faculty Adviser for University Studies and Teaching. Tasks of the Advisers for University Studies and Teaching include:

- Preparation of faculty-specific data, analyses and evaluation results for monitoring as well as the preparation of the annual quality report on studying and teaching (to be used for target agreements), and the development and implementation of indicated measures
- Planning and execution of decentralised evaluations (teaching), preparation of the cumulative results
- Supporting the implementation of the teaching qualification programme
- Coordination and documentation of procedures for the integration of external expertise into the development of the faculty degree programmes
- Support and coordination of curricula development
- Support with the analysis, development and communication of suggestions for further development of the teaching and audit-related processes, as well as service and support offers (process documents)
- Contact point for the University Coordination Office of Internal Accreditation

The further development of study programmes is carried out with the involvement of internal stakeholders (Dean's Office, Adviser for University Studies and Teaching, Study Office, Faculty Council, Education Commission, university lecturers, students) as well as external stakeholders (see details on Peer Consultation with external specialists in Standard 3.4.1.).

¹⁸ An overview of processes related to stydying and teaching is provided in the <u>Appendix to 1.4.1.b.</u>

¹⁹ See: <u>https://www.fu-berlin.de/sites/prozessmanagement/kernprozesse/index.html</u> (VPN client connection required)

²⁰ See: <u>https://www.vetmed.fu-berlin.de/en/studium/qualitaetssicherung/process-descriptions/index.html</u>

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1.4.1.3. Collect, analyse and use relevant information from internal and external sources for the effective management of their programmes and activities (teaching, research, services);

Alongside central tools such as agreements on goals, central reporting, and conceptual, legal, capacity-related, and structural reviews of academic programmes ("<u>Traffic Light System</u>"), the School of Veterinary Medicine makes regular use of the following additional quality assurance tools:

- Evaluations
- <u>Integration of external expertise</u> (Peer Consultation with external specialists)
- <u>Process descriptions</u>
- Quality reports on studying and teaching
- <u>Commissions/Task Forces and Working Groups</u>

Examples of PDCA cycles (a) describing the QA system of the Freie Universität Berlin and the implementation at the Faculty level²¹, (b) quality reporting on studies and teaching²², (c) implementation of surveys/evaluations²³ and (d) obtaining external expertise and carrying out a Peer Consultation with external specialists²⁴ can be found in the respective appendices.

1.4.1.4. Informs regularly staff, students and stakeholders and involves them in the QA processes; Please see Standard 1.6.

1.4.1.5. Is compliant with ESG Standards.

Freie Universität Berlin was positively evaluated and accredited by the agency AQAS. The University takes both external and internal standards and guidelines into account in the operationalising and implementation of quality targets. This includes in partial.

- European Standards and Guidelines for Quality Assurance in Higher Education
- Qualification framework for German university degrees (as amended 16.02.2017)
- Rules for the accreditation of degree programmes and system accreditation (as amended 20.02.2013)
- Recommendations for quality improvement of teaching and studying (Scientific Council, 04.07.2008)
- Berlin Higher Education Act (as amended 05.07.2022)
- Evaluation guidelines of Freie Universität Berlin (as amended 29.05.2017)

The continuing compliance with the ESG Standards is monitored by the QA instrument "<u>Traffic</u> <u>Light System</u>".

The study subject-specific further development of the University QA system within the VEE is carried out in accordance with the Standards and Operating Procedures of the European System of Evaluation of Veterinary Training (ESEVT Standards for Accreditation 2019 as amended in September 2021).

²¹ See: <u>Appendix to 1.4.1.a.</u>

²² See: <u>Appendix to 1.4.1.c.</u>

²³ See: <u>Appendix to 1.4.1.d.</u>

²⁴ See: <u>Appendix to 1.4.1.e.</u>

Standard 1.5.: Interaction with stakeholders and the wider society

1.5.1. Description of how the VEE informs stakeholders and the public on its objectives, its education, research and teaching activities, employment destinations of past students and profile of the current student population

The VEE is characterised by its transparent information culture. The objectives are laid down in the "Mission | Strategy | Objectives" document. This mission statement is available both in printed version as well as digital version on the VEE's website²⁵.

In addition, all members of the VEE are regularly informed in various formats about current and planned developments in education, research and teaching. For example, full VEE meetings, professorship assemblies, and Faculty Council meetings are held on a regular basis. The minutes of the Faculty Council meetings are available in the internal area of the website. All VEE members are informed of new minutes via email by the Dean's Office. Both in the Education Commission and the Faculty Council, topics related studying and teaching processes are a permanent item on the agenda. VEE-wide retreats and topic-specific workshops contribute to transparent planning and decision processes and ensure the broad participation and understanding of the participants in studying and teaching. For strengthening the public and political outreach, the Dean's Office publishes a monthly newsletter to staff, students and interested alumni (since 2020). Furthermore, a Coordinator for Public Outreach was recruited and the Public Relation Commission was established. An Instagram Account (Fu vetmed) of the VEE was launched in 2022. Moreover, the VEE publishes current topics in the fields of study and teaching and research in the journals "Veterinary Medicine in the Capital" of the Society of Friends and Supporters²⁶ and the "German Veterinary Journal" of the Federal Veterinary Association²⁷. With the annual "Open Day" and the "Long Night of Science", the VEE informs the general public about its activities. To foster communication on animal experimentation and animal welfare, Freie Universität Berlin is a member of European Animal Research Association and the information initiative "understand animal experimentation" of the Alliance of Science Organisations and was awarded the quality seal for exemplary communication of animal research in 2021.

All relevant information for prospective students, newly enrolled students and undergraduates is published on the VEE's website. In addition, prospective students are informed about admission requirements, contents of the study programme and career fields in veterinary medicine on the so-called "Boys Day", "in:FU-Days" and the "Pupils' Uni".

The key figures on current student numbers and information on graduates are presented transparently in the annual Quality Report²⁸, in the Graduate Survey²⁹ and in the statistics report of the Federal Chamber of Veterinarian Medicine³⁰. The results are reported by the Vice Dean for Study Affairs to the Education Commission and the Faculty Council and are published on the VEE's website and on central websites of Freie Universität.

²⁵ See: <u>https://www.vetmed.fu-berlin.de/einrichtungen/selbstverstaendnis/index.html</u>

²⁶ See: <u>https://www.vetmed.fu-berlin.de/einrichtungen/sonstige/foerderverein/09_vidh/index.html</u>

²⁷ See: <u>https://www.bundestieraerztekammer.de/btk/dtbl/archiv/</u>

²⁸ See: <u>https://www.vetmed.fu-berlin.de/administration/intern/Berichte-_-</u>

Dokumente/qualitaetsberichte/index.html (VPN client connection required)

²⁹ See: <u>https://www.vetmed.fu-berlin.de/administration/intern/Berichte-_-Dokumente/auswertung-zentraler-und-dezentraler-</u>

<u>evaluationen/tb_jg19w1_berlin_fu_02_10_09_veterinaermedizin_nach_studienfach_und_abschlussart.pdf</u> (VPN client connection required)

³⁰ <u>https://www.bundestieraerztekammer.de/btk/statistik/</u>

For graduates and practitioners of veterinary medicine, the VEE also offers regular continuing education courses in veterinary medicine (Berliner Tierärztliche Gesellschaft)³¹. Since 2022, the VEE has also held an annual Berlin Veterinary Get-Together, which promotes the exchange between members of the VEE, students, and practitioners of veterinary medicine in the region Berlin/Brandenburg.

1.5.2. Description of how to access to the ESEVT VEE's status and to the last ESEVT Self Evaluation Report and Visitation Report on the VEE's website

All information about the last visitation and the current ESEVT status are published on the VEE's website³². The related documents (e.g. Self Evaluation Report and Visitation Report) are available in the internal area of the website (VPN client connection required).

Standard 1.6.: Monitoring and periodic review

1.6.1. Description of how and by who the strategic plan, the organisation, the activities and the QA policy are decided, communicated to staff, students and stakeholders, implemented, assessed and revised

The structure and duties of the most important commissions are prescribed in the Berlin Higher Education Act (\S 71, \S 72) and the Partial Basic Ordinances of Freie Universität Berlin (\S 13; \S 14).

Long-term objectives of the State of Berlin and Freie Universität Berlin as part of the target structure plan

All universities in Berlin are invited every four years to scrutinize their structural composition. At Freie Universität, a Structure and Development Planning Commission has been implemented for this purpose. The commission comprises members from all subject fields at Freie Universität. The documents have been revised in 2023 and are freely accessible on the website of Freie Universität Berlin³³. For our VEE the target structure comprises of 36 professorships allocated to 18 scientific units within 4 administrative centres.

VEE Operational and Strategic Objectives

In the Mission | Strategy | Objectives document of 2023 the VEE's strategic objectives for the next seven years are defined and communicated to students, staff and stakeholders³⁴. It was prepared by the Dean's Office with the broad participation from all members of the Faculty Council. In keeping with the point "*The Faculty envisages itself as a learning organisation*", new aspects can be proposed and added after discussion in Faculty Council. By 2030 at the latest, it should be reviewed and updated.

Operational objectives are set out in objective agreements with the University Executive Board every two years. The Dean's Office provides information about objective agreements within meetings of the Faculty Council with strategy and timeframe of implementation. After two years, the VEE must report back to the University Executive Board, which closes the PDCA cycle.³⁵

³¹ <u>https://www.vetmed.fu-berlin.de/einrichtungen/sonstige/btg/archiv/index.html</u>

³² See: <u>https://www.vetmed.fu-berlin.de/en/studium/qualitaetssicherung/quality-assurance-system/index.html</u>

³³ See: <u>https://www.fu-berlin.de/universitaet/media/strukturplan-2018.pdf</u>

³⁴ See: <u>https://www.vetmed.fu-berlin.de/einrichtungen/selbstverstaendnis/selbstverstaendnis-en.pdf</u>

³⁵ See PDCA cycle "Strategy and Objective Planning" in <u>Appendix to 1.3.2.a.</u> as well as process description "Implementing Objective Agreements" in <u>Appendix D.1.</u>

QA policy

The University has established a QA system, that effectively serves the system accreditation of degree courses under ENQA standards. This system is utilised at the VEE with specific adaptations to the EAEVE SOPs. The VEE Advisor for University Studies and Teaching communicates the procedures to the Dean's Office, the Faculty Council, the Education Commission and other relevant target groups.

The VEE-specific development of further QA devices and procedures is coordinated and monitored by the Vice Dean for Study Affairs together with Adviser for University Studies and Teaching. The involvement of the VEE's students and lecturers, the Education Commission and the Faculty Council is mandatory. Specifically, the Vice Dean for Study Affairs reports and discusses the results of all key QA outcomes with the Education Commission and the Faculty Council. All processes and results are communicated to the respective commissions and individuals through meeting minutes, in writing and through the VEE's website.

All general information on the quality management of Freie Universität Berlin³⁶ and the School of Veterinary Medicine³⁷, as well as the results of the central evaluations, are published on the website. The documents relating to work (PDFs of the process documentation and the target and operationalisation matrix) are downloadable from Freie Universität Berlin's intranet.

Standard 1.7.: External review through the ESEVT on a cyclical basis

1.7.1. Date of the last ESEVT Visitation and description on how the deficiencies have been corrected and how it has been used to enhance quality

- The previous Full Visitation took place from 13-17 November 2017. The VEE's status awarded by ECOVE was conditional accreditation.
- The Re-visitation was carried out from 15-17 July 2018. The Committee concluded that the Major Deficiency, identified in 2017, had been fully corrected. The VEE's status awarded by ECOVE was accreditation.
- The description on how the deficiencies have been corrected can be found in the Interim Report in <u>Appendix to 1.7.1.</u>

Comments on Area 1

- The VEE has a functional commission structure with good representation by all status groups. Currently perceivable risks are budget uncertainty, existing restrictions imposed by the legal framework (curriculum, staff etc.) and by increasing complexity of administrative processes.³⁸
- VEE and postdoc recruiting procedures in the recent past have conclusively proved that there is an increasing shortage of young researchers entering a university career or applying for VEE positions; this requires joined efforts from all veterinary establishments.
- In response to increasingly competitive and governmentally regulated operating conditions, the VEE had started a restructuring process with emphasis on clinics in 2020. The latter resulted in a significant increase in qualified staff positions (16.25 FTE academic staff and 11.5 FTE support staff) and an additional professorship in the Small Animal Clinic, in the establishment of the Centre for Veterinary Clinical Services, and in a better payment of qualified veterinarians at the entire VEE in 2023. Due to the lengthly structure and budget negotiations with the University, however, it became yet necessary to interupt the 24/7

³⁶ See: <u>https://www.fu-berlin.de/en/sites/qm/index.html</u>

³⁷ See: <u>https://www.vetmed.fu-berlin.de/en/studium/qualitaetssicherung/index.html</u>

³⁸ See: Standard 1.3.

service in the Small Animal Clinic in summer 2022 due to insufficient staffing. Resumption of the 24/7 service in the Small Animal Clinic is progressing slower than desired due to the general challenges of recruitment (see previous item).

- The QA processes (cycles) implemented in recent years have increased the administrative workload; however, they provide the necessary tools to analyse processes in teaching, to identify problems and to address them in a targeted manner.
- The inclusion in Freie Universität Berlin's quality assurance system guarantees a high QA standard and ensures that these processes are also maintained in the long term.
- The VEE has made considerable efforts in outreach communication that signifficantly increase visibility and improve communication with stakeholders
- The concept of external veterinary practices, which are contractually bound to veterinary establishments and which are often financially rewarded by these for the implementation of extramural training, cannot be implemented in Germany. It does not agree with the general regulation concerning the organisation of extramural training required by German universities. The funds made available are exclusively for immediate university bound intramural education. Nevertheless, the five German VEEs make joint efforts to establish a common strategy for quality control of the EPT by providing didactic trainings for EPT providers and developing a common evaluation strategy including the launch of an online platform for the EPT providers including internship agreement, internship certificates and evaluation forms.

Suggestions for improvement in Area 1

- In continuation of the structural and budgetary discussions over the last 4 years, the VEE will make high efforts to consolidate administrative structures and processes, especially regarding the organisation and management of the clinics.
- Transparency of structures and processes will be further increased, and the processes frequently scrutinised.
- Continued implementation of the QA processes and broad communication of their results will result in smoother operation in the future and acceptance by all stakeholders.
- Possible solutions to the lack of junior scientists and suitable applicants for VEE positions are under constant discussion with the Executive Board of Freie Universität Berlin and during meetings of the Council of Veterinary Establishments.
- The optimisation of recruitment tools and procedures is of priority to attract and bind highly qualified staff. This is important, especially, for a timely resumption of the 24/7 service in the Small Animal Clinic.

AREA 2. FINANCES

2.1. Factual Information

2.1.1. Description of the global financial process of the VEE

University funds are determined at four year intervals during university contract negotiations with the Senate of the State of Berlin. They are mainly dependent on educational objectives (new students, numbers of students in the standard study period, university degrees awarded), research (external funding expenditure, acquisition of external funding) and equality issues (proportion of women in appointments, diversity, etc.). Currently, the VEE receives approximately 6.5% of the funds allocated to the Freie Universität. The budget is agreed between Executive Board of Freie Universität Berlin and the Dean's Office. These negotiations take place every two years. Funds for personnel are operated by the Dean's Office based on the structural plan. Remaining funds are partly distributed to the individual institutes and clinics by the Dean's Office according to a parameter-based approach³⁹ to budgeting decided in the Faculty Council. One steering element for budgetary changes are the negotiations with newly appointed university professors that result in target agreements.

2.1.2. % of margin paid as overhead to the official authority overseeing the VEE on revenues from services and research grants

Revenues from clinical services fully remain at the VEE; there is no overhead deduction. Scientific services revenues remain at the serving institute except for a 22% overhead to the VEE. The overhead for research projects depends on the type of project and ranges from 0-30% whereof 3.75% remain at the VEE and 5.0% at the principal investigator.⁴⁰

2.1.3. Annual tuition fee for national and international students

Freie Universität Berlin does not charge tuition. Fees for undergraduate and graduate (doctoral) students are € 312.89 per semester. The use of public transport is included in these fees.

	,			
Area of expenditure	2023	2022	2021	Mean
Personnel	24,148,529.65 €	24,386,179.95 €	24,055,723.56 €	24,196,811.05 €
Operating costs	4,701,224.19€	4,764,679.61 €	4,026,056.61 €	4,497,320.14 €
Maintenance costs	133,225.63 €	128,518.39€	161,856.75 €	141,200.26€
Equipment	389,715.49€	173,909.19€	136,921.88 €	233,515.52€
Total expenditure	29,372,694.96 €	29,453,287.14 €	28,380,558.80 €	29,068,846.97 €

Table 2.1.1. Annual expenditures during the last 3 academic years from core-funded budget (budget chapter 14)⁴¹

Table 2.1.2.a. Annual revenues during the last 3 academic years from core-funded budget (budget chapter 14)

Revenues source	2023	2022	2021	Mean
Public authorities	25,956,000.00 €	25,070,000.00 €	23,913,000.00€	24,979,666.67 €
Tuition fee (standard students)	- €	Ē	- €	0.00 €

³⁹ For details on budget allocations to scientific units and clinics based on transparent criteria, please refer to <u>Appendix to 2.2.1.</u>

⁴⁰ For schematic representation of cost distribution see <u>Appendix to 2.1.2</u> and <u>Appendix to 2.1.3</u>.

⁴¹ The budget chapters with relevance for the VEE are visualized in <u>Appendix to 2.1.2</u> and <u>Appendix to 2.1.3</u>.

Tuition fee (full fee students)	- €	€	- €	0.00 €
Clinical services	5,245,442.88 €	4,498,221.74 €	6,707,312.00 €	5,483,658.87 €
Diagnostic services	308,939.25 €	117,837.30 €	123,476.37€	183,417.64€
Other services	- €	- €	- €	0.00 €
Continuing Education	410.80 €	- €	- €	136.93 €
Other sources*	897,139.84 €	746,080.46 €	687,116.25€	776,778.85 €
Total revenues	32,407,932.77 €	30,432,139.50 €	31,430,904.62 €	31,423,658.96 €

Other sources*: Delivery of income from secondary activities, internal billing, reminder fees, damages, vehicle sales, food/animal sales, interests from private law claims

 Table 2.1.2.b. Annual revenues during the last 3 years (budget chapters 03, 04 & 06)

Revenues source	2023	2022	2021	Mean
Research grants: Project funds (tax-free) Chapter 4	6,026,309.86 €	6,315,516.44 €	5,816,048.80€	6,052,625.03 €
Commissioned Research (taxable) Chapter 6	508,922.45 €	90,0745.15€	993,975.02	801,214.21€
Donations Chapter 03	40,06.99€	87,787.20€	144,372.08	90,788.76€
Total revenues	6,575,439.30 €	7,304,048.79 €	6,954,395.90 €	6,944,628.00 €

Table 2.1.3. Annual balance between expenditures and revenues from core-funded budget (budget chapter 14)

Academic year	Total expenditures	Total revenues	Balance
2021	28,380,558.80 €	31,430,904.62 €	3,050,345.82 €
2022	29,453,287.14 €	30,432,139.50 €	978,852.36 €
2023	29,372,694.96 €	32,407,932.77 €	3,035,237.81 €

2.1.4. Estimation of the utilities and other expenditures directly paid by the official authority and not included in the expenditure tables

Since 2013, expenditures for property management and building maintenance are directly covered by the Engineering and Utilities division of Freie Universität Berlin.

2.2. Instructional resources and autonomy

2.2.1. Description of the modus operandi for the financial management of the clinical and field services

Funds are distributed to the individual institutes and clinics by the Dean's Office according to a parameter-based approach of budgeting decided by the Faculty Council in February 2023. Allocations are made according to the following parameters: teaching flat fee, teaching practical courses, animal husbandry (large or small), laboratory (large or small), and the number of scientific and support staff. For details on budget allocations to scientific units and clinics based on transparent criteria, please refer to <u>Appendix to 2.2.1</u>.

The financing scheme for clinical services differs between the Farm Animal Clinic and the Equine and Small Animal Clinics. The Farm Animal Clinic receives an annual budget that

covers all costs of the clinic and provides planning certainty for both sides. In return, revenues from clinical and field services are to be fully returned to the VEE. This procedure was established a long time ago to avoid financial restrictions on clinical teaching due to lacking profitability of farm animal services. In the Equine and Small Animal Clinics, all costs are covered by the VEE and the revenue are to be fully returned to the VEE.

2.2. Degree of autonomy of the VEE on the financial process

The VEE has a global budget and is responsible for managing the funds allocated to it. Expenditures for core funded personnel, for administration, disposeables, keeping animals and education are therefore covered.⁴²

2.3. Periodic review

2.3.1. List of the on-going and planned major investments for developing, improving and/or refurbishing facilities and equipment, and origin of the funding

Description	Euro	Source of funding:
Building for the Institute of Food Safety and Food Hygiene	27,500,000€	State of Berlin
Centre for Infection Medicine: Renewal of technical infrastructure	4,900,000€	Freie Universität Berlin
Division for Reproduction Medicine – Equine Clinic	4,900,000€	Freie Universität Berlin
Lunging Hall – Equine Clinic	510,000 €	Freie Universität Berlin
Activity Stables for Teaching Horses – Equine Clinic	3,500,000 €	Freie Universität Berlin
Farm Animal Clinics	42,000,000 €	in the feasibility study

Planned building projects (estimated costs)

Planned investment costs – larger equipment (estimated costs in Euro)

Description	Euro	Source of funding:
Scintigraphy - Equine Clinic	284,000€	Proportionally from: appointment funds / central funding/ Faculty funding
Central fleet of electric cars	300,000 €	Faculty funding
X-ray system – Small Animal Clinic	250,000 €	Faculty funding
Computed tomography scanner – Small Animal Clinic	300,000€	Faculty funding
Total	1,134,000 €	

2.1.7. Prospected expenditures and revenues for the next 3 academic years

Detailed budget planning for 2024/2025 was carried out in the summer of 2023. The funds allocated to chapter 14 significantly increased to \notin 26.5 million, mainly due to an increase in the number of planned staff positions in the Veterinary Hospital (see Standard 9.2.1.).

2.1.8. Description of how and by who expenditures, investments and revenues are decided, communicated to staff, students and stakeholders, implemented, assessed and revised

The process is described in Figure 3 and <u>Appendix to 2.1.8.</u>

⁴² For schematic representation of the budget allocation see <u>Appendix to 2.1.2.</u>

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Figure 3: PDCA cycle "Budget Planning of the VEE"

Comments on Area 2

- The financial revenues of the VEE and its institutions renegotiated in 2023 are considered sufficient to meet teaching needs, initiate new research activities, and support project applications to secure external funding. Surplus funds for strategic use are limited and partly dependent on/managed by political stakeholders.
- Increasing companion animal patients (especially in the ambulatory polyclinic) after return to full 24/7 service is expected to increase revenues from clinical services.
- The first priority of the Veterinary Hospital is high-quality teaching; budget generation is very important but integrated as subordinate priority.

Suggestions for improvement in Area 2

- Due to increasing internal and external complexity regarding the use of funds and legal restrictions, the existing responsibility structures are currently undergoing a comprehensive evaluation process. The aim is to sharpen responsibilities in the revised organisational units and to establish a modern management culture and structure in the coming years.
- To strengthen research activities at the Veterinary Hospital, we currently consider the introduction of performance-based budgeting to release the necessary human and material resources. The clinical units would benefit from the flexible funds allocated to the Clinical Research HUB depending on their performance.

AREA 3. CURRICULUM

3.1. Factual information

3.1.1. Description of the educational aims of the VEE and the general strategy for the design, resources and management of the curriculum

The education in the veterinary curriculum aims to fulfill all legal requirements for the performance of the veterinary profession which are laid out in the German Veterinary Medical Licensure Law (TAppV) and the Federal Veterinary Regulation (BTÄO) which in turn refer to the minimum requirements laid down in regulation 2013/55/EU for the training of veterinarians in Europe. Proceeding from our mission, vision and objectives as laid out in Standard 1.1.1. and the teaching goals of the TAppV as cited in Standard 1.1.2., our specific objectives for education are:

- to offer excellent training and jointly adapt teaching to meet new challenges,
- to graduate scientifically and practically trained veterinarians capable of competent, self-responsible and solution-oriented veterinary work and life-long learning,
- to enable students to engage in interdisciplinary scientific and clinical endeavors,
- to promote performance-oriented and evidence-based decision making on solid ethical and animal welfare grounds with due consideration of One Health and Global Health,
- to prepare our students for their professional fields of activity and provide them with the necessary professional knowledge, practical skills and methods,
- to advise our students in all phases of their degree programmes.

In the course of study, students are taught the basic veterinary, scientific, interdisciplinary and methodological knowledge, practical skills, as well as the intellectual and the ethical basis for a professional attitude committed to the well-being of humans, animals and the environment. At the VEE, the TAppV, associated <u>study</u> and <u>examination regulations</u> and a comprehensive <u>subject-specific learning objective catalogues</u> (with references to "Day One Competences" of the EAEVE) defines the organisational and content framework of the implemented curriculum in order to meet the educational objectives. All facilities are designed and developed unter due consideration of educational needs. Furthermore, the yearly budget allocation to the scientific institutions gives due credit to the requirements of their teaching responsibilities (<u>Appendix to 2.2.1.</u>). For the continuing development of the curriculum a PDCA cycle is in place (<u>Appendix to 3.4.1.</u>).

3.1.2. Description of the legal constraints imposed on curriculum by national/regional legislations and the degree of autonomy that the VEE has to change the curriculum

The TAppV as a federal law (from 2006, last amended in 2019) defines the educational goal, the significant teaching content, the subject-specific hours allocated to intramural and extramural training, the total duration of university studies, as well as the timing of formal examinations. Cornerstones of the TAppV are

- Total hours of training: 5,020 hours in 5.5 years (11 semesters, including final exam period)
- Intramural scientific-theoretical training; 3,850 hours (not to be exceeded) in first 4.5 years
- Mandatory extramural practical training: 1,170 hours (for subjects see Table 3.5.1.)
- 29 official exam subjects, with fixed curricular hours assigned to each subject area

Changes to the TAppV are the responsibility of the Federal Ministry of Food and Agriculture (BMEL). Requests are communicated to the ministry by stakeholders such as the Council of

Veterinary Establishments (Veterinärmedizinischer Fakultätentag).⁴³ The ministry compiles these inputs and creates a draft legislation that must pass the German Federal Parliament (Bundestag) and the German Federal Council (Bundesrat). The implementation of the TAppV in a curriculum is within the responsibility of the VEE, which imposes the <u>study</u> and <u>examination regulations</u>. These regulations are subject to the QA processes of Freie Universität Berlin. Deviations from the TAppV can be legally challenged.

The use and care of animals for teaching is regulated by the German Protection of Animals Act.

3.1.3. Description of how curricular overlaps, redundancies, omissions and lack of consistency, transversality and/or integration of the curriculum are identified and corrected.

Semester plans are prepared by the Study Office with feedback from teachers at the VEE, and are appraised by the Education Commission, agreed upon by the Faculty Council and transferred to the electronic Student Lifecycle Management System (SLCMS) "Campus Management", the electronic course catalog of Freie Universität Berlin and the VEE's website.⁴⁴

Coordinators for subjects, organ modules and extramural practica are responsible for the development and coordination of learning objective and exam subject catalogues; they coordinate the process between the relevant subject lecturers and are the first point of contact for the Dean's Office, lectures and students. The comprehensive subject-specific learning objective catalogue is available to all students and lecturers on the VEE's website. It is updated annually, reviewed by the educational commission and presented at a Faculty Council meeting. Curricular deficiencies are identified by the following processes: (i) teaching and learning objective evaluations (cyclic every 3 years); (ii) university survey of exmatriculated (upon request) and recently graduated students (biannualy), (iv) regular Peer Consultations with external specialists (every 8 years) and (v) information from the complaint management system (every semester). Compiled information is fed back through the Dean's Office to the Education Commission, the Faculty Council and the afore mentioned coordinators. Changes are implemented in accordance with the QA processes on curricular development (<u>Appendix to 3.4.1</u>). The current curricular structure is presented in Tables 3.1.1 to 3.1.5.

Academic years	Lectures	Seminars	Supervised self-learning	Laboratory and desk-based work	Non-clinical animal work	Clinical animal work	Others	Total
1	462	32	80	130	91	0	10	805
2	70	46	122	85	122	0	10	455 ⁴⁵
3	609	74	19	151	40	236	19	1,149
4	455	144	19	144	75	250	19	1,106
5	0	0	0	0	0	336	0	336 ⁴⁶
Total	1,596	296	240	510	328	822	58	3,850

Table 3.1.1. Curriculum hours in each academic year taken by each student

⁴³ For more information see <u>Appendix to 3.1.2.</u>

⁴⁴ The process is documented in the <u>Appendix D, No 3.</u>

⁴⁵ The contact hours in the 2nd year are reduced in acknowledgement of substantial off-class workload from content-heavy subjects with continuous learning progress assessments.

⁴⁶ Most of the final year is spent as EPT.

Table 3.1.2. Curriculum hours taken by each student47

EAEVE subjects	Lectures	Seminars	Supervised self learning	Laboratory and desk-based work	Non-clinical animal work	Clinical animal work	Others	Total
Medical physics	28	0	0	28	0	0	0	56
Chemistry (inorganic and organic sections)	56	0	0	49	0	0	0	105
Animal biology, zoology and cell biology	84	0	0	0	0	0	0	84
Feed plant biology and toxic plants	28	0	0	0	0	0	0	28
Biomedical statistics	0	0	14	14	0	0	0	28
Anatomy, histology and embryology	70	0	28	28	189	0	0	315
Physiology	0	7	84	25	10	0	0	126
Biochemistry	98	7	0	21	0	0	0	126
General and molecular genetics	56	0	0	0	14	0	0	70
Pharmacology, pharmacy and pharmacotherapy and Toxicology	112	0	0	14	0	0	0	126
Pathology	99	0	0	7	49	0	0	155
Parasitology	42	0	0	28	0	0	0	70
Microbiology and Zoonoses	84	0	0	42	0	0	0	126
Immunology	28	0	0	0	0	0	0	28
Epidemiology	42	0	0	0	0	0	0	42
Professional ethics and communication	28	28	28	0	0	14	0	98
Animal health economics and practice management	0	56	0	0	0	0	0	56
Animal ethology and Animal welfare	70	28	0	0	0	0	0	98
Animal nutrition	42	0	0	56	0	0	0	98
Obstetrics, reproduction and reproductive disorders	81	0	0	0	0	0	0	81
Diagnostic pathology	0	0	0	0	0	56	0	56

⁴⁷ The assignment of EAEVE subjects to Study Regulation Subjects is provided in <u>Appendix to Table 3.1.2.</u>

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Medicine; Surgery; Anaesthesiology; Therapy in common animal species	282	112	28	28	0	28	0	478
Clinical practical training in common animal species	0	0	0	0	0	588	0	588
Diagnostic imaging	42	0	0	0	0	0	0	42
Propaedeutics of common animal species	0	0	0	0	0	84	0	84
Animal production, including breeding, husbandry and economics	84	0	0	0	0	0	0	84
Herd health management	0	0	0	0	14	14	0	28
Veterinary legislation including official controls, regulatory veterinary services, forensic veterinary medicine and certification	28	0	0	0	0	0	0	28
Control of food, feed and animal by- products; Food hygiene and food microbiology; Food technology	112	0	0	112	14	0	0	238
Electives (Table 3.1.4)	0	58	58	58	38	38	58	308
Total	1,596	296	240	510	328	822	58	3,850

• Subjects linked to Professional Knowledge are incorporated within the subcategories and include inter alia information literacy and data management, professional ethics and communication, animal health economics and practice management, clinical practical training in common animal species, herd health management and veterinary legislation.

• For details on intra- and extramural clinical training topics and hours offered in the clinical phase of the veterinary curriculum, please refer to <u>Appendix to 3.1.3.</u>

Comments to Tables 3.1.1. – 3.1.2.

- All students in addition to the internal courses have to attend 1,170 hours of extramural practical training (EPT), resulting in a total of 5,020 hours in veterinary training. For details on monitoring the quality of these EPT, see standards 3.5. to 3.7. of this report.
- The already existing Veterinary Skills Net is constantly expanding with new models and learning stations⁴⁸ and its integration into hands-on clinical teaching activities is emphasised and constantly growing. This enables us to further increase hands-on teaching while at the same time limiting the use of live animals for teaching, which is mandated by animal welfare legislation.
- For further case studies in a clinical and inderdisciplinary context, please refer to Standard 5.3.4.

⁴⁸ An overview of models and learning stations is provided in <u>Appendix to 6.3.b.</u>

Types	List of clinical rotations (Disciplines/Species)	Duration (weeks)	Year of programme
Intramural clinics (VTH)*	Clinical Coaching	1	4
	Emergency Medicine (all species)	2	4
	Final clinical rotation across all disciplines in small animals or equine or farm animal species (ruminants, pigs, poultry)	8	5
	Pathology	2	5
Ambulatory clinics (Farm visits during the clinical rotation)	included in the 8 weeks of the final clinical rotation	1	5
Herd Health Management	Farm animal clinic (ruminants, pigs, poultry)	1	4
FSQ & VPH	Meat hygiene (ruminants, pigs, poultry)	3	4
Electives	n.a.		
Other (specify)	n.a.		

 Table 3.1.3. Practical rotations under academic staff supervision (excluding EPT)

*Rotation teaching schemes are further implemented in clinical propedeutics, clinical case work and the practical courses in surgery and anaesthesiology (see <u>Appendix to 3.1.3.</u>)

Electives	Lectures	Seminars	Supervised self learning	Laboratory and desk based work	Non-clinical animal work	Clinical animal work	Others (specify)	hours available per subject group
Basic Subjects	14	42	14	14	14	0	0	98
Basic Sciences	84	448	308	350	70	0	0	1,260
Clinical Sciences	98	252	70	84	56	322	0	882
Animal production	42	28	0	98	14	0	0	182
Food safety and quality	14	70	14	42	14	0	0	154
Total	252	840	406	588	168	322	0	2,576

Table 3.1.4. Curriculum hours offered as electives for students

Students are required to take a minimum of 22 classes of 14 hrs (308 hours) of electives.
Table 3.1.5. Optional courses proposed to students (not compulsory)

There is a range of additional courses suggested to the students in topics such as computer literacy (MS Excel, MS Word, Statistics refresher, Literature search etc.), animal experimentation competence (Animal Experiment Supervisor certificate FELASA, Farm Animals in Animal Experimentation Scinece LaNiV⁴⁹, 3R Online Seminar), osteosynthesis, biochemistry and parasitology seminars. In addition, students can enrol in a broad range of open lectures and soft skill classes offered by the Freie Universität Berlin. During semester breaks, the VetCam Berlin offers facultative live sessions of case work to students.

3.1.4. Description of the core clinical exercises/practicals/seminars prior to the start of the clinical rotations

Prerequisite for participation in the final clinical rotation of the 5th year of study is regular and successful participation in the required course work and extramural internships (EPT) of the pre-clinical and clinical part of the curriculum.⁵⁰ Clinical core subjects in the 3rd and 4th years of study are clinical propaedeutic, internal medicine and laboratory diagnostics, surgery and anaesthesia, radiology, ophthalmology, clinical case work, interdisciplinary teaching and training in emergency medicine (see Tables 3.1.1 and 3.1.2), as well as 150 h of EPT in a veterinary practice. For an detailed descritption of practical training modules please see <u>Appendix to 3.1.4.b.</u>

3.1.5. Description of the core clinical rotations and emergency services (both intramural VTH and ambulatory clinics) and the direct involvement of undergraduate students in it

The VEE has developed a rotating scheme for almost all clinical training activities that precede the final clinical rotation (i.e., clinical propaedeutics, herd health management, clinical case work, practical courses in pathology, surgery, anaesthesiology and emergency care, as well as the courses in FSQ). Such courses are taught across all relevant species. The course in emergency care started in 2020 as a 3-week peer-to-peer coaching course (Emergeny Veterinary Coach) that immediately precedes the 5th (practical) year and is seen as an integral part of the final clinical rotation. The final clinical rotations themselves are organised as staggered 9-week periods over the whole 5th year to allow a low effective group size (2 to 8 students, depending on tasks). Upon recommendation from the last ESEVT visitation, the VEE adopted a speciesspecific scheme for the final clinical rotations in 2018. All 5th year students rotate in small groups through the different divisions/units of one species-specific clinic (small animals, equine or farm animals) including emergency services (for details see Table 3.1.3).⁵¹ The clinical rotation starts with practical instructions and exams in pathology, thus enabling the students to also perform post mortem examinations independently during their practical clinical education. During rotation, students participate in regular clinical duties (including morning and afternoon rounds, daily seminars, as well as night and weekend services), are actively involved in inpatient and ambulatory work, attend seminars and exercises on practice-relevant topics and compile their own case reports.⁵² The aim is that the students apply their acquired knowledge in a problem-based approach and practise recognising clinical problems, develope diagnostic and therapeutic plans, as well as practice relevant hands-on skills. Students learn to be responsible for their own cases. Performed tasks are recorded in a logbook (see Appendix to 3.1.5.b.).

 ⁴⁹ Modular course for farm animals in research in accordance with the EU recommondations on education and training framework for the implementation of the Directive 2010/63/EU, <u>https://www.laniv.de/fortbildungen/</u>
 ⁵⁰ A tabular overview of the course of study can be found in <u>Appendix to 3.1.4.a.</u>

⁵¹ Hours of individual clinics and institutions with contents and periods of rotation see <u>Appendix to 3.1.5.a.</u>

⁵² See: Overview 2 and Standard 5.1.2.

3.1.6. Description of the teaching in slaughterhouses and in premises for the production, processing, distribution/sale or consumption of food of animal origin

Teaching	Year of programme	Duration	Group size per teacher
Food hygiene	4 th year	4 hours/week for 2 semesters	2-3 teachers / 45 student
Milk hygiene	4 th year	2 hours/week for 1 semester	2-3 teachers / 60 student
Meat Inspection Course (practical training on ante- and post-mortem inspection) ⁵³	4 th year	1 day/week in the summer semester (= 14 x 3 hours per student)	Ante- and post-mortem inspection: 1-2 teacher(s)/20 students, Bacteriological analysis and further tests: 2 teachers/80 students, Captive bolt stunning: 1 teacher/12 students
Extramural practical training on Food hygiene (hygiene control, food monitoring, food examination)	5 th year	75 hours within 2 weeks	at least 1 veterinarian or other qualified person per student
Further extramural practical training on meat hygiene, ante- and post-mortem inspection and further investigation in accordance with TAppV within the framework of several EPT in the 5 th year of study (see Table 3.5.1.) in a pig, cattle and/or poultry abattoir	5 th year	100 hours within at least3 weeks in a pig, cattle and/or poultry abattoir (max. 30 hours in a poultry abattoir)	at least 1 official veterinarian/student

3.1.7. Description of the selection procedures of the Electives by the students and the degree of freedom in their choice

Students must attend at least 6 elective courses (1 course = 1 SWS = 14 hours) in the preclinical part and 16 courses in the clinical part. At the beginning of the clinical part students select a main track (farming livestock, equine, small animals, VPH or Research) in which they attend 7 courses. The remaining courses can be selected from other tracks. The VEE offers a wide range of approximately 190 elective courses per year (approximately 95 per semester) with sufficient number of places available.⁵⁴ Within the framework of these courses, internal and external lecturers cover topics outside the regular curriculum, as well as intersections on ongoing research projects. Registration is managed via the SLCMS. Distribution takes place in two allocation rounds from 2 weeks before until 2 weeks after the start of classes. The primary track, the preference, place restrictions on individual courses as well as special needs (family care, disabilities etc.) are considered. Hardship is taken into account with the possibility of priority registration by the Study Office. If the number of bookings for a course exceeds the number of places available, admission is based on the afore mentioned criteria.

 ⁵³ For details on the Meat Inspection Course, please refer to <u>Appendix to 3.1.5.a</u>
 ⁵⁴ See: <u>Appendix to 3.1.7.</u>

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3.1.8. Description of the procedures used to ascertain the achievement of each core practical/clinical activity (pre-clinical, clinical, ambulatory clinics, EPT) by all students

Attendance of students in all preclinical and clinical practical training modules is documented through attendance lists, and successful completion of each module is certified by the responsible instructor in the SLCMS. Completion of all intramural practical training modules is a prerequisite for admission to the 5th year. In addition, students have to complete a range of laboratory, dissection and autopsy as well as clinical case reports (see Overview 2). During clinical case work and rotations, students work on patient- or problem-oriented cases (either hospitalised patients, outpatients, clinic-owned animals, and herd health problems). They independently write reports in which medical history, findings, diagnosis, differential diagnoses, therapy recommendations and prognosis are described. In the process, students are encouraged to identify and read original literature and integrate it into their reports. The reports are read and corrected by teaching staff, and feedback is provided to the students. In case of shortcomings students are requested to revise their reports. Successful completion of all reports listed in Overview 2 is required to enter the final examinations.

Semester	Subject	Type of report	Number of reports
6 th / 7 th	Clinical case work: horses	Medical report	1
6 th / 7 th	Clinical case work: farm animals	Medical report	1
6 th / 7 th	Clinical case work: small and exotic animals	Medical report	1
7 th	Milk science course	Milk analysis report	1
8 th	Food examination course	Food examination report	1
9 th / 10 th	Rotation: pathology	Autopsy reports	1
9 th / 10 th	Rotation: horses	Medical report	4
9 th / 10 th	Rotation: farm animals	Medical report / Herd report	3
9 th / 10 th	Rotation: small animals	Report to referring veterinarian	5
9 th / 10 th	Rotation: small and exotic animals	Medical report	1
11 th	Food science and hygiene	Food examination report	1
11 th	Meat hygiene and post mortem meat inspection	Meat inspection examination report	1

Overview 2: Reports to be prepared by students

In addition, clinical logbooks are used in the final clinical rotations and the EPTs enabling monitoring of the students' progress of core practical/clinical activities. Both, students and teachers, must sign the logbook and the outcome will be evaluated by the Advisor for University Studies and Teaching. Logbooks form an integral element of the related PDCA cycle (see Figure 4 and <u>Appendix to 3.1.8.</u>)



Figure 4: PDCA cycle "Student logbook for Clinical Rotation"

3.2. Competency-based study programme, self-learning, QA system

3.2.1. Description of how the VEE:

3.2.1.1. Ensures that the study programmes meet the objectives

The embedding of the competency-based study programme in the legal framework of Germany and Europe is described in detail in Standard 1.1.2. The QA system of the VEE including the PDCA cycle is described in detail in Standard 1.4.1.

The achievement of objectives is ensured by clear definition of learning outcomes in a subjectspecific learning objective catalogues with aims matched to Day One Competences. Students demonstrate successful achievement of objectives and acquisition of Day One Competences in the state exams. The examination boards of the pre-clinical and clinical study period constantly monitor the success of the study programme based on the results of the state examinations (see Standard 8.1.1.). At least once a year, the State Examination Office (LAGeSo) compiles a summary of subject- and student cohort-specific examination results, which is analysed by the examination boards and the Dean's Office. Summaries are presented to the Education Commission. In case of obvious inconsistences or visible negative trends, reasons and measures are discussed and implemented by the respective commissions or individuals (see Standard 8.2.).

Within the framework of the annual quality report on studies and teaching, the Adviser for University Studies and Teaching records key figures on cohort progressions as well as study durations. The results are reported by the Vice Dean for Study Affairs to the Education Commission, the Faculty Council and the Executive Committee of Freie Universität Berlin. Summaries are published on the VEE's website and on central websites of Freie Universität (see Standard 1.5.1.). Approximately 90% of the students graduate within the standard period of study.

The VEE receives continuous feedback from the various stakeholders on the suitability and qualifications of graduates through various quality assurance instruments, such as the Graduate Survey und Peer Consultation with external specialists, as well as within the framework of the "Council of Veterinary Establishments" (Veterinärmedizinischer Fakultätentag).

3.2.1.2. Promotes an academic environment conducive to learning

With its premises, the modern equipment, its didactically qualified teaching staff, its culture of QA and the implemented QA system as well as a broad range of learning and self-learning opportunities, the VEE offers an environment conducive to learning with explicitly strong focus on self-learning. The following examples are given:

- Library on Düppel Campus with a large number of spaces for individual learning including a "quiet zone" (90 workplaces), PC work stations, four seminar / group learning rooms and one lounge and various Skills Net models for individual study.
- Student recreation rooms in the Veterinarium Progressum with a large learning and meeting room, lounge with sofas, children's room and office for the Veterinary Student Initiative, as well as a kitchen and bathroom with baby care facilities.
- PC pools with a total of 67 work spaces;
- A wide variety of anatomical preparations and pathological plastinates for self-learning in the Institute of Veterinary Anatomy and the Institute of Veterinary Pathology;
- Balanced mixture of on-site and online courses and support of flagship teaching projects using blended learning scenarios (QuerVet, EVC-course, VetCam; a list of online/blended learning courses is provided in <u>Appendix to 3.2.1.2.</u>);
- Mandatory didactic teaching courses for junior and senior academic staff (see Standard 9.1.1.);
- Regular teaching and learning objective evaluations;
- Annual award of the teaching prize of Freie Universität Berlin and the prize for excellent teaching at the Department of Veterinary Medicine to lecturers who foster the knowledge gain of students in a convincing didactic approach and to encourage the development of innovative teaching methods and formats;
- Transparent structure of responsibilities and representatives (e.g. subject, organ-module and EPT coordinators, ombudspersons and liaison students, representatives for complaint management);
- A variety of training and advanced education opportunities in veterinary specialisations that include many opportunities for earning academic degrees, additional qualifications, as well as lifelong training;
- Installation of a buddy programme for incoming Erasmus students together with the International Veterinary Students Association (IVSA Chapter Berlin).

3.2.1.3. Encourages and prepares students for self-learning and lifelong learning

In recent years, the VEE has made strong efforts to extend the opportunities of self-learning. The following offerings have been successfully implemented:

- Integration of various key competencies into mandatory and facultative courses:
- Learning strategies and time management (mandatory)
- Basics of Communication (mandatory)
- Clinical Propaedeutics Communication [communication with patient owners] (mandatory)
- Communication in Practice [Small Animal/Horse] (facultative)
- Business Administration for Veterinarians (mandatory)

- Peer-to-peer-teaching concept with coaching of other students in the Emergency Veterinary Coach (EVC) course
- Provision of a broad range of science-based elective courses;
- Development and integration of further Veterinary Skills Net (VSN) models in self-directed learning (using SOP's) and practical examinations
- Implementation of the animal species-specific clinical rotation with strong involvement of all students in treating regular as well as emergency patients
- Development of further e-learning and blended learning modules with an increasing range of topics and ongoing projects (e.g. VetCam Berlin and Veterinary Medical Detectives)⁵⁵;
- Participation in the Progress Test in Veterinary Medicine (PTT) that allows students to monitor their individual learning progression through the curriculum.

3.3. Programme learning outcomes

3.3.1. Description of the educational aims and strategy in order to propose a cohesive framework and to achieve the learning outcomes

The educational aims of the veterinary curriculum contents of university studies in veterinary medicine in Germany are described in the German Veterinary Medical Licensure Law (TAppV) and the Federal Veterinary Regulation (BTÄO) which in turn refer to the minimum requirements laid down in regulation 2013/55/EU for the training of veterinarians in Europe. The objective is to graduate scientifically and practically trained veterinarians capable of self-responsible and independent veterinary work and life-long learning. In the course of study, the basic veterinary, scientific, interdisciplinary and methodological knowledge, practical skills as well as the intellectual and the ethical basis for a professional attitude committed to the wellbeing of humans, animals and the environment are taught. At the VEE, the TAppV, associated study and examination regulations and a comprehensive subject-specific learning objective catalogues (with references to "Day One Competences" of the ESEVT) defines the organisational and content framework of the implemented curriculum in order to meet the educational objectives.

3.3.2. Description of how the VEE ensures that the learning outcomes fit with the ESEVT Day One Competences

As mentioned under 3.2.1., each Day One Competence is matched to at least one learning outcome in our subject-specific learning objective catalogues.

3.3.3. Description of how and by who the learning outcomes are decided, communicated to staff, students and stakeholders, assessed and revised

Each team of teachers within one subject and interdisciplinary module is guided by a subject coordinator and organ-module coordinator, respectively. The latter coordinates the definition of learning outcomes and exam topics within their teams. The Advisor for University Studies and Teaching annually requests reporting of changes and updates the central subject-specific learning objective catalogues. These are available on the VEE's website and the central learning platform (Blackboard). The compliance of learning outcomes with objectives and legislative requirements is supervised by the Education Commission.⁵⁶

⁵⁵ For more information, see <u>Appendix to 3.2.1.2.</u>

⁵⁶ Please see: <u>Appendix to 3.3.3.: PDCA cycle "Review of the Programme Learning Outcomes"</u>



Figure 5: PDCA cycle "Review of the Programme Learning Outcomes"

3.4. Committee structure to oversee and manage the curriculum and its delivery

3.4.1. Description of how and by who the core curriculum is decided, communicated to staff, students and stakeholders, implemented, assessed and revised

The processes of the curricular development and communication at the Federal (TAppV) and the University level (study and examination regulations) are described in Standards 3.1.2. and 3.1.3.

VEE level (study and examination regulations)

The process of changing <u>study</u> and <u>examination regulations</u> is regulated across the university and documented in process description "Advancement of degree programmes"⁵⁷. The need to adapt study and examination regulations results from changes to the TAppV and ESEVT SOPs, feedback from student and alumni surveys and input from the Education Commission, the working group complaint management, teachers, and external experts, the latter including regular meetings of the Vice Deans for Study Affairs of German VEEs and structured Peer Consultations with external specialists (see Standard 1.4.1. and Figure 6). The Dean's Office revises the respective inputs in dialogue with the Education Commission, the chairs of the examination boards, involved teachers, the study office and the programme manager for study and teaching. Revised study and examination regulations undergo a multi-stage procedure with a formal and conceptual evaluation, a capacity test and a legal examination by respective offices of Freie Universität Berlin (Figure 6, Figure 7, Standard 1.4. and <u>Appendix to 3.4.1.</u>). Thereafter, the revised regulations have to be approved by the Faculty Council and published

⁵⁷ Please refere to <u>Appendix D, No. 2</u>

in the University Bulletin to become legally binding. Final regulations are communicated back to all status groups and published on the VEE's website.



Figure 6: PDCA cycle "Advancement of the curriculum"



Figure 7: Quality assurance in the (continued) advancement of degree programmes (simplified process)

3.5. External Practical Training (EPT)

3.5.1. Description of the organisation of the EPT and how it complements (but not replaces) the academic clinical training

The broad content and duration (minimum hours and weeks) of the EPT (see Table 3.5.1.) as well as prerequisites for training institutions are provided in the TAppV. During EPT, students are required to spend 320 hours of practical non-clinical training and 850 hours of clinical training. Students of all German VEEs organise these EPT individually. However, they are assisted in identifying suitable training institutions (see Standard 3.7.1.). Over the last year, German VEEs have collaborated to establish an online tool for administration of EPT and communication with the EPT providers (Service Center for Education Establishments under the patronage of the Council of Veterinary Establishments⁵⁸). The online tool includes a registration page with details of the EPT providers, a contractual agreement between each student, the EPT provider and the VEE⁵⁹, as well as the EPT certificate templates for the different types of EPT. Before the EPT providers can issue an EPT certificate, they have to certify that they have completed the didactic qualification training according to the "Guidelines for the minimum training to teach and to assess" (ESEVT Standard 9.1.) and they have to provide their feedback on the performance of the student via the evaluation tool of the VEE. The evaluation tool includes feedback options for comments, complaints and recommendations to the VEE. Additionally we provide the students with learning objective catalogues, logbooks and evaluation forms. Learning objective catalogues of the VEE were prepared by the EPT coordinators and are issued to the students with information on the legal framework, all evaluation forms and templates for the required certificates.⁶⁰ Logbooks and evaluations are collected and analysed in the EPT Office, summaries are presented to the Education Commission and discussed with the respective EPT coordinator. Due to data protection legislation, assessments of individual EPT training institutions have to remain confidential.

All process steps are defined in the process descriptions "Monitoring of External Practical Training (EPT)" and "Evaluation of agricultural EPT". These steps include internship planning and initiation, implementation of extra-mural internships, feedback loops and follow-up.⁶¹

Fields of Practice		Minimum duration (weeks)	Year of programme
pre- clinical	Agriculture (genetics, breeding, husbandry, milking techniques, etc.)	2 weeks (70 hours)*	In the 1 st year (1 st / 2 nd semester)
ical	Clinical training (private practice or clinic; companion animals or production animals)	4 weeks (150 hours)	After the 2^{nd} year $(5^{th}/6^{th}$ semester)
clin	Clinical training (private practice or clinic; companion animals or production animals)	16 weeks (700 hours)**	In the 5 th year (9 th / 10 th semester)

Table 3.5.1. Curriculum days of External Practical Training (EPT) for each student

⁵⁸ A German printout can be found in <u>Appendix to 3.5.1</u>.

⁵⁹ A translated contract template for EPT can be found in <u>Appendix to 3.6.1.</u>

⁶⁰ See: <u>https://www.vetmed.fu-berlin.de/en/studium/veterinaermedizin/ept-internships/index.html</u>

⁶¹ See: <u>Appendix D, No 5&6</u>

ብ & VPH	Veterinary inspection offices regarding all issues of Veterinary Public Health	2 weeks (75 hours)	In the 5 th year (9 th / 10 th semester)
	Food hygiene (hygiene control, food monitoring, food examination)	2 weeks (75 hours)	In the 5 th year (9 th / 10 th semester)
FS	Abattoir, ante and post mortem meat inspection	3 weeks (100 hours)	In the 5^{th} year $(9^{\text{th}} / 10^{\text{th}} \text{ semester})$

*Two weeks (70 hours) if done on an official agricultural training and research institution; four weeks if done on a farm that is registered / certified to educate agricultural trainees (apprenticeship)

**At least half (350 hrs) has to be completed in a German veterinary practice or clinic , the remaining weeks can alternatively be spent in veterinary services that do not have the status of a German clinic or practice (e.g., practices or clinics abroad, zoo veterinarians, etc.), in research laboratories, diagnostic laboratories or in veterinary administration.

3.6. EPT providers

3.6.1. Description of how the EPT providers are linked to the VEE (a copy of one of the agreements to be provided in the appendices), assess the students and provide feedback to the VEE

Communication with the EPT providers is managed via the German-wide online tool described under 3.5.1. This online tool has a contractual template⁶² with details on duties and responsibilities that are based on the ESEVT SOPs (including, e.g. observation of Day One Competences, feedback and evaluation). In addition, all German VEEs communicate regularly with the Federal Association of Practicing Veterinarians (bpt). Furthermore, the VEE organizes a Vet-Event once a year, were local veterinarians from the Berlin-Brandenburg area are invited together with undergraduate students to an evening scientific event with get-together.

3.6.2. Name of the academic person(s) responsible for the supervision of the EPT activities

For each type of EPT, a dedicated member of academic staff takes responsibility for the supervision of the respective EPT. The EPT coordinators are listed in Overview 3:

Fields of	of Practice	EPT coordinators
pre- clinical	Agriculture (genetics, breeding, husbandry, milking techniques, etc.)	UnivProf. Dr. Uwe H. Rösler
clinical	Clinical training (private practice or clinic; companion animals or production animals) 4 weeks (150 hours) and 16 weeks (700 hours)	PD Dr. Kerstin Müller, UnivProf. Dr. Kerstin E. Müller, UnivProf. Dr. Heidrun Gehlen, UnivProf. Dr. Barbara Kohn, UnivProf. Dr. Corinna Eule
Hd	Veterinary inspection offices regarding all issues of Veterinary Public Health	UnivProf. Dr. Christa Thöne-Reineke
FSQ & V	Food hygiene (hygiene control, food monitoring, food examination)	UnivProf. Dr. Thomas Alter
	Abattoir, ante and post mortem meat inspection	UnivProf. Dr. Diana Meemken

Overview 3: EPT coordinators

⁶² See: <u>Appendix to 3.6.1.</u>

^{42 |} Self Evaluation Report | School of Veterinary Medicine | Freie Universität Berlin

3.7. Students experience during EPT (logbook, evaluation, complaining about issues occurring during EPT) and QA system of monitoring the EPT

3.7.1. Description of the implications of students in the preparation, recording and assessment of their EPT

Students organise their EPT individually using several support tools offered by the VEE:

- Students are repeatedly advised of how to organize their EPT in information events in the first semester orientation week (1st semester), at the start of the clinical part of the veterinary programme (5th semester) and on the career day (7th semester).
- In addition, dedicated coordinators for each EPT serve as contact persons for students and EPT providers.
- All relevant information regarding the EPT are available in a booklet "Guide to EPT"⁶³ and additionally on the VEEs website.⁶⁴ In the section "Looking for an Internship", we provide a list with contact details of facilities suitable for hygiene and slaughter internships edited by the Institute of Food Safety and Food Hygiene, a list of certified "Veterinary Training Practices" from the Federal Association of Practicing Veterinarians (bpt) as well as overviews with internship places in the fields of curative practice, university institutions, public authorities, research institutions, the Zoological Gardens and industry of the German Veterinary Medical Society (DVG). The "Guide for a preliminary talk prior to EPT" released by the Federal Association of Practicing Veterinarians (bpt) contains key questions recommended for the communication with the EPT providers.
- During the last years we transferred almost all practical training in agriculture to a structured programme offered by the university in collaboration with several governmental teaching and research farms.
- As described in Standard 3.5.1, the EPT coordinators prepare learning objective catalogues for each EPT referring to the ESEVT Day One Competences. The catalogues form the basis for the EPT logbooks and evaluation forms.

For recording and assessment of their EPT (see Figure 8), the VEE provides students with German-wide standardised logbooks for each EPT based on Day One Competences and German-wide standardised evaluation forms for each EPT for both students and EPT providers. The latter includes the opportunity to provide feedback to the VEE. After the EPT, logbooks and evaluation forms have to be submitted to the VEE together with the signed certificate of completion of the EPT. Returned evaluations are analysed twice a year by the EPT Office, and results are presented to the Education Commission, Faculty Council and EPT coordinators.

The QA system of monitoring the EPT follows the respective PDCA cycle (Figure 9, <u>Appendix</u> to 3.7.1.).

⁶³ See: <u>https://www.vetmed.fu-</u>

berlin.de/studium/veterinaermedizin/praktika/rz_Broschuere_ExtramuralePraktika_VetMed_FUB-12-2023.pdf ⁶⁴ See: https://www.vetmed.fu-berlin.de/en/studium/veterinaermedizin/ept-internships/index.html



Figure 8: Schematic workflow of the EPT recording and assessment procedure



Figure 9: PDCA cycle "Monitoring of EPT"

3.7.2. Description of the complaint process in place concerning EPT

Feedback and complaints can be given via the online tool described under 3.5.1. This tool links to the Study Office which distributes the feedbacks and complaints to the relevant person. Additionally, students and EPT providers can contact the EPT coordinators, ombudspersons, representatives for complaint management and the Vice Dean for Study Affairs directly. The handling of complaints follows the PDCA cycle on Complaint Management⁶⁵. Feedback about complaints is given to the Federal Association of Practicing Veterinarians (bpt) during the annual meeting of the "Council of Veterinary Establishments" (Veterinärmedizinischer Fakultätentag).

Comments on Area 3

- The existing legal framework provides a structured veterinary curriculum thoughout Germany with options for students to transfer between universities. Curricular design options for the establishments are limited.
- The study load in the curriculum is high; students have limited time for participation in extra-curricular activities.
- The introduction of an Emergengy Veterinary Coach course (EVC) provided great improvements of hands-on clinical training prior to the reorganised clinical rotations and was paralleled by further developments of model-based teaching, peer-to-peer teaching, strenghtening of e-learning and blended learning and development of soft skills throughout EVC and other elements of the curriculum. One example for the latter is the newly launched VetCam Berlin.

⁶⁵ See: PDCA cycle on Complaint Management in <u>Appendix to 7.8.1.</u>

- As various courses for teaching key competencies (e.g. learning strategies, time management, communication, conflict management, leadership) have been established in recent years, concepts are being worked on to assess these teaching contents as well.
- The assignment of subject, organ-module and EPT coordinators and the continous development of comprehensive subject-specific learning objective and examination topic catalogue significantly improved the coordination between subjects and resulted in greater transparency.
- Regular evaluations of and surveys on student performance and satisfaction, the integration of the Education Commission and other committees in the quality assurance processes guarantee a high awareness of quality in teaching.
- The introduction of the animal species-specific final year's clinical rotation was very well perceived by students and staff and allows partial tracking (specialisation) within the undergraduate veterinary curriculum while still fullfilling all legal requirements to practice in all veterinary fields.
- Substantial improvements have been made in the organisation and quality control of EPT, including harmonisation of EPT among all VEEs in Germany.
- Measures to support teaching and learning are the newly introduced awards for excellent teaching, the "Buddy" programme for incoming Erasmus students and the further development of the mentoring programme.
- Complaint management was greatly improved with implementation of a working group and definition of PDCA cycle.

Suggestions for improvement in Area 3

- Currently all German VEEs undertake joint efforts to promote revision of the German Veterinary Licensure Law (TAppV) to better adjust the legal requirements to the continuing developing ESEVT Day One Competences (e.g. adjustment of teaching hours between preclinical and clinical subjects, strenghening of professional competences).
- A transfer of basic natural sciences teaching back to the VEE is considered but would require additional resources from the university. On the other hand, transfer of animal breeding from Humboldt Universität zu Berlin is already in progress and agreed upon with the Executive Board of Freie Universität Berlin. The latter became necessary when Humboldt Universität announced to discontinue its study programmes in animal sciences.
- The external location of the Examination Office at the LAGeSo Berlin provides significant challenges for student cohort monitoring. Data transfer between the VEE and the LAGeSO is hindered by different software solutions, different modes of QA and the very strict German data protection legislation. Relocation of the State Examination Office (LAGeSo) to the VEE would greatly enhance quality assurance measures.

AREA 4. FACILITIES AND EQUIPMENT

4.1. Factual information

4.1.1. Description of the location and organisation of the facilities used for the veterinary curriculum

The VEE is currently distributed over two sites⁶⁶ (Düppel Campus and Dahlem Campus) plus a carcass inspection hall that is historically situated in central Berlin (Mitte).

The Düppel Campus is the main site. It is located in the southwest of Berlin and includes all clinics with stables, a large number of institutes, the veterinary medical library, the Dean's Office and various research and seminar buildings, as well as the continued education center "Veterinarium Progressum". Attempts are ongoing to concentrate all teaching activities on this campus and to gradually retract from the other sites.

The Dahlem Campus is in 7 km distance to Düppel close to the main campus of the Freie Universität Berlin. It houses the Institute of Veterinary Anatomy, Institute of Pharmacology and Toxicology and the Institute of Animal Nutrition.

The Mitte Campus (in the center of Berlin) had been the main campus of a former VEE of Humboldt-Universität; the latter VEE fused with that of Freie Universität Berlin in 1997. All facilities from this former campus have been moved to Düppel except for the carcass inspection hall for meat hygiene which is expected to move to Düppel in 2025.

The VEE does not have its own agricultural teaching and research facility. Agricultural training is carried out in cooperation with several governmental teaching and research farms across Germany. Clinical training in farmed animal species is carried out in cooperation with farms around Berlin.

All buildings used by the VEE are subject to central maintainance by Freie Universität Berlin.

4.1.2. Description of the strategy and programme for maintaining and upgrading the current facilities and equipment and/or acquiring new ones

The continual improvement and the further concentration of infrastructure at Düppel Campus follows the central strategy of the VEE and the University (see Standard 1.3.1. and Standard 1.3.2.). The current plans to restructure the VEE into four coherent centres will also be taken into account and the corresponding joint infrastructure and equipment will be planned. Building maintenance and construction projects are negotiated and budgeted as part of the target agreements with Executive Board of Freie Universität Berlin (see Standard 1.3.2.) and in the context of new professoral appointments (see Standard 9.4.1. and Standard 9.5.2.). The objective of the VEE is to maintain an infrastructure that meets the operational needs of the institutions and clinics.

⁶⁶ Maps are provided in <u>Appendix C</u>.

AREA 4. FACILITIES AND EQUIPMENT



Figure 10: Process of building maintenance and expenditure

4.1.3. Description of how the VEE ensures that all physical facilities comply with all relevant legislation

Regarding compliance with legislation the VEE receives support and supervision from the Office for Occupational Safety Service and the Office of the General Counsel of Freie Universität. The University and VEE have enforced an effective system of officers dedicated to the compliance with certain legal requirements (e.g. work safety officers, hygiene officers, officers for biological security, officers for genetic engineering security, officers for radiation safety, fire protection officers, laser safety officers, and first aiders).

Additionally, the Freie Universität Berlin is certified according to DIN EN ISO 14001 and Eco-Management and Audit Scheme (EMAS) with regular audits. Internal and external audit visits are carried out within the framework of biosecurity, work safety and energy and environmental management. The internal audits are scheduled every three years and jointly conducted by members of the University occupational safety service, the sustainability and energy management unit, the occupational health physician supervisory team and by a member of the VEE's hygiene commission and an employee representative. The team assesses the required documentation (up-to-date risk assessments, instruction protocols and safety signs), the maintenance schedules, protective equipment, fire prevention, waste disposal and hygiene plans. Action points for optimisation are listed in an inspection report. These points are addressed by the respective institutions and the status is reported back to the audit team leader.

4.2. Teaching facilities

4.2.1. Short description of the premises for lecturing, group work, practical work and skill labs

The VEE has a large number of lecture halls, seminar rooms, laboratories and clinic facilities where veterinary medical training is carried out. Specific details on number, size, equipment, etc. are provided <u>Appendix to 4.2.1</u>. The lecture halls and seminar rooms are outfitted with up-to-date media technology. All lecture halls and part of the seminar rooms are further equipped

for hybrid teaching. Libraries (both the central University Library and the local Veterinary Library)⁶⁷ and common rooms in the individual institutes and clinics are available to students for individual study, including for rotation students during case work. The laboratories, dissecting and autopsy halls are signposted with safety information, as well as escape route and emergency exit signs, in accordance with Infection Protection Law, Biomaterial Ordinances, Genetic Engineering Law, Genetic Engineering Safety Ordinances, Occupational Safety Law, internal biosafety and hygiene regulation and site-specific hygiene and safety operating instructions. In addition, they are equipped with hand washing and hand disinfection facilities, eye washing stations, emergency showering facilities, first aid kits and fire extinguishers. The treatment/surgery rooms are equipped with up-to-date diagnostic and treatment equipment for the target species and due care of the applicable safety regulations.

The VEE follows the concept of a decentral Veterinary Skills Net with teaching rooms in each animal clinic appropriate to the target species. These are complemented by Veterinary Skills Net facilities in the Veterinary Library and facilities for production and repair of animal and organ/tissue models. A Veterinary Skills Net coordinator is supported by a Veterinary Skills Net committee to supervise and coordinate the different Veterinary Skills Net activities.⁶⁸

Room assignment for the regular courses in the curriculum is done by the Study Office. In addition, lecturers can view <u>room availability</u> through the internet and request additional bookings to be made by the Study Office. Veterinary Skills Net rooms can be booked via the <u>Veterinary Skills Net coordinator</u>.

4.2.2. Short description of the premises for study and self-learning, catering, canteens, locker rooms, accommodation for on call students, leisure and sanitary

An overview of the available infrastructure is provided in the Appendix.⁶⁹

4.2.2.1. Study and self-learning

Most institutes and clinics provide individual study areas. Across the two sites of the VEE, there are more than 600 student workplaces as well as 7 rooms with accommodation for on call students available. The Veterinary Library on Düppel Campus provides a large number of spaces for individual learning including a "quiet zone" (90 workplaces), PC work stations and seminar / group learning rooms. Within the library, various Veterinary Skills Net models are available for individual self-study.⁷⁰ The VEE has its own PC pool with 37 work spaces that are primarily used for teaching and electronic examinations and can be used by students when vacant. A second PC pool with 20 computers is primarily used for PC-based courses and statistics refresher classes. The third PC pool in the Veterinary Library on Düppel Campus provides 10 computers for individual student use. In the pools, printing and scanning self-services are available for payment via Campuscard.

4.2.2.2. Catering

At all sites of the VEE, either a canteen or a cafeteria is available where students can purchase hot or cold dishes and drinks at subsidised prices:

Campus Düppel

• Student Union canteen open Mo-Fr from 8:00 am to 3:00 pm

Campus Dahlem

- Student Union cafeteria in Koserstraße open Mo-Fr from 08:00 am to 3:00 pm
- The main University canteens are within walking distance.

⁶⁷ Libraries are explained in detail under Standard 6.2. and in <u>Appendix to 6.2.1. and 6.3.</u>

⁶⁸ Veterinary Skills Net is described in detail under Standard 6.3. and in <u>Appendix to 6.3.b.</u>

⁶⁹ Number of rooms and places for study and self-learning, lockers, accommodation for on call students, leisure and sanatary facilities are listed in <u>Appendix to 4.2.2.</u>

⁷⁰ For further details on the library services see <u>Area 6.</u>

Campus Mitte

• Several coffee machines are available; and the nearby canteen of the Charité (university hospital) is open for all students and University staff Mo-Fr from 10:00 am to 6:00 pm

4.2.2.3. Locker rooms

In total, there are over 1,300 lockers available across the sites of the VEE. All institutes and clinics where the students must wear protective clothing provide changing rooms and lockers. In addition, there are 48 lockers in the Veterinary Library building and another 160 lockers in the manor house next to the Düppel canteen.

4.2.2.4. Accommodation for on call students

In each clinic, there is a common room as a well as a bathroom with a shower and a toilet, which are provided for students while they are on-call or on the night shift. All clinics additionally provide a bedroom.

4.2.2.5. Leisure

At each location, one or more common rooms are available for students to use. This includes student work spaces and seating facilities on the ground floor at the Koserstraße site (Dahlem) and at the Institutes of Veterinary Pathology (Düppel) and Veterinary Physiology (Düppel). In the Veterinarium Progressum centre in Düppel, a study room, a social room, a children's playroom, an office for veterinary medical student representatives as well as a kitchen and a bathroom are available. Behind the building, a paved barbecue and table tennis area was built for the students. The VEE additionally provides resources and supports a gardening group, a bee working group and an animal protection working group organised by the veterinary medical student representatives. The University Sports Center offers a wide range of sports classes and physical activities for both students and employees. There are more than 120 sports available and around 800 individual events scheduled each semester.⁷¹

For students with children, nursing and diaper-changing rooms are available at the Veterinary Library and the Veterinarium Progressum. Each are equipped with a changing table, sink, seating arrangement and bottle warmer.

4.2.2.6. Sanitary

Public sanitary facilities (toilets and washing facilities) are available in each building. Sanitary facilities for disabled people are provided at the Institute of Veterinary Physiology, the Robert von Ostertag Building, the Veterinary Centre for Resistance Research (TZR), the Institute of Veterinary Anatomy and the Veterinary Library. Sanitary facilities have been extended by a new central Lavatorium with showering, locker and changing facilities.

4.2.3. Brief description of the staff offices and research laboratories

All staff offices are equiped in accordance with the strict rules of the German Workplaces Ordinance that defines minimal allowance of space per person, daylight access, etc. Offices for academic staff include telephone, filing cabinets, adequate IT equipment with internet and intranet access, as well as usual office supplies. Offices for senior staff mostly include a meeting corner; meeting rooms are additionally bookable by all members of staff.

Laboratory equipment in research facilities highly varies and depends on the respective use. For details please see <u>Appendix to 4.2.3.</u>

⁷¹ See: <u>https://www.hochschulsport.fu-berlin.de/en/index.html</u>

⁵⁰ Self Evaluation Report | School of Veterinary Medicine | Freie Universität Berlin

4.3. Livestock facilities, animal housing, core clinical teaching facilities and equipment

4.3.1. Description of the premises for housing healthy animals, research animals and hospitalised animals

The VEE has sufficient space to accommodate the animals needed for clinical, teaching and research activities, described in detail in Appendix to 4.3.1. and 4.6.1. Premises for hospitalised patients are allocated to the three clinics of the VTH. Within the Farm Animal Clinic, facilities are further subdivided in facilities for ruminants and camelids, pigs and poultry. Facilities for housing animals for teaching and research are additionally allocated to several institutes and the new Veterinary Centre for Resistance Research. All facilities are regularly checked for compliance with legal requirements. Animals kept for educational and research purposes must be registered with the appropriate licensing authority (LAGeSo) for a breeding and keeping permit (§ 11 of the Animal Protection Law). A hygiene concept, a health monitoring programme and a safety concept are included in the application to the licensing authority. Furthermore, the premises provide suitable and species-appropriate animal care by qualified personnel and supervised by animal welfare officers. Appropriate quarantine facilities exist, or can be set up quickly should the need arise. Over and beyond, the requirements of Animal Protection Law, the obligations of Biomaterial Ordinances, of Genetic Engineering Law and of Infection Protection Law are met and responsible persons are appointed. In accordance with the Genetic Engineering Law, a responsible project leader and an official responsible for biological safety are named. Should an experimental infection trial with animals be conducted, then those components of Infection Protection Law which relate to safety precautions (S1-S3) are observed and a qualified person must assume necessary responsibility. Appropriate records are kept and are available for check by the licensing authorities. An animal welfare committee was formed and a rehoming programme established. Furthermore, a disaster planning for the animal facilities and SOPs for the training of different animal species were established. Workshops on training instructions and gentle handling of animals were conducted for this purpose. As part of a current doctoral thesis, a survey is being conducted among the staff working on animal experiments on the topic of "To care for those who care - what does that need?". Overall, a culture of care is practised. Animal wellfare considerations are strictly observed (see Standard 5.1.3).

4.3.2. Description of the premises for clinical activities, diagnostic services including necropsy and others

The VTH at the Düppel campus has 60 rooms used for clinical training (physical examination and surgery rooms), 28 rooms for diagnostic services including necropsy. A short overview of the available equipment is given below. For further details see <u>Appendix to 4.3.2. and 4.3.3.</u>

Туре	Equipment
Diagnostic imaging	Sonography (ultrasonic devices with doppler technology, ultrasonic devices for pregnancy diagnostics, portable ultrasonic devices); radiology (stationary/portable x-ray devices); endoscopy; video-vaginoscopy; CT
Laboratories	Haematology, blood chemistry, serology, quick tests, cytology, fluid diagnostics, synovia tests, urinalysis, spermatology, histology, molecular biology, bacteriology, virology

Overview 4: Equipment for clinical activities and diagnostic services including necropsy

The testing laboratories at the Institute of Food Safety and Food Hygiene are accredited by the German Accreditation Body GmbH (DAkkS) in accordance with ISO 17025:2005.

The VEE hosts the FAO Reference Centre for Antimicrobial Resistances and FAO Reference Centre for Veterinary Public Health, which both provide technical expertise, diagnostic services, as well as laboratory and field training. The Institute of Virology (Berlin Equine Virus Lab, BEVL) is designated a World Organization for Animal Health (WOAH) reference laboratory. The VEE further hosts Consultant Laboratories of the German Veterinary Medical Association (DVG) for methicillin-resistant staphylococci, beta-haemolytic streptococci, ESBL-forming enterobacteriaceae, equine herpesviruses and intestinal nematods.

4.3.3. Description of the equipment used for clinical services

See details provided in Standard 4.3.2.

4.3.4. Brief description of the premises used for the practical teaching of FSQ & VPH

The VEE has four premises for FSQ & VPH (three in Düppel, one in Berlin Mitte).

Premises for practical teaching on ante- and post-mortem inspection:

The carcass inspection hall on the Berlin-Mitte Campus is equipped with tube tracks for pig and cattle carcass presentation, suspension devices for the plucks and examination tables for the gastrointestinal tracts of pigs and cattle as well as for broiler carcasses. The demonstration hall for the training of the ante-mortem inspection in the Farm Animal Clinic is equipped with forced stands.

Premises for practical teaching in Food Hygiene and Milk Hygiene:

The laboratory course room is in Düppel at the RvO building. It is equipped with 84 laboratory places including laboratory tables, sinks, Bunsen burners, microscopes etc. The training room for captive bolt stunning is equipped with different cattle and pig head models and a captive bolt gun. A new building for FSQ is currently constructed on the Düppel Campus and will be opened in 2025.

<u>Premises for extramural practical training on Food hygiene (hygiene control, food monitoring, food examination):</u>

Training is carried out in establishments or at competent authorities or institutions of legally defined German standards that are in charge of control activities, food monitoring or food inspection.

Further extramural practical training on meat hygiene, ante- and post-mortem inspection:

In accordance with TAppV students spend several weeks of EPT in the 5th year of study (see Table 3.5.1.) in a pig, cattle and/or poultry abattoir. The training facilities need to be EU-approved, which guarantees their sufficient equipment and operating standards. For a detailed description of the teaching in FSQ & VPH, please refer to Standard 3.1.6.

4.4. Veterinary teaching hospital (VTH) with 24/7 emergency services

4.4.1. Description of the organisation and management of the VTH and ambulatory clinics

All animal clinics offer general consultations from Mo-Fr during regular working times and specialists consultations on specific days, and the Equine Clinic provides a 24/7 emercency service all year round.⁷²

The **Small Animal Clinic** is currently not able to maintain a 24/7 emergency service due to shortage in core clinical staff (see Introduction and Comments on Area 1) and the unexpected vacancy of the full professor position in small animal surgery since March 2024. The clinic currently offers emergency service with at least 2 veterinarians on site from 8 a.m.- 6 p.m.

The **Equine Clinic** offers the 24/7 emergency service with at least one veterinarian and one student technicians on site, a second veterinarian on site until 9 p.m. and afterwards on call, and an additional surgeon always on call.

⁷² For details on opening times of all clinics see <u>Appendix to 4.4.1</u>.

⁵² Self Evaluation Report | School of Veterinary Medicine | Freie Universität Berlin

The **Farm Animal Clinic** offers night-time and weekend emergency services for ruminants with one veterinarian on call and one veterinarian in background service. Due to staff shortage, the working group Internal Medicine and Surgery only offered a limited on-call service recently, while the working group Reproductive Medicine and Udder Diseases offered normal on-call service. Once the positions are filled, including one additionally provided position, all groups in the Division for Ruminants and Camelids will be back to 24/7 on-call service.

4.4.2. Description on how the VTH and ambulatory clinics are organised in order to maximise the hands-on training of all students

Prior to performing interventions on living animals, all students receive hands-on training on simulators and cadaver materials in the Veterinary Skills Net. The art of clinical examination is taught in small groups on living animals following a thorough theoretical introduction covering safety issues and delivering background information on examination techniques in common animal species. Hands-on experience in patients is gained during the final clinical rotations in the VTH and during the EPTs, where students work under supervision and are actively involved in routine and specialist work on different animal species. Clinical teaching is intensified by full integration of students into everyday clinical practice during final clinical rotations, participation of students in weekend duties and intensive use of the skills lab. Students take responsibility for hospitalised patients. OSCE examinations, the use of voting systems and practical exercises, including the skills lab, further intensify clinical training.

4.4.3. Statement that the VEE meets the national Practice Standards

The VEE is convinced that the services provided not only meet, but exceed the Code of Good Veterinary Practice as developed by the Federation of Veterinarians of Europe.

4.5. Students access to diagnostic and therapeutic facilities

4.5.1. Description of how all students can have access to all relevant facilities

Students in the first years of study are allowed to enter the diagnostic and therapeutic facilities of all clinical units of the VTH under supervision. Students on final rotations have free access to all diagnostic and therapeutic facilities of the respective clinic, after a thorough introduction. In order to meet the safety requirements of the medical laboratories, a special emergency/student laboratory has been set up where students can carry out daily clinical laboratory diagnostics self-reliant. The students have also access to the pharmacy and, in the rotation, they can follow deceased patients into the Institute of Pathology for dissection.

4.6. Isolation facilities

4.6.1. Description of the premises for housing isolated animals and how these premises guarantee isolation and containment of infectious patients

All clinics have state-of-the-art facilities for housing isolated infectious animals, with signs clearly identifying the isolation areas.

The **Small Animal Clinic** has a total of four separate rooms for the isolation of highly infectious animals. Two rooms for five dogs (or cats) each, one room for six cats and one room for waterfowl, wild birds and small mammals. These isolation areas were designed and constructed after the last EAEVE visitation. Each of these isolation facilities feature a separate sluice and an area equipped with sufficient storage capacity for consumables including feed and bedding material. In the sluices, clothes/overalls and shoes are changed to exclude any possibility of pathogen spread. The isolation units include treatment tables and sufficient cupboards/shelves. A container for infectious waste as well as a sink with disinfection units is mandatory.

The **Equine Clinic** has a separate stable area for the isolation of a total of four highly infectious horses. This isolation area is structurally separated from the other stable areas of the equine clinic. Each of the individual isolation boxes has a separate sluice and an area with sufficient storage capacity for consumables (feed and bedding). Clothing/overalls and shoes/boots are changed in the sluices. Containers for infectious waste and sinks with disinfection equipment are available.

The **Farm Animal clinic** has its own species-specific isolation facilities for the isolation of (potentially) infectious farm animals in all three animal species units. Cattle and camelids from different farms of origin are hospitalised in completely separate barn compartments. Small ruminants are hospitalised in separate units, but share the airspace. All compartments are equipped with walk-through disinfection baths. Four special isolation units with separate utility rooms for (potentially) infectious patients are provided for adult ruminants and camelids and young stock, as well. For pigs and poultry, the isolation areas can also only be entered via sluices (poultry: four individual quarantine rooms which can be sub-divided total housing capacity of 228 chickens, or 136 turkeys or 176 doves; pigs: one room with two boxes for a capacity of 1 to 8 pigs, each, depending on their size). Clothing/overalls and shoes/boots are changed in the airlocks.

4.7. Herd Health Management and ambulatory clinic

4.7.1. Description of how and by who field veterinary medicine and Herd Health Management are taught to all students

Herd health management is taught to students throughout all clinical semesters. It starts in the 5th semester with a mandatory 3-day block course where all students perform theoretical and practical group work in the basic principles of herd health management, biosecurity and hygiene on livestock farms, feed ration design and the planning, collection, interpretation and statistical processing of animal health and performance data. During the 6th through 8th semester, all students participate in at least two farm visits. The main thematic foci are: animal population care as a line of work in veterinary practice, farmers and veterinarians as entrepreneurs, organisational principles in animal population care, definition of and qualitative steps in animal population care, working principles in curative, problem-oriented and prophylactical herd health care as well as basic and practice courses in a computer-based herd programme. Furthermore, during the clinical rotation, each group of the farm animal track takes part in at least four ambulatory visits to livestock farms (2 × ruminant medicine, 1 × ruminant reproduction and udder health, $1 \times pigs$). During the visits to dairy, beef or pig farms, methods introduced in seminars before are practically applied in a small group teaching setting. Students perform clinical procedures including clinical examinations, sample collection, or vaccinations. Samples obtained are either examined right on the farm or transported to the clinic and disseminated to the distinct laboratories. The lab results are either evaluated during the second herd visit or herd consultancy and are linked to the herd health. Quality of herd management is ascertained through the evaluation of animal-based and environmental indicators using a software tool ("Cows&More"), hygienic conditions and nutrition as well as the interpretation of laboratory results and evaluation of herd data with specific software programmes e.g. HERDE/ZMS. Ambulatory farm or home visits of the Division for Ruminants and Camelids and of the Division for Pigs either focus on treatment of individual animals or preventive measures on small and large-scale agricultural enterprises or private keeping. In addition, farm visits are performed on a regular basis that address issues such as calf respiratory diseases, lameness in dairy cows, fertility disorders and mastitis as well as external work trips in cooperation with public officials for epidemic control of epizootic diseases for regional herd health management regarding African Swine Fever. The Division for Poultry cooperates with several farms that are occasionally visited by groups of students during clinical rotations. Here,

students acquire principles pertaining to livestock care, vaccination, prophylaxis and sampling. In the Equine Clinic, students have the possibility of voluntarily accompanying veterinarians on ambulatory rounds to equine sporting events (racing and tournament settings). The Institute of Animal Nutrition, together with the Farm Animal Clinic, conducts an excursion to a cattle farm in Brandenburg during the project week. The course includes a theoretical part, a farm visit with collection of feeding and animal health data and writing of a report. The Institute of Animal Hygiene and Environmental Health conducts stable climate measurements with the students. Basic methods and procedures for cleaning/disinfecting and pest control in stables are trained in practice and their success is checked. There are also excursions to an organic livestock farm with organic keeping of cattle, goats and pigs and to the Berlin animal shelter (the largest animal shelter in Europe) with a focus on hygiene and quarantine as well as vaccination and deworming programmes.

4.7.2. Description of the vehicles and equipment used for the ambulatory clinic

14 vehicles (totalling 90 seats) are designated for student transport mainly for ambulatory clinics and farm visits.⁷³ One of these vehicles has permanently installed veterinary pharmacy equipment. In the other vehicles, medicines/pharmaceuticals, instruments and other necessary utensils for the farm visits are packed in separate boxes and taken along as part of the careful journey planning. This also includes separate boxes for waste, specimens and used equipment as well as individual protective clothing and disinfectants for all students and teaching staff.

4.8. Vehicles for transportation

4.8.1. Brief description of the vehicles used for transportation of students, of live animals and of cadavers/organs

The VEE operates 31 vehicles, 14 of those (totalling 90 seats) designated for student transport mainly for ambulatory clinics, farm visits and extramural facilities.⁷⁴ The equipment of the vehicles for student transport has been described above. Five vehicles are designated for the transport of live animals and four for transportation of cadavers/organs.⁷⁵ Legal requirements for vehicles used for the transport of living animals and carcasses and the corresponding requirements concerning the qualifications of individual drivers, the information chain and documentation requirements are fulfilled. These are regulated in the Animal Protection Transport Ordinances (TierSchTrV) in accordance with EG1/2005, in the Internal Market Animal Disease Protection Ordinances, in the disinfection guidelines and in the Infection Protection Law.

4.9. Description of how and by who changes in facilities, equipment and biosecurity procedures, good laboratory practices and good clinical practices are decided, communicated to staff, students and stakeholders, implemented, assessed and revised

Desired construction projects (ranging from small building maintenance to large new constructions) are brought to the Dean's Office by different routes (see Figure 10). They are collected, evaluated together with the institutions involved, presented to the Faculty Council, compared to the strategic plan and processed according to priority. Construction work with expected costs of $> \notin 4$ million must be approved by the State of Berlin. Details of new and ongoining construction work are discussed and decided during monthly construction meetings with the University Engineering and Utilities division. Ongoing and upcoming construction activities are communicated in the Faculty Council.

All issues related to work, health and environmental management are primary subject to the

⁷³ For further details on the vehicles see <u>Appendix to 4.8.1.</u>

⁷⁴ For further details on the vehicles see Appendix to 4.8.1.

⁷⁵ For further details on the vehicles see <u>Appendix to 4.8.1</u>.

central university regulations set out in the work, health and environmental management system (AGUM). ⁷⁶ This system is provided as an online tool to all members of Freie Universität Berlin. Each subunit of the university has schooled staff for implementation in the local subunits (scientific institutions and clinics) and regular (annual) instructions in the subunits guarantee the information of all staff. Students are informed during introductory hours of relevant courses, where legally required with certification by signature.

The development of AGUM is coordinated by the Unit for Sustainability and Energy Management. AGUM defines responsibilities for further local regulations at departements, scientific institutions and clinics. These include responsibilities for good laboratory practices, good clinical practices and biosecurity, which are in the hands of the Executive Directors of the scientific institutions and clinics. To support these responsibilities, the Unit for Sustainability and Energy Management regularly informs about changes in relevant legislations and provides support for the revision of guidelines.

Additionally, every scientific institution and clinic is audited every three years, where detailed instructions for improvement are made. With specific regard to biosecurity, the VEE has a hygiene plan (VEE's Hygiene Regulations), with detailed instructions for ongoing biosecurity measurements and specific measurements in case of an infection outbreak.⁷⁷ These instructions are suggested and regularly revised by the hygiene commission and legally implemented by the Faculty Council. Further specification are made by the scientific institutions and clinics.

Comments on Area 4

- The VEE is still spread over 3 sites, which generates logistic challenges to all involved.
- The infrastructure is partly outdated; this generates high maintenance needs.
- The internal structure of the VEE was revised in 2023 to allocate related scientific units to three centers and one Veterinary Hospital Freie Universität Berlin. The synergistic effects in the use of infrastructure and equipment are expected and enforced in the coming years.
- There is a need for several larger lecture halls at the Düppel Campus which would allow for greater flexibility in the planning of lectures and courses.
- An EMAS (Eco-Management and Audit Scheme) certification system has been enforced for the evaluation of sustainability, including sustainability of construction.
- Hygiene facilities (changing rooms, showers, lockers) for students have been expanded by a central "Lavatorium".
- Larger construction projects take considerable time to plan, finance and implement. Some projects have been delayed due to financial restrictions.
- New professoral appointments represent opportunities to implement improvements / renewals of the infrastructure.

Suggestions for improvement in Area 4

- After successful finalisation of the current infrastructural projects (retraction from Berlin-Mitte and a new Farm Animal Clinic), integration of the Institute of Anatomy, Institute of Pharmacology and Toxicology, as well as the Institute of Animal Nutrition into the Düppel site has a high priority. Further important projects are a new building for the Small Animal Clinic and lecture halls.
- The newly founded centers and the united Veterinary Hospital Freie Universität Berlin have to be delevoped further, especially the common use of facilities, equipment and administrative procedures.

⁷⁶ Screenshots of AGUM are presented in <u>Appendix to 4.9.</u>

⁷⁷ For the VEE's manual for biosecurity, health and safety, please refere to <u>Appendix to 4.9.</u>

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AREA 5. ANIMAL RESOURCES AND TEACHING MATERIAL OF ANIMAL ORIGIN

5.1. Number and variety of healthy and diseased animals, cadavers, and material of animal origin

5.1.1. Description of the global strategy of the VEE about the use of animals and material of animal origin for the acquisition by each student of Day One Competences

Practical exercises on animals and material of animal origin are an integral part of the training and used responsibly to ensure the compliance with 3R principles. Institutes and clinics are provided with sufficient resources to ensure that animals and material of animal origin are available for teaching. Practical exercises, especially those with hands-on experiences (anatomical dissecting of cadavers, necropsies, examining microbiological/parasitological samples, practicing surgical procedures on cadavers, clinical work) are highly valued.

The use of animals for teaching purposes requires special animal welfare approval and must be coordinated with the regulatory authorities according to the EU Directive 2010/63/EU. The VEE is continuously introducing innovations in practical training to ensure that Day One Competences are taught with due respect to animal welfare issues. This includes the multiple use of clinic-owned animals in case work and hands-on teaching, the use of privately owned animals, the development of a cadaver donation programme for small and large animals to be used for anatomical and pathology training, and the use of material derived from abattoirs. In addition, the Veterinary Skills Net is continously expanded and structurally implemented into the curriculum. The development of new blended learning approaches in interdisciplinary case-based learning (QuerVet, Emergency Veterinary Coach course, anaesthesiology and surgery courses) are central elements in the 3R-focussed teaching approach⁷⁸.

5.1.2. Description of the specific strategy of the VEE in order to ensure that each student receives the relevant core clinical training before graduation

Practical clinical teaching was enforced as a result of the last ESEVT full visitation. The concept of the final clinical rotation was completely revised and courses in surgery, anaesthesia and emergency veterinary care were newly implemented as hands-on clinical teaching. The practical training modules are described in detail in <u>Appendix to 3.1.4.b.</u>

The specific content of each practical course is matched to relevant Day One Competences, coordinated with institutes and clinics and laid down in the subject-specific learning objective catalogues. The number of independent analyses conducted and skills practiced on animal patients as well as the preparation of detailed case reports and participation of students in oncall and emergency services is stipulated within the scope of training modules for clinical and practical subjects. The implementation of an adequate practical training is the responsibility of the respective clinics and institutes in which the subjects are taught. Subject coordinators ensure that the learning objectives for the relevant clinical subjects (especially propaedeutics, internal medicine and surgery, animal reproduction and herd health) are met in all clinical units. Necessary changes are identified through existing feedback mechanisms (evaluations, student surveys, inspection of animal welfare statistics, patient numbers etc.) and discussed within the Dean's Office, the educational commission and the institutions involved.

The entire core clinical hands-on teaching is organised as mandatory courses in rotating schemes to ensure that all learning aims are achieved by each individual student. The mandatory participation in the rotating scheme ensures that each student examines and treats a sufficient numbers of patients with balance between species, balance between clinical disciplines and

⁷⁸ EVC = Emergency Veterinary Coach; see further information in <u>Appendix to 3.2.1.2.</u> and <u>Appendix to 6.3.a.</u>

balance between individual medicine and population medicine. Student attendance in all practical courses, including the final clinical rotation and ambulatory excursions, as well as in handling of cases and report writing, is checked and recorded in the Student Life-Cycle Management system (SLCMS "Campus Management").

The final clinical rotations are the most individualised part of the rotating clinical training but yet follow an itinerary that ensures the balance of disciplines within the handled species. Student activities during the final clinical rotations are controlled using student logbooks. The latter ensures a balance between first opinion and referral cases, balance between acute and chronic cases and a balance between day patients and hospitalisations.

Core clinical training is profoundly supported by non-clinical animal work, a major part of which is also clinically focussed. The main subjects that contribute clinically focussed animal work to the curriculum are Anatomy, Physiology, Biochemistry, Pathology, Animal Breeding, Animal Nutrition, Animal Welfare and Laboratory Animal Science. Selected key laboratory diagnostic procedures (blood glucose measurement, insulin detection, DNA analysis, etc.) are implemented in the biochemistry practical courses (3rd semester) using bovine or porcine tissue samples from the slaughterhouse. Training of diverse blood diagnostic procedures continues in the practical classes of physiology (4th semester). In the latter practical classes, all students make themselves also familiar with animal handling and key diagnostic techniques related to cardiac and respiratory function of animals (assessment of blood pressure and pulse, electrocardiography, spirometry, resistometry), ruminal motility and ruminal fluid analysis, and reflex testing (~10 hours in total). A training programme dedicated to laboratory diagnostics is offered to students in the 6th semester (28 hour) which includes the execution of laboratory tests and subsequent evaluation and interpretation of obtained results (haematology, blood biochemistry, urinalysis, etc.). During the mandatory practical exercises in infectious disease courses, the students learn how to identify relevant pathogens such as various proto- and metazoan parasites, bacteria, fungi and viruses (70 hours total). Students also obtain practical skills concerning the set up and analysis of various diagnostic methods.⁷⁹

5.1.3. Description of the procedures developed to ensure the welfare of animals used for educational and research activities

Both student training and animal experiments require approval by the relevant authority according to German animal welfare legislation. On campus, compliance with animal welfare legislation is ensured by Animal Welfare Officers assisted by an Animal Welfare Committee.

To ensure that all measures pertaining to animal welfare are followed, training sessions for researchers, technical staff and students dealing with animal experimentation are mandatory and organised four times per year. Furthermore, contingency planning for the animal facilities and SOPs for the training of different animal species were established. Workshops on training instructions and gentle handling of animals were conducted for this purpose. Overall, a culture of care is practised. Special attention is given to institutions where animals are either temporarily or permanently kept or bred for teaching purposes or scientific research. On-site inspections from Animal Welfare Officers as well as from official competent authority ensure that housing and handling comply with animal welfare requirements. Students are instructed in animal welfare issues in ethics and animal protection courses. Students have developed the Ethics Codex of the VEE, which was approved by the Faculty Council and is binding for staff and students (see <u>Appendix to 5.1.3.</u>).

The VEE has established a rehoming programme. Animals that are the property of the University and were used in educational training can be given to private animal owners if the owners can document that they have the skills needed for handling and caretaking. For agricultural livestock this requires the consent of the regional veterinary authority.

⁷⁹ Examples of non-clinical animal work are provided in the <u>Appendix to 5.1.2.</u>

⁵⁸ Self Evaluation Report | School of Veterinary Medicine | Freie Universität Berlin

As mentioned before, a Veterinary Skills Net improves hands-on clinical training while reducing or refining the use of live animals. The Veterinary Skills Net is described in detail in Standard 6.3.

5.1.4. Description of how cadavers and material of animal origin for training in anatomy and pathology are obtained, stored and destroyed

	Aquisition	Storage	Disposal
Anatomy	Since 2016, material is acquired through an animal cadaver donation programme (animals euthanised for medical reasons by written consent of the owners) along with donation documents from clinics, veterinary practices and experimental animal facilities.	Unfixed material in deep-freeze for in-situ seminars and exercises in the 2 nd semester. Fixed animals in tubs of formalin and body bags (formaldehyde-free) for dissection exercises in the 1 st , 3 rd and 4 th semester. Plastinated animals and animal body parts, bone preparations, etc. (Anatomical collection or dissection hall)	All carcasses and biological waste is securely collected, stored in cooling chambers at 4°C and picked up once a month for rendering. Disposal occurs according to national regulations.
Pathology	Animal cadavers and body parts from routine dissections.	Cadavers and body parts are fixed in formalin, macerated or plastinated.	All cadavers and biological waste is securely collected, stored in cooling chambers at 4°C and picked up twice a week (or more frequently when needed) for rendering. Disposal occurs according to national regulations.

Table 5.1.1. Cadavers and material of animal origin used in practical anatomical training*

Species	2022/23	2021/22	2020/21	Mean
Cattle	71	66	42	60
Small ruminants	59	41	35	45
Pigs	42	38	20	33
Companion animals	248	251	237	245
Equine	125	112	90	109
Poultry & rabbits (incl. birds, rodents)	182	185	110	159
Aquatic animals**	30	30	30	30
Exotic pets	0	0	0	0
Others (specify)	0	0	0	0

*Since July 2016, an animal cadaver donation programme for accepting cadavers of animals euthanised for medical reasons and with written consent of the animal owner is in place. Aside from animal cadavers and body parts, a large number of fixed preparations, bone preparations,

cleansed preparations, plastinates, sheet plastinates, corrosion preparations, anatomical models, as well as x-ray and CT scans are used in anatomy coursework.⁸⁰

**Training on aquatic animals is allocated to courses in food hygiene.

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Species	2022/23	2021/22	2020/21	Mean
Cattle	71	36	42	50
Small ruminants	43	16	25	28
Pigs	78	35	34	49
Companion animals	116	43	41	67
Equine	24	20	4	16
Poultry & rabbits (incl. birds, rodents)	124	87	107	106
Aquatic animals*	20	0	0	7
Exotic pets	2	0	0	1
Others (specify)	0	0	0	0

Table 5.1.2. Healthy live animals used for pre-clinical training

*Training on aquatic animals is allocated to courses in food hygiene.

	P)	
Species	2022/23	2021/22	2020/21	Mean
Cattle	97	141	165	134
Small ruminants	223	275	251	250
Pigs	39	200	285	175
Companion animals	3,616	6,792	7,849	6,086
Equine	1,968	2,113	2,087	2,056
Poultry & rabbits (incl. birds, rodents)	6,863	7,059	8,256	7,393
Aquatic animals	0	16	0	5
Exotic pets	18	45	39	34
Others: Bats	59	66	70	65
Others: Fox	39	38	84	54
Others: Giant panda	0	1	1	1
Others: Hedgehogs	84	86	108	93
Others: Mole	0	1	1	1
Others: Monkey	0	0	2	1
Others: Mustelidae and Musteloideae	14	20	9	14
Others: New World / Old World Camelids	37	43	74	51
Others: Racoons	78	37	39	51

 Table 5.1.3. Number of patients** seen intra-murally (in the VTH)

⁸⁰ Details on the number of anatomical preparations and models can be found in <u>Appendix to Table 5.1.1.</u>

⁶⁰ Self Evaluation Report | School of Veterinary Medicine | Freie Universität Berlin

** Each patient has to be officially recorded in the electronic patient record system of the VEE and has to be individually examined/treated by at least 1 student under the supervision of at least 1 member of staff. Each live animal affected by one specific clinical episode is counted as 1 single patient, even if it has been examined/treated by several units/clinics.

	1		v	,
Species	2022/23	2021/22	2020/21	Mean
Cattle	2,851	2,766	3,369	2,995
Small ruminants	1,791	1,747	1,982	1,840
Pigs	54,073	47,901	2,452	34,809
Companion animals***	0	0	0	0
Equine***	0	0	0	0
Poultry & rabbits (incl. birds, rodents)	89	145	195	143
Aquatic animals	0	0	0	0
Exotic pets	0	0	0	0
Others (alpaca, llama, camel, mufflon)	113	116	118	116
Others (zoo animals)	1	1	1	1

Table 5.1.4. Number of patients** seen extra-murally (in the ambulatory clinics)

** Each patient has to be officially recorded and has to be individually examined/treated by at least 1 student under the supervision of at least 1 member of staff. Each live animal affected by one specific clinical episode is counted as 1 single patient.

*** There is no ambulatory clinic in companion animals and equine. In the context of external equestrian events, veterinarians of the equine clinic treat a certain number of patients per year off-site. Interested students in the final year can attend in these event visits.

Species	2022/23	2021/22	2020/21	Mean
Cattle	65	65	65	65
Small ruminants	75	75	75	75
Pigs	70	70	80	73
Companion animals	75	65	60	67
Equine	50	50	50	50
Poultry & rabbits (incl. birds, rodents)	55	55	50	53
Exotic pets	55	55	50	53
Others (New World Camelids)	80	60	55	65

Table 5.1.5. Percentage (%) of first opinion patients used for clinical training (both in VTH and ambulatory clinics, i.e. tables 5.1.3 & 5.1.4)

Species	2022/23	2021/22	2020/21	Mean
Cattle	31	48	81	53
Small ruminants	52	38	61	50
Pigs	161	337	309	269
Companion animals	114	144	191	150
Equine	35	37	99	57
Poultry & rabbits (incl. birds, rodents)	593	1,198	1,141	977
Aquatic animals	1	0	0	0
Exotic pets	32	13	6	17
Others	11	10	9	10

Table 5.1.7. Number of visits in	herds/flocks/units for	r training in	Animal Production and
Herd Health Management			

Species	2022/23	2021/22	2020/21	Mean
Cattle	149	129	92	123
Small ruminants	254	212	162	209
Pigs	19	23	36	26
Poultry	0	0	0	0
Rabbits	0	0	0	0
Aquatic animals	0	0	0	0
Others (Bee hives and keeping)	20	20	20	20
Others (Animal shelter: dogs, cats, pets, exotics)	43	32	29	35

Table 5.1.8. Number of visits in slaughterhouses and related premises for training in FSQ

Species	2022/23	2021/22	2020/21	Mean
Ruminant slaughterhouses	n.a.	n.a.	n.a.	n.a.
Pig slaughterhouses	n.a.	n.a.	n.a.	n.a.
Poultry slaughterhouses	n.a.	n.a.	n.a.	n.a.
Related premises **	n.a.	n.a.	n.a.	n.a.
Others (specify)	n.a.	n.a.	n.a.	n.a.

** Premises for the production, processing, distribution or consumption of food of animal origin. n.a.: Not applicable. In the German veterinary curriculum, training in abattoirs and related premises occurs during the mandatory three-week EPT in the final year.⁸¹ Abattoirs have to meet conditions provided by the TAppV, including an EU registration.

⁸¹ An overview of the extramural pratical internships (EPT) is given in Table 3.5.1.

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5.1.5. Description of how and by who the number and variety of animals and material of animal origin for pre-clinical and clinical training, and the clinical services provided by the VEE are decided, communicated to staff, students and stakeholders, implemented, assessed and revised

In general, the number of animal patients seen in the respective clinics and the number of animals and material of animal origin available for teaching are within the responsibily of the respective institution or clinic. The executive directors monitor the numbers over time and make adjustments whenever seen necessary. Deficiencies, if they occur, are reported to the Dean's Office by various pathways and discussed there and in the Education Commission. Solutions are sought together with the respective institution or clinic.

To enable the institutes and clinics to effectively use animals and material of animal origing for teaching within the strict legal framework, the Dean's Office and the Animal Welfare Officers are implemented in the decision process and provide administrative support. Each use of animals must be justified in an animal testing application by way of entries pertaining to species and number. The animal welfare officers review and comment on each project that requires a permit. The competent authority in Berlin (Regional Office for Health and Social Affairs (LAGeSo)) reviews the information in the approval procedure. General interest issues pertaining to animal welfare are discussed within the VEE's Animal Welfare Committee, which is made up of the animal welfare officers, researchers, facility directors and animal keepers. Resolutions and recommendations from the Animal Welfare Committee are communicated within the VEE and also to the university management. Circumstances pertaining to the housing, handling and use of animals is also regularly (most often weekly) discussed in the individual animal keeping places, among the reviewing of other working processes. The manager of the facility or the person responsible for the establishment shall ensure that records are made of the recommendations of the Animal Welfare Committee and all decisions pertaining to these recommendations. Records are kept for at least three years and are presented to the competent authority upon request.

5.2. Practical training at external sites

5.2.1. Description of the organisation and management of the external sites and the involvement of students in their running

The VEE holds teaching contracts with six state-owned agricultural teaching farms across Germany (the Bavarian State Farm in Almesbach, the Agricultural Education Center in Echem, the State Enterprise Agriculture in Bad Hersfeld, the Teaching and Research Farm for Animal Breeding and Husbandry in Gross Kreutz, the Research and Education Centre Agriculture Haus Riswick in Kleve and the Teaching and Research Farm in Köllitsch). In the 1st or 2nd year, each student has to attend a two-week internship at one of these teaching farms where she or he is involved in all practical tasks of farmed animal keeping. The courses are supervised by expert agricultural instructors. According to German legislation (TAppV), students can replace this two-week course by a self-organised four-week EPT at an agricultural enterprise that is run by an agricultural master craftsman, bachelor or master. These enterprises have to keep ruminants and at least one monogastric species. Quality is assured by a contract with learning agreement, bilateral evaluation, and report writing. The replacement option is currently used by less than 10% of students.

In the 3rd to 5th year, students go in small groups with a supervising veterinarian in a universityowned car to cooperating dairy, beef or swine farms during practical classes in herd health management and during the final clinical rotations. The farm personnel are informed about the visits and the planned activities. Students are instructed about on-farm occupational safety regulations and species-specific biosecurity measures. As described earlier, students carry out examinations, samplings and treatments of the stock animals under the guidance of the accompanying veterinarian.

5.3. Nursing care skills and instruction in nursing procedures / active participation in the clinical workup of patients

5.3.1. Description of how and by who the nursing care skills are implemented and taught to undergraduate students

As mentioned under Standard 5.2.1., all students complete a two-week internship at a contracted agricultural teaching farm during their 1st or 2nd year of study. In the clinical part of study, nursing care is integral part of teaching in propaedeutics, clinical case work and the final clinical rotations. In addition to these mandatory classes of the curriculum, many elective courses provide ample opportunity to get involved in clinical work and nursing. The Farm Animal Clinic additionally offers the opportunity to adopt and care for a ruminant/small ruminant from the herd owned by the clinic to students during their 3rd year of study and an elective course on evaluation of housing conditions on dairy farms with respect to animal welfare issues.

5.3.2. Description of the group size for the different types of clinical training (both intra-murally and extra-murally) to guarantee hands-on training of all students

Clinical training and exercises/practicals take place in groups. In the following table, the exercises are listed with the respective maximum group sizes. Often, student groups are instructed by several lecturers and teaching assistants, thus reducing the effective group size.

Exercise	Semester	Group size (target)	Group size (max.)
Physical Exercises	1	8	10
Anatomical Dissection Course	1, 3, 4	5	6
General and Special Histology	1, 4	55	65
Chemistry Exercises	2	8	10
Situs I (Anatomy)	2	22	24
Exercises in Animal Breeding and Genetics	2	22	50
Biochemical Practical Course	3	6	7
Physiological Exercises	4	11	13
Feed Science	4	22	25
Exercises in Animal Breeding	5	10-20	45
Animal Nutrition	5	22	25
Virological Exercises	6	7	12
Bacteriology and Mycology (practical course)	6	7	12
Parasitological Exercises	6	18	28
Clinical Laboratory Diagnostics	6	50	60
Special Pathology with Exercises	5, 6, 7, 8	8	8
Pathologic-Anatomical Demonstrations I	7, 8	15	20
Food Science – Practical Course	7, 8	20	45
Dairy Analysis – Practical Course	7	20	60
Galenics (practical course)	7	26	30
Practical Course Meat Hygiene and Inspection	8	15	20
Emergency Veterinary Coach (EVC)	8	5	17
Surgery Block Course	5	20-40	45

Anaesthesia & Intensive Care Block Course	7	20-40	45
Herd Health Management - exercises	5	10-40	45
Herd Health Management - farm visits	6, 7, 8	4	5
Final clinical Rotation – Pathology	9, 10	7	9
Final clinical Rotation – Equine Clinic	9, 10	7	9
Final clinical Rotation – Farm Animal Clinic	9, 10	7	9
Final clinical Rotation – Small Animal Clinic	9, 10	12	12

Overview 5: Groups sizes in the practical courses

5.3.3. Description of the hands-on involvement of students in clinical procedures in the different species (both intra-murally and extra-murally)

Students are involved in hands-on clinical activities as much as possible within the intramural core curriculum (see Standard 5.1.2.). The VEE commits to clinical teaching as a priority. Practical training modules use the existing pool of animal patients for student training as efficiently as possible, each patient is considered as a learning opportunity. Teaching content and teaching approaches ensure that all participating students are offered sufficient hands-on clinical training. Students are encouraged to participate in clinical work on a voluntary basis. For the final clinical rotation, a clinical logbook was established for students to record their clinical training activities during the 5th year of study. For the clinical EPT, a list of learning objectives has been developed to provide guidance to both students and training veterinarians on the scope of skills to be covered. The key concepts of the individual clinical units are provided in <u>Appendix to 3.1.4.b.</u>

5.3.4. Description of the procedures used to allow the students to spend extended periods in discussion, thinking and reading to deepen their understanding of the case and its management

Case studies are already included in several pre- and paraclinical subjects, starting in physiology, biochemistry and animal nutrition, and continuing in infection medicine and Veterinary Public Health subjects. During the clinical case work (4th year) and the final clinical rotation (5th year), students are assigned to specific cases for which they have to compile and analyse information and write reports. During the final clinical rotation, they also attend clinical rounds and journal clubs in which critical reflection of cases and their management are emphasised. This is intended to deepen a student's exposure to scientific thinking, promote information literacy and presentation skills, and provides a look into scientific working methods. The Unit for Reproduction Medicine and Udder Health offers critical appraised topics (CATS) as innovative element during the final clinical rotation, where students develop cases independently and critically using literature.

A wide range of blended/e-learning modules are available in physiology, biochemistry, pathology, microbiology, and pharmacology.

In a clinical context, several blended learning courses are based on intensive self-study followed by group discussions and/or clinical work. This applies to the interdisciplinary teaching in QuerVet⁸², as well as the block courses in surgery, anaesthesiology and emergency care.

⁸² A list of e-learning/blended learning modules with some descriptions can be found in the <u>Appendix to 3.2.1.2.</u>

5.4. Medical records in an effective retrieval system

5.4.1. Description of the patient record system, its completion, its availability to staff and students and how it is used to efficiently support the teaching, research, and service programmes of the VEE

All information pertaining to the admission of an animal patient, veterinary services and treatments, as well as drug administration, is documented in the commercial animal patient management programme "Vetera" (Eltville, Germany). All clinical units have implemented this system. The Farm Animal Clinic additionally keeps written medical records and a barn register, and students have to keep written medical records for the patients under their care. When working on cases, students use information from Vetera , on-farm management software (e.g., Herde, dsp- Agrosoft, Paretz, Germany), as well as physical barn registers.

Comments on Area 5

- All clinics use the same patient information system; this allows for the rapid extraction of number of patients treated annually in the respective institutions.
- Animal welfare legislation mandates us to reduce the number of animals used in teaching to the necessary minimum. Several blended-learning courses have been developed to support practical clinical teaching. The Veterinary Skills Net is constantly expanded.
- Since the last EAEVE visitation considerable improvements have been implemented in the practical clinical teaching itself:
 - Students follow the daily workflow, including morning and afternoon rounds, as the veterinary staff does.
 - Students are assigned to one or more in patients, with all responsibilities and duties related to that patient. Under the supervision of the veterinarian officially in charge of the patient, the students must take full responsibility for their patient, which also includes owner communication and record keeping.
 - Increased participation of students in evening and weekend shifts.
 - Training of students for hands-on animal work by using a continuously expanding number of Skills Net models.
 - Shorter but more interactive case presentations done by students (Equine Clinic).
 - Development of a species-based clinical learning objective catalogue from which the clinical logbook for students was derived, implemented in the clinical year, and used to monitor student hands-on training. This is also used to monitor the overall quality of clinical hands-on training among the different units involved, allowing for early identification of persistent insufficiencies and to enforce further improvements.
 - Efforts were made to increase the number of farm animal necropsies. Especially pigs are now a substantial part of our necropsy material.
- An area of concern is the discontinuation of the 24/7 service in the Small Animal Clinic since May 2022, which caused a considerable drop in small animal cases available to students. The lower number of animals was compensated by more intensive use of the remaining animals and by the structured implementation of learning activities using the Skills Net. Moreover, the Small Animal Clinic was central to the implementation of the clinical streaming service "VetCam Berlin", which allows additional clinical experience as distance learning. The structural measures to bring the Small Animal Clinic back to 24/7 are described in the Introduction and Area 1.
- The less-than-optimal numbers of necropsied animals in the Institute of Veterinary Pathology were partially caused by a technical breakdown in the necropsy room over prolonged time. Specifically, a complete outage of the wastewater removal from Aug. 11th to Oct. 17th 2023 resulted in the prohibition of any use of the facility by the local authority.

The problem was sustainably resolved. In addition, the decrease in small animal clinic case load has also led to a decrease in the numbers of companion animal necropsies which used to constitute the majority of necropsy material prior to the COVID-19 crisis. Unfortunately, it was not possible to fully compensate the decrease in small animal necropsies caused by the COVID-19 crises (2020-2022) and the discontinuation of the 24/7 service (since 2022) so far, despite campaigns to recruit small animal cadavers for necropsies from practitioners, clinics and the Animal Shelter Berlin. The main reasons for this are the increasing trend towards burying or cremating deceased pets, as well as increased (mandatory!) necropsy fees due to changes in national veterinary fee legislations (2022). Despite the latter circumstances, we are confident that our small animal necropsy cases will meet or exceed ESEVT standards as soon as our Companion Animal Clinic will be back to 24/7. It should additionally be noted that we have far above-average availability of other species for necropsy; i.e. the total necropsy material available for postmortem practical training is more than sufficient. Partial shortness of specific necropsy cases is compensated by provision of video recordings of previous necropsies of typical and outstanding cases, publicly available video tutorials on necropsies of companion animals, plastinated organs and other measures.

• A further area of concern is the temporary discontinuation of the on-call service in the Farm Animal Clinic since December 2023 due to slow fill of open positions by the VEE/University, which caused a considerable drop in farm animal cases available to students. Due to contracts required for food animal producers, an on-call service for emergencies has to be provided by the ambulatory service.

Suggestions for improvement in Area 5

- The VEE completed an external audit and internal revision process to optimize the administration structure and working processes within the clinics. This has led to a completely revised structure and an increase of staff available for clinical teaching and services in the Small Animal Clinic and the Equine Clinic. The implementation of the system is still under way.
- In 2022 the VEE has established a Public Relation Unit to advertise achievements and to attract public interest in the clinical work and services. The recruiting strategy for staff has also been critically revised.
- It is expected that the new and extended structure, as well as the new PR- and recruiting strategy will lead to improved services and increased patient availability to students.
- To counterbalance and compensate for the low number of companion animal necropsies, the Institute of Animal Pathology initiated the following actions:
 - All companion animals that die in the Animal Shelter Berlin are automatically transferred to the Institute and necropsied with the students.
 - The Institute of Animal Pathology contacted local private veterinary clinics and practices and encouraged them to send more companion animals for necropsy purposes.
- The VEE is continuously exploring options to formalise collaborations with large-scale livestock farms in the region to be used for agricultural training (EPT) as well as ambulatory visits and herd health teaching.

AREA 6. LEARNING RESOURCES

6.1. State-of-the-art learning resources

6.1.1. Description of the general strategy of the VEE on learning resources

The provision of excellent education is a strategic aim of the VEE and it's home University. This immanently includes the provision of optimum learning resources, as well as a stimulating learning environment for students and employees. Main learning resources include a library service (both central and local), an IT service department (FUB-IT) that is currently under complete reorganization and well equipped teaching and learning rooms.

The library is explained in detail under Standard 6.2. Electronic teaching, learning and examination resources (formerly implemented in the Center for Digital Systems, CeDiS) has been strengthened as a main part of the new FUB-IT. The intention of FUB-IT is to provide a university-wide service plattform for research, teaching, studying and administration. The central IT services provided by FUB-IT include a large portfolio of PC pools (three of them at the VEE) and an extensive eduroam Wi-Fi network with access points installed almost everywhere, including all lecture halls and seminar rooms. Centralised learning and learning management platforms are Blackboard, tet.folio⁸³ and Campus Management, as well as an electronic course catalogue. Staff and students have access to those resources from their first day of employment/study. Easy use is ensured by a Single Sign-on strategy linked to a personal university account and email address. Remote use is ensured by VPN connections. All students receive a Campuscard, which grants access to library, lockers, printers, copiers and other facilities such as the university cafeteria and public transportation in the Berlin area. Freie Universität Berlin offers high quality teaching tools like Webex, Vbrick (video storage and streaming), Votingo (audience response system), FUbox (data storage and exchange) as well as several Wikis. Via university licences, students have free access to important software packages (Microsoft Office, Adobe Acrobat, EndNote, etc.) and electronic simulation programmes (SimNerve, SimMuscle, SimHeart, etc.). For a complete list of software see Appendix to 6.1.1. The development of the campus-wide teaching support systems, technologies and software is promoted by the Executive Board, supported by the Chief Information Officer (CIO), the library commission and Division V (Academic Affairs) of Freie Universität Berlin. Over the last three years, Freie Universität Berlin launched the participative FUtureIT project that provided a great advancement of the IT structure with due focus on teaching and finally led to the foundation of FUB-IT. A central element of FUB-IT is the IT-Service-Management (ITSM)-portal that provides fast first level support (personal support and a Knowledge Base with instructions and FAQs) to all staff and students. Stakeholders from the VEE were heavily involved in the promotion and success of the FUtureIT project.

6.1.2. Description of how the procedures for access to and use of learning resources are taught to staff and students

Freie Universität Berlin offers a variety of IT and e-learning training courses through the Dahlem Center for Academic Teaching (DCAT). Results of new developments are distributed via different channels (e.g. social media, direct personal emails, website and the central learning platform Blackboard). There is a help desk and telephone helpline for central e-learning resources and other IT-related issues that is currently transferred to the already mentioned ITSM portal of FUB-IT (see Standard 6.1.1.). To address the specific needs of veterinary education, the local IT staff of the VEE and the staff of the Study Office provide specific support for all central teaching and learning systems, e-learning advice, as well as help for specific questions

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⁸³ Technology Enhanced Teaching; interactive teaching and learning platform developed and hosted by the Freie Universität Berlin; <u>https://tetfolio.fu-berlin.de/</u>
about e-learning. Techniques for literature search are directly incorporated into the curriculum in various subject-specific courses. In addition, free trainings in literature research are offered on a regular basis.

Special focus is placed on new students and staff. All newly enrolled students are familiarised with the study resources during an introductory week. The Study Office provides introductions to the most important features of Blackboard, Campus Management, the electronic course catalogue, eduroam and VPN connections. Instructions for using the library and its literature search facilities are provided by the library staff during the introductory week. A summary of relevant IT services with instructions is compiled in the Study Guide⁸⁴ that is handed out to all first-semester students. Furthermore, a mentoring programme is in place to support the critical phase of study entry.

6.1.3. Description of how and by who the learning resources provided by the VEE are decided, communicated to staff, students and stakeholders, implemented, assessed and revised

The library runs a survey each year to determine the literature needs of each institution as well as the staff and students. In addition, requests to purchase new monographs can be submitted online. Subject representatives decide on the relevant titles / monographs to be used for their teaching. The head librarian is responsible for the development and maintenance of literature holdings. He works closely with the Dean's Office, the library coordinator and the VEE's institutions. The library coordinator⁸⁵ is a professor of the VEE and is elected by the Faculty Council. The head of the library and the library coordinator report to the Dean's Office and Faculty Council.

Changes in central IT infrastructure and services are communicated by the University to the VEE and all users electronically. Extensive innovations and especially investments in digital teaching are agreed upon and communicated within the framework of the target agreements between the VEE and Executive Board of Freie Universität Berlin.

6.2. Library, Information Technology (IT), e-learning platform, Wi-Fi, and development of instructional materials

6.2.1. Brief description of the main library of the VEE

The Veterinary Library is part of the library system of Freie Universität Berlin but operated by the VEE and located on the Düppel Campus. It uses the electronic library system of the University. The VEE's library has a total of 7.50 FTE in personnel, holds approx. 174,000 monographs, journals / periodicals and university publications and provides online access to a broad range of additional literature. Online access to scientific literature has been greatly expanded by an open access publishing strategy and successful DEAL negotiations with several publishers (Wiley, Springer Nature and Elsevier). In addition, the library provides learning facilities for individual study, group learning and several Skills Net modules.⁸⁶

Literature that currently is not part of the holdings of Freie Universität Berlin can be ordered free of charge through the interlibrary loan service. Requests to purchase new books can be submitted via the Primo library portal⁸⁷ to the Veterinary Library and are fulfilled in almost all instances.

Details on facilities and equipment, opening hours, annual budget and available software are listed in <u>Appendix to 6.2.1. and 6.3.</u> It needs to be stressed that students of the VEE also have

⁸⁴ German Version at <u>https://www.vetmed.fu-berlin.de/news/_ressourcen/WS_23_24.pdf</u>

⁸⁵ See: <u>Appendix to 1.1.5.</u> on commissions and representatives

⁸⁶ Details on the library structure and resources are provided in the <u>Appendix to 6.2.1. and 6.3.</u>

⁸⁷ See: <u>https://fu-berlin.primo.exlibrisgroup.com/discovery/search?vid=49KOBV_FUB:FUB</u>

full access to the > 400 working spaces and additional resources of the central University Library⁸⁸ which is located close to our Dahlem Campus.

6.2.2. Brief description of the subsidiary libraries

Approximately 15,000 monographs and periodical volumes are held in hand libraries in the institutes and clinics of the VEE.

6.2.3. Brief description of the IT facilities and of the e-learning platform

The University units ZEDAT (Central IT services) and CeDiS (Center for Digital Systems) provide a comprehensive range of up-to-date IT technology and services including data storage, MS Exchange Email services, web and other server capacity, Campus user accounts for students and staff with Single Sign-on, VPN and eduroam capability, Internet and WLAN services, the SLCMS, Blackboard and Campus Management systems, the website CMS system, Blogs and Wikis, E-Examination capability (two electronic examination centers; EEC1 with 151 places and EEC2 with 190 places) as well as a range of licensed software packages that all are available to the VEE (see Figure 11). Most of the services are accompanied by training opportunities organised by the Center for Continuing Education and DCAT of Freie Universität Berlin.⁸⁹ In addition to the central service, 6 technical staff members provide on-site first and second

level support for hardware and software IT, database management and e-learning directly at the VEE. The most important services made available for teaching in addition to those listed above are:

- **3 PC pools** used for teaching as well as by students (A pool: 37 PCs, B pool: 10 PCs, C pool: 20 PCs). Printing and scanning in the pools is available for a fee.
- **Patient record system** (Vetera; see Standard 5.4.1.) that is used in all clinics and enables students in clinical training to access patient records.

6.2.4. Description of the accessibility for staff and students to electronic learning resources both on and off campus

As mentioned previously (6.1.1.), the online resources of Freie Universität Berlin are accessible to all students and employees through the Campus user account either on local PC workstations, personale mobile devices (WLAN, eduroam) or from home through a VPN client connection.

6.3. Access to learning resources, internet and internal study resources, and equipment for the development of procedural skills

The availability of books, periodicals and e-resources is listed in <u>Appendix to 6.2.1. and 6.3.</u>

E-learning, and especially blended learning formats, have become increasingly important in conveying content to students in a flexible and repeatable way, and the VEE, as well as the Freie Universität Berlin, strongly supports the development and implementation of such formats through technical support and funding. Blended learning courses currently available at the VEE have been summarised in <u>Appendix to 3.2.1.2.</u> and further courses are currently under development. Outstanding examples of this teaching format include the anatomical exercises (in-situ demonstrations), physiology and pathology e-learning modules, the case-based blended learning project (QuerVet) and the clinical courses in anaesthesia, surgery and emergency veterinary care⁹⁰.

⁸⁸ See: <u>https://www.fu-berlin.de/en/sites/ub/arbeitsplaetze/index.html;</u> opening hours 09:00 to 18:00

⁸⁹ For details see <u>Appendix to 9.1.1.b.</u>

⁹⁰ For details on learning stations, simulators/materials online material and used in the courses in anaesthesia, surgery and emergency veterinary care, please refer to <u>Appendix to 6.3.a.</u>

Our skills lab, the Veterinary Skills Net, contains three main pillars: the Manual Skills Lab, the Scientific Skills Lab and the Social Skills Lab. It has a decentral organisation with a central Skills Net Coordinator and a central Skills Net workshop. The Skills Net Coordinator is allocated to the Dean's Office and supervises 5 student employees dedicated to specific Skills Net duties. The Manual Skills Lab supports teaching of Day One Competencies using animal and organ models. The list of currently available models is provided in <u>Appendix to 6.3.b</u>. The list of models offered is constantly expanded. Since 2020, the VEE receives 50,000 Euro on an almost annual basis from the Senate of Berlin dedicated to the acquisition of new models. Further structured funds have been provided by the VEE, the University and Berlin University Alliance.

The Manual Skills Lab is organised as learning stations with instructions via Standard Operation Procedures and video tutorials. The learning stations are allocated to Skills Net rooms in the different clinics of the Veterinary Hospital Freie Universität Berlin and the Veterinary Library. They are used in mandatory curricular courses (e.g. propaedeutics, clinical case studies, courses in aneasthesiology, surgery, emergency veterinary medicine and meat hygiene, as well as in the final clinical rotations), facultative courses provided by the Veterinary Skills Net and in self-directed learning. For the latter, the Veterinary Skills Net has established an online booking system for specific learning stations. In addition, the lending desk of the Veterinary Library loans out various Skills Net models for individual practice, e.g. models for training suture skills. The Manual Skills Lab is complemented by a Scientific Skills Lab and a Social Skills Lab dedicated to training of basic scientific skills and communication skills, respectively. For training of communication skills, the VEE appoints a Coordinator for Didactic Continuing Education. The Veterinary Skills Net also supports VetCam Berlin, a streaming service for teaching clinical skills. A Skills Net Café is organised once per semester to coordinate Skills Net activities and to discuss new projects and models.

+	CIO Execut	ive Board of Freie Univer	sität Berlin Chancelor		7
Departments Su in 4 regions ti	ipport icket	FUB-IT			University Library
Region 1	T-Support Adr	ministration IT	IT Infrastructure (ZEDAT)	Other IT	University
Region 2	(ITSIVI) Budgeting	Staff Campus Basic IT Mgmt.	Identity Server Network Scien	ce "CeDiS"	LIDIALY II
Region 3	1 st level				
Department of Philosophy and Humanities School of Veterinary Medicine Region 4	support + Sup	pport			
Important areas of interac	tion				
IT Support IT-Service Management (ITSM) First level support (central and local) Second level support (central and local) Knowledge-Base (FAQ, Wiki) Running of Morkspace computers Running of A, B and C pools Vetera clinic system Programming of support Database support	Administration IT • Business administration (eg., human capital management, controlling, accounting, procurent, materials management, facility management, business travel management (Campus Management System) • Science information database	IT Infrastructure (ZEDAT) Running of workspace computers Account maintenance (Single Sign-on) Server maintenance Running of data networks (incl. Wi-F) Running of data networks (incl. Wi-F) Running of data networks (incl. Wi-F) Printing service Campus licenses for software products Science IT	Other IT (CcDiS) E-learning E-reserch E-publishing Audio-visual media; multimedia archives Blackboard S Website design Support for blended learning scenarios Toolis	University Li E-books E-periodicals Online journals Publication suppor Open access publit Digital acroshving Databases and dat	brary Π t/ cation support abase search

Figure 11: IT support provided by Freie Universität Berlin to the VEE (The scheme is provisional as the restructuring process of FUB-IT is still ongoing.)

Comments on Area 6

- The IT infrastructure available to the VEE is broad, technically advanced and well supported. Most of it is centrally maintained and free of charge.
- It is seen as an advantage that the VEE maintains its own on-site Library and IT support.
- The library is well equipped, provides access to a large number of relevant monographs and periodicals, and is perceived as a good learning resource.
- Since 2017, the library in collaboration with the Skills Net lends out learning boxes to students.
- The VEE is characterised by a high level of activity in the field of e-learning. Support for the creation of digital learning materials from CeDiS is outstanding and well received.
- Due to the active participation of members of the VEE in the FutureIT process leading to the foundation of FUB-IT, central IT services excellently fit the future needs of the VEE.

Suggestions for improvement in Area 6

• The VEE intends to develop the library site to a Student Service Center where students get access to all relevant services at a single location. The Study Office, the Office for Doctoral Studies, the support.point for mental health and small parts of the Skills Net have already been relocated to the Veterinary Library building. Further desired expansion include the Examination Office (currently located at LAGeSo) and additional Skills Net resources. Especially the latter would require an extension building.

AREA 7. STUDENT ADMISSION, PROGRESSION AND WELFARE

7.1. Factual information

7.1.1. Description of how the educational programmes, learning outcomes, admission procedures and requirements for national and foreign students, progression and certification, tuition fees, academic calendar, collaborations with other VEEs, etc. are advertised to prospective students

Information about admission criteria and processes and the veterinary education at the VEE and other German VEEs is provided in: (i) the national application and information platform "Hochschulstart"⁹¹, (ii) the central information platform of the Admissions Office at Freie Universität Berlin for the areas for "national applicants" and "international applicants"⁹², (iii) the VEE's website with information on the profession, short profiles provided by members of the VEE, a brochure "Working as a Vet" and guidance for applications, admissions and course of study, (iv) the Online Student Subject Selection Assistant (OSA) of Freie Universität Berlin⁹³ that also provides information about the curriculum, day-to-day student life, perspectives, job summaries and application methods, as well as a large number of interviews with teachers and students, (v) public events such as the annual study information days of Freie Universität Berlin ("inFU:tage"), the "Long Night of Science", the National Boys Day and the VEE's "Open Campus" day.

In addition to subject-specific information on the veterinary medicine degree programme, the Central Student Administration offers organisational information on administrative fees, application and enrollment deadlines, an academic calendar and a wide range of materials and events for general student advising.⁹⁴

To attract and inform international students, Freie Universität Berlin has a wide range of special information offers⁹⁵, including 4 liason offices all over the world and a yearly International Week. Special information on veterinary studies are communicated by the Coordinator for International Relations, Partnerships and Visiting Students of the VEE and announced via the Veterinary Medicine ECTS (European Credit Transfer and Accumulation System) Brochure (see <u>Appendix B</u>) that is regularly updated and available via the VEE's website. Yearly student exchange and information visits commence between the École nationale vétérinaire d'Alfort in Paris and the School of Veterinary Medicine of Freie Universität Berlin to foster mutual student exchange.

7.2. Number of students

Table 7.2.1. Number of new veterinary students admitted by the VEE

Type of students	AY* (2022/23)	AY-1 (2021/22)	AY-2 (2020/21)	Mean
Standard students	199	193	197	196
Full fee students	n.a.	n.a.	n.a.	n.a.
Total	199	193	197	196

* The last full academic year prior to the visitation

⁹¹ See: <u>https://hochschulstart.de/unterstuetzung/downloads</u>

⁹² See: https://www.fu-berlin.de/en/studium/bewerbung/hochschulstart-dt/index.html

⁹³ See: <u>http://www.osa.fu-berlin.de/vetmed/start/start</u>

⁹⁴ See: <u>https://www.fu-berlin.de/en/studium/index.html</u>

⁹⁵ See: https://www.fu-berlin.de/en/studium/international/index.html

Year of programme	AY* (2022/23)	AY-1 (2021/22)	AY-2 (2020/21)	Mean
First year	200	196	199	198
Second year	172	175	179	175
Third year	171	172	173	172
Fourth year	167	166	163	165
Fifth year	160	159	147	155
Sixth year	155	139	143	146
Total	1,025	1,007	1,004	1,012

Table 7.2.2. Number of veterinary undergraduate students registered at the VEE

* The last full academic year prior to the visitation

Table 7.2.3. Number of veterinary students graduating annually

Type of students	AY* (2022/23)	AY-1 (2021/22)	AY-2 (2020/21)	Mean
Standard students	147	138	145	143
Full fee students	n.a.	n.a.	n.a.	n.a.
Total	147	138	145	143

Table 7.2.4. Average duration of veterinary studies

The average duration of study for graduating students in 2022/23 was 11.7 semesters.

Duration	% of the students who graduated on AY* (2022/23)
+ 0**	68.7
+ 1 year	9.5
+ 2 years	3.4
+ 3 years or more	2.7

** This is equivalent to the minimum time required (11 semesters or 5.5 years)

Programmes	AY* (2022/23)	AY-1 (2021/22)	AY-2 (2020/21)	Mean
Interns	0	0	15	5
EC Residents	30	29	34	31
German Veterinary Specialist Trainees	52	43	71	55
PhD students	138	125	116	126
Others: Dr. med. vet	273	306	312	297

Table 7.2.5. Number of postgraduate students registered at the VEE

7.3. Selection and progression criteria and processes

7.3.1. Description of the admission procedures for standard students:

7.3.1.1. Selection criteria

Admission to medical courses of study including veterinary medicine is centrally regulated in Germany through the platform "Hochschulstart". The allocation of study places via hochschulstart.de takes place in several steps. After deducting the preliminary quotas for non-equivalent applicants, hardship cases, second degree applicants, military medical personnel and

applicants with special university entrance qualifications, the remaining study places are allocated in the German-wide selection procedure.⁹⁶

- The first 30% of study places (best high school grades quota) are allocated according to the average grade of the university entrance qualification (usually Abitur, based on state quotas).
- The largest proportion of study places (60%) is allocated through a selection procedure at the universities (AdH)
- The last 10% of places are awarded via the so-called "Additional Aptitude Quota (ZEQ)", in which only selection criteria independent of school grades are used.

Re 2. selection procedure of the universities (60% of the study places)

- 60% of the available study places are allocated through the selection procedure as part of the AdH quota. A maximum of 100 selection points can be achieved in the selection procedure for the AdH quota. The following selection criteria apply:
- The result of the university entrance qualification for the chosen degree course (max. 60 selection points).
- The result of a subject-specific aptitude test for medical degree programmes (TMS⁹⁷) (max. 30 selection points).
- Practical vocational training / apprenticeship in a recognised subject area (max. 10 selection points).

Re 3. additional aptitude quota (ZEQ) (10% of study places)

- A maximum of 100 selection points can be achieved in the selection procedure for the ZEQ. Selection points are awarded for the following selection criteria:
- TMS test result (max. 50 points)
- Completed and study-relevant vocational training (35 points)
- Recognised professional activity (15 points)

7.3.1.2. Policy for disabled and ill students

Students with disabilities or chronic illnesses can contact the central Office for Students with Special Needs at Freie Universität Berlin to be included in the preliminary quota.⁹⁸ For admission to studies, 2% of the study places are reserved for this group. The central Office for Students with Special Needs further support students in providing means to reduce disadvantages so that the students can participate in courses, exams and internships. In addition, measures to ensure barrier-free accessibility to all facilities are implemented by the University. Special Services for Students with Disabilities offered by the University include:

- Representatives for Employees with Disabilities
- Services for Blind and Visually Impaired Students
- Counseling for Students with Disabilities offered by the AStA (= General Students Assembly)
- Counseling for Students with Disabilities offered by the Student Union
- Counseling for Students with Disabilities Self-help Group

7.3.1.3. Composition and training of the selection committee

Local selection processes by all German VEEs were discredited by a legal sentence of the Federal Constitutional Court, requesting that all German VEEs use an equal-opportunity selection process for students. Therefore, all German VEEs use the common Test for Medical

⁹⁶ For a schematic overview, please refer to <u>Appendix to 7.3.1.1</u>

⁹⁷ See: Standard 7.3.1.3

⁹⁸ See: <u>http://www.fu-berlin.de/en/service/behinderung/index.html</u>

Studies (TMS) with some other harmonised criteria since 2021 (for criteria, see Standard 7.3.1.1). The TMS is a specific aptitude test for studying medicine, which was developed on behalf of the German Conference of Ministers of Education and Cultural Affairs of the Länder with the aim of recording dimensions of study aptitude as representatively as possible and, in addition to the Abitur grade, to be able to use a further reliable admission criterion with special focus on natural scientific and medical aptitudes in the framework of the numerus clausus. It has been used for prioritisation of admissions in medicine and dentistry in Germany from 1986 to 1996 and again since 2007.

7.3.1.4. Appeal process

Students not admitted to the degree programme receive a rejection letter from "Hochschulstart". It is possible to appeal against this notification before the administrative court of Berlin within one month.

7.3.1.5. Advertisement of the criteria and transparency of the procedures

The procedures and requirements are available to view in both German and English on the websites of Hochschulstart, Freie Universität Berlin⁹⁹ and the VEE¹⁰⁰. The Study Office can be contacted should questions pertaining to applications or admissions arise.

7.3.2. Description of the admission procedures for full fee students

Not applicable, as there are no tuition fees at Freie Universität Berlin and most other German public universities.

7.3.3. Description of how the VEE adapts the number of admitted students to the available educational resources and the biosecurity and welfare requirements

Limit to the number of students admitted each year

Currently the number of students admitted each year is limited to approx. 194 (varying from 175-199). This number is annually recalculated by the University administration on the basis of the Berlin Capacity Regulation (KapVO). Teaching hours in the curriculum, student-teacher ratio in the various courses and number of core funded academic staff influence the number of students to be admitted each year. Number of animals as patients and/or for teaching, structural resources (such as teaching facilities) as well as biosecurity and welfare requirements are not taken into account; these have to be adjusted to the student numbers by the VEE and its home university.

Number of government-funded student places

All student places are government-funded as there are no tuition fees at Freie Universität Berlin.

Extra students admitted to the undergraduate veterinary course

It is not possible to admit extra students due to the legally binding capacity limitation.

Changes foreseen in the number of students admitted annually

Due to the rise in teaching staff in the Small Animal Clinic and Equine Clinic an equivalent increase of the total number of students admissions is expected in the near future.

7.3.4. Description of the prospective number of new students admitted by the VEE for the next 3 academic years

Enrolment numbers in the coming years are expected to increase to approx. 210 students.

⁹⁹ See: https://www.fu-berlin.de/en/studium/bewerbung/hochschulstart-dt/index.html

¹⁰⁰ See: <u>http://www.vetmed.fu-berlin.de/studium/studieninteressierte/zulassung-veterinaermedizin/index.html</u>

7.4. Applicants with disabilities or illnesses

7.4.1. Description of the policies and procedures dedicated to applicants with disabilities

At the Freie Universität Berlin, applicants with a disability or chronic illness can apply for immediate admission to study when applying for veterinary medicine or other state examination courses of study via Hochschulstart. Up to 2% of total admissions have to be reserved for those students (see Standard 7.3.1.2.).¹⁰¹

7.5. Attrition, progression and support

7.5.1. Description of:

7.5.1.1 The progression criteria and procedures for all students

The TAppV as well as the <u>study</u> and <u>examination regulations</u> of the VEE regulate the monitoring of students. Successful participation in all practical courses (exercises, seminars, electives, case work, rotations etc.) is documented in the SLCMS "Campus Management" (see Standard 3.1.8.). Students can check their status in the SLCMS. Once eligible, students are invited by the State Examination Office to take the respective examinations. The sequence of exams is laid out in the TAppV and the examination regulation.

7.5.1.2 The remediation and support for students who do not perform adequately

General academic advising is carried out by the Center for Academic Advising and Psychological Counselling of Freie Universität Berlin. Specific advising regarding the veterinary curriculum is available by the VEE Study Office and the chairs of the examination boards. Examination progress is monitored by the State Examination Office (LAGeSo). Students not sufficiently progressing are invited by the LAGeSo to a counselling led by the chair of the respective examining board.

7.5.1.3 The advertisement to students and transparency of these criteria/procedures

The examination process including critera for expulsion are laid out in the TAppV and the VEE's supplementary examination regulation. These regulations are accessible via the VEE's website and repeatedly communicated to students.

7.5.2 Description of the rate and main causes of attrition

As part of the QA process the VEE annually compiles key figures on academic progress in a quality report which is discussed with the Executive Board of Freie Universität Berlin. The following table is derived from the 2022 quality report and presents the study cohort progression from the 1st to the 3rd semester as well as from the 3rd to the 5th semester for the last three years. The number of students remaining is constant at over 85%.

	Students	tudents in 1 st semester Students in 3 rd semester Cohort remaining					ning		
Degree programme	WiSe 2019/20	WiSe 2020/21	WiSe 2021/22	WiSe 2020/21	WiSe 2021/22	WiSe 2022/23	Cohort 2019	Cohort 2020	Cohort 2021
Veterinary Medicine	189	197	193	175	168	168	93%	85%	87%

Overview 6: Cohort Development 1st to 3rd semester (number of those beginning a course of study in a cohort in proportion to those still studying in the 3rd subject-specific semester)

¹⁰¹ See: <u>https://www.fu-berlin.de/en/studium/bewerbung/formulare/Sonderantraege1/index.html</u>

	Students in 3rd semester		Students in 5 th semester			Cohort remaining			
Degree programme	WiSe 2019/20	WiSe 2020/21	WiSe 2021/22	WiSe 2020/21	WiSe 2021/22	WiSe 2022/23	Cohort 2018	Cohort 2019	Cohort 2020
Veterinary Medicine	173	175	168	170	167	169	98%	95%	101%

Overview 7: Cohort Development 3rd to 5th semester

Based on exmatriculation surveys regularly conducted by the University, 74% of former veterinary students indicated that they continued to study after leaving Freie Universität Berlin. This indicates that a large proportion of exmatriculations is due to transfers to other Universities and, in most instances, to other German VEEs.

7.5.3. Description of how and by who the admission procedures, the admission criteria, the number of admitted students and the services to students are decided, communicated to staff, students and stakeholders, implemented, assessed and revised

As laid out in also Standard 7.3.1., admission procedures, admission criteria and the number of admitted students are legally harmonised across Germany with little room for modulation by German VEEs. Intended or expected changes in the number of incoming students, changes in the number of students progressing through the study phases, reasons for attrition etc. are identified through yearly QA meetings with Executive Board of Freie Universität Berlin, by surveys and by feedback from the Study Office, the State Examination Office and the chairs or the examination boards. They are discussed in the Deans' Office, the Education Commission and with responsible individuals. Decisions taken by the respective body are communicated back through the Faculty Council, directly communicated with stakeholders and implemented on the VEE's website.

7.6. Exclusion of students and the appeal process

7.6.1. Description of the mechanisms for the exclusion of students

Students who do not pass the second repeat examination (third attempt) in an individual subject receive a written notice of final examination failure from the chair of the examining board, and are excluded from further veterinary studies in Germany.

7.6.2. Description of the appeal processes

A student may lodge an objection in writing within one month with the chair of the examining board. If this is rejected the action may be brought before the administrative court of Berlin.

7.7. Services available for students

7.7.1. Description of the services available for students

A broad range of services related to registration (Enrolment Office, Study Office), teaching administration (Study Office), mentoring and tutoring, careers advice, listening and counselling, assistance in case of illness, impairment and disability are available both at the University and the VEE.¹⁰² The University also offers assistance in the form of counselling, short-term loans and subsidies. Subsidies are granted primarily to foreign students during exam periods and in cases of illness, and to single parents while taking their final exams. Additionally, general social counselling (for example concerning housing subsidies, study financing, health

¹⁰² Details on the individual services can be found in the <u>Appendix to 7.1.6.</u>

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insurance, etc.) and counselling for students with children is offered.

Pregnant students and students with childcare responsibilities will be granted preferential registration for elective and required courses as well as for scheduling clinical rotations, and individual study and examination plans will be defined together with the chairs of the examination boards. Some institutes have designed specific course modules that allow pregnant or breast-feeding students to continue their studies without being exposed to infectious or toxic material or dangerous cutting tools. The VEE has two parent-child rooms (Library and Student Association Facility) as well as breast-feeding and diaper changing rooms.¹⁰³ Childcare facilities are available for students at the University day care centers (care times from 7:30 am - 6:30 pm) and four day care centers operated by the Student Union; however, spaces are on high demand.

7.7.2. Description of the mechanisms for resolution of student grievances

The processes for reporting suggestions, comments and complaints (see Standard 7.8.) and the processes for the resolution of student grievances (this Standard 7.7.2.) are closely interlinked and feed into a common PDCA cycle. The final responsibility for the resolution of student grievances is with the Vice Dean of Study Affairs (regarding study matters), the chair of the respective examination board (regarding examination matters) and the Dean (regarding all other matters). Students can report their complaints directly to those final instances in writing or individual counselling sessions. The most frequently used channel for direct complaints is the monthly meeting of the Education Commission where the majority of members is students (8 student members from different years) and where the Vice Dean of Study Affairs and both chairs of the examination commissions are amongst the professorial members. This allows for effective discussions on problems and solutions, often with further discussion in follow-up meetings, and their fixing in the meeting protocols of the Education Commission. The Vice Dean for Study Affairs further informs the Faculty Council.

For anonymous complaints, an effective complaint management system is in place which ensures that all potential fields of complaints are addressable by staff and students. The points of contact within this complaint management system (ombudspersons, representatives for complaint management, liaison students) discuss solutions to the forwarded complaints with their clients under strict confidentiality. Feedback loops that are channelled through the working group "Complaint Management" evidence that the vast majority of complaints can be solved by counselling or mediation between the offended and the offender(s). Complaints that require structural counter-measures by the VEE are discussed once per semester in the working group "Complaint Management" with the Vice Dean for Study Affairs under strict observation of confidentiality.

The solution of the complaints finally follows the PDCA cycle on complaint management¹⁰⁴. Problems and solutions are discussed once per year with the Executive Board in the frame of annual the QA report and QA meeting.

7.8. Mechanism to offer suggestions, comments and complaints regarding compliance of the VEE with national and international legislation and the ESEVT Standards

7.8.1. Description of the mechanisms allowing students to provide their needs, complaints, comments and suggestions to the VEE

As mentioned under Standard 7.7.2., The VEE has created several points of contact to address questions, suggestions and complaints concerning study matters as well as personal problems.

¹⁰³ See: <u>https://www.vetmed.fu-berlin.de/en/bibliothek/ueber_uns/raeume/kinderzimmer/index.html</u>

¹⁰⁴ See: PDCA cycle on Complaint Management in <u>Appendix to 7.8.1.</u>

These are published on the VEE's website and are implemented in the PDCA cycle of complaint management. They include the members of the working group "Complaint Management"

- Vice Dean for Study Affairs and his/her Study Office
- liaison teachers and liaison students
- Advisor for University Studies and Teaching
- Local Women's Representatives
- Local Diversity Representative
- Liaison Officers for Safeguarding Good Scientific Practice
- support.point veterinary medicine (see Introduction)

and further points of contact that inform the Vice Dean for Study Affairs if required

- chairs of the examination boards and their Examination Office at the LAGeSo
- Coordinator for International Relations, Partnerships and Visiting Students
- Animal Welfare Official
- Hygiene Coordinator

as well as the

• Veterinary Student Council Initiative (VetMed-FSI) which collects complaints either directly or via anonymous complaints boxes (mailboxes); the VetMed-FSI forwards their complaints mainly via the Education Commission.

Comments on Area 7

- The VEE is subject to a nationally harmonised and highly regulated central selection procedure with high transparency for applicants.
- The number of admitted students is externally determined and depends exclusively on the curriculum (required hours and structure) matched to the teaching capacity of the core funded academic staff. There is no flexibility for the VEE. Recruiting additional teaching staff results in a proportional increase in student admission.
- The progression of students (mainly cohort success, time to degree and reasons for attrition) is closely monitored in the University's QA processes and annually discussed with the Executive Board of Freie Universität Berlin
- There is a broad range of information and support activities available both at the University and the VEE.
- Comprehensive student-level monitoring of study progress is hindered by the separation of data on study progression (enrolment in courses registered in the University SLCMS) and examination progression (recorded by the State Examination Office). An initiative to facilitate electronic data exchange at student level between University and the State Examination Office was not successful due to different data format and data protection restrictions.
- The VEE has increased its efforts to include pregnant students in courses that might pose a risk to the unborn child by implementing protective measures or by providing alternative teaching formats.
- Several measures were implemented to improve conditions for students with children. Unfortunately, child-care facilities for small children near the campuses are subject to limited availability.
- Great attention is given to the mental health of students. The recently introduced lowthreshold psychological counselling service "support.point" is well perceived by students.
- Complaint management has been greatly improved by founding of the working group on Complaint Management.

Suggestions for improvement in Area 7

- In the frame of stuctural adaptations, the VEE has substantially increased the number of teaching staff positions in the Small Animal Clinic and in the Equine Clinic. This will lead to an increase in the number of admissions in the coming years and support the societal requirement for more graduating veterinarians.
- The VEE currently takes great efforts and explores feasibility to relocate the State Examination Office from the LAGeSo to the VEE to improve cohort monitoring and other QA measures, including complaint management.
- A brochure providing all relevant information on "Students with Children" is currently in development.

AREA 8. STUDENT ASSESSMENT

8.1. Factual information

8.1.1. Description of the general student's assessment strategy of the VEE

The process of veterinary student's assessment is regulated by the TAppV (section 2) and the VEE's supplementary examination regulation¹⁰⁵, coordinated and supervised by the State Examination Office (LAGeSo, Berlin Senate Division for Health and Social Affairs), and implemented by the VEE. The aim of the examinations is to determine whether students have acquired the knowledge and skills required for further studies and for practicing as a professional veterinarian. The process of creating <u>study</u> and <u>examination regulations</u> is described in Standard 3.4.1.

The veterinary examination process is divided into two parts, the preclinical part (first 4 semesters) and the clinical part (which starts in the 5th semester and ends with the final exams in the 11th semester). The prerequisite for advancing to the clinical study period is the successful completion of all exams of the preclinical part. The prerequisites for participation in the final examinations in the 11th semester are passing all preceding examinations and completion of all required courses as well as all EPT.

The format of the subject-specific examinations is partly determined by the TAppV (e.g. requirement of practical parts or requirement for examination on a living animal). Based on these legal requirements, the subject coordinators design (the parts of) the examination, which are specified in the VEE's supplementary examination regulation. The broad content is provided by the TAppV; details are specified in subject-specific learning objective and examination topic catalogues. The latter are developed by the teaching staff of the subjects under supervision by the subject coordinators. Exams are offered and supervised by members of the preclinical or clinical examination boards. These have to be sufficiently qualified for the subject (lecturers with a doctorate or equivalent degree with many years of teaching experience in the respective subject). Examiners are proposed by the Faculty Council and confirmed by the State Examination Office for a period of four years.

In addition to the official (state) examinations, a large number of in-term assessments of learning performance are in place (see Standard 8.4.1.).

Pregnancy

Students must inform the examination board of a pregnancy if an exam is to be performed in a (bio)security area (e.g., laboratory or animal clinic). Pregnant students are offered a specific study and examination plan by the chair of the examination board, taking into account the special situation of pregnancy and maternity. No examinations are scheduled in a period from 6 weeks before expected delivery until 8 weeks after childbirth.

8.1.2. Description of the specific methodologies for assessing the acquisition of knowlegde and skills

In accordance with the TAppV, the examinations may be written/electronic (mostly in single or multiple choice format), oral, practical or in a combination of these formats. The supplementary examination regulation defines the form of the examination, the examination components and time in the course of study. It further provides detailed rules for the minimum and maximum duration of an individual exam, for grading and for the generation and assessment of exam questions in multiple and single choice examination formats. Examinations typically take place when courses are not in session. Students register for examinations through

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¹⁰⁵ The examination regulation with details on format and timing of exams is provided in <u>Appendix "Regulations</u> for the preclinical and clinical examinations in Veterinary Medicine".

the State Examination Office and are invited to each examination in writing. Examinations groups for oral and practical tests are generally made of 4 (minimum 2) students. Examinations are organised and conducted by the members of the examination boards. Results are reported to the State Examination Office. The first repeat examination takes places not earlier than three weeks after the first failed examination. The second repeat examination is offered not later than one year after the first attempt, typically 4-6 weeks after the first attempt.

8.1.2.1 Theoretical knowledge

Theoretical knowledge is identified primarily in oral or written/electronic examinations. Examination subjects in which both theoretical knowledge and practical skills are examined can be split into several examination components.

8.1.2.2. Pre-clinical practical skills / 8.1.2.3. Clinical practical skills

Practical skills are primarily assessed in combined oral-practical formats. The performance of an experiment or compilation of an experimental/case report is often a mandatory element of the examination.

8.1.2.4. Soft skills

The examination subjects for state examinations are legally defined by the TAppV (see Standard 8.1.1.) which currently makes no reference to soft skills, thus discouraging any explicit summative assessment of soft skills.

However, the VEE has implemented the development of soft skills (e.g. learning strategies, time management, communication, conflict management, leadership, team playing, dealing with pressure, strong work ethic, positive mental attitude, flexibility, self-confidence, dealing with criticism) in a longitudinal communication curriculum and the learning objectives catalogue. Assessment of communication skills is formative as individual feedback and partly implemented as supporting content in the state exams. In 2022, the outcomes of the communication courses were evaluated. The results indicated that practical communication skills and the awaresness of the relevance of communicative competencies for success in the veterinary profession.

8.2. Assessment procedures and processes

8.2.1. Description of the processes for ensuring the advertising and transparency of the assessment criteria/procedures

The VEE's website guides students and staff to all relevant legislation, information on examination periods and leaflets on conducting the veterinary examination and final exams during 11th semester, most of which is contained in the learning management system (Blackboard). Detailed information on the structure, content and assessment criteria for examinations are listed in the subject-specific learning objective and examination topics catalogue.

8.2.2. Description of the processes for awarding grades, including explicit requirements for barrier assessments

In compliance with the TAppV and the VEE's supplementary examination regulation, students receive a mark between 1 (very good) and 5 (fail) for each examination topic. The requirements for each grade and the process how partial grades are combined to subject grades and grade point averages are defined in the TAppV and the VEE's supplementary examination regulation. Each subject exam has to be passed (mark 4 or better). The marks and the grade point average for each examination section are detailed in the corresponding certificates.

8.2.3. Description of the processes for providing to students a feedback post-assessment and a guidance for requested improvement

The examination results of an oral, practical or combined examination are logged by the examiner(s), reported to the student immediately after the completion of the examination and justified in an examination protocol. Written examinations are evaluated within three weeks and results are communicated to the students in adherence to data protection guidelines. On request students are welcome to inspect their evaluated examinations. Students have the opportunity to contact the examiner in order to clarify open questions or may officially appeal (see Standards 8.2.4. and 7.6.). All results are transferred to the State Examination Office.

8.2.4. Description of the appeal processes against assessment outcomes

An appeal may be filed with the chair of the examination board and, if not accepted, the administrative court of Berlin (see also Standard 7.6.).

8.2.5. Quality Assurance

The State Examinations Office compiles an overview of subject- and student cohort-specific examination results at least once a year to be analysed by the Dean's Office and the respective examination board. Summaries are presented to the education commission. In case of obvious inconsistancies or visible trends, reasons and measures are discussed and implemented by the respective commissions or individuals.

8.3. Assessment strategy

8.3.1. Description of how and by who the student's assessment strategy is decided, communicated to staff, students and stakeholders, implemented, assessed and revised

The PDCA process is depicted in Figure 12 and equivalent to that described in Standard 3.4.1. for study regulations.



Figure 12: PDCA cycle Adaptation of examination formats / (further) development of examination regulations

8.3.2. Description of the link between learning outcomes and assessment design

The VEE aims to achieve a good balance between oral, written/electronic and practical examinations. Whether an examination or examination part is to be taken orally, in writing or in practice depends on the specific subjects. For many subjects with dedicated practical learning outcomes, the German Veterinary Medical Licensure Law (TAppV) requests the implementation of practical parts in the assessment procedure. Practical examination parts using a living animal are legally required in most clinical subjects. Based on these prerequisites and the learning outcomes laid out in the subject-specific learning objective catalogues (see Standard 3.2.1. and 3.3.), the optimum design of each exam is decided in a process guided by the Vice Dean for Study Affairs, involving the examiners, the subject coordinators, the examination boards, the Education Commission and the Faculty Council. The assessment design for each subject is finally fixed in the VEE's supplementary examination regulation.

8.4. Student achievement of learning objectives

8.4.1. Description of the system to certify student achievement of learning outcomes in the different subjects, years of study, etc.

In addition to the official (state) examinations (see Standards 8.1.1. and 8.3.2.), a large number of in-term assessments of learning performance are in place, including formative assessment as individual feedback, entry and exit attestations, clinical discussions, written tests and reports, and homework assignments. Successful passing these assessments is mandatory, especially for most of the practical teaching formats. For certain subjects, the VEE's supplementary examination regulation determines that results of in-term assessments are quantitative and contribute, in part, to the final grade. The formats of in-term assessments are communicated to students via the university calendar or the VEE's supplementary examination regulation, which are both approved by the Education Commission and Faculty Council. During clinical rotations and EPT, achievements of practical learning outcomes are additionally recorded and certified in logbooks (see Standards 3.1.5. and 3.1.8.).

Achievements of learning outcomes are documented in Campus Management at the end of each semester where students can look-up their own results. These are communicated to the State Examination Office (LAGeSo) and serve as proof of eligibility for admission to exams.

8.4.2. Description of the strategy to encourage students to take an active part in the learning process

Structurally, students are involved in the development and evaluation of the curriculum and teaching formats due to their strong role in the Education Commission. There are different formats in place that specifically address interactive and self-directed learning in lectures, practical courses and blended learning formats. Prominent examples are our interactive and virtually enriched teaching formats in practical classes of anatomy, histology, physiology, pathology, as well as the flagships of our interdisciplinary clinical teaching, QuerVet and Emergengy Veterinary Coach (EVC).

Several teaching formats involve students themselves as teachers, e.g. as student tutors in several subjects, prep coaches of anatomy and clinical coaches in the EVC. The coaching in the EVC is mandatory for every student and includes general and specific introductory courses into teaching. Further formats to promote active learning are report writing tasks in several subjects and examplary great offer of elective courses.

To promote self-directed case work, students have to take responsibility for own clinical cases, including report writing and presentation of own cases to peer students. Every students can take advantage of our offers of self-directed learning in the Veterinary Skills Net.

Students are encouraged to form learning groups, especially, when preparing for practical teaching classes. Dedicated rooms for group work are offered by the VEE.

8.5. Assessment of clinical skills and Day One Competences

8.5.1. Description of the assessment methodology to ensure that every graduate has achieved the minimum level of competence, as described in the ESEVT Day One Competences

The general assessment strategy and methodology are described in detail in Standards 8.1.1. and 8.1.2. As descriped in Standard 3.2.1., Day One Competences are closely matched to the learning objectives and thus become an integral part of the assessment content. The assessment process uses different examination formats, partially in combination, to allow optimal examination of learning objectives corresponding to the level of training and the requirements of Day One Competences. This is to ensure that the substantive specifications of the TAppV and of Article 38 in Guidelines 2013/55/EU concerning educational objectives as well as the EAEVE Day One Competences are achieved.

Comments on Area 8

- Merging study progression and examination success data at the individual student level is not possible due to data protection concerns raised by the State Examination Office (LAGeSo).
- The burden on students and examiners is very high owing to the large number of complex oral and practical examinations that are scheduled during semester breaks.
- Subject representatives are expected to evaluate their examination procedures annually. Changes to the examination formats and their dates are subject to the corresponding PDCA cycle.
- The VEE's supplementary examination regulation has been thoroughly evaluated and revised in 2022. Main points included adaption of examination formats and allocated examination times, detailed regulation of course-related performance assessment and their implementation in subject-specific grading, as well as clarification of prerequisites for admission to examinations.
- Methods of conducting high-quality oral and written examinations are presented during introductory training sessions mandatory for all lecturers. Furthermore assessment strategies and methodologies are covered in repeat cycles by the VEE's annual Educational Day. Since 2023 participation in the Educational Day is mandatory for all teaching and teaching support staff. Additionally, teaching staff is encouraged to attend further training modules and utilize the respective services of Freie Universität Berlin. Training certificates are monitored in the online Didactic Center of the VEE (see Standard 9.1.1. and <u>Appendix to 9.1.1.c.</u>).

Suggestions for improvement in Area 8

- The VEE currently takes great efforts to relocate the examination office to the VEE with the aim to merge the databases of study progression and examination results so that full student-based progression monitoring can be accomplished.
- The continuing education on assessment methodologies and tools will be one main focus of future didactic training of teaching staff. The Didactic Center will be further developed over the coming years to provide online courses with focus on student assessment.

AREA 9. ACADEMIC AND SUPPORT STAFF

9.1. Factual information

9.1.1. Description of the global strategy in order to ensure that all requested competences for the veterinary programme are covered and that staff are properly qualified and prepared for their roles

VEE employees are selected through a structured selection processes with the objective to recruit the best suited candidates. The target is to recruit staff highly qualified in their area of responsibility (see also Standards 9.2.2. and 9.2.3.). To assure that teaching staff covers all requested competences for the veterinary programme, the following measures are in place:

- mandatory teaching courses for new teaching staff
- broad portfolio of charge-free continuing and further education offers, covering all topics around academic teaching and examination, provided by the Dahlem Center for Academic Teaching (DCAT) of Freie Universität Berlin and by the Berlin Leadership Academy (BLA) of the Berlin University Alliance. The portfolio includes a teaching certificate course of DCAT.¹⁰⁶ Since the start of the programme in 2019, 108 employees of the VEE have attended the basic module, 169 employees of the VEE participated in a total of 468 advanced modules and 26 have already completed the teaching certificate course. Further personal development programmes can be found in <u>Appendix to 9.1.1.b.</u>
- regular information e-mails about course offers from DCAT and BLA
- annual Day of Teaching (4 h continuing education) where participation is mandatory for all teaching and teaching support staff
- annual further education in animal experimentation legislation and ethics (4 h further education) where participation is mandatory for all staff involved in experimentation and teaching using animals
- broad involvement of teachers in flagship teaching projects (e.g. QuerVet and Emergency Veterinary Coach, EVC)
- promotion of quality assurance in teaching. In partnership with Freie Universität Berlin, a video tutorial on "Quality Management in Teaching"¹⁰⁷ was established.
- budget allocation to institutes and clinics that include per-head allowances for further and continuing education (€250 per employee/year)
- covering of teaching in the individual annual appraisal meetings between members of staff and their Head of Institute or Head of Clinical Unit
- launch of an online <u>Didactics Center</u>¹⁰⁸ in 2024 for
 - uploading of individual continuing education certificates in a password-protected area and reporting to the Dean's Office (reporting includes the areas covered according to ESEVT SOPs; the total hours of further education and the time of the last continuing education)
 - provision of online courses related to the areas of teaching competences as laid out in the ESEVT SOPs

Using the online Didactics Center, the Dean's Office monitors the teaching staff development and identifies subject areas where (additional) expertise is required. The information is discussed at the annual meeting of the Vice Dean for Study Affairs with the Coordinator for Didactic Continuing Education, the Quality Assurance Representative and DCAT. Topics of

¹⁰⁶ See <u>Appendix to 9.1.1.a.</u>

¹⁰⁷ See: <u>https://www.vetmed.fu-berlin.de/studium/qualitaetssicherung/index.html</u>

¹⁰⁸ A German PDF printout can be found in <u>Appendix to 9.1.1.c.</u>

relevance are identified and used to design new courses, as well as the programme of the annual Day of Teaching.

In addition to the mandatory academic training in teaching, the teaching staff (like other staff) has to attend the mandatory annual instructions in work and fire safety, biosecurity, hygiene and good scientific practice.¹⁰⁹ The state veterinary chambers further require that all registered veterinarians attend \geq 20 h of continuing education per year (\geq 40 h for specialist veterinarians), which equally contributes to their academic development.

Freie Universität Berlin supports continuing education of all staff members with a huge portfolio of offers provided by the <u>Continuing Education Center¹¹⁰</u>. Additionally, each employee in the State of Berlin can claim a paid educational leave of up to 5 d/year to attend external educational events.

9.2. Staff involved with the programme

Table 9.2.1. Academic staff* of the veterinary programme

All academic staff included in this table is core-funded and responsible for teaching and research tasks and has received a training to teach and to assess undergraduate students. Practioners involved with EPT are not included in this table.

Type of contract	2023	2022	2021	Mean
Permanent (FTE)	56.0	56.8	59.3	57.4
Temporary (FTE):	99.2	91.0	99.1	96.4
Interns (FTE)*	0.0	0.0	0.0	0.0
EC residents (FTE)**	10.0	8.5	9.3	9.3
Veterinarians in specialist training (FTE)**	31.6	25.5	46.3	34.5
PhD students (FTE)**	12.0	9.3	6.8	9.3
Doctoral students (FTE)**	35.0	35.5	33.5	34.6
Practitioners (FTE)**	0.0	0.0	0.0	0.0
Specialised veterinarians (FTE)**	5.2	3.3	7.6	5.3
Diplomate (FTE)**	2.8	1.0	6.8	3.5
Others: PhD, MSc, other qualification goals (FTE)**	34.3	32.3	44.5	37.0
Total (FTE)	155.2	147.8	158.4	153.8

* Employment of interns was discontinued after an appeal by the Employee Committee in 2021. Interns of the VEE never had any teaching responsibilities and are therefore not included in this table. The number of interns is presented in Table 10.3.1.

** Listed temporary staff may have multiple qualifications or qualification goals. As such, one members of temporary staff may appear in multiple subcategories to represent their various qualifications or qualification goals. Qualifications of permanent staff are not listed.

¹⁰⁹ Further information on mandatory training can be found in <u>Appendix to 9.1.1.d.</u>

¹¹⁰ For the detailed programme (German version), please see <u>https://ssl2.cms.fu-berlin.de/fu-berlin/sites/weiterbildung/PM</u> weiterbildungsprogramm/pdf/wbz-prog.pdf

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Type of contract	2023	2022	2021	Mean				
Permanent: FTE (%)	40.0 (71%)	40.8 (72%)	42.3 (71%)	41.0 (72%)				
Temporary core funded: FTE (%)	83.0 (84%)	75.3 (83%)	84.8 (86%)	81.0 (84%)				

Table 9.2.2. Percentage (%) of veterinarians in academic staff

Table 9.2.3. Support staff of the veterinary programme

	v 1	0		
Type of contract	2023	2022	2021	Mean
Permanent (FTE)	229.5	222.8	223.2	225.2
Temporary (FTE)	7.2	19.6	22.5	16.4
Total (FTE)	236.7	242.4	245.7	241.6

Table 9.2.4. Research staff of the VEE

All academic staff included in table 9.2.1. is responsible for teaching and research tasks. Staff employed in third-party funded research projects is responsible for research and does not have any teaching responsibilities. Research staff in third-party funded research projects is included in the table below.

Type of contract	2023	2022	2021	Mean
Permanent (FTE)	0.0	0.0	0.0	0.0
Temporary (FTE)	62.8	65.7	69.7	66.1
Total (FTE)	62.8	65.7	69.7	66.1

9.2.1. Prospected number of FTE academic and support staff of the veterinary programme for the next 3 academic years

The VEE has negotiated an increase of academic teaching staff (16.25 FTE) and support staff (11.5 FTE) of the clinics for the revised structural plan that became approved at the end of 2023. The recruiting of the additional staff is intended over the course of 2024.

9.2.2. Description of the formal programme for the selection, recruitment of the teaching staff and their training to teach and assess students (including continuing education)

All open posts within the VEE are to be publicly advertised in accordance with §94 (1) BerlHG. All applicants must go through an application procedure that involves the participation of the Employee Committee, women's representative board and the representatives of the severely disabled, in order to ensure procedural neutrality and thus the best selection.¹¹¹

All scientific employees of the VEE must have completed their university studies. All members of the examination boards must have at least three years of teaching experience and a doctorate or equivalent degree; exemptions to the latter must be justified (see Standard 8.1.1.). For permanent academic staff, teaching qualification plays an important role in the selection process. Participation in training programmes for teacher training and the submission of teaching-evaluation results are important parts of the applicant selection process. Recruited permanent staff must hold a doctorate and, for clinical veterinarians, an additional qualification (specialisation). The recruitment procedure of scientific and scientific support staff, with the exception of the professorial posts (= appointment), is identical.

With regards to the selection of professors (= appointment), public demonstration lessons and teaching assessment are required. During a session of public teaching, applicants will be evaluated primarily by students using a standardised evaluation form. The results of the evaluation are relevant for the final selection process.¹¹² The University guide for the

¹¹¹ A detailed description of the process can be found in <u>Appendix 9.2.2.a.</u>

¹¹² Further information regarding the professoral selection procedure can be found in the <u>Appendix 9.2.2.b.</u>

application process¹¹³ clearly defines the process and criteria and constitutes an important part of the quality assurance of the procedure. Target agreements with new professoral staff include targets that facilitate the further development of their academic and teaching profile.

9.2.3. Description of the formal programme for the selection, recruitment and training to perform their specific duties (including continuing education) of the support staff

The selection procedure of scientific and support staff is identical. All employees assisting in research, teaching and services are qualified in their area of responsibility. Animal keepers, caretakers, administrative staff, receptionists and technical staff in most instances have at least an apprentiship certificate with three years of training. Freie Universität Berlin offers apprenticeship training positions in 13 areas of skilled occupation. At the VEE, veterinary assistants, animal keepers, livestock farmers (specialising in beekeeping), and professional grooms are trained, currently 40 trainees total.

Support staff has equal access and financial budget allocation for continuing and further education. Support staff participates in the legally required further education regarding hygiene precautions against infection and biological substances, as well as work and fire safety regulations. Support staff involved in teaching is obliged to obtain the required training according to ESEVT SOPs, including mandatory participation in the annual Day of Teaching and registration in the online Didactics Center. If support duties imply work with experimental/teaching animals, support staff has to attend continuing education related to animal experimentation (8 h/year).

The Continuing Education Center of Freie Universität Berlin structures its huge and highly diverse portfolio of offers to please the duties and interests of all members of staff, including support staff.

9.2.4. Description of the formal rules governing outside work, including consultation and private practice, by staff working at the VEE

Secondary employment is strictly regulated and must be indicated to and approved by the university administration prior to the beginning. In the case of full-time primary employment, secondary employment of more than 8 h/week is not possible. In addition, secondary employment may be refused if there is concern that it may conflict with the regular employment.

9.3. Peculiarities of the work contract for academic staff

9.3.1. Description of the peculiarities of the work contract for academic staff

The VEE has very limited influence on the design of work contracts as their contents follow University and legal requirements. As shown in Table 9.2.1., the percentage of FTE of permanent academic staff is currently at 36% of total academic staff, which is slightly above University average and slightly below the target of 40% that has been negotiated in the target agreements between the State of Berlin and Freie Universität Berlin for the year 2026.

The teaching load is legally fixed by the Capacity Ordinance (KapVO) at 9 h/week for professors, typically 8 h/week for permanent academic staff and 4 h/week for non-permanent academic staff. Reductions apply for staff with prominent involvement in academic self-governance or research leadership. The remaining working time is for research/scholarly activities and services. Service duties are especially relevant in the clinics and follow duty rosters that are to be authorised by the Employee Committee in advance. Academic staff that is not subject to duty rosters typically uses flexible time schedules with presence hours between 09.00 to 15:00. The home office allowance for suitable positions is 40% of the weekly working time. The working time allowance to specific duties and the level of decision competencies are laid out in a work place description which becomes part of the work contract.

¹¹³ See: <u>https://www.fu-berlin.de/en/sites/berufungen/index.html</u> [VPN connection required]

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The system for mandatory and flexible continuing education and the tools and the strategies to enforce continuing education of academic staff is described in Standard 9.1.1.

9.4. Professional growth and development

9.4.1. Description of the programmes dedicated to academic and support staff for their professional growth and development, the appraisal and promotion procedures, the mentoring and supporting procedures and their implication in the decision-making processes

Freie Universität Berlin has an extensive staff development approach that also is addressed in the target agreement with the Executive Board of Freie Universität Berlin (see Standard 1.3.2.). This includes the introduction of annual appraisal meetings in which career options and qualification needs are identified. The German public employment system has very rigid legal bonds for career promotion; career promotion essentially means to change to a position with higher qualification and responsibility needs. The latter is strongly encouraged within the staff development plan. Non-permanent academic staff always has an allocated supervisor to support the promotion through the critical qualifying phase. A system for direct qualification target agreements that would promote non-permanent staff to permanent staff is currently under University-wide discussion. A transparent target-based personnel development plan for support staff is also currently under development.

Employees have access to an extensive network of information offices and service units with a multitude of contact persons.¹¹⁴ One prominent example is the huge catalogue of offeres by the Continuing Education Center. The University website guides the staff through those diverse offers.

9.5. Assessment of teaching staff

9.5.1. Description of the formal system in place for assessing the teachers by the students

Freie Universität Berlin issued an Evaluation Guideline in 2017 as a legal basis for all evaluations at the University. The VEE, based on established QA processes, has implemented a course assessment (evaluation) system using (a) a standardised lecturer evaluation form provided by the University and (b) a learning objective achievement form developed by the VEE. For the subjects listed in the TAppV, as well as the courses on organ-centered modules, both evaluations are implemented in 3-year cycles in accordance with an evaluation plan decided by Faculty Council.¹¹⁵ For newly-appointed teaching staff, the lecturer evaluation is mandatory in the first year of teaching. The analysis of the evaluation is carried out by the Advisor for University Studies and Teaching, provided to the respective lecturers and reported to the Dean's Office according to the evaluation guidelines. It must be noted that lecturer (i.e. personal) evaluations are subject to strict confidentiality according to the German Data Protection Act. Only the summarised (anonymous) results of the personal evaluations can be used for quality monitoring and are presented to the the Dean's Office, the Education Commission and the Faculty Council. Candidates with the best evaluations are asked for a partial release of confidentiality in order to provide their results to the Education Commission in the selection process for the annual teaching awards. To promote high-quality teaching, the VEE grants two teaching awards annually to honour teaching excellence, one award for the best lecture and one award for the best practical/seminar course. These local teaching awards are in addition to the annual teaching award of Freie Universität Berlin that specifically supports the translation of a teaching project idea of selected focus (last won by a team from the VEE in

¹¹⁵ See: <u>https://www.vetmed.fu-</u>

¹¹⁴ A short description of Advising Services for Staff Members at Freie Universität Berlincan be found in the <u>Appendix to 9.4.1.</u>

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2018).

The learning objective evaluations are screened in the Dean's Office and forwarded to the responsible lecturers with an offer or, in case of adverse findings, a request for discussion. The individual process steps, guidelines and parties involved in the preparation, implementation and analysis of the evaluation are described in the process description "Evaluation of teaching".¹¹⁶

9.5.2. Description of how and by who the strategy for allocating, recruiting, promoting, supporting and assessing academic and support staff is decided, communicated to staff, students and stakeholders, implemented, assessed and revised

The VEE is committed to recruit highly qualified academic and support staff though processes laid out by the University. The number of staff positions (all levels) assigned to the respective institutes and clinics is assessed regularly by the Dean's Office. Vacant permanent positions are evaluated and potentially reallocated based on the strategic plan of the VEE. All position announcements are checked by the VEE, the University administration and the Employee Committee.

Professor positions

For vacant professor positions, the Dean's Office together with an ad-hoc working group assesses the requirements based on the strategic plan of the VEE as well as the availability of viable candidates. The Faculty Council has to approve the position description and requirements before this is forwarded to the University administration for advertisement. Applicants are screened by a search committee (mandated by the Faculty Council) and candidates are invited to an interview with a scientific and a student lecture. External expert reviews are requested and implemented in a final decision of the search committee. The committee drafts a report with recommendations that has to be approved by the Faculty Council, the University and the Berlin Senate before negotiations can start. Professor positions can be filled either with immediate tenure or as tenure track positions. In all cases, target agreements are signed between incoming professors and the University, and the number of staff positions, facilities, equipment and annual budget available to the incoming professor are fixed for five years. For tenure track positions, regulations for recruitment, evaluation and the granting of tenure are fixed in a Tenure Track Professorship Order. An ad-hoc committee is established at the end of the tenure period to assess the progress and recommend promotion. The latter has to be approved by the Faculty Council, the University administration and the Berlin Senate.

Permanent academic staff

For vacant positions, the institute or clinical unit chair drafts an announcement specifying the areas of responsibility and requirements of the candidates. This is checked in the Dean's Office against the strategic plan of the VEE and has to be approved by the VEE, University administration and the Employee Committee. The selection process is handled by the respective institute or clinic in agreement with University regulations. New permanent academic staff members are introduced during a Faculty Council meeting.

Non-permanent academic staff and support staff

For vacant positions, the institute chair drafts an announcement specifying the areas of responsibility and requirements of the candidates. This has to be approved by the VEE, the University administration and by the Employee Committee. The selection process is handled by the respective institute or clinic in agreement with University regulations.

¹¹⁶ See: <u>Appendix D, No. 4</u> and <u>Appendix 1.4.1.d.</u>

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Comments on Area 9

- The VEE has successfully negotiated a considerable increase in the number of academic and support staff in the clinics to enforce clinical teaching and to fill duty rosters according to the strict German employment regulations. The increased number of employees and especially teaching staff is considered sufficient, even considering that the the increased number of staff will lead to an equivalent increase in student admissions.
- To facilitate staff recruitment and retention, improvements and harmonisation of salary for critical staff (veterinary teaching staff, animal keepers, secretaries) have been negotiated with the Executive Board of Freie Universität Berlin within the strict framework of the collective bargaining regulations.
- An obstacle to staff recruitment and retention are the very slow and restrictive processes within the Human Ressources department of Freie Universität Berlin and the increasingly competitive labour market, especially for highly qualified veterinarians.
- Effective systems are in place for providing and monitoring further and continuing education with an attractive mixture of mandatory, elective and facultative offers by various sources. A strong focus is placed on the development of teaching qualifications; their support and monitoring has just recently been professionalised by an online Didactics Center.
- As the system of lecturer evaluations is very restrictive due to data protection concerns, the VEE has established an additional system where students evaluate their own achievement of learning objectives. The latter can be used more effectively for quality monitoring of provided courses.

Suggestions for improvement in Area 9

- The VEE shall increase and further structure the already high efforts to establish an effective system of staff recruitment and retention within the strict legal framework and the human ressources environment of Freie Universität Berlin. Qualified staff recruitment and retention proofs to be a key challenge for veterinary education.
- The VEE will establish an effective administrative support system of the clinics to ease the administrative burden to optimize workflow and to better balance the time available for teaching, research and service.
- The VEE plans to further develop a welcoming package for incoming staff that clearly outlines responsibilities but also highlightes the various support programmes available at the University and the VEE.
- The advancement of junior scientists towards a university career is one of the most important challenges of veterinary medicine across German-speaking countries. Therefore, Germany-wide and international approaches to the advancement of young scientists, and especially young female scientists, need to be developed.

AREA 10. RESEARCH PROGRAMMES, CONTINUING AND POSTGRADUATE EDUCATION

10.1. Factual information

For details of our postgraduate programmes and continuing education system, see <u>Appendix to 10.1.</u>

10.1.1. Description of how the research activities of the VEE and the implication of most academic staff in it contribute to research-based undergraduate veterinary education

Research-oriented teaching is among the prime principles of Freie Universität Berlin. At the VEE, several teaching formats assure a close and direct integration of our complex research activities in virtually all fields of veterinary sciences in undergraduate and graduate teaching. Approx. 70 elective courses related to research are offered to the 5th to 9th semester¹¹⁷ to spark and strengthen interest in principles of science and a scientific career, both from intramural institutions and regional research institutions such as the Friedrich-Loeffler-Institute (Federal Research Institute for Animal Health), the Robert-Koch Institute (Federal Research Institute for Biomedicine), the Federal Institute for Risk Assessment (BFR) and the Leibniz Institute for Zoo and Wildlife Research (IZW). A large number of students per year complete voluntary and mandatory student internships (practicals) at VEE institutions. Several student research assistant positions are available each year, and the VEE maintains an exchange of undergraduate students with research programmes of cooperating universities, e.g. the Cornell University Leadership Programme for Veterinary Students, the Cambridge University Research Summer School and Kansas State University Research Programme.

Table 10.1.1. List of the major funded research programmes in the VEE which were ongoing during the last full academic year prior the Visitation (2023).

The VEE had an average annual expenditure of approx 7.4 Million EUR from funded research projects over the last 3 years.¹¹⁸

10.2. Training of students in scientific method and research techniques

10.2.1. Description of how (undergraduate) students:

10.2.1.1. Are made aware of the importance of evidence-based medicine, scientific research and lifelong learning;

The importance of evidence-based decision making and lifelong learning is emphasised throughout the curriculum. This includes early exposure to biostatistics, research and clinical question formulation, bibliographic research and critical reading. During the clinical phase, students are repeatedly asked to write case reports. In order to make undergraduate students closely familiar with the concept of lifelong learning, they are regularly invited to join elements of continuing education events which they join on an individual basis, depending on interest and availability. A large variety of elective courses and the annual career day immerse the students in topics related to evidence-based medicine, scientific research and lifelong learning. Furthermore, students of all semesters are invited and encouraged to work as interns in working groups and research projects at any time. In addition, the VEE offers about 40 positions (25 positions core-funded and 15 third-party funded as per 01.03.2024) as so-called "student assistants" (StudHKs). StudHKs are allocated to institutes or clinics and use a major part of their working time to work on scientific issues.

¹¹⁷ For a detailed list of electives please see <u>Appendix to 3.1.7.</u>

¹¹⁸ A list of major research projects is provided in the <u>Appendix to Table 10.1.1.</u>

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10.2.1.2. Are initiated to bibliographic search, scientific methods and research techniques, and writing of scientific papers;

A seminar on literature research is mandatory for each student in the frame of clinical rotations during the 9th and 10th semester. In addition, the library staff offers monthly seminars that focus on (a) handling of literature search tools, (b) intellectual property, plagiarism, correct citation formats, introduction to EndNote and (c) introduction to MS Word with correct formatting and appropriate citation tools. Additionally, a MS Excel course is offered every other month. The courses are open for undergraduates and graduate students, staff and VEE members. Information and dates are published on the website of the library.¹¹⁹

10.2.2. Description of how undergraduate students are offered to participate to research programmes on a non-compulsory or compulsory basis:

see 10.1.1.

10.2.3. Description of the minimum requirements for the graduation thesis (Master dissertation), its supervision and its assessment:

According to the TappV, a Master's thesis is not required for graduation as a veterinarian in Germany. The TappV also does not require undergraduates to take part in purely scientifically orientated courses. However, as described under Standard 10.2.1, the VEE has introduced a compulsory literature seminar for rotation students in the 9th and 10th semesters and offers a large variety for competence training in the scientific context.

A major part of our students gain in-depth scientific insights as part of their doctoral or Ph.D. thesis after graduation. Admission requirements for a dissertation for the Dr. med. vet. or PhD are, in addition to a licence to practise veterinary medicine, a working title, as well as a departmental supervision agreement signed by the doctoral candidate and the supervisor and a confirmation of employment.¹²⁰ Both the supervision agreement and the confirmation of employment should give the doctoral candidate the assurance that he/she will successfully complete the dissertation within the standard period of study (currently three years). The application for admission to the Dr. med. vet. doctorate is decided solely by the doctoral candidate staff (please also note Standard 10.4.), which is supported in organisational and administrative terms by the doctoral office.

The written doctoral thesis is assessed by three examiners. After acceptance of the written thesis, a doctoral committee (consisting of the members of the doctoral committee and the examiners) is appointed to decide on the acceptance of the written thesis. In the positive case, the doctoral candidate is invited to an oral examination, which takes place in a collegial format with the three examiners. The oral examination will take place as a "public" collegial examination with the entire doctoral committee if the written work has been assessed "summa cum laude".

PhD students also apply for a structured doctoral programme as part of the Dahlem Research School (DRS) Biomedical Science¹²¹. In addition to the above, a written abstract of the dissertation project is required together with the names of two university lecturers as supervisors plus one optional mentor. This so-called thesis advisory committee (TAC) supports the doctoral student during the dissertation period both professionally and administratively in the context of TAC meetings. In addition, PhD students are required to submit a written progress report to the TAC on a regular basis (five times in six semesters), in which both

¹¹⁹ See: <u>https://www.vetmed.fu-berlin.de/bibliothek/news/20210908_videokurs.html</u>

¹²⁰ See: <u>https://www.fu-berlin.de/service/zuvdocs/amtsblatt/2019/ab242019.pdf</u>

¹²¹ See: <u>https://www.fu-berlin.de/en/sites/drs/about-</u>

us/drs programs/natural and life/biomedical sciences/index.html

academic and curricular progress must be presented. The DRS Biomedical Science committee decides on admission to the PhD programme and, after all the required requirements have been met, admission to the PhD examination (for more details see Standard 10.4.). Procedures for the oral and written examination are as described above (for the Dr. med. vet. degree).

10.3. Advanced postgraduate degree programmes

Table 10.3.1. Numbers of students registered at postgraduate clinical training

Interns	2022/23*	2021/22	2020/21	Mean
Companion animals	0	0	9	3
Equine	0	0	6	2
Production animals	0	0	0	0
Total	0	0	15	5

European College Residents	2022/23*	2021/22	2020/21	Mean
ECVCN: Veterinary and Comparative Nutrition	1	1	3	2
ECVM: Veterinary Microbiology**	0	0	0	0
ECVPT: Veterinary Pharmacology and Toxicology	2	1	1	1
ECVP: Veterinary Pathology	8	8	7	8
EVPC: Veterinary Parasitology	1	1	1	1
ECVPH: Veterinary Public Health	2	2	2	2
ECVS: Large Animal Surgery (Equine / Ruminants)	1	1	4	2
ECEIM: Equine Internal Medicine	4	4	4	4
ECBHM: Bovine Health Management	3	3	3	3
ECAR: Animal Reproduction	4	4	4	4
ECVS: Small Animal Surgery	3	3	4	3
ECVIM: Veterinary Internal Medicine - Companion Animals	1	1	1	1
Total	30	29	34	31

Others (non-EBVS programmes): German Veterinary Chamber specialisation programmes***	2022/23*	2021/22	2020/21	Mean
Anatomy	2	2	2	2
Physiology	2	4	3	3
Nutrition	1	1	1	1
Immunology	1	1	1	1
Microbiology	2	3	3	3
Food Safety / Meat Hygiene	3	2	3	3
Animal and Environmental Hygiene	1	3	4	3
Animal welfare	3	3	3	3

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Experimental animals	3	3	3	3
Pathology	8	5	6	6
Pharmacology and Toxicology	4	1	2	2
Epidemiology	2	1	1	1
Poultry and Birds	1	0	2	1
Equine	8	5	12	8
Ruminants / Pigs	3	2	9	5
Reproduction Medicine	1	1	1	1
Small Animal Medicine	12	11	19	14
Total	57	48	75	60

Others (non-EBVS programmes): Master programmes	2022/23*	2021/22	2020/21	Mean
Small Animal Science (M.Sc.)	11	11	14	12
Equine Medicine (M.Sc.)	16	18	26	20
Total	27	29	40	32

* The last full academic year prior to the Visitation

** The ECVM residency programme was established in 2022 and currently includes 2 residents who started in 2024

*** Over 50 veterinarians (graduate students, junior staff members tc.) are registered either independently or in parallel in various German Veterinary Chamber specialisation programmes.

Table 10.3.2. Numbers of students	registered at pos	stgraduate research	training:
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Degrees	2023	2022	2021	Mean
PhD	138	125	116	126
Dr. med. vet.	273	306	312	297
Total	411	431	428	423

Table 10.3.3. Numbers of students registered at other postgraduate programmes in the VEE but not related to either clinical or research work (including any external/distance learning courses)

Programmes	2023	2022	2021	Mean
n.a.				

Table 10.3.4. Numbers of attendees to continuing education courses provided by the VEE

Courses ¹²²	2023	2022	2021	Mean
Total	20,464	14,485	8,748	14,566

10.3.1. Prospected number of students registered at post-graduate programmes for the next 3 academic years

Based on the trend over recent years, we expect an overall constant number of doctoral students in the Dr. med. vet. / PhD programme with a slight decline in the number of Dr. students and an equivalent increase in the number of PhD students. Additionally, we expect our newly launched Dr. rer. nat. / PhD programme to host \sim 30 students.

¹²² For details on courses offered at the VEE see <u>Appendix to Table 10.3.4.</u>

The VEE does not accept any new students into the postgraduate M.Sc. degree programmes in Equine Medicine and Small Animal Sciences. These programmes are currently transferred into continuing education offers, partly in collaboration with the German Veterinary Medical Society (DVG).

10.3.2. Description of how the postgraduate clinical trainings of the VEE contribute to undergraduate veterinary education and how potential conflicts in relation to case management between post- and undergraduate students are avoided

Graduate students (Dr. med. vet., Dr. rer. nat., Ph.D.) and postgraduate clinical trainees are involved in undergraduate student teaching as teaching assistants whenever possible. They integrate state of the art knowledge in all aspects of their own training into undergraduate mandatory or elective courses, seminars, and practicals involving patient care. When core-funded, they have formal teaching responsibilities of 2 (half-time) or 4 (full-time contracts) credit hours per week. In combined weekly activities such as journal clubs and clinical rounds / case discussions undergraduate students are exposed to research questions. Conflicts in case management are not perceived since the number of cases available for teaching is sufficient and undergraduate and post graduate students are often provided with cases of different levels of severity and complexity.

10.3.3. Description of how the continuing education programmes provided by the VEE are matched to the needs of the profession and the community

Based on requirements of the German state veterinary chambers, all veterinarians have to attend at least 20 hrs / year of accredited (by the German Academy for Veterinary Cont. Education) continued education courses.¹²³ Needs of the profession and community are communicated to the chamber and the VEE by various means. Continued education courses are offered by institutions of the VEE, by societies such as the Berlin Veterinary Society¹²⁴, the national Society of Small Animal Surgeons, the Pathology Group of the German Veterinary Society, or during larger continued education conventions (DVG Congress, bpt Congress, Leipzig Veterinary Congress).

10.4. System of QA

10.4.1. Description of the mechanism used by the VEE to ensure that its research activities contribute to research-based education.

Undergraduate teaching: For a detailed description of how VEE research activities are integrated into teaching/the curriculum, please refer to Standard 3.4.1.; the decision-making and implementation mechanisms can be found in the PDCA cycles under <u>Appendix to 3.4.1.</u> The responsible Dean of Research (as part of the Deanery) must be involved in the decision-making process for all issues relating to research.

Postgraduate scientific education: Please refer to <u>Appendix to 10.1</u>. for the structure and key figures of postgraduate education. The implementation of research activities in the postgraduate Dr. med. vet. and Dr. rer. nat. curriculum takes place at supervisor level. The doctoral regulations do not provide for a prescribed (structured) thematic curriculum, but do require compulsory participation in courses on good scientific practice, literature research and statistics. Changes to these compulsory courses, e.g. the implementation of current topics (good scientific practice, plagiarism or AI) are developed and decided by the doctoral committee. The doctoral committee consists of 5 members (three Professors, two academic staff) and thus represents the entire breadth of the university's personnel structure. All changes to the doctoral regulations

¹²³ See: <u>http://www.tieraerztekammer-berlin.de/tierarzt.html</u>

¹²⁴ See: <u>http://www.vetmed.fu-berlin.de/einrichtungen/sonstige/btg/index.html</u>

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must be approved by the extended Faculty Council, reviewed by the Legal Office and published by the Executive Board of Freie Universität Berlin.

The PhD programme Biomedical Sciences, on the other hand, includes a structured curriculum (<u>Appendix to 10.1</u>.), which is administered by an interdisciplinary commission. The commission also consists of members of all status groups (including student representatives) and represents the departments of natural sciences (biology/chemistry/pharmacy) and the School of Veterinary Medicine at Freie Universität Berlin. Changes to the curriculum or the underlying regulations are decided by the commission, reviewed by the DRS and the Legal Office and published by the Executive Board.

10.4.2. Description of how and by who research, continuing and postgraduate education programmes organised by the VEE are decided, communicated to staff, students and stakeholders, implemented, assessed and revised

All programmes with relevance to research training, continuing and postgraduate education are subjects to approval by the Faculty Council, as required by the Berlin Law on Higher Education. Decisions by the Faculty Council are supported by advisory committees on each specific subject, e.g., separate advisory committees for the Dr. med. vet. programme, the Dr. rer. nat. programme, the DRS Biomedical Research Graduate School committee, the Continuing Education Committee and the undergraduate Education Commission. University-accredited degree programmes undergo regular evaluations in line with University QA requirements.¹²⁵ Information on these programmes is communicated within the commissions and to internal and external stakeholders such as the Executive Board of Freie Universität Berlin.

Comments on Area 10

- A major research focus of the VEE for the next decades will be on antimicrobial resistance in the recently established research center "Veterinary Centre for Resistance Research" (TZR)¹²⁶. This will have a significant impact on topics addressed in undergraduate and graduate education.
- Students are encouraged to actively engage in research topics; however, in the legal framework on German veterinary education, writing a scientific thesis is not foreseen. After successful completion of their veterinary degree programme, a large proportion of undergraduate students will pursue a doctoral degree (Dr. med. vet., PhD).
- The VEE provides substantial specialisation and continued education opportunities.

Suggestions for improvement in Area 10

• Incentives are needed to encourage young scientists and especially women to remain in science. The VEE, together with the University and other stakeholders, has identifed reasons. In addition to the already intensive gender equality measures by Freie Universität Berlin, the VEE proposed the following measure to provide attractive career paths:

The VEE initiated competitive funding for two research projects that are carried out by young female scientists from the clinical or clinical application-oriented field. The aim of this initiative is to fundamentally strengthen the careers of women in clinical science. The three-year funding programme comprises a doctoral position (E13/65%) and material resources amounting to $\in 10,000$ per year, each.

¹²⁵ See overview of currently accredited degree programmes (German version):

https://www.fu-berlin.de/sites/qm/interne_akkreditierung/studiengaenge/index.html

¹²⁶ <u>http://www.vetmed.fu-berlin.de/forschung/tzr/index.html</u>

LIST OF ESEVT INDICATORS

11.1. Factual information

Calcu	llated Indicators from raw data	VEE values	Median values ¹	Minimal values ²	Balance ³
I1	n° of FTE teaching staff involved in veterinary training / n° of undergraduate students	0.144	0.15	0.13	0.018
I2	n° of FTE veterinarians involved in veterinary training / n° of students graduating annually	0.852	0.84	0.63	0.222
I3	n° of FTE support staff involved in veterinary training / n° of students graduating annually	1.685	0.88	0.54	1.145
I4	n° of hours of practical (non-clinical) training	837.000	953.50	700.59	136.410
I5	n° of hours of Core Clinical Training (CCT)	784.000	941.58	704.80	79.200
I6	n° of hours of VPH (including FSQ) training	266.000	293.50	191.80	74.200
17	n° of hours of extra-mural practical training in VPH (including FSQ)	250.000	75.00	31.80	218.200
18	n° of companion animal patients seen intra- murally and extra-murally / n° of students graduating annually	42.458	67.37	44.01	-1.55
19	n° of individual ruminants and pig patients seen intra-murally and extra-murally / n° of students graduating annually	280.484	18.75	9.74	270.74
I10	n° of equine patients seen intra-murally and extra-murally / n° of students graduating annually	14.344	5.96	2.15	12.19
I11	n° of rabbit, rodent, bird and exotic seen intra-murally and extra-murally/ n° of students graduating annually	52.812	3.11	1.16	51.65
I12	n° of visits to ruminant and pig herds / n° of students graduating annually	2.502	1.29	0.54	1.96
I13	n° of visits of poultry and farmed rabbit units / n° of students graduating annually	0.053	0.11	0.04	0.01
I14	n° of companion animal necropsies / n° of students graduating annually	1.044	2.11	1.40	-0.36
I15	n° of ruminant and pig necropsies / n° of students graduating annually	2.599	1.36	0.90	1.70
I16	n° of equine necropsies / n° of students graduating annually	0.398	0.18	0.10	0.30

I17	n° of rabbit, rodent, bird and exotic pet necropsies / n° of students graduating annually	6.937	2.65	0.88	6.06
I18*	n° of FTE specialised veterinarians involved in veterinary training / n° of students graduating annually	0.339	0.27	0.06	0.279
I19*	n° of PhD graduating annually / n° of students graduating annually	0.463	0.15	0.07	0.393

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

² Recommended minimal values calculated as the 20th percentile of data from VEEs 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

11.2. Comments on Indicators

- The VEE is in positive balance for all but two indicators (**I8** and **I14**). The latter two indicators are interconnected and their degree of underperformance is little to moderate. They both relate to the discontinuation of the 24/7 service in the Small Animal Clinic which has been addressed at several places throughout this report, including description of the measures taken (see Introduction, Comments on Area 1 and Comments on Area 5). It can be expected that these indicators return to normal once the profound restructuring measures that have been initiated show effects.
- With regard to underperformance in **I8**, it should be noted that we have far above-average performance in **I9**, **I10** and **I11**, i.e. the total number of animal patients available for teaching is excellent.
- The same is true for the underperformance in **I14**; this is more than compensated by far above-average performance in **I15**, **I16** and **I17**, i.e. the total necropsy material available for postmortem practical training is more than sufficient.
- One measure to improve the situation in the clinics, especially the Small Animal Clinic, is a substantial increase in veterinary staff (16.25 FTE). This will further improve I2. However, this will have no effect on I1 because each increase in teaching staff is inevitably linked to a proportional increase in undergraduate student number by German legislation.
- The VEE takes great efforts to foster continuing and postgraduate training. This becomes visible by very good performance in **I18** and an exceptionally high value for **I19**.

11.3. Suggestions for improvement on Indicators

- A need for improvement exists for the interlinked values of **I8** and **I14**. The key point for improving the indicators in the companion animal area is the implementation of the agreed restructuring of the Small Animal Clinic with filling of the additional positions and the professorships that are currently vacant. This process has already been initiated with great efforts and is described at designated places within this report.
- The recent recruitment of a professor for poultry diseases is expected to improve the sufficient but currently low value of **I13** soon.

GLOSSARY

3R	Replacement, Reduction, Refinement
ABK	Ausbildungskommission (Education Commission)
AdH	Auswahlverfahren der Hochschulen
Aum	(Individual selection procedure of the universities)
AGUM	Arbeits-, Gesundheits- und Umweltschutz-Managementsystem
	(Work, Health and Environmental Management System)
Bbt	Bundesverband der beamteten Herarzte e. V.
BEVL	Berlin Equine Virus Lab
BFR	Bundesinstitut für Risikobewertung (Federal Institute for Risk Assessment)
BLA	Berlin Leadership Academy
	Bundesministerium für Ernährung und Landwirtschaft
BMEL	(Federal Ministry of Food and Agriculture)
hnt	Bundesverband Praktizierender Tierärzte e.V.
nhr	(Federal Association of Practicing Veterinarians)
BTÄO	Bundestierärzteordnung (Federal Veterinary Regulation)
BTG	Berliner Tierärztliche Gesellschaft
BTK	Bundestierärztekammer (German Veterinary Chamber)
BUA	Berlin University Alliance
CeDiS	Center for Digital Systems of Freie Universität Berlin
CIO	Chief Information Officer of Freie Universität Berlin
DAkkS	Deutsche Akkreditierungsstelle (German Accreditation Body GmbH)
DCAT	Dahlem Center For Academic Teaching
DRS	Dahlem Research School
DVG	Deutsche Veterinarmedizinische Gesellschaft
Did	(German Veterinary Medical Society)
EAEVE	European Association of Establishments for Veterinary Education
EBVS	European Board of Veterinary Specialisation
ECTS	European Credit Transfer and Accumulation System
EMAS	Eco-Management and Audit Scheme
EPO	Ergänzende Prüfungsordnung (supplementary examination regulation)
EPT	External Practical Training (internship)
EVC	Emergency Veterinary Coach course
FAO	Food and Agriculture Organization of the United Nations
FBR	Fachbereichsrat (Faculty Council)
FUB-IT	IT service department of Freie Universität Berlin
HUB	Humboldt Universität zu Berlin
ICU	Intensive Care Unit
ITSM	IT-Service-Management
IVSA	International Veterinary Students Association
IZW	Leibniz-Institut für Zoo- und Wildtierforschung (Leibniz Institute for Zoo and Wildlife Research)

LAGeSo	Landesamt für Gesundheit und Soziales
	(Regional Office for Health and Social Affairs)
OSA	Online Student Subject Selection Assistant
OSCE	Objective Structured Clinical Evaluation
PTT	Progress Test in Veterinary Medicine
QA	Quality Assurance
RvO	Robert-von-Ostertag-Haus (Robert von Ostertag Building)
SLCMS	Electronic Student Lifecycle Management System "Campus Management"
StO	Studienordnung (study regulation)
StudHKs	Studentische Hilfskraft (student assistants)
SWS	Semester week hours (1 SWS = 14 hours within one semester)
ТАррV	Verordnung zur Approbation von Tierärztinnen und Tierärzten (German Veterinary Medical Licensure Law)
TierSchTrV	Verordnung zum Schutz von Tieren beim Transport (Animal Protection Transport Ordinances)
TMS	Test für medizinische Studiengänge (Test for Medical Studies)
TZR	Tiermedizinisches Zentrum für Resistenzforschung (Veterinary Centre for Resistance Research)
VEE	Veterinary Education Establishment
VMFT	Veterinärmedizinischer Fakultätentag (Council of Veterinary Establishments)
VSN	Veterinary Skills Net
VTH	Veterinary Teaching Hospital
WOAH	World Organization for Animal Health
ZEDAT	Central IT services of Freie Universität Berlin
ZEQ	Zusätzliche Eignungsquote (Additional Aptitude Quota)

LIST OF APPENDICES

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