



UNIVERSITÀ
DI PARMA

DEPARTMENT OF
VETERINARY SCIENCES

Self-Evaluation Report



EAEVE Visitation

18th-22nd September 2023

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Introduction

Brief history of the Establishment and of its previous ESEVT Visitations (if any)

The teaching of veterinary medicine at the University of Parma began in 1845, when the Duchess of Parma, Maria Luisa d'Asburgo-Lorena (second wife of Napoleon), opened the "*School of Veterinary Medicine and Surgery*". The original school has undergone a series of re-namings and reorganization over the years ("*Higher Institute of Veterinary Studies*", "*Faculty of Veterinary Medicine*"). The degree course in Veterinary Medicine (DCVM) is now run by the Department of Veterinary Sciences (DVS [🔗](#)), one of nine departments that make up the University of Parma (UniPr [🔗](#)).

The UNIPR VEE was first visited by EAEVE in 1992. The original visitation report (in French) is archived at the EAEVE office. The VEE was not approved. Major concerns included:

- insufficient practical teaching;
- excessive number of students compared to the academic and support staff;
- old facilities requiring renovation.

The VEE was fully visited in 2011 and received “conditional approval”. EAEVE identified one major deficiency, *Lack of long-term clinical teaching activity (impact of outsourcing teaching staff, emergency service, hospitalisation, case load, ambulatory clinic)*.

Re-visitation was carried out in 2012 and the VEE received “approval” status.

For further details, see Standard 1.7.

Main features of the Establishment

Location. The DVS campus is located approximately 1.5 miles from the central train station. The municipal slaughterhouse, the National Veterinary Diagnostic Laboratory and the municipal dog and cat shelter are all within walking distance from the VEE, allowing students and staff easy access to facilities for extra-mural training in several disciplines.

The European Food Safety Authority (EFSA) is based in Parma and is a major stakeholder of the DVS and member of the VEE Steering Committee. Opportunities for traineeships in Food Safety and Hygiene are offered to postgraduates of the VEE.

National Accreditation Status. The DCVM was visited onsite by the Italian National Agency for the Evaluation of Universities and Research Institutes (ANVUR; ENQA Full member) in April 2019 and was given full accreditation.

National Ranking. Parma was in 7th position (out of 13) in the most recent national ranking of Italian degree courses in Veterinary Medicine [🔗](#).

Brief summary of the main developments since the last Visitation

- *Restructuring of UniPr departments.*

In January 2017, the University of Parma underwent organizational restructuring, and the number of departments passed from 18 to 9 following the fusion of several different departments. The DVS remained a separate department, in recognition of its unique curriculum, its strategic position and its clinical activity.

- *Changes in academic staff.*

Since 2012, the academic staff of the DVS has decreased by approximately 25% (from 73 to 47.2 FTE). As foreseen in the previous SER, the budget for new staff allocated by the Ministry for Higher Education and Research (MUR) has continued to decrease. However, the number of admitted students has also decreased (see Area 8) during the same period and I1 (the number of FTE/undergraduate students) is well above the minimum.

- Number of admitted students

Since the previous visitation, the number of admitted students has decreased from 120 for the a.y. 2011-2012 (110 Italian students and 10 foreign students) to 80 (including 3 places reserved for non-EU students) for the a.y. 2022-2023. This reduction, which has taken place in all Italian veterinary departments, is due to the Ministerial Decree 25/02/1993 that foresees programmed admission, based on the perceived need for veterinary graduates at the national/regional level. The lower number of students has compensated for the reduction in academic staff and assures quality teaching activities.

- Facilities and equipment

The 2011 SER reported that the University of Parma's Board of Administration had allocated 2.2 million € for the construction of a Multifunctional Educational Laboratory Building (MELB), comprising two teaching labs and two new dissection rooms. For financial constraints due to the general economic situation nationally, the University was unable to meet the costs of construction of the MELB. However, in 2019 the Board of Administration allocated approximately 16 million € to the DVS for the upgrading of existing facilities and for the construction of a new wing of the VTH (see Area 4). The renovation and construction plans suffered severe setbacks due to the COVID-19 pandemic (see *Addendum COVID-19*) and completion is now scheduled for June 2023.

From 2013, a CT scanner is available for use in the VTH, thus markedly improving clinical/diagnostic services for teaching and the public. In 2020 the DVS received co-financing from the University of Parma for the acquisition of an MRI which will be allocated to the new wing of the VTH (see below and Area 4). Housing for large animals (ruminants, horses) has been renovated, also to include space for a small number of sheep.

- Changes in the curriculum

To respond to new developments in veterinary medicine, the VEE has implemented the following changes to the curriculum:

- a mandatory e-course on Biosecurity has been added to the year I curriculum;
- a new course entitled "Organisation of Veterinary Service, Business in Practice and Communication Skills" is now taught in the first semester of the year V;
- the course entitled "Radiology" has been renamed "Diagnostic Imaging" to include CT scans and MRI;
- several new electives have been added, including "Veterinary Oncology" and "Comparative Audiology";
- year V practical rotations have been reorganized to allow better training in certain disciplines (see Area 3).

Major problems encountered by the Establishment (whether resolved or not)

-Staff recruitment

According to the 2011 Visitation report "*it is imperative that new staff on the specialist level (preferably College Diplomates in equine medicine and surgery) are being employed by the faculty.*" Even though the DVS has recruited three EBVS specialists for companion animals (2 ECVIM-CA, 1 ECVN), it was not able to recruit a diplomate in equine medicine and surgery. This is likely due to the uncompetitive nature of university salaries (which are established by the Ministry, with no possible modifications by the DVS) compared to private practice and to the low number of specialists in veterinary surgery in Italy (EBVS data: 0 specialists in LA surgery; 1 EBVS Specialist in Equine Surgery; 10 specialists in SA surgery). Teaching activity continues to be potentiated through EPT activity and a new agreement signed with an active private equine clinic allows students to visit a significantly improved number of equine patients. A call for a full professorship in equine surgery was put out in March 2023 [🔗](#) and candidates for the position are currently being evaluated. The position will be filled by September 1st, 2023.

-Facilities.

After the last EAEVE visitation in 2012, maintenance on our facilities has been limited. Central administration did not construct the new poly-functional building foreseen in the 2011 SER. University governance from 2015-2017 considered closing the VEE due to the financial commitment in keeping the VEE running, considered excessive. Things changed dramatically in 2017, when governance changed at the central level, with a Rector who, in 2019, approved a large-scale renovation plan for the entire establishment (see Area 4).

Version and date of the ESEVT SOP which is valid for the Visitation: ESEVT SOP 2019 as amended in 2021; Exceptional transitory amendment of the SOP (due to COVID-19).

Area 1. Objectives, Organisation and QA Policy

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

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

The MISSION of the Department of Veterinary Science (DVS) is to benefit society through the education of veterinarians and the protection of animal, human and environmental health. This includes the diagnosis, treatment, prevention and understanding of animal diseases; the conservation of livestock resources; the control and improvement of food safety and animal welfare; the promotion of public health and the advancement of medical knowledge through professional and graduate education, research, and service in the broad discipline of veterinary medicine.

More specifically, the mission of the Department is to:


- provide an excellent, comprehensive professional curriculum that educates students in the broad fields of veterinary medicine, comparative medicine and biotechnology, encourage critical and analytical thinking and prepare students for life-long learning and professional growth;
- promote excellence in research in order to improve animal health, ensure the safety of food animal products and contribute to the understanding of basic mechanisms or animal models of disease;
- provide an intellectual and physical environment that fosters creativity and enhances scholar activity;
- educate future academics and research scientists by involving graduate and post-graduate students in high quality teaching and research programs;
- provide continuing education, extension services and consultation.

The OBJECTIVES of the DVS are to:

- offer quality-assured teaching to the students, promoting the valorisation of the person, the recognition of merit and teamwork;
- promote and improve animal health, welfare and production;
- guarantee food safety;
- contribute to the improvement of animal and human health through teaching, research and assistance to the territory;
- conduct basic and applied research in veterinary, medical and comparative-biomedical topics for humans, animals and the environment;
- identify promptly any change in veterinary medicine, with special reference to One World/One Health.

The degree course in Veterinary Medicine (DCVM) is a single cycle degree course lasting 5 years that is defined by the Ministerial Decree No. 270/2004 (Degree Course Class LM-42). The core curriculum offered by the DCVM is designed to ensure that all graduates have achieved the competencies outlined in the EU Directive 2005/36/EC (as amended by Directive 2013/55/EU) and its Annex V.4.1. The curriculum is also designed, within ministerial constraints, to allow the acquisition of the Day One Competences listed in Annex 2 of the ESEVT SOPs 2019. This concerns Basic Sciences, Clinical Sciences in companion animals (including equine and exotic pets), Clinical Sciences in food-producing animals (including Animal Production and Herd Health Management),

Area 1. Objectives, Organisation and QA Policy

Food Safety and Quality, and Professional Knowledge. Veterinary science is in continuing evolution and advancement and the VEE ensures, through specific meetings with alumni and stakeholders, that new graduates can enter the profession with an updated set of skills and competencies. Periodic analysis of the “AlmaLaurea” database on the employment situation 1, 3 and 5 years after graduation provides the VEE with further assessment of the efficacy of the training received during the course .

Standard 1.2: The VEE must be part of a university or a higher education institution providing training recognised as being of an equivalent level and formally recognised as such in the respective country. The person responsible for the veterinary curriculum and the person(s) responsible for the professional, ethical, and academic affairs of the Veterinary Teaching Hospital (VTH) must hold a veterinary degree. The decision-making process, organisation and management of the VEE must allow implementation of its strategic plan and of a cohesive study programme, in compliance with the ESEVT Standards.

Table 1.2.1. Details of VEE

Name	Department of Veterinary Science (DVS)
Address	10, Via del Taglio, 43126 Parma (Italy)
Phone	+39 0521 032789
Fax	+39 0521 032750
E-mail	giacomo.gnudi@unipr.it
Website	https://smv.unipr.it/it
DVS Director	Prof. Giacomo Gnudi
DVS Vice-Director	Prof. Laura Helen Kramer
DCVM Course Coordinator	Prof. Roberta Saleri
Head of Administration	Dott. Candeloro Bellantoni
VTH Director	Prof. Cecilia Quintavalla
Official authority overseeing the VEE	1. Rector of the University of Parma Prof. Paolo Andrei 2. Director General of the University of Parma, Dott. Candeloro Bellantoni

The organization of the VEE is summarized in Figure 1. Briefly, the DCVM is one of three courses offered by the DVS*. The DCVM board is made up of all members of the degree course teaching staff and 11 student representatives. The DCVM board is responsible for approving the course curriculum and for making proposals to the DVS board for staff recruitment and funds allocation. It receives and discusses the reports from the different committees responsible for monitoring student admission, progression, assessment and welfare, meetings with stakeholders and international exchange (see Table 1.2.3 for committees), which are then ratified by the DVS. The decision-making process of the VEE strives at implementation of its strategic plan and of a cohesive study programme, in compliance with the ESEVT Standards.

**The DVS offers one 3-year course in Animal Husbandry and Production and one 2-year course in Innovative and Sustainable Animal Production*

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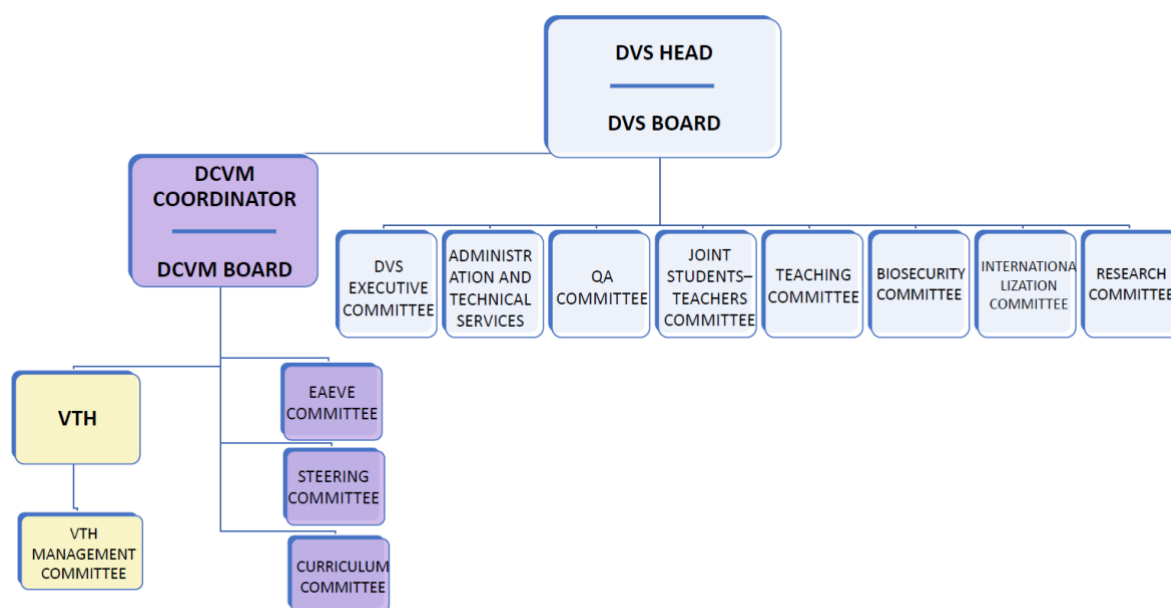


Figure 1.1. Organisational chart of the VEE.

The units and clinics that are directly involved in teaching and practical activities for the DCVM are listed below. The management of pre-clinical units is the direct responsibility of the DCVM board. The management of all clinical units is the responsibility of the VTH Management Committee.

Table 1.2.2. List of units/clinics

	Permanent teaching and Support academic staff	Contracted staff*
Pre-clinical Units		
Anatomy	5	1
Animal Husbandry, Production and Nutrition	9	4
Food Inspection	4	2
Physiology	5	1
Biochemistry	3	1
Rural Economy	4	
Microbiology, Immunology	3	
Parasitology and Parasitic Disease	4	1
Infectious Diseases	6	2
Pharmacology, Endocrinology/Toxicology	4	2
Pathology and Pathological Anatomy	8	1
Clinical Units		
Internal Medicine	7	11
Diagnostic Imaging	3	4
Surgery	5	14
Animal Reproduction	3	2
Emergency 24/7	2	10

* includes contract professors/practitioners, fellows, PhDs, residents, Interns, etc.

Area 1. Objectives, Organisation and QA Policy

Table 1.2.3. List of the boards/committees with a very brief description of their composition /function /responsibilities and implication of staff, students and stakeholders

Name	Composition	Function/Responsibilities
Department of Veterinary Science (DVS) Board	All members of academic staff, 4 representatives of support staff, 1 representative of Junior Staff, 2 student representatives	Prepares and approves the Three-year plans, the departmental regulations, approves the establishment of new study courses, staff recruitment, manages human resources
DVS Executive Committee	Department Head, representatives of teaching staff (1 Full Professor, 1 Associate Professor, 1 Researcher), 1 rep of support staff and 1 student representative	Assists the Head of Department in the performance of his/her duties. Makes proposals to the DVS Board
Degree Course Veterinary Medicine (DCVM) Board	Academic staff of the DCVM and 11 student representatives	Deliberates all matters concerning the degree course; is responsible for approving the course curriculum and for making proposals to the DVS board for staff recruitment and funds allocation; receives, reviews and discusses the reports from the different committees
Departmental Quality Assurance Committee (DQAC)	4 academic staff, 2 representatives of support staff, Administrative Manager, Teaching Quality Manager, Research and Public Engagement Coordinator, 1 student	Oversees QA of the curriculum, particularly gathering, evaluating, making change and responding to feedback from stakeholders, peer reviewers and external assessors, and data from examination/assessment outcomes; monitors feedback from internal and external stakeholders regarding research and third mission ("PDCA cycle")
Joint Student-Teacher Committee (JSTC)	3 academic staff and 3 students	Monitors the educational offer and teaching quality, identifies indicators for the evaluation of the results of the Degree Programs; ensures the performance of teaching and tutorial activity, etc.; expresses its evaluations and formulates proposals for improvement in an Annual Report which is transmitted to the DCVM course coordinator, to the Head of the Department, to the University Quality Office, to the Curriculum Committee and to the University Evaluation Unit by December 31 st of each year
Curriculum Committee (CC)	8 members of DCVM academic staff, 2 students, Teaching Quality manager	Evaluates how curricular overlaps, redundancies, omissions, and lack of consistency, transversality and/or integration of the curriculum are identified and corrected. Performs on-going and periodic review of the curriculum at least every seven years by involving staff, students and stakeholders
Internationalization Committee	5 academic staff; international tutors	Assesses and defines international mobility programmes for study and internship, to European /Extra-European Universities/Companies

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Steering Committee (SC)	Degree Course Teaching representatives and reps from major stakeholders	Evaluates Degree Courses ensuring a constant connection with the profession and the territory
Teaching Committee	Departmental Delegate for Teaching, the coordinators and secretaries of all degree courses run by the department and a member of support staff	Planning and integration of the departmental educational offer; publication and publicity of the results of the study courses
Departmental Research Committee	8 academic staff	Periodic monitoring to evaluate the results of the DVS Research activity and possible criticality
EAEVE Committee	7 academic staff, 2 support staff, 1 Administrative Manager, 1 Teaching Quality Manager, 2 students, 1 Junior staff member	Monitors indicators and areas for ESEVT accreditation; organizes the full (and eventual re) visitations; drafts the SER and IR
Veterinary Teaching Hospital (VTH) Management Committee	VTH Director, DVS Director, 8 academic staff, 2 support staff	Plans the VTH management and monitors functioning of the Hospital; organizes intra-and extramural practical clinical training in the years IV-V
Review Group (RG)	2 academic staff, 1 student, Teaching Quality Manager	Analysis of the results of the Degree course training processes, with the aim of identifying critical points and possible improvement actions
Biosecurity and Animal Welfare Committee (BAWC)	8 academic staff, 5 support staff VTH, 1 student	Responsible for all matters regarding biosecurity and animal welfare

Formal collaborations with other VEEs.

The DVS has recently stipulated collaboration with:

- the University of Turin for practical training in Equine Medicine and Surgery for two weeks in summer between years IV and V;
- the University of Naples “Federico II” for PPT in Animal Production and Herd Health Management (HHM).

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

DCVM Coordinator

Roberta Saleri, DVM, PhD, Veterinary Physiology

VTH Director

Cecilia Quintavalla, DVM, PhD Veterinary Internal Medicine

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

The entire Italian version of the DVS 2022-2024 Strategic Plan can be found here [🔗](#)

The most recent SWOT analysis is reported below. Many of the weaknesses and threats are common among the Italian VEEs and are associated with a university system with suboptimal flexibility and modernization and which has progressively reduced public financing. Several aspects, however, are unique to the DVS, such as many years of neglect in maintenance and upkeep of facilities and difficulty in new staff recruitment.

Despite these, however, the performance of the UniPr VEE in terms of training of new veterinarians has continuously improved in recent years. The most recent survey by Censis* (2021) has rated the UniPr VEE in 1st place for student progression [🔗](#).

* *Centro Studi Investimenti Sociali*, is a socio-economic research institute founded in 1964.

Area 1. Objectives, Organisation and QA Policy

Strengths	Weaknesses
<ul style="list-style-type: none"> Quality of teaching Student satisfaction (based on opinion surveys) above the university average Strong link with the local area ANVUR accreditation 2019 	<ul style="list-style-type: none"> Suboptimal teaching facilities* High cost of practical teaching Suboptimal “Teach the Teacher” opportunities No recognition of excellence in teaching based on evaluation by the students <p><i>*In progress towards improvement</i></p>
Opportunities	Threats
<ul style="list-style-type: none"> Recent funding (16.5 million €) for upgrading existing facilities and for the construction of a new wing of the VTH EAEVE Accreditation Newly hired Full Professor in Equine Surgery (September 2023) Recent recruitment of EBVS specialists and subsequent activation of several “Residency” programs Demand for quality teaching Greater sensitivity to the health and well-being of all (animals, humans, environment) Possibility of periodic consultations with the "stakeholders" 	<ul style="list-style-type: none"> High cost of practical teaching related to management of VTH, Emergency Service h24/7days, mobile clinic, recovery facilities for small and large animals Foreseen increase in student enrolment, leading to the risk of suboptimal indicators Difficulties to take students to slaughterhouses and food producing plants due to animal diseases (African Swine Fever) or Food Business Operators’ management policy Suboptimal admission procedures

Below is a summary of the most important and relevant actions and time-frame for the DCVM.

Objectives	Actions	Indicators/Timeline
Teaching		
Improve methods of student assessment	<ul style="list-style-type: none"> Use of clinical skills lab for OCSE in internal medicine, reproduction and surgery Set-up electronic log-book IV-year students in the VTH Train contracted staff basic methods of assessment 	<p>No. exams in clinical disciplines with OCSE to reach 100% by 2024</p> <p>To begin following EAEVE assembly 2023 2021/2022</p> <p>Initial trials 2023/2024</p>
Enhance teaching quality	<ul style="list-style-type: none"> Mandatory CPD for new teaching staff in teaching methods Increase hours dedicated to problem solving in small groups/self-directed learning Update facilities (including Skills lab) 	<p>Under discussion</p> <p>2022/2023</p> <p>In progress/June 2023 completion</p>
Research		
Improve research performance	<ul style="list-style-type: none"> Improving know-how on funding opportunities Monitoring system for participation in calls Encouraging collaboration and innovative partnerships Strengthening national and international relationships through residency programs and attraction of visiting professors 	Ongoing
Third Mission		
Increase clinical services VTH	<ul style="list-style-type: none"> New Oncology unit Activation postgraduate Internships 	<p>2020/21</p> <p>2021/2022</p>

Area 1. Objectives, Organisation and QA Policy

Standard 1.4: The VEE must have a policy and associated written procedures for the assurance of the quality and standards of its programmes and awards. It must also commit itself explicitly to the development of a culture which recognises the importance of quality, and quality assurance, within their VEE. To achieve this, the VEE must develop and implement a strategy for the continuous enhancement of quality. The development and implementation of the VEE's strategy must include a role for students and other stakeholders, both internal and external, and the strategy must have a formal status and be publicly available.

Since the last ESEVT visitation, the UniPr and the DVS have greatly enhanced and embraced the culture of Quality Assurance (QA), also thanks to the national accreditation system (ANVUR), put into effect in 2010. Development and implementation of QA systems have become a key objective at the DVS and have contributed to raising academic staff awareness of teaching quality issues and of the need to continually improve the quality of training and assessment.

The organization of QA is a tiered system (Figure 1.2), with the involvement of national, university and departmental organisms and the drafting and submission by the VEE of different QA documents (see Figure 1.2 for global QA strategy).

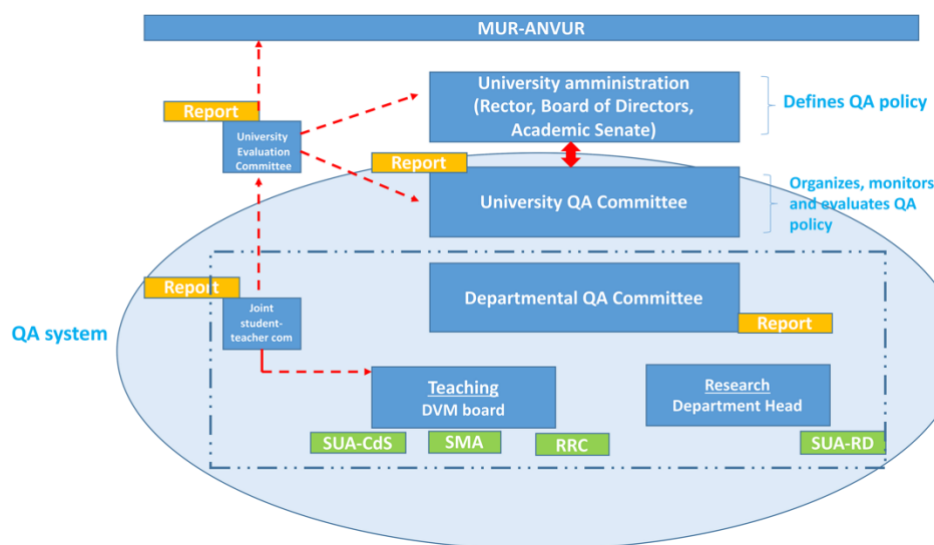


Figure 1.2. Global QA strategy

QA Organisms

I. The National University and Research Assessment Agency (ANVUR) of the Ministry for Higher Education and Research (MUR) is a full member of the European Association for Quality Assurance in Higher Education (ENQA). ANVUR carries out mandatory periodic (every 5 years) evaluation and accreditation of degree courses offered by Italian Universities. The DCVM underwent ANVUR evaluation in 2019 and was fully accredited with a score of 7.8/10.

Yearly reporting to ANVUR by University and Departmental QA systems is mandatory (see section “QA Documents”).

II. The UniPr QA system relies on 2 primary organisms: 1) the University Evaluation Unit, that collects and analyses data received from departmental QA committees; 2) the University QA Committee (UQAC), which monitors and offers guidelines for departmental QA processes.

III. The DVS QA system relies on the activities of several committees (also see Table 1.2.3 above and Fig. 1.3 below):

1) the Departmental QA Committee (DQAC)

The composition of the DVS DQAC includes 4 teaching staff members, 2 members of support staff, an administrative assistant, the Teaching Quality Manager, the delegate for Research and Public

Area 1. Objectives, Organisation and QA Policy

Engagement and a student representative. The DQAC meets approximately 4 times/year and presents the results of its activities during DCVM and DVS board meetings. DQAC drafts a yearly report for the DVS Board, the UQAC and the University Evaluation Unit, which also includes the QA objectives for the following year (see section “QA Documents”).

The main functions of DQAC include:

- defining the objectives, indicators and timelines for QA initiatives, based on feedback from the JSTC and the QA Manager;
- monitoring the activities of the JSTC;
- monitoring student satisfaction;
- monitoring correct description of course content, teaching and assessment methods [↗](#)

2) the Joint Student-Teachers Committee (JSTC)

The composition of the JSTC includes three teachers and three students. The JSTC meets approximately 2-3 times/year and reports its activities to DQAC and to the DCVM and DVS boards. The JSTC drafts a yearly report for the DCVM, the DVS Board, the UQAC and the University Evaluation Unit (see section “QA Documents”).

The main functions of the JSTC include:

- monitoring the educational offer and the quality of teaching, as well as the support provided to students by teaching and support staff, with particular attention to the results of the students' opinion surveys;
- evaluating on the consistency between the credits assigned to the teaching activities and the specific training objectives, together with the Curriculum Committee;
- submitting proposals to the University Evaluation Unit for the improvement of the quality of teaching facilities.

3) the Curriculum Committee (CC)

The composition of the CC includes the DCVM coordinator, the Teaching Quality Manager, the Delegate for Teaching Affairs, 7 members of teaching staff and 2 students. The CC meets approximately 2-3 times/year and reports its activities to the DCVM and DVS boards. The CC drafts a yearly report for the DCVM Board.

The main functions of the CC include:

- evaluating how curricular overlaps, redundancies, omissions, and lack of consistency, transversality and/or integration of the curriculum are identified and corrected;
- performing on-going and periodic review of the curriculum by involving staff, students and stakeholders;
- identifying and meet training needs for all types of staff, maintaining and enhancing their competence for the ongoing curriculum development.

4) DCVM Steering Committee (SC)

The Steering Committee is composed of the DCVM Coordinator, the DVS Head of Department, the Delegate for Education, the QA Manager, the Placement tutor, a member of staff representing post-graduate education at the VEE and representatives from diverse professional areas in veterinary medicine. These include the national health services, the local veterinary chamber, industry, private sectors (both companion and food-producing animal clinicians), and a representative of the European Food Safety Authority (EFSA).

The Steering Committee meets once a year and suggestions from the profession as pertains to competencies of newly graduated veterinarians are discussed and curriculum changes then are considered by the CC. The Steering Committee also promotes placements for new graduates.

The QA Manager reports the SC's activities to the DCVM and DVS boards. The composition of the committee [↗](#) and the minutes of recent meetings [↗](#) are available on the website.

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5) QA Manager

The DCVM QA Manager is a member of the academic staff who is responsible for:

- verifying the effectiveness of the Quality Assurance activities within the Degree Course;
- verifying the timely publication of the timetables (lectures, examinations, etc.) and course curricula;
- liaising with and reporting results of the DCVM Steering Committee meetings;
- receiving and managing reports from students on all critical issues concerning the course, staff and student wellbeing. In order to facilitate the collection of reports from students, an online form is available [\[link\]](#) which is sent directly to the QA Manager.

6) Manager for Teaching Quality (MTQ)

The DVS MTQ is a member of support staff whose responsibilities include:

- providing information on the degree programme and the educational services offered and support for the planning, organization and management of teaching activities;
- managing the degree course website;
- assisting DVS committees and boards in their relations with external stakeholders;
- supporting the DCVM coordinator in the preparation of the curriculum and in the compilation of the Annual self-Assessment Report (SUA-CdS).

7) Review Group (RG).

The RG is composed of two members of teaching staff, the QA Manager, the Teaching Quality Manager and one student representative. It is responsible for carrying out yearly and periodic (every 5 years) review of the DCVM programme (see “QA Documents”).

8) Departmental Research Committee (DRC).

The DRC is composed of 8 members of the academic staff. The DRC expresses opinions and formulates proposals regarding the overall needs and use of Departmental resources for research; formulates proposals regarding the criteria for the evaluation of research projects; formulates proposals relating to criteria for the internal evaluation of research quality; reports annually on the scientific activity of DVS academic staff.



Figure 1.3. PDCA cycle and role of DVS boards and QA committees

QA Documents

As mentioned above, the VEE's QA system also foresees the yearly drafting and submission of different QA documents to the higher tiers involved in QA. UniPr has developed guidelines and written procedures for all actors involved in drafting QA documents [\[link\]](#) Appendix 4).

Below is a summary of these.

Area 1. Objectives, Organisation and QA Policy

Document	Content	Drafted by	Approved by	Submitted to
Annual self-Assessment-Degree Course (SUA-CDS)	Study programme, objectives, curriculum, learning environment, learning outcomes, self-evaluation outcomes, profile of the current student population and the employment destinations of new graduates	DCVM Coordinator, Education Manager	DCVM, DVS Boards	UQAC, University Evaluation Unit
Annual Monitoring Report (SMA)	Critical review of the quantitative indicators (calculated by ANVUR) on student progression, course attractiveness and internationalisation, employability of graduates, quantity and qualification of teaching staff, satisfaction of graduates	DCVM Coordinator, Review group	DCVM Board	UQAC, University Evaluation Unit (together with the SUA-CDS)
Cyclic re-examination report (RRC)	5-yearly review of the DCVM.	Review group	DCVM, DVS Boards	UQAC, University Evaluation Unit
Annual QA Objectives	Reports annual objectives to be reached in terms of QA for teaching, research and Third Mission; beginning of each calendar year	DQAC	DCVM, DVS Boards	UQAC
Annual QA Report	Reports activities of previous year; end of each calendar year	DQAC	DCVM, DVS Boards	UQAC
Annual JSTC Report	Reports activities of previous year; end of each calendar year	JSTC	DCVM, DVS Boards	UQAC, University Evaluation Unit
Annual Steering Committee Report	Reports activities of previous meeting; beginning of each calendar year	QA Manager	DCVM, DVS Boards	DSV website
Annual Report Departmental Research	Reports activities of previous year; end of each calendar year	Departmental Research Committee	DCVM, DVS Boards	

According to the report from ANVUR following the last accreditation visitation (2019), the VEE is compliant with ESG standards [\[4\]](#) (please see pp. 36-38).

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

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

The VEE interacts with stakeholders and the public in a variety of ways.

- The DVS [\[4\]](#) and DCVM [\[4\]](#) websites. These are publicly available and report data regarding Teaching, Research and Third Mission activities, including the activities of the VTH. All academic staff roles are described, and contacts (mail and phone) are provided. Events, seminars and tutoring activities are also posted, along with specific initiatives organized by both the department and UniPr (see below).
- DCVM Steering Committee. As described above, the DCVM Steering Committee represents the setting of direct contact with representatives of the different areas of the veterinary profession. The minutes of these meetings are available to both stakeholders and the public [\[4\]](#)
- "Open Days" and Incoming tutoring. "Open Days" [\[4\]](#) is a yearly event which introduces the DCVM to aspiring students among all courses offered by the UniPr, while incoming tutoring is

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specifically aimed at actively recruiting through informational visits to final year high school students. The DVS also participates in the s.c. “Study-Work programme”, during which a selected number of high school students can spend 2 weeks at the VEE, taking part in various activities.

- “Job Days” [🔗](#) and Outgoing tutoring. These are events organized by UniPr in which the DVS actively participates each year, aimed at introducing future graduates to the profession. “Job Days” invites stakeholders to illustrate possible employment opportunities for all courses offered by UniPr. The DVS also organizes outgoing tutoring with specific organizations and professional realities.
- Almalaurea Consortium. The University of Parma is a member of this data-mining organization that reports the profile of the current student population and the employment destinations of past students.
- The "Researcher's Night". The DVS participates each year in an event associated with the European Researchers' Night. The VEE is open all day to the public and many activities are organized for the young and old alike.

VEE organizes public engagement activities promoting cultural and scientific outreach initiatives, aware of its responsibility in creating a culture of knowledge that makes available to all the tools for cultural independence aimed at promoting the territory and its growth. These events with educational, cultural, and social development value and aimed at a non-academic audience and are listed on the DVS website [🔗](#).

The DVS website has a page dedicated to ESEVT status [🔗](#) and related information including last ESEVT Self Evaluation Report and Visitation Report. The current status of the VEE is “**Candidate Member- Non-Approval status because of end of granted status exceeded**”.

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

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

As reported in Standard 1.4, the VEE’s activities are periodically monitored and reviewed through:

- the drafting of the departmental strategic plan;
- the activities of the DQAC that monitors the processes and procedures of Quality Assurance, self-assessment, review and improvement of the VEE, research and third mission, ensuring the correct flow of information among the DVS boards and committees;
- the activities of the RG that manages the self-assessment process by periodically monitoring the course data, noting the strengths and weaknesses and proposing corrective actions and improvements that are recorded and made public thanks to the Annual Monitoring Report (SMA) and Cyclic re-examination report (RRC).

The composition of these bodies always involves the participation of one or more students who are involved in the discussion, decisions and reports of all these bodies.

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

Date of the previous ESEVT Visitation: Full visit: January 2011/ Revisitation: March 2012

Date of the completion of the Interim Report: October 1st, 2018

No category I or category II deficiencies were identified following the re-visitation in 2012 (SOPs 2009 Hannover).

However, the VEE has put into place several initiatives to compensate for suboptimal activity/staff/indicators in several disciplines as reported in the 2018 Interim Report.

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The number of ruminant and pig herd visits, which had not decreased significantly compared to the 2011 SER (17 vs. 19), was below the 20th percentile “minimum” indicated by EAEVE. The VEE has established an agreement with a nearby dairy cattle farm to facilitate herd visits, has increased the number of hours currently dedicated to herd visits in the year II of the degree course and has hired three contract professors for activity in year V PPT in swine HHM.

The number of companion animal patients visited extramurally was reported as “0”. Even though students spend several weeks during the summer break between the years III and IV in EPT, they are allowed to choose the type of practice they prefer (food-producing animals, companion animals, exotics, etc.) and therefore it is not possible to indicate a value for each type of patient that is true for every student. In line with the new revision of the ESEVT SOPs, which will consider the “core curriculum” as both intra and extramural activity, the number of companion animals seen at the VTH is well above the minimum.

Activity in equine medicine continues to be potentiated, with the hiring of contracted staff for intramural PPT, for extramural activity at an active private equine clinic and, finally, **the hiring of a tenured, full professor in equine surgery (September 2023).**

Most importantly, in 2019, UniPr budgeted over 16 million euro to update existing facilities and to construct a new wing of the VTH. Plans have also been approved and budgeted for a “Student’s Centre”, which will include a new Skills Lab (the current lab is in temporary lodgings), group and individual study places, a kitchenette, computer room and relaxation area (see Area 4).

Comments on Area 1

The objectives, organisation and QA policy of the DVS have grown and developed markedly since the last ESEVT visitation, thanks to both the national QA system and to the ESEVT Interim Report, that have led the VEE to continuously monitor educational objectives and curriculum, relations with stakeholders and the public and students’ acquisition of the knowledge, skills and competencies needed to face the challenges of the veterinary profession. All members of the academic and support staff, students and collaborators have become much more engaged in making the VEE a better place to work and study.

Suggestions for improvement in Area 1

The weaknesses and threats identified in the SWOT analysis need to be faced, together with the University establishment and the Ministry. The cost of bringing a veterinary student to graduation is high, both economically and in terms of facilities and human resources. The suboptimal number of veterinarians currently working in Italy is leading to a Ministerial rise in enrolment numbers, which may further complicate the VEE’s ability to guarantee ESEVT requisites. The next Strategic Plan must take into consideration these issues and propose solutions.

Area 2. Finances

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

Until 2015, all Italian University departments had full autonomy regarding financial processes. A new law was then put into effect and currently departments depend on the University central administrations, which each year approve the budget for the entire University.

The Ministry funds each University with the s.c. *Fondo di Finanziamento Ordinario* (FFO-Fund for Structural Resources to State Universities [🔗](#)).

Approximately 70% of the UniPr FFO is used to cover academic and support staff salaries. The remaining share is distributed among the 9 Departments under the heading of “*Dotazione Dipartimentale*” (Department fund). The funding is managed autonomously by the department, primarily for support of teaching activities, and for a part of its routine operating costs. In the last three a.y.s., the DVS as received approximately 150,000 euro/year. How the routine expenses are met is decided by the DVS head and the Administrative Manager (see Standard 2.3 for further details).

Revenues from the VTH clinical and diagnostic services are re-invested into the VTH for the hiring of staff and the acquisition and maintenance of equipment. Research funds and revenues from contracts for services and collaborations with private entities are managed by the staff member responsible for the activity.

The global strategy for the financial management of the department is aimed at sustaining the requirements for the VEE to meet its mission and to achieve its objectives.

The DVS and UniPr budgets are annual, per calendar year (1st January – 31st December) and not per a.y.

Tuition fees are not transferred directly from UniPr to the DVS (and thus have not been included as “Revenue” in Table 2.1.2). The number of enrolled students, however, is a parameter that UniPr uses to calculate the annual functioning budget for each department (together with the activation of Specialisation Schools and the “Standard cost of the veterinary medicine course” defined by MUR). Tuition fees vary according to a number of criteria, including family income, to whether the student is on course or off course, to the number of ECTS achieved and student grade point average, etc.

VEE students pay regular fees in two instalments. The first €156 per year instalment is the same for all students. On-course and one year off-course students pay a second instalment of up to 3,733.00 €/year, depending on household (or personal) income. Off-course students for more than one year pay a second instalment ranging from 200.00 €/year to 4,065.00 €/year. Fee amounts are fixed by the university board and revised each year [🔗](#).

Table 2.1.1. Annual Expenditures during the last 3 Financial Years (in Euros)

Area of expenditure	2022	2021	2020	Mean
Personnel	7,725,695	7,138,300	7,203,755	7,355,916
Operating costs	711,275	573,785	551,011	612,023
Maintenance	830,438	782,364	615,601	742,801
Equipment	330,510	308,063	306,805	315,126
Other costs	234,757	211,876	180,461	209,031
Total expenditure	9,832,675	9,014,388	8,857,633	9,234,898

Personnel

DVS personnel includes the permanent teaching staff, permanent support staff, contract teachers and VTH Clinicians, Research Fellows, Scholarship recipients, and PhDs. The permanent staff, a portion of the contract teachers and PhDs are funded by the UniPr, through distribution of ministerial financing. Research fellows, scholarships and a portion of PhDs are paid with funding obtained for research projects. All VTH contract clinicians and a portion of the contract teachers and PhDs are funded through proceeds from VTH activities.

Operating Costs

Animal upkeep, consumables and student housing for equine extramural training are funded by the DVS. Transport for large groups of students (herd visits, other) is arranged through rental of buses, which is paid by the DVS. Utilities (telephone/Internet-Intranet services/water/electricity/gas) are paid directly by UniPr.

Maintenance

Building and ground maintenance, cleaning services and nocturnal vigilance are funded by the central administration. Insurance and maintenance of vehicles for animal and student transport are paid by the DVS.

Equipment

Equipment for research laboratories are purchased by DVS with funding from research grants and third-party contracts. Equipment for the VTH and diagnostic laboratories are paid with revenues from the VTH.

Other costs

These include overheads to UniPr on research grants and services, reimbursement of personnel for expenses incurred within the framework of research projects (conferences, publications).

Table 2.1.2. Annual Revenues during the last 3 Financial Years (in Euros)

Revenue Sources	2022	2021	2020	Mean
Public authorities	8,170,488	7,513,843	7,202,301	7,628,877
Tuition fee	-	-	-	
Clinical services	699,703	631,509	539,509	623,573
Diagnostic services	719,759	579,106	430,648	576,504
Other services*	29,235	17,699	15,150	20,694
Research grants	317,078	368,433	253,781	313,097
Cont. Educ	214,900	369,100	199,180	261,060
Donations	17,150	10,165	-	9,105
Other sources**	346,430	237,964	345,217	309,870
Total revenues	10,514,743	9,727,819	8,985,786	9,742,782

*Equine stud service; Municipal cat spaying programme; ** These include contracts with private companies for services and research collaborations.

Public Funding

The public funding in Table 2.1.2 relates to payment of salaries, directly through the MUR, and UniPr central administration funding for the daily operation of the DVS, as described above.

Funding also includes co-financing from UniPr for the purchase of clinical and research equipment. The UniPr puts out a yearly call for co-financing of large-scale equipment and a bi-yearly call for financing of teaching laboratories. These are competitive calls and applications are reviewed by an internal review board. The DVS has received a total of 532,000 euro in the last 3 years.

Tuition Fees

As described above, tuition fees are managed by UniPr and do not go directly to departments. However, the number of enrolled students is a criterion for calculating the sum given each year to departments for their daily functioning.

Clinical Services

Revenue from clinical activities and recovery and emergency services have increased in the last 3 years, thanks to upgrading of equipment and extension of opening hours for referrals and specialist services.

Diagnostic Services

Revenue from diagnostic activities has also increased, in particular in diagnostic imaging, thanks to the acquisition of a CT scan.

Research Grants

Research funding comes from national, international and private research projects. There has been a decrease in funding, likely due to suboptimal national funding opportunities. However, the National Recovery and Resilience Plan (PNRR) has allowed an increase in 2023 (see Area 10).

Continuing Education

The DVS currently runs 2 Specialisation Schools and 4 Masters (see Area 10 for details).

Table 2.1.3. Annual balance between expenditures and revenues (in Euros)

Financial year	Total expenditures	Total revenues	Balance
2022	9,832,675	10,497,593	+ 664,918
2021	9,014,388	9,717,654	+ 703,266
2020	8,857,633	8,985,786	+ 128,153

Table 2.1.4. Percent of margin paid as overhead to UniPr overseeing the VEE on revenues from services and research grants

Source of income	University overhead	Department overhead
Research funding	16%	0%
Clinical services	8%	0%
Private contracts	8%	2%
Continuing Education	15%	0%

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

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

Income from activities and services of the VTH are included in a dedicated item in the DVS budget. Funds are used to pay contracted staff for clinical training (intramural and extramural CCT) and services and for the acquisition/leasing and maintenance of equipment. The VTH Management Committee (see Area 1, Table 1.2.3.) is responsible for proposals for and approval of budget spending, in full autonomy.

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

Figure 2.1 shows the review process for resources, funding and spending. The effectiveness of the allocation and use of the budget is evaluated by students (via questionnaires on teaching activities and facilities) and staff. Students can communicate their suggestions and needs in various ways, (see Standard 7.8) including to the relevant DCVM coordinator and the DQAC to request revisions and adjustments.

As reported in Area 4, the VEE is undergoing major renovation and building on its facilities, including the construction of a new wing of the VTH and a new Students' Centre, for a total of approximately 16 million euro (all documentation, including approval of the projects by the UniPr Board of

Governors, will be available to the Team upon request). Clinical training and caseload in equine surgery is foreseen to increase in the next three years thanks to the recruitment of a Full Professor, the new large animal surgical facilities and upgrading of the services for diagnostic imaging (DR digital radiography system). Funding of new equipment will be by the VTH, together with co-funding opportunities offered by the UniPr central administration. All decisions regarding co-funding proposals are discussed and approved by the DVS Board.

All decisions regarding the recruitment of academic staff are discussed, approved and communicated by the DVS Director and Board.



Figure 2.1. Review process for resources, funding and spending

Comments on Standard 2

The financial situation of the VEE in the last 3 years is relatively stable. The UniPr has recognized the need to bring the VEE to a higher level in terms of its facilities and has invested accordingly. The clinical and diagnostic services of the VTH continue to be an important part of the VEE's budget.

Suggestions for improvement on Standard 2

It is well known that the cost of bringing a veterinary student to graduation is high. The VEE should negotiate the overheads currently foreseen from UniPr to allow the DVS to have a greater share of the revenue generated by the different activities.

Area 3. Curriculum

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

The VEE's principal educational aim is to allow students to acquire the knowledge, skills and competencies to practice veterinary medicine, according to EU Directive 2005/36/EC (as amended by Directive 2013/55/EU). The VEE is further committed to assuring the acquisition of ESEVT D1Cs and the curriculum is designed as such. Degrees are awarded following the successful completion of 300 ECTS, including the final examination consisting of the preparation and presentation of a final year thesis.

The first two years of the year V programme are dedicated to basic sciences, anatomy, physiology and animal husbandry and production. From the third year on, there is greater emphasis on the clinical disciplines, nutrition, herd health management (HHM) and food inspection. The year V is largely spent in practical clinical training, food safety and quality/public health services and electives. The last semester is completely dedicated to professional practical training (PPT; "*Tirocinio*").

From year I-V, 14 ECTS are dedicated to the s.c. "Orientamento" that are compulsory hours of more in-depth training in several pre-clinical and clinical subjects, aimed at the acquisition of Day-1 competencies (D1Cs; see Appendix 1). These are carried out either intramurally during the semester or in summer, or extramurally during the summer in External Practical Training (EPT).

Nine ECTS are dedicated to the preparation of the final exam: 2 ECTS are assigned in year III, in which students learn how to search and retrieve biomedical and life sciences literature; 3 ECTS are assigned to year IV, following the choice of thesis supervisor and topic, during which the student begins thesis preparation; 4 ECTS are credited upon passing the final exam (these hours have been included in Type G in Tables 3.1.1). Teaching resources include intramural facilities for teaching activity under direct supervision of staff and extramural facilities, including approved centres for EPT, for teaching activity under direct supervision of either academic or non-academic teaching staff (see Area 9).

Management of the curriculum is under the responsibility of the DCVM board, following recommendations from the SC, JSTC and DQAC (please see Area 1, Table 1.2.3).

The Ministry of Higher Education and Research (MUR) establishes the minimum number of ECTS credits for each discipline that must be offered in the veterinary degree curriculum (Ministerial Decree 270/04). Each ECTS credit corresponds to 25 hours of activity, including personal study.

Within these ministerial "boundaries", VEEs can decide on the ratio of activity:personal study, which the UniPr VEE has established as 12:13 for lectures, 20:5 for practicals (laboratory, desk work, supervised work) and 25:0 for clinical training.

Each course is coordinated by an academic staff member who is responsible for developing course content, educational objectives, learning outcomes and student assessment methods/format. These are all available on the course's website. The CC, JSTC and DQAC are the main bodies responsible for monitoring eventual overlaps and inconsistencies, based on student feedback (online questionnaires, academic tutor reports, DQAC reports). The committees prepare annual reports for the DCVM coordinator and board, with eventual proposals for curriculum modifications. These are discussed among the DCVM Board members and approved (or not), based on a majority vote.

Annual meetings with stakeholders (e.g. SC) ensure constant updating with respect to the needs of the profession.

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

A: lectures; B: seminars; C: supervised self- learning; D: laboratory and desk based work, E: non-clinical animal work; F: clinical animal work; G: Tutorials and evaluation; H: total

Academic years	A	B	C	D	E	F	G	H
Year 1	542	20	0	70	90	0	0	682
Year 2	589	53	12	51	113	0	0	818
Year 3	590	59	8	60	47	35	0	799
Year 4	461	52	28	64	70	181	0	856
Year 5	156	19	0	62	250	606	0	1093
Total	2338	203	48	307	570	822	0	4288

Table 3.1.2. Curriculum hours in EU-listed subjects taken by each student

A: lectures; B: seminars; C: supervised self- learning; D: laboratory and desk based work, E: non-clinical animal work; F: clinical animal work; G: Tutorials and evaluation; H: total

Subject	A	B	C	D	E	F	G	H
Basic subjects								
Medical physics	36							36
Chemistry (inorganic and organic sections)	70			10				80
Animal biology, zoology and cell biology	28							28
Feed plant biology and toxic plants	36							36
Biomedical statistics (+ Math)	36							36
Basic Sciences								
Anatomy, histology and embryology	190	20	2	40	60			312
Physiology	170	32		10	10			122
Biochemistry	66			10				76
General and molecular genetics	84			10				94
Pharmacology, pharmacy and pharmacotherapy	60	8						68
Pathology	72	4		16				92
Toxicology	30	6	8					44
Parasitology	47		4	10	16			77
Microbiology/ Immunology/ Epidemiology	78	5	10	15				108
Professional communication and ethics	12	12						24
Animal Ethology and welfare	25	8						33
Animal health economics and practice management	33				3			36
Animal nutrition	94				12			106
Clinical Sciences								
Obstetrics, reproduction and reproductive disorders	60				4	126		190
Diagnostic pathology	137	52	0	31	15	28		263
Medicine	96		4	32	4	70		206
Surgery	93			10		110		213
Anaesthesiology	15	2		8				25
Clinical practical training in all common domestic animal species						375		375

Preventive Medicine and Infectious Diseases	122	27		71	16	28		264
Diagnostic imaging	60			10	20	35		125
Therapy in all common domestic animal species	34	30						64
Propaedeutics of all common domestic animal species	84		24	16	50	20		194
Animal Production								
Animal Production and breeding	59				40			99
Animal husbandry					150			150
Herd health management								
Food Safety and Quality, Veterinary Public Health and One Health Concept								
Veterinary legislation including official controls and regulatory veterinary services, forensic veterinary medicine and Certification	24	20						44
Control of food, feed and animal by-products	97				165			262
Zoonoses	50			2				72
Food hygiene and food microbiology	52				20			72
Food technology	30							30

Table 3.1.3. Curriculum days of External Practical Training (EPT) for each student

Discipline	Year	ECTS	weeks/hours	Period
Animal Production and Herd Health	II	1	1/25	Summer
Diagnostic Imaging	III	1	1/25	Summer
Surgery	IV	1	1/25	Summer
Internal Medicine	IV	1	1/25	Summer
Animal Production and Herd Health	V	5	5/125	Jan-Sept

External Practical Training (EPT) at the Parma VEE is carried out in different periods of the degree course. It is **mandatory for all students during "Orientamento" in the II and IV years and during the V year PPT in Animal Production and HHM.**

It is optional during V year PPT periods in Food Safety and Quality and in Pathological Anatomy/Infectious Diseases. Further details of EPT can be found below in Standards 3.5 and 3.6.

Table 3.1.4. Curriculum hours taken as electives for each student

A: lectures; B: seminars; C: supervised self-learning; D: laboratory and desk based work; E: non-clinical animal work; F: clinical animal work; G: others; H: hours to be taken by each student per subject group

Electives	A	B	C	D	E	F	G	H
Basic Sciences								
Anatomical structures of primary productions of animal origin	12	12	8					32
Clinical Sciences								
Clinical neuropharmacology and behavioural pharmacology	12	20						32
Laboratory medicine		24		8				32
Hospitalization and intensive care	2					30		32
Internal medicine - patient management	7	15		5		5		32
Reproductive techniques in large and small animals						32		32
CT diagnostics in veterinary medicine				32				32

Veterinary medical oncology	8					24		32
Veterinary orthopedics and traumatology in dogs and cats	32							32
Canine and feline congenital heart disease: from embryology to treatment	32							32
Veterinary and comparative audiology	16					16		32
Animal Production								
Biotechnology applied to animal production	32							32

3.1.5. Optional courses proposed to students (not compulsory).

The courses of the core curriculum, including electives, EPT, PPT and final year thesis, make up the compulsory learning activity that totals 300 ECTS. Students may take other courses offered by UniPr or participate in volunteer and sports activities, for a total of 3 ECTS. Recently, UniPr has offered several e-learning courses on the s.c. “transversal skills” that students are encouraged (but not obliged) to attend. Students can find a detailed description of these here [🔗](#).

Core exercises/practicals/seminars prior to the start of clinical rotations include laboratory and desk-based work as well as non-clinical work on animals (e.g. dissections, simulations on organs, cadavers), and training with animal models and simulators prior to live animal exercise, all carried out within the curriculum hours of core courses. Activities are also carried out during “Orientamento”, where students deepen their knowledge and skills base in various disciplines to better prepare for clinical rotations and to increase professional knowledge. Depending on the discipline and the competencies to be acquired, it is either intramural or extramural and is either carried out during semesters or during summer in approved training centres (private practices, farms, public veterinary health services).

Briefly, core exercises/practicals/seminars include in:

Year I.

- **Basic safety training.** The e-learning course is mandatory for all students. It introduces the basic concepts of safety in places of study and work, including hazardous materials and waste, procedures in case of emergency (e.g. fire, earthquake), etc.
- **Anatomy I, II and Histology.** Macroscopic structures of healthy systems by organs examination (Bovine, Equine and Pig) and dissection of animal carcasses (large animal fetus and dogs); histology and microscopic structures of healthy organs by optical microscopy and digitalized slide; setting the basis for diagnostic pathology.
- **Summer "Orientamento" in VTH:** includes 25 hours of stall work with cattle and horses (restraint, cleaning, feeding) and of nursing skills in hospitalized companion animals. restraint of companion animals including correct approach and knowledge of animal rejection.

Year II.

- **Veterinary Topographic Anatomy.** Topographical dissection of animal carcasses (dog, cat, calf, equine foetus and poultry); study with animal dummies and 3D anatomy software; applied anatomy.
- **Animal Production and Genetic Improvement.** Herd visits with emphasis on breeding, housing, welfare and genetics of farmed animals, including handling skills.
- **Physiology I and II.** Principles of haematology, auscultation (rumen, heart), animal welfare evaluation on FP and Companion animals.
- **Veterinary Microbiology and Parasitology.** Laboratory skills in microbiology (e.g. bacteriological examination, antibiotic sensitivity test and minimum inhibitory concentration of antibiotics -MIC); sampling and parasitological examination of biological samples; parasite identification.
- **General Pathology.** Optical microscopic evaluation of elementary lesions associated with disease

- **"Orientamento" in Parasitology.** Practical management of parasitic diseases in companion animal shelter and cattle farm (intra/extramural during II semester).
- **Summer "Orientamento" in Animal Production.** Students accompany a contracted practitioner for basic veterinarian management of cattle; 25 hours/ extramural).

Year III.

- **Nutrition and feed technology.** Creation of balanced rations for different species, sampling and analytical evaluation of feeds.
- **Pharmacology, Toxicology and Chemotherapy.** Basic concepts related to dosage calculation, the use of drugs in animal species, prescription of veterinary drugs and to pharmacovigilance and surveillance, use of HPLC and spectrophotometry in pharmacokinetic analysis.
- **Pathological Anatomy I and II and autopsy.** Techniques of postmortem examination, recording of lesions and collection of proper material for laboratory. Each student performs at least 1 postmortem examination, formulates a diagnostic hypothesis and writes a report.
- **Infectious Diseases I and Veterinary Public Health.** Students are trained to discuss a case of infectious animal disease, referring to the National and Community reference legislation; perform tuberculosis test on cattle.
- **Diagnostic imaging.** Students learn rules of radio protection and how to wear Personal Protective Equipment (PPE), positioning of small and large animals for diagnostic imaging (ultrasonography, radiology, CT), preparation of the patient for ultrasonography and contrast radiology, setting ultrasound machines, performing a radiographic examination. They are trained to perform ultrasound scans on patients referred to the VTH and to systematically read radiological/CT images.
- **"Orientamento" Pathological Anatomy** (intramural, during II semester). Necropsy examination (at least 5 animals) and compilation of necropsy protocol; pathological exam of organs, sampling techniques, conservation and shipment of histopathological samples to the laboratory; preparation of cyto-pathological and histopathological smears, stain techniques and interpretation.
- **"Orientamento" Food science and meat hygiene** (intramural, during II semester). Seminars held by veterinarians employed by food factories and by the National Health Service. This course is specifically designed to show all students the professional activities they could be involved in after their degree.
- **Summer "Orientamento" Diagnostic Imaging (EPT).** The student may choose either companion, exotic or food-producing animals.

Year IV.

- **Infectious Diseases II and Avian Pathology.** Students learn to apply differential diagnosis protocols to infectious, parasitic and poultry diseases and to discuss the management of outbreaks of infectious disease; students perform necropsies on broilers
- **"Orientamento" Infectious Diseases** (intramural, during II semester). Students acquire knowledge of infectious disease management, with special reference to the methods of prophylaxis aimed at limiting the use of antibiotics.
- **Surgical semiotics, Propaedeutics and Anaesthesiology.** In the practical part of the course, they learn suturing, how to perform basic surgical procedures on small animals' cadavers, to induce anaesthesia, and to handle horses.
- **Medical Semeiotics and Medical Pathology** Students learn how to: register and read an EKG; to measure non-invasively systemic arterial pressure (Doppler, oscillometry); register vital parameters (rectal temperature, heart rate, respiratory rate, mucous color, arterial pulse); perform physical examinations in small animals, horses, bovine and exotic animals; to administer tablets and fluids; to sample blood, urine and feces; position intravenous catheters on mannequins; prepare and read blood smears; perform urinalysis; read blood gas analysis. They learn principles of clinical nutrition and formulation of home-made diet for small animals. They discuss internal medicine clinical cases with the POA method. They are trained in cardiopulmonary resuscitation procedures on mannequins.

- **Obstetrics, Andrology and Artificial Insemination.** Students examine uteri and ovaries collected at the slaughterhouse belonging to bovine, ovine, equine and swine species, on which they are also trained in the artificial insemination procedures and in practice basic sutures. They collect and evaluate and dilution of stallion semen. Students are required to blind palpate mare and cows' uteri and ovaries and write on a paper their diagnosis, occurrence of pregnancy or not, presence of ovarian follicles or corpora lutea, and to correlate these findings with the cycling status of the animal.
- **Summer "Orientamento" Internal Medicine (EPT).** The student may choose either companion, exotic or food-producing animals.
- **Summer "Orientamento" Surgery (EPT).** The student may choose either companion, exotic or food-producing animals.
- **"Orientamento" Animal Reproduction (intramural).** The students are divided into groups of each 6-8 to perform clinical, gynaecological and ultrasound examinations of mares and cows belonged to the Department. Moreover, they are involved in the collection, evaluation and dilution of semen of the stallions hosted in the Department's stable during the breeding season. The students attended at least one or two meetings (two hours) with swine practitioners.

Year V.

- **Organisation of veterinary service, business in practice and communication skills.** the student acquires knowledge of how the national veterinary service is organized, the skills of the veterinary surgeon and the organizational aspects of the profession, including communication.
- **VTH "Orientamento" in Internal Medicine, Surgery and Reproduction.** Students are required to begin attendance at the VTH beginning in the I semester of the V year. While formal PPT begins in the II semester, it is considered important to introduce students to the running of the VTH, the clinical services offered and to initiate evening and weekend shifts.
- **Animal Reproduction.** The students are divided into small groups, 3-4 each. Each group spent one day a week, in a dairy farm side by side with the bovine practitioners. The students are exposed to the mainly veterinarian bovine activities within the dairy farm. Focusing on bovine reproduction they perform clinical, gynaecological and ultrasound examinations cows for detecting estrus, pregnancy, artificial insemination with chilled and thawed semen, pregnancy or not diagnosis, sexing the fetus, delivery assistance to the dam and calves and neonatology examination and clinical diagnosis of bovine neonatal disorders. One day a week each group perform clinical and reproductive evaluation of the stallions and mares at the stable of the Department. Meanwhile, the students report their clinical activities in Google Forms.

All core activities, whether intra, extra mural or EPT, are registered and verified in the s.c. "*Portfolio*" (please see below for further details).

Clinical rotations begin in the second semester of the year V (PPT) for a total of 30 ECTS. Each ECTS corresponds to 25 hours of PPT, for a total of 750 hours.

Students are divided into six groups that rotate among 6 different disciplines for 5 weeks/every discipline (Internal Medicine, Surgery, Animal Reproduction, Food Safety and Quality, Animal Production and Herd Health Management, Pathological Anatomy/Infectious Diseases).

Rotations are arranged in small groups of students (average of 7 students in the last 3 academic years; these are further divided into groups of 1-2 in the different clinical areas), allowing for sufficient observation and hands-on activity for all students. Further details regarding case load, balance among patients and activities, can be found in Area 5.

Rotations are both intramural and extramural. In those areas for which academic staff is suboptimal (see Area 9), the VEE hires contracted staff practitioners, through a stringent evaluation process, to compensate, allowing students to acquire competencies in an extramural setting. Contracted staff carry out teaching either intramurally (equine podiatry and basic surgery) or they take students on their daily rounds (cattle, swine), or host them in their clinic (equine).

An example of the PPT schedule for the academic year is available here [🔗](#).

INTRAMURAL CORE CLINICAL ROTATIONS

Small Animal Internal Medicine (20 days). Students:

- assist in first-opinion and referral specialist services (internal medicine, cardiology, neurology), including signalment, case history and patient work-up;
- carry out day, night and weekend shifts in hospitalization, emergency services and intensive care unit (ICU);
- participate in daily briefing of the cases seen during the day (the students are involved in the discussion of the case to the medical staff);
- participate in inpatient rounds;
- participate in weekly journal clubs;
- prepare a presentation concerning one of the clinical cases managed during the PPT period, for peer review.

Small Animal Surgery and Diagnostic Imaging (20 days). Students:

- assist as second surgeon in orthopaedics, soft tissue and oncological surgery, assist in anaesthesiology, and endoscopic procedures;
- perform clinical examination of companion animals presented for surgical diseases and discuss the cases with the surgical staff in charge of the case;
- assist in Diagnostic Imaging services (ultrasound, X-ray, CT);
- carry out day, night and weekend shifts in SA hospitalization, emergency services and intensive care unit (ICU).

Animal Reproduction (20 days). Students:

- assist in reproductive and obstetric clinical and surgical activities on small animals (reproductive examination, diagnosis of reproductive disorders and pregnancy, reproductive and obstetric surgery);
- participate and are trained in reproductive evaluation of stallions and mares; in collecting, evaluation, dilution of stallion semen and preparing doses for AI and in obstetric clinical activities during the equine breeding season;
- Ovine pregnancy diagnosis and reproductive disorders;
- carry out day, night and weekend shifts in SA hospitalization, emergency services and intensive care unit (ICU).

Equine Podiatry and Surgery (variable). Students:

- learn basic farrier principles and assist in medical and surgical foot care management;
- assist in castrations and arthroscopies.

Exotic Animal Medicine (2 days). Students:

- Day 1. perform clinical and surgical activities on client- owned animals; collect the medical history, transfer patients to visitation room and visit the patients themselves; compile medical records. Patients are mostly small exotic mammals, rabbits, reptiles, amphibians and birds. Surgery mainly concerns rabbits, small mammals, turtles and tortoises;
- Day 2. participate in the activities in the reptile sanctuary: activities include feeding and administration of therapy. There are 20 snakes and 10 lizards hospitalized permanently and an average of 5 hospitalized patients/week. Every single clinical case is discussed in a weekly scheduled journal club. From April to September, students assist in the anaesthesia, mini-invasive endoscopic ovariosalpingectomy and post-operative care of approximately 50 pond turtles (*Trachemys scripta*).

EXTRAMURAL CLINICAL ROTATIONS (Mobile Clinic or contracted staff)

Ruminant Medicine, Surgery and Reproduction (6 days). Students:

- spend 1 day in the mobile clinic with academic staff at the “CandiaBio” dairy cattle farm (see Area 4) to acquire competency in rectal palpation and pregnancy diagnosis. Each student performs, under the supervision of the staff, 20 rectal palpations completed by ultrasound

examinations for the correct evaluation of the genital system, identification of pregnant cows and confirmation of already confirmed pregnancies. Ultrasonographic fetal sexing is routinely performed on all pregnant cows between 55 and 75 days of pregnancy. Evaluation of pregnant cows before drying off as well as evaluation of uterine involution between 15- and 30-days post-partum. Other activities include systematic examination/assessment of newborn calves and their feeding systems, analysis of farm fertility data through the computerized management system, as well as activity patterns of monitored cows to identify those that are estrus and which must be inseminated, confirming or excluding them through manual palpation and ultrasound examination;

- further 5 days are spent with contracted staff during routine activities on cattle farms, acquiring competencies in the field situations that arise during the training activities are those that most commonly a veterinarian must be able to deal with and range from preventive medicine, metabolic-nutritional, infectious and surgical diseases that can be found in adult cattle and in calves.

Swine Medicine, Surgery and Reproduction (5 days). Students:

- spend 5 days with contracted staff during routine activities on pig farms, acquiring competencies in managerial activities, such as flow management, batch rearing, assistance with farrowing and piglet batching; ultrasound diagnosis of pregnancy as well as the ultrasound of the thickness of the back fat; health management of the farm, with vaccination plans, clinical and laboratory diagnosis, anaesthetic protocols and surgery techniques for inguinal, abdominal and scrotal hernias; welfare and biosecurity.

Equine Internal Medicine and Surgery (5 days). Students:

- spend 5 days with contracted staff at the “Sicomonte Equine Clinic” (see Area 4), acquiring competencies in equine surgery (colics, other surgical procedures that can be seen in the daily practical activity) and reproduction (birthing and neonatology). They assist during the surgical procedures and help in the administration of drugs to the hospitalized animals. They are on call when a night emergency visit or surgery comes in. They discuss one of the clinical cases seen.

As mentioned above, year V PPT is also carried out in:

PPT in Veterinary Pathological Anatomy (3 weeks) and Infectious Diseases of Domestic Animals (2 weeks). Students:

- carry out necropsies and laboratory activities in bacteriology and virology;
- spend 3-4 days at the Istituto Zooprofilattico Sperimentale (IZS) in Parma to observe necropsies of food-producing and wild animals.

Students may also choose to spend this PPT period at an extramural facility in EPT.

PPT in Animal Production and Herd Health Management (5 weeks). Students carry out mandatory EPT and acquire specific competencies, as defined by the training programme which is approved by the academic tutor (please see Standards 3.5 and 3.6 below).

PPT in Food Safety and Quality (5 weeks): This PPT is described below (“Training in FSQ”).

Training in FSQ

Practical teaching in “Food hygiene and technology” (year III), “Inspection and control of food of animal origin” (year IV) and in PPT in the year V, is carried out in small groups (see table below; approximately 10-12 students). Slaughterhouse activities are mainly carried out in the bovine slaughterhouse (approximately 400 meters from the VEE), with which there is a signed agreement [\[link\]](#). Other facilities include private companies involved in food processing.

Year III Food hygiene and technology. Students (groups of 10-12) carry out 20 hours of laboratory activity, including:

- solutions and media preparation for microbiological analyses;
- food sampling for microbiological analyses;
- pH and aw determination of food matrixes;

- enumeration of Total Bacterial Count (aerobic colonies) at 30°C and *Enterobacteriaceae* (including *Escherichia coli*);
- detection and identification of *Salmonella enterica*;
- the tested matrixes include food of animal origin, mainly meat products.

Year III "Orientamento". All students participate in seminars held by veterinarians employed by food factories and by the National Health Service. This course is specifically designed to show all students the professional activities they could be involved in after their degree.

Year IV Inspection and control of food of animal origin. Students (groups of 10-12) carry out 40 hours of activities including:

- evaluation of a slaughterhouse facility requirements;
- evaluation of animal welfare during transport and lairage;
- ante- and post-mortem inspection of pigs and cattle at slaughter (each student directly performs at least one ante- and post-mortem inspection and follows the activity of the Veterinary Officers at the slaughterhouse; 2 visits/student);
- visit to the fish market in Milan under the supervision of the Veterinary Officers to discuss the official and self-checks controls which are in place;
- species identification of the main fishery species and more common frauds, as well as freshness evaluation of the commercially more relevant fishery species.

Year V Professional Practical Training. Students (5 weeks) may choose to perform intramural or extramural PPT.

Intramural. Students take active part in microbiological activities (as part of ongoing research projects or testing samples specifically collected for the students), follow discussion groups presented by teaching staff and PhD students, and are taken for visits to food industries, slaughterhouses, and fish markets. Excursions may vary depending on the season and the availability of the food companies.

Extramural. Students follow Veterinary Officers employed by local National Veterinary Public Health Service Agencies (called "AUSL") and by National Diagnostic Laboratories called "Istituto Zooprofilattico-IZS".

Electives. The curriculum includes 8 ECTS of elective courses that students are required to accumulate before graduation. The DVS currently offers 11 elective courses between the years IV and V, as summarized in Table 3.1.4. Students who have achieved at least 190 ECTS may select from the list of elective courses, indicating the courses in decreasing order of preference. If too many students select one specific course, priority is given to those students who have obtained a higher number of ECTS and/or higher-grade point average of examinations taken. The VEE has chosen this selection criterion in order to guarantee that each course has a relatively small number of students, thus assuring hands-on activities where they are included in the course curriculum, and to adhere to biosecurity measures (e.g. capacity of facilities).

Logbooks and assessment. Detailed description of assessment methods can be found in Area 8 (Student Assessment).

1. Portfolio.

At enrolment, students receive the "Portfolio" logbook, which contains and certifies the activities carried out during course practicals and during "Orientamento" courses. This is a logbook that lists different skills that are considered necessary to have acquired before beginning clinical rotations. The logbook was developed based on the suggestions of academic staff and students and on ESEVT D1Cs. Once a skill has been acquired, the responsible academic staff member must sign the Portfolio. Students must complete all Portfolio activities and they must hand the logbook in (with the signature of all responsible staff) to the Student Office before beginning PPT in the II semester of year V.

2. PPT diary (“*Diario Tirocinio*”).

To begin PPT in the second semester of the year V, students must submit an online application. This is to assure that all requirements (e.g. completed Portfolio) have been met.

Intramural PPT in the VTH is registered and verified by academic staff in the PPT diary and the Case Log. (Please see Area 8 Student Assessment, for further details).

3. Case Log

Starting from the a.y. 2022/23, it is mandatory for students to maintain a daily Case Log, documenting the clinical cases they have observed and the procedures they have performed at the VTH. The Case Log is signed daily by the supervising member of the VTH staff/contracted professor. At the end of each PPT period, students are required to submit their completed Case Log to the responsible tutor, together with the PPT diary. The main purpose of the Case Log is to enable a more accurate monitoring of students' exposure to a variety of clinical cases during their training. Indeed, previously, the PPT diary was often signed by the responsible staff member at the end of the PPT period, but this was considered limiting to the actual verification of skill acquisition, which must be done, when possible, in real-time.

4. Extramural PPT registers (“*Registro Prof. a contratto*”)

Activities carried out in extramural PPT with contracted staff are registered daily by the practitioner and countersigned by the student. The VEE recently introduced a Google Form for students in extramural activity which allows the real-time reporting of cases (species, activity, etc.). This is particularly useful for calculating ESEVT indicators.

5. EPT attendance forms. Please see Standards 3.5 and 3.6.

Standard 3.2: Each study programme provided by the VEE must be competency-based and designed so that it meets the objectives set for it, including the intended learning outcomes. The qualification resulting from a programme must be clearly specified and communicated and must refer to the correct level of the national qualifications framework for higher education and, consequently, to the Framework for Qualifications of the European Higher Education Area. The VEE must provide proof of a QA system that promotes and monitors the presence of an academic environment highly conducive to learning including self-learning. Details of the type, provision and updating of appropriate learning opportunities for the students must be clearly described, as well as the involvement of students.

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

As described in Area 1, the core curriculum offered by the DCVM is designed to ensure that all graduates have achieved the competencies outlined in the EU Directive 2005/36/EC (as amended by Directive 2013/55/EU) and its Annex V.4.1. The curriculum is also designed, within ministerial constraints, to allow the acquisition of the D1Cs listed in Annex 2 of the ESEVT SOPs.

The academic staff members responsible for individual courses are required to describe in the online programme “Syllabus”, course content, teaching modalities, expected learning outcomes and assessment methods [🔗](#) **(please choose the year of enrolment 2018/2019 to see the current study programme and to access the Syllabus for individual courses).**

The EAEVE Committee has mapped learning outcomes of the individual courses with the ESEVT D1Cs (see Appendix 2). The JSTC, the DQAC and the Curriculum Committee periodically review the Syllabus for coherence, redundancy and overlaps, based on feedback from students collected through the teaching evaluation questionnaires. There are student members on all of these committees, thus guaranteeing direct student involvement.

Finally, the educational objectives are periodically updated to the needs of the profession through consultations with the SC.

An environment conducive to learning has been defined as a setting which allows for a free exchange of ideas, thoughts and skills among the teachers and learners to achieve the expected educational goals by considering the physical, psychological and social needs of all the learners. In 2019, UniPr

budgeted over 15 million euros to update existing facilities and to build a new wing of the VTH. Plans have also been approved and budgeted for a “Student’s Centre”, which will include a new Skills Lab (the current lab is in temporary lodgings), group and individual study places, a kitchenette, computer room and relaxation area (see Area 4). Psychological support and social activities are described in Area 7 (Student admission, progression and welfare).

No doubt, the creation of an academic environment conducive to learning requires continuous response to new challenges. In the last three years, the VEE has:

- increased the possibility for students to have an active role in research and practical activities through the creation of the “Student Intern” (see below);
- increased the access to practical activities carried out in the VTH by allowing year IV students to volunteer for night and weekend shifts;
- approved and financed the founding of the Parma chapter of the International Veterinary Students Association (IVSA);
- increased career guidance activities, by organizing seminars held by external professionals during the fifth year of study.

The VEE encourages self-learning by offering different tools that students can access for computer-based learning (Anatomy software) and for work on models (Anatomy Museum; Skills Lab). The preparation and presentation of clinical cases during PPT further compliments the skills of self-evaluation and criticism. Finally, following the COVID-19 pandemic, a wide range of e-learning material (videos, tutorials) is now available for all students to use as self-learning tools.

The importance of lifelong learning is encouraged by activities in "Orientamento" (e.g. seminars on post graduate continuing education and specialisation), during intramural PPT where students meet and interact with interns and residents, and by the opportunity for students to participate in many of the webinars and scientific meetings organized by the VEE and by the students’ associations “Coordinamento Studentesco-IL MATTONE” and the Parma chapter of the International Veterinary Students Association (IVSA; please see area 7).

The final year thesis is also an excellent opportunity for students to deepen their knowledge of a particular topic, thus stimulating the desire to continue learning.

Finally, the VEE recently approved the “student interns”: these are students who have chosen to spend extracurricular hours carrying out clinical and/or research activities.

Standard 3.3: Programme learning outcomes must:

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

As described in Standard 3.1, educational aims are defined primarily by Ministerial Decree [\[4\]](#).

The Italian Agency of Accreditation of Universities (ANVUR) requires annual reporting from the VEE that documents the planning, implementation, self-assessment, and revision of the educational aims (s.c. *Scheda Unica Annuale del Corso di Studio* (SUA-CdS; see Area 1)). This self-assessment report is drafted by the DCVM Coordinator, with the assistance of the Manager for Teaching Quality. It is divided into sections, including learning objectives, student experience and learning outcomes and represents the basis for developing the strategy to achieve a cohesive framework.

Strategy is based on recommendations from several committees including the CC, the DQAC, the JSTC and the SC (see below). Furthermore, feedback from students, through annual questionnaires, and from academic tutors, is also analysed. Finally, national databases such as the AlmaLaurea Interuniversity Consortium [\[5\]](#) are used to evaluate student satisfaction with the course, employability and post-graduate education.

Critical review of the quantitative indicators (as calculated by ANVUR, based on the SUA-CdS) on student progression, course attractiveness, internationalization, employability of graduates, quantity and qualification of teaching staff, and satisfaction of graduates is carried out in an additional report (*Scheda di Monitoraggio Annuale*, SMA), drafted by the Cyclic Review Committee.

As mentioned above, the EAVE committee has mapped D1Cs to each individual course of the degree programme (see Appendix 2) and has assured that both staff and students are familiar with all D1Cs. Pre-clinical and clinical competencies are listed in the “Portfolio”, allowing students and academic staff to verify together that learning outcomes align with D1Cs.

As briefly outlined in Area 1, several committees are involved in the assessment of the educational offer and its efficacy. Indeed, while the core curriculum is decided and managed by the DCVM Coordinator and by the DCVM board, specific tasks are the responsibility of internal committees and groups specifically appointed by the board. Students, through their representatives, are involved in all the committees and councils. These are described in detail in Standard 3.4.

The DCVM Coordinator, assisted by the Manager for Teaching Quality drafts the SUA-CdS (in spring). This is approved by the DCVM and DVS Boards and is submitted to the UQAC and the University Evaluation Unit. The DCVM Coordinator and Review Group drafts the SMA (in fall). This is approved by the JSTC and the DCVM and DVS boards and submitted to the UQAC and the University Evaluation Unit.

Official communication of the learning outcomes to the teaching staff, students and stakeholders is ensured primarily by the online publication of the SUA-CdS. Moreover, direct communication to students is ensured by their representatives in the various committees and councils.

All cited documents are available on the VEE’s website [☞](#).

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

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

As mentioned above, several committees are involved in the assessment of the educational offer and its efficacy. Indeed, while the core curriculum is decided and managed by the DCVM Coordinator and by the DCVM board, and approved by the DVS board, specific tasks are the responsibility of internal committees specifically appointed by the board. Students, through their representatives, are involved in all the committees and councils (for composition, please refer to Area 1, Table 1.2.3).

Briefly, these include:

- **Joint Student-Teacher Committee (JSTC):** monitors the educational offer and the quality of teaching, as well as the support provided to students by teaching and support staff, with particular attention to the results of the students' opinion surveys
- **Departmental QA Committee (DQAC):** monitors student satisfaction; monitors correct description of course content, teaching and assessment methods
- **Steering Committee (SC):** recommendations as pertains to competencies of newly graduated veterinarians are discussed and curriculum changes then are considered by the CC
- **Curriculum Committee (CC):** performs on-going review of the curriculum

- Review Group (RG): carries out yearly and periodic (every 5 years) review of the degree programme; drafts the SMA for approval by the DVS and DCVM boards
- QA Manager: liaises with and reports results of Steering Committee meetings; receives and manages reports on all critical issues received from students concerning the course, staff and student wellbeing.

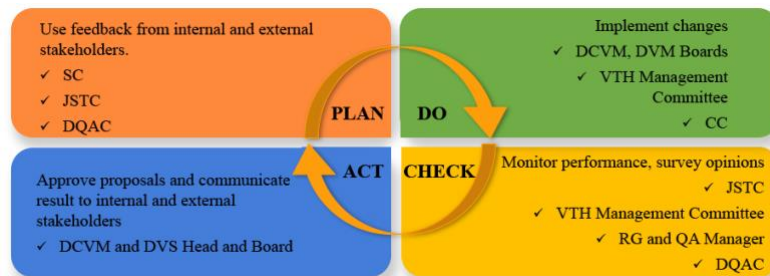


Figure 3.1 QA oversee of the curriculum

The concept of “Teach the teacher” is relatively new to the Italian University system. ANVUR, the ministerial QA organization for Italian universities, recently compiled a questionnaire to evaluate the awareness of and the need for continuous professional development (CPD) for teachers (Nov. 2022; [\[4\]](#)). UniPr has embraced the culture of CPD for academic staff and recently established a working group for the innovation of training processes (see Area 9).

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

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

External Practical Training (EPT) at the Parma VEE is carried out in different periods of the degree course.

It is mandatory for all students during summer "Orientamento" in the years II, III and IV and during V year PPT in Animal Production and Herd Health Management.

It is optional during year V PPT periods in Food Safety and Quality and in Pathological Anatomy/Infectious Diseases.

Before the a.y. 2019/2020, all students were obliged to carry out PPT in Internal Medicine, Surgery and Reproduction in the VTH. However, based on feedback from students, it was decided to allow a limited number of students (maximum 3 for each PPT period and no more than 2 for the same discipline at the same time) to carry out activities extramurally, under supervision of non-academic professionals/national laboratories, etc. Activities are restricted to horses and FPAs (ruminants and pigs). In the case that applications exceed available places, the VEE has established a selection procedure, based on the following criteria, in decreasing order of priority:

- carrying out the traineeship within the Erasmus or other international exchange programmes;
- number of ECTS credits acquired at the time of application;
- curricular grade point average of the exams taken;
- motivational aspect (attach letter of motivation to internship application).

The procedure for accreditation and the signing of the agreement with hosting practices is the same as EPT placement approval (see below).

EPT is intended to be complementary to academic clinical training by exposing students to expertise in different areas of the profession. The main goal of the EPT is for students to:

- be exposed to the “real” challenges of the profession;
- gain further experience/confidence of basic medical and surgical procedures;
- develop communication skills in different areas of the veterinary profession.

Students are allowed to choose the location of their EPT, if it has been approved by the VEE for evaluation of EPT hosting facilities, and that there is a formal agreement with the VEE (see Standard 3.6).

EPT in "Orientamento" (mandatory)

“Orientamento” EPT is carried out during the summer, when lectures are over.

Year II: students spend 25 hours on a dairy farm under the supervision of farm practitioners. The students are divided into groups of 6-8 and follow the activity of the veterinarian, also taking an active part in some procedures.

Year III: each student spends 25 hours in approved practices (companion animals - including horse and exotics - or farm animals), mainly focusing on diagnostic imaging.

Year IV: each student spends 50 hours in approved practices (companion animals - including horse and exotics - or farm animals). During this year their activity is focused on surgical and internal medicine practical skills.

EPT in year V PPT in Animal Production and HHM (mandatory)

Each student spends 5 weeks in a chosen facility, including livestock farms (for different species), centres for wild game animals, national parks, feed factories, and agricultural consortia, which must have a formal agreement with UniPr (see Standard 3.6).

EPT in year V PPT Food Safety and Quality (optional)

EPT can be carried out in the Local Health Agencies of the National Health Services (Azienda Unità Sanitaria Locale; AUSL), laboratories of the National Diagnostic Laboratories (IZS) in charge of official controls of food of animal origin, or in food factories, all of which have signed an agreement with UniPr. EPT can last for the entire 5-week period or not, according to the specific agreement. In the latter case, the student will continue his/her PPT in the Unit of Inspection of Food of Animal Origin.

EPT in year V PPT Pathological Anatomy/Infectious Diseases (optional)

EPT can be carried out in the Local Health Agencies, e.g. AUSL, ATS or AULSS districts in the different regions of the country, as well as in the IZS centres. EPT at the IZS focuses mainly on necropsy of livestock and companion animals, including ancillary investigation on aetiology in infectious diseases (bacteriology, virology, parasitology) and toxicopathology.

EPT in year V PPT in Internal Medicine, Surgery, and Animal Reproduction (elective)

As mentioned previously, a limited number of students can choose to carry out year V PPT in one or more of these disciplines extramurally as EPT, if solely dedicated to clinical practical training on horses, cattle, or pigs.

Table 3.5.1. Distribution of the mandatory ETP ("Orientamento"/PPT)

Disciplines	year	ECTS	hours	Time of the year
Animal Production and HHM	II	1	25	Summer
Diagnostic Imaging	III	1	25	Summer
Surgery	IV	1	25	Summer
Internal Medicine	IV	1	25	Summer
Animal Production and HHM	V	5	125	Jan-Sept

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

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

All the following information on EPT at the Parma VEE is available at the website [\[link\]](#) (please note that the term “Tirocinio” has been translated as “Internship” on the English version of the website. We have chosen not to use this term in the SER, as EAEVE considers the term as exclusively postgraduate training).

To be considered for hosting EPT, facilities must complete the application form (type of activity, facilities and equipment, case load, etc./link) and, once approved, must also sign the EPT agreement [\[link\]](#).

Students can identify potential new EPT providers that then can apply to the VEE. Once a facility has been approved, it is added to the list on the VEE website and students can then begin the administrative procedure for EPT activity [\[link\]](#).

The administrative management of EPT is under the responsibility of the UniPr Orientation, tutoring and Placement (OTP) service. This is to guarantee full insurance coverage during external activities. The academic management of EPT is the responsibility of the s.c. “academic tutor”, e.g. a member of teaching staff who coordinates EPT activities for each discipline and verifies completion of training, following feedback from EPT providers. One academic tutor per EPT course is assigned.

Activities carried out at the hosting facility are coordinated and verified by the s.c. “non-academic tutor”, usually the head of the facility. The non-academic tutors assess trainees and provide feedback to the Establishment by filling out a standard evaluation report at the end of the training period.

Before beginning EPT, the academic tutor, the non-academic tutor and the student agree on the training objectives, including competencies and skills to be acquired (“Progetto Formativo”; training project). The training project must be uploaded on the website ESSE3 by the EPT provider and signed by the student and the academic tutor.

Standard 3.7: Students must take responsibility for their own learning during EPT. This includes preparing properly before each placement, keeping a proper record of their experience during EPT by using a logbook provided by the VEE and evaluating the EPT.

Students must be allowed to complain officially and/or anonymously about issues occurring during EPT. The VEE must have a system of QA to monitor the implementation, progress and then feedback within the EPT activities.

As mentioned above, students are required to develop an EPT training project, together with the academic tutor and the facility’s non-academic tutor. EPT activities have been aligned to many ESEVT D1Cs included in the Portfolio, in particular during “Orientamento” courses. The student fills out a form with the description of the hours spent in the facility. As of a.y. 2022/20233, students are also required to describe specific activities carried out in “Orientamento”.

This form is signed by the non-academic tutor and uploaded by the student on the ESSE3 website to be validated by the academic tutor. Having verified that the EPT activities in PPT followed the objectives and outcomes of the training project, the academic tutor approves in turn, so that the ECTS credits can be assigned to the student.

Opinion questionnaires [\[link\]](#) are completed by the student and the host facility/veterinary practitioner (e.g. the non-academic tutor) at the end of the EPT.

Please note that failure on the part of the student to complete the questionnaire effectively blocks the procedure for the final recognition of ECTS.

Students can contact the academic tutor for any complaint or problems during EPT activity. They can also complete a non-anonymous *Complaints form* to report the problem. The form is received by the QA Manager and the president of the DCVM who will take charge of the problem. If the student is victim or witness of an episode of discrimination or harassment during EPT he/she can contact the UniPr Equal Opportunity Commission, whose trusted advisor can activate an informal complaint process to address the problem [\[link\]](#). The student can also directly, or with the assistance of the EOC,

activate a formal complaint procedure to the Rector of the University of Parma (art. 10-16: Code of Ethics of the University of Parma [🔗](#)).



Figure 3.2. QA to monitor the implementation, progress and feedback within the EPT activities.

Comments on Area 3

Since the last ESEVT Full Visitation in 2011/Revisitation 2012, the VEE has put the acquisition of D1Cs at the centre of curriculum development. Despite ministerial constraints which at times hinders the process of remodelling the teaching offer, the VEE is striving to assure that each graduating student can enter the profession with all the basic knowledge, skills and competencies required. For example, in line with the current revision of the ESEVT SOPs, our years III and IV "Orientamento" EPT is similar to the new proposal for "Elective Practical Training", which is mandatory for all students, but for which students are free to choose the animal species and type of activity they prefer and to acquire competencies in a work-based environment.

Compensation for suboptimal academic staff for intramural core training in certain clinical disciplines has been assured by agreements with qualified contracted staff. This also improves the development of transversal "life skills" necessary for professional competence (work-based acquisition of D1Cs). Finally, constructive feedback from all actors involved (staff, students, the profession) continues to be the foundation for curriculum development.

The VTH is an essential part of training in clinical skills. As discussed at the last EAEVE assembly Educational Day (June 2023; "VTHs in Europe - Preliminary results of the VTH survey"), the running, management, and financial sustainability of VTHs are a challenge for many VEEs. The Parma VTH is highly dependent on the year V students for assuring the full operation of emergency services, animal hospitalization and ICU. On the one hand, this allows students to have a very good idea of how demanding the profession can be, but on the other can lead to suboptimal time for personal study, rest and recreation. Recently the number of hours students must spend in night and weekend shifts at the VTH has been reduced, based on students' feedback. Contracted practitioners have been increased to compensate.

Make training for teaching staff compulsory. As mentioned above, CPD for academic staff is currently non-compulsory. The VEE cannot modify the contractual obligations that teachers sign with the University (see Area 9). However, we are pursuing alternative paths (premium, recognition of hours spent in CPD) to motivate our staff to take part in the courses offered by UniPr and by the VEE. Begin VTH rounds earlier in the student's career.

Most students at the VEE begin clinical rotations in the year V of study. The VEE now allows IV-year students to participate in night and weekend shifts in the VTH. It is also now possible to apply for a place as "student intern". It would be important to incorporate these activities in the core curriculum.

Make some optional courses mandatory. Soft skills are becoming increasingly important for the veterinary profession. As mentioned in 3.1.5, UniPr offers a series of optional courses that include many interesting and important learning objectives. Clearly, to render these courses mandatory it would be necessary to modify ECTS distribution among current core curriculum courses.

Area 4. Facilities and equipment

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

The VEE is located in Strada del Taglio, 10, Parma, on approximately 42 000 sq meters of surface. It consists of 11 educational and research buildings. It is located on the outskirts of the city center and is 2.2 kms from the central train station. The VEE is easily accessible by car, bike, bus (number 6) and on foot from the city center. The entrance of the VEE is open from 7:00 am until 7:00 pm. Outside these hours, it is open only for VTH emergency (h24/7) and for authorized personnel with personal magnetic badge. Parking for students and visitors is available both inside the VEE premises and outside the main entrance.

Please see Appendix 3 for the general layout and detailed descriptions and floor plans of all facilities of the VEE and a brief description of extramural facilities used for core clinical training.

Maintenance and upgrading of **facilities** are programmed by the DVS and funded by the UniPr central administration. At the beginning of every year, UniPr budgets the amount of funds available for maintenance and upgrading, based on the needs of the different departments and on financial availability (see Area 2).

In 2019 DVS received funding from the central administration for the consolidation of existing facilities against future damage from earthquakes, for a new project for modernizing classrooms, upgrading animal housing and public spaces, the construction of a new wing for the teaching hospital and a new student centre.

Acquisition and maintenance of **equipment** depends both on the DVS and UniPr central administration. Equipment for research and teaching labs is purchased with funds from the DVS departmental budget received from the central administration and from research funding. A specific amount of funds is budgeted each year by the department for maintenance of teaching lab equipment (based on estimates from previous years).

Equipment for the VTH is maintained and purchased with funds from the VTH (see Area 2), based on deliberation and approval by the VTH Management Committee.

Since 2018, UniPr has reserved 1 million euros to co-fund the acquisition of research and educational equipment. Calls are put out each year and each department of the University can apply for co-funding. In the last 3 years, the DVS has been awarded co-funding (approximately 40% of the total cost) for a new cardiology ultrasound and MRI for the VTH, and a state-of-the-art microscope for Anatomy. In 2022, the DVS received approximately 90,000 € for the acquisition of large animal simulators for the clinical skills lab.

The DVS complies with EU and national legal regulations, through the responsibility of the Facilities management unit of UniPr. The Italian Occupational Health and Safety Act (*“Tutela della salute e della sicurezza nei luoghi di lavoro”* Legislative Decree 81/08; Legislative Decree 112/2008) sets clear workplace standards and regulates the spatial design of workplaces.

The competent authority for all facilities housing animals (barns, stalls, VTH, extramural facilities) and/or animal waste (dissection and pathology labs) is the National Veterinary Services of the Ministry of Health (AUSL), which must approve the construction plans for new facilities and the periodic inspection of existing facilities and animal welfare.

The DVS Biosecurity and Animal Welfare Committee (BAWC) ensures compliance with regulations and guidelines concerning biosecurity at the VEE. These are available in all labs and are reviewed with students and staff the first time they attend the lab. BAWC organizes compulsory attendance of mini courses to train university staff and trainees students on BAW guidelines. At the entrance of the

Area 4. Facilities and equipment

main buildings, QR codes [QR](#) are available for students, teaching and support staff to allow rapid consultation.

The VTH has specific procedures and regulations for facilities for hospitalization and intensive care unit, which are available and explained to all year V students (before starting activities in hospitalization and intensive care unit) and staff.

The DVS does not have facilities for experimental animals.

UniPr is part of the Italian Universities for a Sustainable Environment [ISE](#) and has adopted best practices for waste management and energy saving. The Strategic Plan of the University of Parma and the VEE is the planning document that, within the framework of the general principles enshrined in the Statute and the institutional mission, outlines the University's strategic vision for the three-year period 2022-2024 [ISE](#) and it consider sustainable development as an important goal.

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

Offices, teaching preparation and research laboratories must be sufficient for the needs of the academic and support staff.

Lecture Halls.

All lecture halls are equipped with video-projector, screen, blackboard, audio support. The UniPr central administration approved the request for renovation of several halls in July 2020 (assigned budget of € 2,251,000.00). Work has been severely delayed due to the COVID-19 pandemic (see COVID-19 Addendum). At the time of writing, it has been completed for halls A, B, C, D, E, M, N, O as shown in Table 4.2.

Table 4.2.1. DVS lecture halls (incl. group work, seminars, tutorials, ...)

Hall	A	B	C	D	E	G	I	L	M	N	O
Capacity	125	78	78	138	96	85	25	15	55	24	23
Size (sq m)	133	90	63	184	130	97	40	30	63	30	30

Teaching Laboratories

There are six teaching laboratories. Poly-functional labs 1 and 2 (host wet labs in Physiology, Pathology, Microbiology, Infectious Diseases, Food hygiene and Parasitology), the Dissection and Microscopic Anatomy labs (host practicals in gross and microscopic anatomy), the Pathology lab (Hall F) (carries out necropsies on all animal species), avian pathology lab (previously hosted necropsies on avian species only; currently the temporary skills lab).

Table 4.2.2. Teaching laboratories


Lab	Microscopic anatomy	Dissection	Pathological Anatomy (Hall F)	Poly 1	Poly 2	Temporary Skills Lab
Capacity	50	50	30	24	24	25
Size (sq m)	80	53	93	94	64	67
Equipment	41 microscopes	6 steel tables	5 microscopes; 4 steel necropsy tables; 1 LA steel necropsy table	24 microscopes	2 biological hoods; 14 microscopes; 8 bunsen	Dummies; RX table; surgical instruments; 2 microscopes, RIS-PACS, <i>Fenice</i> Software

Area 4. Facilities and equipment

Table 4.2.3. Diagnostic laboratories

Lab	Clinical Pathology	Parasitology 1	Parasitology 2	Virology 1	Virology 2	Bacteriology	Pathological Anatomy
Capacity	4	4	4	6	6	6	25
Size	29 sq m	45 sq m	57 sq m	29 sq m	35 sq m	42 sq m	110 sq m

Spaces for study, self-learning, etc.

1. The Central library  is composed of:


- a 159 sq m reading room (001) equipped with bookshelves and with 65 seats (24 electrical outlets), including a computer room with 8 workstations;
- one room for technical-administrative management (38.70 sq m);
- one room for photocopy machine (17.6 sq m);
- restrooms.

There are a further 7 “subsidiary libraries” throughout the VEE that students and post graduate students use for study and directed learning within the context of individual courses and the year V PPT.

Table 4.2.4. Central and subsidiary libraries

Premises	Central	Reproduction	Infectious diseases	Food Inspection	Internal medicine	Surgery	Pathological Anatomy	Pharmacology
Capacity	73	25	12	10	12	15	8	8
Size (sq m)	380	65	42	24	61	73	36	24

The access to the Central Library is free for institutional users (students, teachers, and researchers, technical and administrative staff) and Honorary Fellows.

2. The Anatomy Museum  is composed of 25 workstations (6 of which are equipped with computers that allow the use of):

- Films produced by the teachers related to dissection activities;
- Interactive 3D Anatomy Programs (Equines, Ruminants, Pigs, Carnivores, Birds, Fish and Rat);
- Digitized histological preparations;
- Interactive DVDs.

3. Student Lounge/Student Office/Cafeteria

The student lounge is currently located next to the VEE bar and contains seven tables with a total of 42 seats, and two 20 sq m changing room with toilets. Next to the student lounge is located the the students Associations’ site (“Coordinamento Studentesco- IL MATTONE” and IVSA). The cafeteria (total surface area of 185 sq m) offers a service of bar-cafeteria.

4. Clinical Skills Lab

The Clinical Skills Lab is currently housed in temporary premises. It will be housed in the former surgical wing in an area of approximately 67 sq m with a capacity of approximately 15-20 students at a time. Dummies and simulators are currently available for students in temporary teaching laboratory “Avian Pathology” and are used during practicals and exams.

Table 4.2.5. Museum, Skills lab, catering, canteens, locker rooms, etc.

Premises	Anatomy museum	Skills Lab	Student lounge	Cafeteria	Lockers	Accommodation for on call students
Capacity	25	25	42	50	172	2
Size (sq m)	175	67	158	185		25

Area 4. Facilities and equipment

Brief description of the staff offices and research laboratories

All staff offices and research laboratories are described in Appendix 3. There are 98 offices for academic staff, visiting professors, PhD students, contracted veterinarians, technical and administrative support staff and 46 Research-Educational Laboratories.

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

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

Healthy animals are housed within the VTH facilities. Specifically, there are 24 horse stalls, two cattle stalls both equipped with an outdoor paddock (capacity 2 cows per stall), two boxes used as warehouse, one box for calves. One box is used as an infirmary box for Large Animal (LA) provided with padding and hoist. Small healthy ruminants are hosted in stalls placed under the wooden shed (capacity 10 animals). No facilities for healthy dogs and cats are provided (only for hospitalized ones). All facilities are described in Appendix 3.

Hospitalized animals. Facilities for hospitalized large animals are the VTH stables previously described for healthy animals. The LA isolation facility (capacity 3 LA) has been renewed and provided with an air filtration system.

Premises for small animal hospitalization are located in the VTH. They consist in SA intensive care unit (5 cages + 1 ICU bed), SA sub-intensive care unit (10 cages), cat hospitalization unit (10 cages), dog hospitalization unit (6 cages) and isolation unit (2 for parvovirus patients + 4 cages).

It has specialized technological instrumentation for the treatment and support of inpatients such as:

- Infusion devices (syringe and volumetric pumps);
- Oxygen cages, C-PAPs;
- Multiparameter monitors for ECG monitoring, venous pressure, pulse oximetry;
- Ultrasound scanner for point-of-care ultrasonography;
- In addition, ICU patients who require advanced life support such as narcosis and assisted ventilation are cared individually by a veterinarian;
- Diagnostic and specialty services are always available for all inpatients.

Research animals- There are no facilities for research animals.

Table 4.3.1- Number, size, and species of the premises for housing healthy and hospitalised animals. Please see Appendix 3 for floor plan

Species	Number	Size (sq m)
Healthy Cattle	2 cattle stalls equipped with an outdoor paddock capacity 2 cows per stall	18 each
Hospitalized Cattle	One enclosed stall	16
Healthy Horses	12 enclosed stalls	14 each
Hospitalized Horses	12 enclosed stalls	14 each
Healthy sheep/goat	One roofed stall for 10 sheep/goats	20
Hospitalized Dogs	6 cages	15
Hospitalized Cats	10 cages	12
SA intensive and sub-intensive care unit	15 cages + 1 ICU bed	16
SA Isolation	2 cages for parvovirus patients + 4 cages	31
LA Isolation	3 stalls	108 sq m

Detailed description of the number and size of premises for clinical activities can be found in Appendix 3.

1. VTH

The Veterinary Teaching Hospital was built in 2010, shortly before the last EAEVE visitation. Clinical activities are carried out on small animals (dogs, cats), non-conventional species (small mammals, reptiles, amphibians) and horses (for details, see Area 5). Disciplines include internal medicine, cardiology, neurology, dermatology, diagnostic imaging, obstetrics/reproduction, oncology and both soft tissue and orthopaedic surgery.

As mentioned previously, in 2019 the UniPr central administration allocated approximately 16.5 million € to the DVS for the upgrading of existing facilities and for the construction of a new wing of the VTH. The new wing includes small and large animal surgeries, MRI, a new Oncology Unit and two examination rooms. The SA hospitalization, ICU and Isolation Units have been renovated, including enlargement of the hospitalization. The LA Isolation unit is currently being fitted with an up-to-date air filtration system. Finally, the current surgery unit will be converted into a space dedicated to personal study, recreation and clinical skills lab (see Appendix 3 for plan).

Detailed description of the equipment used for clinical services can be found in Appendix 3.

2. Diagnostic services, including necropsy.

The DVS offers diagnostic services to the VTH and, in some cases, to external users (private practitioners, farmers, etc.). As reported in Table 4.2.3, four laboratories are dedicated to diagnostic activities:

- Clinical pathology. It deals with clinical-pathological diagnostics mainly on blood, urine and other biological fluids to provide qualified support VTH professional activities. Analyses routinely performed include: hemochromocytometric examination, serum biochemistry, arterial and venous blood gas analysis, serum electrophoresis, complete examination of urine, UPC ratio and urinary sediment, coagulative profile, complete examination of joint effusions/liquor/fluids, cerebro-spinal fluid analysis, determination of dog and cat blood types, diagnostic cytology.
- Parasitology. There are two diagnostic laboratories in Parasitology, one for biological samples and one for serology and molecular biology. The routine activity includes the diagnosis of common parasites of large and small domestic animals. Samples include faeces, urine, blood, skin and skin/ear scrapings. The animal species considered include dog, cat, horses, pigs and small ruminants.
- Infectious Diseases. The lab performs culture tests on urine, blood, bioptic samples, dermatological swabs, and other biological samples to provide qualified support VTH professional activities. Antibiotic resistance evaluation is performed on isolates to allow the proper set up of antibiotic therapy.
- Pathological Anatomy (including necropsy). The lab performs cytopathological, histopathological and necropsy diagnostics. It also provides the preparation of immunohistochemical analysis to provide qualified support VTH and external professional activities.

For more specialized analyses, VTH collaborate with qualified external laboratories.

3. Other:

Teaching Farms

Since the a.y. 2021/2022, the DVS has stipulated a collaboration agreement with a dairy farm located approximately 10 minutes away by car for clinical activity in bovine internal medicine and reproduction and for herd health and management, under supervision of teaching staff.

In 2021/2022, the farm Az. Raggi di Sole was used for this activity (approximately 100 milking cows). However, following feedback from teaching staff, a new farm was identified and is now the VEE teaching farm for cattle, CandiaBio. The farm currently houses 210 animals including 95 milking cows, 55 heifers and 45 male calves (35% replacement heifers).

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Two other farms are involved in year II summer “Orientamento” in Animal Production and HHM:

- Agricola Carboni, that hosts 1000 cows with 470 dairy cows in production;
- Azienda Agricola Tonelli&Buratti that hosts 100 cows of which 45 in production, 5 dry cows, 4 destined for meat production and the other are replacements heifers.

National Veterinary Laboratory (IZS)

The Istituto Zooprofilattico Sperimentale (IZS) in Parma is part of the nation-wide network of diagnostic laboratories for food producing animals. It is located at a 5-minute walk from the DVS. Year V students observe large animal necropsies, to compensate for the low number of bovine, swine and equine cadavers necropsied at the DVS.

Bovine Slaughterhouse

The DVS has an agreement with the bovine slaughterhouse of Parma. In 2020, around 30,000 heads of cattle were slaughtered. In 2021 and 2022, the number of slaughtered cattle reached 34,000 and 38,000 heads, respectively. Students attend food inspection procedures, including ante and post-mortem inspection of slaughtered animals as well as welfare during transportation and at lairage.

Finally, students are taken to visit slaughterhouses located in Parma province, as well as local food production facilities (Parmigiano Reggiano cheese, Parma Ham and other cured meat products producing companies, etc.). A visit to the Fish market in Milan is performed both during the year IV (practical activity of the course of “Inspection and Control of Food of animal origin”) and during PPT for V-year students.

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

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

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

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

All information on the VTH is available to the public at the hospital website [🔗](#).

Opening hours of the VTH for general consultations and first opinion are from 08.30-13.00.

Specialist consultations and referrals are by appointment from 08.30-16.00.

On-duty services include SA hospitalization, ICU and Emergency and are h24/7. All on-duty services are managed by VTH staff, interns, residents, PhD students and fellowships, and IV/V-year students.

On-call services for horses and ruminants are managed by contract staff and are available h24/7.

Specialized consultations

Cardiology (DECVIM-CA, Cardiology); Internal medicine (DECVIM-CA, Internal Medicine); Neurology (DECVN); Dermatology (GPCert); Ophthalmology; Oncology; Nutrition (Master); Audiology; Diagnostic Imaging (CT, MRI); Behavioural Medicine; Soft tissue surgery; Anaesthesiology; Orthopaedic surgery; Endoscopy; Transfusional medicine; Internal medicine and surgery of non-conventional species.

For ambulatory clinics, please see Standard 4.7.

As described in Areas 3 and 5, to maximise hands-on training of all students, clinical rotations are carried out in small groups of 6- 8 students supervised by academic staff and/or contracted staff. Each group is further divided and assigned to one of the several disciplines in VTH or activities in the field.

Area 4. Facilities and equipment

The DVS recently increased the number of contracted veterinarians working in the VTH to improve the available specialties and the case load; explicit reference to their involvement in students' training is present in their hiring contract (see Area 9).

The VTH and all facilities (including EPT) which are involved with the curriculum meet the national legislative requirements for veterinary practices (n.297 del 23-12-2003 - Suppl. Ordinario n. 195 [🔗](#)).

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

Students have access to all relevant **diagnostic and therapeutic facilities** starting from year III to the V during practical lessons, “Orientamento” and especially during PPT.

During practical lessons and “Orientamento”, students are divided in small groups, considering facilities capacities, to guarantee proper access to all equipment required for the activities.

PPT is organized in 6 different activities as described in Areas 3 and 5. Students of the V year are divided into 6 groups (average of 6-8 students per group) that alternatively attend all the 6 PPT activities during 6 different periods of 5/7 weeks. PPT rotations are organized by peer-tutors that won a DVS grant dedicated to those activities.

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

Table 4.6.1. Number, size and species, of the premises for housing isolated animals

Species	Number	Size (sq m)
SA Isolation (dog, cat)	2 for parvovirus patients + 4 cages	31
LA Isolation (horse, cattle)	3 stalls	108

These premises guarantee isolation and confinement of infectious patients through strict adherence to biosecurity measures [🔗](#). The academic staff and students receive a specific course on biosecurity and procedures organized by BAWC.

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

Herd health management is taught beginning in the year II, within the course of Animal Husbandry. Students attend approximately 10-12 herd visits (ruminants, pigs) with the entire class (approximately 60 students), with hired buses. During year II summer “Orientamento”, students attend activities in a dairy cattle farm, following the work of the veterinarian in dairy cattle farm management for a total of 25 h (1 ECTS). During the year V PPT, students accompany staff members (mobile clinic) or contract staff (own vehicles) to learn field veterinary medicine and practical skills like transrectal palpation, heifers' health and management, pregnancy diagnosis by ultrasound etc. in bovine, swine and equine.

There is one mobile clinic which is used by academic staff to accompany V-year students to cattle and pig farms. It is stocked with PPE: masks, protective goggles, footwear, gowns, disposable plastic gowns, surgical caps, gloves.

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

The VEE owns the following vehicles:

- Mobile clinic (Opel Vivaro), 6 seats, with basic clinical equipment, for large animal clinical professional training;
- Truck (Iveco- Daily) for livestock animal transport;
- Van (Fiat Doblò) for transport of small cadavers and animal organs used for student hands-on lessons;
- Peugeot 3008, 5 seats, for students, professor and staff mobility.

All DVS vehicles are provided with the identification register of individual drivers, vehicles insurance, periodic revision, seasonal use of winter tires; disinfection and cleaning [☑](#) (in compliance with current regulations). A register is taken with information on the destination, drivers and mileage. For transportation of larger groups of students (e.g to extra-mural facilities) 25 to 50-seats buses are rented by private companies.

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

Facilities

The maintenance and upgrading of the Campus facilities is the responsibility of the Building management unit. The UniPr triennial plan of public projects approved by Board of Administration defines the planning of new facilities building in accordance with the triennial plan of DVS that defines the related strengths and weaknesses. In addition, through formal request, the DVS can point out the need for maintenance of specific structures.

Equipment

Safety and biosecurity equipment are under the responsibility of UniPr both for changes and regular revisions (chemical hoods, fire extinguishers etc.). In order to guarantee workplace health and safety and quality of services/research, DVS cooperates and integrates the UniPr request. In fact, specific requirements for equipment control or renewal are made by technical staff of the different operative units of DVS. The DVS Head collect all the information's and manage the process.

The VTH Director performs the same process and using VTH funds or DVS and UniPr contribution the maintenance and renewal of the equipment. Every year VTH provides for the purchase of gowns and (scrubs) for the new staff.

Biosecurity procedures

The DVS promotes safety and biosecurity of its staff, students, visitors and any stakeholder. The BAWC defines manuals [☑](#) to provide useful information tool to identify the procedures that must be known to ensure the correct and safe use of all instruments in the biological, chemical laboratories and VTH of the DVS, while disseminating the relevant knowledge on the issue of quality. These procedures are therefore fully included in the path of quality assurance and are applied to all students and all personnel who access the facilities of the DVS in any capacity. They can be consulted at any time using QR codes properly applied within the VEE facilities.

The VEE's manual for biosecurity, health and safety has been provided as a link in the Appendices (with a summary in English).

Regulations and manuals define access, proper attire, and good behavioral norms to be followed to work safely in the teaching and/or research facilities.

BAWC organizes compulsory attendance mini courses to train university staff and students on BAW guidelines. The BAWC composition is representative of all DVS facilities and meets at least six times

Area 4. Facilities and equipment

per year to evaluate and discuss each specific request and/or emerging problems related to biosecurity and animal welfare. Each meeting is verbalized. If necessary, procedures are rapidly updated, and all news is communicated through specific organized meetings or telematic communications. Each variation is reported on DVS website and communicated to Department Council.

Students, professors, post graduate students and technicians must take a compulsorily online workplace safety training course by connecting to Elly platform [🔗](#) and logging in with their University credentials, as required by Legislative Decree 81/08. The training is divided into three modules to be completed in succession. Upon completion of each module, a certificate is issued, which the student must print and keep. Students must send the three certificates to Students Secretariat to obtain recognition of the ECTS to which the course entitles. The course is mandatory for access to the Department's facilities.

Client satisfaction with clinical and diagnostic services is monitored by the VTH Management Committee through analysis of the online questionnaire, available at VTH website [🔗](#).



Figure 4. QA to monitor and assure clinical, laboratory and farm services

Comments on Area 4

After the last EAEVE visitation in 2012, maintenance on the VEE facilities has been limited. University governance from 2015-2017 considered closing the VEE due to the financial commitment in keeping the VEE running, considered excessive. Things changed dramatically in 2018, when governance changed at the central level, with a Rector who, in 2019, approved a large-scale renovation plan for the entire establishment. The project for the new “Students’ Center” will greatly improve student wellbeing and self-learning (new Skills Lab).

DVS is strategically placed with regard to the availability of areas devoted to the rearing and management of livestock animals as well as slaughterhouses, animal shelter and food industries. The BAWC committee has been recently created to improve and up-date clear and defined biosecurity protocols.

Suggestions for improvement in Area 4

The need for a large animal isolation facility needs to be reconsidered because of its limited use. The purchase of new vehicles dedicated to student transport to extramural facilities has been requested. Facilities for equine hospitalization should be restructured.

Area 5. Animal resources and teaching material of animal origin

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

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

The VEE aims to ensure that each student gains the basic skills necessary to practice the veterinary profession following graduation, according to EU Directive 2005/36/EC (as amended by directive 2013/55/EU) and ESEVT D1Cs (EAEVE SOPs 2019, modified 2021).

Students receive practical training in the areas of basic sciences, clinical sciences, pathology, animal production, and FSQ. Training includes activities with mannequins, lab specimens, cadavers, live (healthy or sick) animals, herd visits and slaughterhouse activities (also see Area 3).

The DVS global strategy to ensure adequate animals resources and teaching material for practical training relies on:

- optimization of the recruitment and use of cadavers and material of animal origin for practical training in multiple disciplines by dedicated working groups and procedures;
- interaction with the VTH Management Committee for the provisions related to clinical training;
- agreements with external partners, including national public health agencies, the municipal dog and cat shelter, municipal slaughterhouses, veterinary practitioners, and private clinics and farms;
- purchase of material of animal origin.

Periodic monitoring of animal resources (VTH caseload, extramural PPT, number of herd and slaughterhouse visits, etc.) and material of animal origin (cadavers, normal and pathological isolated organs and tissues, colored animal anatomy 3D models and museal dry organ collection and archive histological and histopathological slides etc.) is carried out by the EAEVE Committee by reviewing the VTH electronic patient record system, paper registers for intra- and extramural pre-clinical and clinical practical training activities, paper or digital loading and unloading records of material of animal origin, paper or digital archives of stored samples of material of animal origin. Results of periodic monitoring of ESEVT indicators by the EAEVE Committee are shared with the DCVM and DVS boards to adopt corrective procedures.

The DVS JSTC, SC and DQAC also offer suggestions for correction, based on student feedback and the perceived needs of the profession (also see Area 1).

Small groups of students in practical activity (during curricular subjects, “Orientamento” and PPT) is one way to ensure hands-on training; non-clinical animal work starts from basic subjects via recruitment or purchase of organs, carcasses for practical training in multiple disciplines; it continues throughout the core subjects up to the year V PPT rotations that allow the students to gain hands-on training in all fields of veterinary medicine. Activities within the VTH and affiliated extramural facilities ensure contact with different species and clinical cases. Safety of hands-on practical training is guaranteed by complying with the rules of the DVS BAW guidelines [\[link\]](#) and the use of all necessary individual protection devices. Moreover, all students and teaching staff receive basic safety training attending online courses provided by the University. The VEE recognizes and values the principles of the 3Rs, Replacement, Reduction and Refinement, and has started the implementation of teaching with innovative and ethical methods. This includes e.g. the discussion of clinical cases with the “problem oriented approach” (POA) method and the use of simulators and mannequins, to reduce the number of live animals used in “Orientamento” professional training. A temporary Clinical Skills Lab is currently available and will be moved to permanent premises following restructuring of the old surgery wing (see Area 4). These teaching methods cannot replace the practical teaching on real

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animals and patients; however, they do allow the reduction of their use and allow students to start clinical rotations with preliminary training in different procedures.

The organization of core clinical training has been described in detail in Area 3, Standard 3.1. Briefly, core clinical practical activities are performed within the VTH and in affiliated extra-mural facilities to ensure a balance between different species and clinical cases, as well as between different clinical settings (hospital, labs, farms, individual medicine and population medicine).

Clinical rotations with small animals and non-conventional animals are provided in intramural facilities, rotations in equines are both intra- and extra-mural, while rotations in other livestock are extramural.

The VEE is committed to providing quality clinical training to all students. Following in-depth review, based on analysis of ESEVT indicators, suggestions from the DVS JSTC and stakeholders (SC), specific areas of intervention are identified, a priority level assigned, and corrective actions implemented. For example, from 2019-2022, the VEE implemented:

- the enrolment of contract professors for extra-mural clinical practical training on large animals (cattle, small ruminants, pigs) to compensate for the lack of intramural activities on these animal species;
- the stipulation of a contract with a dairy cow farm for non-clinical and clinical practical training;
- the increase of the intramural horses and exotic animal flow by enrolling contract professors, dedicated PhD students and a call for the position of full professor in equine medicine and surgery;
- the stipulation of a contract with an equine veterinary practitioner for extramural clinical training on horses, whose indicators were below the expected numbers, where students spend five days (Monday to Friday);
- an on call h24/7 emergency service for horses and bovine with contract professors;
- an agreement with the national veterinary laboratory near the VEE (IZS) to increase the number of necropsies on large animals observed by students;
- contracting personnel and a PhD student with specific veterinary competences in non-conventional animals.

During the year V PPT, each student spends approximately 67% of his/her time on dogs and cats, 26% on large animals (equine, ruminants and pigs) and 7% on non-conventional species.

To ensure balance between first opinion and referral cases, acute and chronic cases, consultations (day patients in the clinic) and hospitalisations, at the VTH visits on appointment (mostly referral cases) or without appointment (first opinion) are performed from Monday to Friday on small animals, non-conventional animals and horses.

Moreover, students participate in shifts during small animal emergency services (h24/7). On call with a contract professor (for ruminants) and an equine veterinary hospital (for equines) is active. Students in practical training at the extramural equine clinic are involved in the emergency service.

In extramural facilities, students assist contracted staff in routine or emergency activities on horses, ruminants and pigs.

Herd health visits (ruminants and pigs) and visits to poultry and fish facilities are organized from the year II to the V of the curriculum (see Table 5.1.7).

As reported in Area 3, students are required to complete a logbook (“Portfolio”) with 87 competences before enrolling in the year V, during which they spend most of the time in PPT. Individual competence acquirement is verified by staff members. During the intra- and extramural professional practical training of the year V, students fill in a PPT Diary (“Libretto Tirocinio”) signed by the academic and non-academic tutors (examples are provided in Standard 3.1).

Since the current a.y. (2022/2023), to improve the recording of data and the ensuring of adequate animal resources to each V-year student in clinical PPT, individual students must fill in a paper Case Log reporting visited animals and performed procedures, and for large animals seen both intra- and extramural, a digital register (Google Forms) indicating the number of animals examined. The paper Case Log must be signed daily by the staff member supervisor of the activities and reviewed by the

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PPT referents at the end of PPT period. A final judgment is reported in the PPT Diary, by assessing the level of competence acquisition.

Beginning with the current academic year, a pilot project for assessment of students at the end of the practical training in internal medicine has been undertaken which assigns a level of competence acquisition for the D1Cs relevant for the subject [\[link\]](#).

The DVS adopts all the procedures required by the national legislation on animals used for educational and research activities (Legislative Decree No. 26/2014). In particular, academic staff in Animal Reproduction have developed guidelines to ensure the welfare of healthy cattle and horses used for educational activities. All activities performed by students during intramural and extramural practical training are supervised by staff members and/or tutors who assure that hands on activities respect animal welfare and do not cause pain or unnecessary stress.

For participation in research activity that foresees the use of animals (including clinical trials), staff must apply to the UniPr Ethics Committee (*“Organism Responsible for Animal Welfare; Organismo Preposto per il Benessere Animale”*, OPBA) which evaluates compliance with current legislation. Procedures that may compromise animal welfare require approval by the Ministry of Health following OPBA approval. Students are also trained in the principles of animal welfare during several curricula subjects, including Zoology, Physiology and Animal Production and Forensic Medicine and Animal Protection and Legislation (see Table 3.1.2).

No animals used for research investigations are housed at the DVS.

Cadavers and material of animal origin for training in anatomy

The cadavers and material of animal origin used for training in Anatomy are listed in Table 5.1.1.

The responsible teaching staff, assisted by support staff and students that receive financial aid for work-study activities, oversee the collection, storing and disposal of organs and carcasses, and keep a register of loaded/unloaded material for training in Anatomy and Pathological Anatomy.

All the procedures concerning the origin, storage, handling, rules of use and disposal of viscera and corpses can be found in the DVS "Manual for the management, use for educational purposes and disposal of carcasses and by-products of animal origin" [\[link\]](#) and in the “Regulation of access and conduct in the Macroscopic Anatomy classroom” [\[link\]](#).

A member of support staff periodically goes to equine, cattle, swine and poultry slaughterhouses [\[link\]](#), according to a pre-established calendar (usually once-twice weekly), to collect organs for practical activity in Anatomy. Rabbits are purchased at local supermarkets. Small animal organs and carcasses are from deceased animals obtained from the VTH or the municipal shelter. Anatomy training on small ruminants is on anatomic models. Cadavers and organs are stored in dedicated refrigerators or freezers located in Building 02, according to needs.

Students also have access to the DVS Veterinary Anatomy Museum collection of more than 600 anatomical dry specimens and preparations (systems include: locomotor, nervous, vascular, integumentary, respiratory, urogenital, digestive).

Cadavers and biological material of animal origin for practical training in Pathological Anatomy. In addition to cadavers for necropsies, listed in Table 5.1.6., pathological organs (lungs, livers, kidneys, hearts, spleens and other viscera of cattle, pigs and horses) are collected from slaughterhouses for practical training. Further pathological samples are referred by VTH as surgical pathology/interventional radiology/dermatology especially from companion animals (e.g. tissue biopsies, fluid sample collections, splenectomy, mastectomy, gonadectomy, hysterectomy, leg-amputation, etc.). Cadavers are obtained from:

- hospitalized animals that spontaneously died or that are euthanized at the VTH;
- animals spontaneously died or euthanized at the local municipal shelter;
- cadavers for necropsies referred by practitioners;
- cadavers for necropsies referred by animal owners;
- necropsies authorized by owner/practitioners for teaching;
- necropsies for forensic pathology, referred by owners or by prosecutor's office;

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- wildlife cadavers referred by local agencies (Wildlife Rescue Centers, AUSL).

Cadavers and any other biological material obtained from outside sources are transported to the DVS by a sanitized vehicle authorized for the transportation of cadavers or normal/pathological organs as prescribed by the national legislation (Regulation EC No. 1069/2009) [\[4\]](#).

Cadavers are delivered to the Pathological Anatomy Unit either fresh (shortly after euthanasia or spontaneous death) or refrigerated. Cadavers referred for necropsy are necropsied within hours or stored in a cold room (4°C) until the next day or for the weekend, if necessary. Cadavers may also be frozen and thawed when necessary. At necropsy, tissue samples are collected for ancillary investigations: cytopathology, histopathology and immunohistochemistry or for microbiological/parasitological (isolation and typing) and/or for toxicopathology chemical analysis. The Pathological Anatomy Unit also accepts organs/tissues refrigerated or frozen for gross pathology examination and histopathological investigation as well as for toxicopathology. Surgical pathology/interventional radiology/dermatology fluids and tissues as well as pathological specimens collected during necropsy are registered in the VTH electronic medical record *Fenice* software and in a paper log, as a safeguard against cyberattacks. Cytopathological slides, stained/immunostained sections and paraffin blocks are filed in archive-cabinets at the Pathological Anatomy Unit for diagnostic, educational and research purposes. Images of lesions observed during necropsy, cytodiagnosics and histopathology/immunohistochemistry are photographed (digital camera or microscope image capture system) and digitally archived for diagnostic, educational, and research as case reports or longitudinal studies. Necropsy records are available as electronic records. Necroscopic reports include descriptions/interpretations of gross pathology and reports of related ancillary investigations (histopathology, immunohistochemistry, virology, bacteriology, parasitology, toxicopathology). Cadavers, and any other biological material of animal origin used for Anatomy and Pathological Anatomy practical training are managed safely, by trained support staff, then destroyed in a crematorium of an authorized company.

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

Species	2021/2022	2020/2021	2019/2020	Mean
Cattle	8 cadavers and /61 bones and organs	1 cadaver*/61 bones and organs	10 cadavers/29 bones and organs*	6.3 cadavers/50.3 bones and organs
Small ruminants	5 anatomic models	5 anatomic models	0	3.3 anatomic models
Pigs	9 cadavers/44 organs	1 cadaver*/44 organs	10 cadavers/12 organs*	6.6 cadavers/33.3. organs
Companion animals	22 cadavers/32 bones and organs	1 cadaver*/32 bones and organs	22 cadavers/29 organs*	15 cadavers/31 bones and organs
Equine	20 cadavers/73 bones and organs	1 cadaver*/73 bones and organs	22 cadavers/31 bones and organs*	14.3 cadavers/59 bones and organs
Poultry & rabbits	10 cadavers	1 cadaver*	12 cadavers	7.7 cadavers
Exotic pets	0	0	0	0

* Organs were illustrated virtually due to COVID-19 restrictions on teaching activity

Table 5.1.2. Healthy live animals used for pre-clinical training (animal handling, physiology, animal production, propaedeutics, ...)

Species	2021/2022	2020/2021	2019/2020	Mean
Cattle	1305	1106	1106	1172.3
Small ruminants	3	8	8	6.3
Pigs	0	0	0	0
Companion animals	5-10*	5-10*	5-10*	5-10*
Equine	4	4	4	4
Poultry & rabbits	0	0	0	0
Exotic pets	32§	4	4	13.3
Others (specify)				

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**Healthy companion animals used for pre-clinical training are dogs and cats owned by members of the staff or students. The reported number is an estimation. §Since 2022 a snake and lizard terrarium are available with 20 snakes e 12 lizards.*

Table 5.1.3. Number of patients seen intramurally (in the VTH)

Species	2021/2022	2020/2021	2019/2020	Mean
Cattle	1	0	0	0.3
Small ruminants	1	0	2	1
Pigs	0	0	0	0
Companion animals	5043	4487	4084	4538
Equine	97	51	59	69
Poultry & rabbits	0	0	0	0
Exotic pets	81	97	66	81.3

The reported numbers refer to total individual animals seen in the VTH. Many of them had several follow-up visits in the same year, however they were counted as one specific clinical episode even if different students could be present at the follow-up examinations.

Table 5.1.4. Number of patients seen extramurally

Species	2021/2022	2020/2021	2019/2020	Mean
Cattle	5644^	4488^	0*	3377.3
Small ruminants	150	0	0*	50
Pigs	13580§	15132§	0*	9570.7
Companion animals	0	0	0*	0
Equine	216	448	0*	221.3
Poultry & rabbits	0	0	0*	0
Exotic pets	0	0	0*	0
Others	122 (76 deer; 44 hares; 1 duck; 1 pheasant)	56 (7 peacocks; 2 lama; 16 deer; 30 wild boar; 1 billy goat)	0	59.3

*^The number is calculated based on the average number of animals visited/weekly by at least one student with contract professors during the 6 periods of PPT; §The number is calculated based on the average number of animals visited by one student with contract professors during the PPT; *Due to COVID-19 pandemic extramural practical training was not made in 2019/2020.*

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

Species	2021/2022	2020/2021	2019/2020	Mean
Cattle	95%	95%	0%*	95%
Small ruminants	100%	0%	0%*	100%
Pigs	100%	100%	0%*	100%
Companion animals^	40%	40%	40%	40%
Equine^	50%	100%	0%*	75%
Poultry & rabbits	-	-	-	-
Exotic pets^	70%	70%	70%	70%
Other (wild species)	100%	100%	0%*	100%

**Due to COVID-19 pandemic extramural practical training was not made in 2019/2020; ^The VTH electronic registering system does not distinguish between first opinion and referral. The reported data is based on 2021/2022 case records analysis: general medicine practice, intensive care and emergency units account for a higher number of first opinion patients compared to the other services.*

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Table 5.1.6. Cadavers used in necropsy

Species	2021/2022	2020/2021	2019/2020	Mean
Cattle	12	2	7	7
Small ruminants	3	2	2	2.3
Pigs	100	14	11	41.6
Companion animals	88	114	124	108.6
Equine	1	1	0	0.6
Poultry & rabbits	70	0	70	46.6
Exotic pets	20	3	25	16
Wildlife	12	2	2	5.3

Table 5.1.6b. Weight (in kilos) of the organs used for practicals and assessment in diagnostic pathology

Species	2019/2020	2020/2021	2021/2022
Horses	774	720	1628
Cattle	1150	1520	2770
Pigs	304	617	782

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

Species	2021/2022	2020/2021	2019/2020	Mean
Cattle	11	1	0*	4
Small ruminants	2	0*	0*	0.7
Pigs	2	0*	0*	0.7
Poultry & rabbits	0	0*	1	0.3
Others (specify)	0	8 webinars (virtual visit at cattle, pig and poultry farms)	4 webinars (virtual visit at cattle, pig and poultry farms)	

*Due to COVID-19 pandemic educational visits were not made in 2019/2020 and 2020/2021; the number of visits for the current a.y. can be found in the Addendum COVID-19.

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

Species	2021/2022	2020/2021	2019/2020	Mean
Ruminant slaughterhouses	15	11	5	10
Pig slaughterhouses	0	0*	0*	0
Poultry slaughterhouses	0	0*	0*	0
Related premises **	14 (fish market, ham factories, egg production, cheese)	0	5 (fish market, ham factories, egg production, cheese)	6.3

*Due to COVID-19 pandemic educational visits were not made in 2019/2020 and 2020/2021; numbers for the a.y. 2022-2023 can be found in the Addendum COVID-19; ** Premises for the production, processing, distribution or consumption of food of animal origin

As mentioned above, the EAEVE Committee monitors the number and variety of animals and material of animal origin for pre-clinical and clinical training, the type and number of animals seen by the students during the practical activities and clinical rotations, and periodically calculates ESEVT indicators. The EAEVE Committee members representing the areas of basic sciences, clinical sciences, pathology, animal production, and FSQ report data regarding training in the relevant subjects. The EAEVE Committee interacts with the VTH Director and the VTH Management Committee to revise, assess and make provisions to implement clinical services and practical training in the VTH and to correct deficiencies (e.g. implementation of clinical practical activities on horses

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and exotic animals intra mural, updating of procedures, enrolment of personnel to improve educational activities, evaluation of assessment questionnaires for contracted staff are all ongoing). The EAEVE Committee meets once every two months.

All decisions are reported to teaching staff, students and stakeholders, implemented, assessed and revised by the relevant committees (DVS JSTC, SC, DVS and DCVM boards, DQAC, BAWC).



Figure 5.1. QA process for correcting deficiencies in animals and material of animal origin.

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

The organization of EPT (“Orientamento” and PPT) is described in Standard 3.4. Detailed description of activities can be found further on (Standard 5.3).

Briefly, sites for external training include:

“CandiaBio” dairy cattle farm. The VEE has stipulated a contract with this farm for both pre-clinical and clinical training in cattle, under direct supervision of teaching staff. Training activities include farm visits, evaluation of welfare and biosecurity, animal production (nutrition), reproduction (rectal palpation, US pregnancy diagnosis);

“Carboni” dairy cattle farm. The farm vet for this cattle farm is a contract practitioner with the VEE. There 1000 heads of cattle; II-year students spend their summer “Orientamento” here;

“Tonelli” dairy cattle farm: The owner of the farm is a contracted practitioner who hosts II-year students in “Orientamento”; there are 100 heads of dairy cattle

Siccomonte Equine Clinic. Dr. Tiziana Saporiti is an equine clinician and the owner of this private equine clinic. She is a member of contracted staff. The clinic hosts V-year students for 1 week (in group of 2). Activities include internal medicine, surgery and emergency.

Bovine slaughterhouse. The VTH has stipulated a contract with the cattle slaughterhouse (Macello di Parma s.r.l.) for practical training in FSQ. Students carry out *ante-* and *post-mortem* inspection of Food Producing Animals (FPAs; cattle) and evaluate the compliance of the slaughterhouse on the specific requirements prescribed by the National and European legislation (e.g. good hygiene practices, pre-operational and operational hygiene, personal hygiene, construction, layout and equipment).

Municipal dog and cat shelter “Lilli e il vagabondo”. The VTH has stipulated a contract with the shelter for s.c. “second level assistance”, including specialized laboratory and strummental diagnostic and surgical interventions. This contract is financially supported by the municipality. Students are involved in all aspects of patient care at the VTH. The shelter also hosts visits by II-year students for the evaluation of parasite control in a shelter setting.

National Veterinary Laboratory “Istituto Zooprofilattico Sperimentale Lombardia-Emilia Romagna” (IZS). The head of this facility is a member of contracted staff. V-year students carry out PPT in Pathological Anatomy and Infectious Diseases.

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Others facilities for external clinical training.

As described in Area 3, V-year students accompany contracted staff during their professional activities for PPT in cattle and swine, visiting numerous farms and carrying out clinical training. III and IV year summer “Orientamento” is carried out in approved facilities (see Area 3). Organization of all extramural activities are managed, monitored, and verified by teaching staff.

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

Beginning with training activities during year I “Orientamento” (see Area 3), groups of 2-3 students spend 25 hours at the hospitalization and intensive care unit of the VTH and large animal stalls. They learn how to correctly handle, feed and clean small animals and large animals (bovine and horses) and how to clean and disinfect hospitalization cages and rooms with respect of animal welfare and biosecurity measures. They also learn how to safely restrain small and large animals.

During night and weekend shifts in the VTH hospitalization, ICU and isolation units, students in year V “Orientamento” and PPT acquire nursing skills in safe and confident animal handling and restraint, assistance of veterinary surgeons, care of hospitalized patients (including monitoring and health checking, feeding, grooming and walking animals), administration of treatments (including injections, tablets and fluids), performing basic clinical tests (e.g. blood sampling, urine analysis), bandaging, application of biosafety procedures, and maintaining the cleanliness and hygiene of the premises attended. Compilation of medical records and communication skills (e.g. history taking of the patient) are similarly promoted.

Students can practice more invasive skills using simulators and dummies in the Clinical Skills Lab.

Hands-on clinical training is provided mainly during year V intramural and extramural PPT (see Area 3). Clinical rotations are organized in order to guarantee small groups (1-2 students) in the different clinical areas. An example of the PPT schedule from last year is available here [🔗](#).

Hands-on clinical procedures in companion animals (excluding equine; see below) and non-conventional species.

During year V PPT, students spend a total of 15 weeks at the VTH for clinical rotations in Internal Medicine, Surgery, Animal Reproduction. In each discipline, students are directly involved in complete patient work up, including signalment and history collection, physical examination, problem-oriented decision making, interpretation of diagnostic tests and discussion of therapeutic strategies. Students receive instructions for the use of patient record system *Fenice* software, to be able to collect and report clinical and laboratory data, and to write medical records. Under the supervision of academic and contracted clinical staff, students are asked to actively collect history from pet owners, and to fill in the medical records. Students are involved in both general physical examination of patients, and special examination of different systems. They collect biological samples, using venipuncture, urethral catheterization, cystocentesis, thorax and abdominal centesis, skin scraping, ear swabs, vaginal smears. They place intravenous catheters. Moreover, students assist and participate in fine needle aspiration, skin punch biopsy, bone marrow aspiration, liquor collection, pericardial centesis and joint centesis. Students perform non-invasive pressure measurement and register and read EKGs under the supervision of the staff. They are exposed to principles of radiography, ultrasonography, computed tomography, echocardiography, electromyography, electroencephalography, audiometric test (i.e: BAER) by assisting the clinical staff in the procedure and discussing the results. Students assist as second surgeon in the surgical procedures on hard and soft tissues on small animals and exotic animals, they apply skin sutures and help in the setting up of the surgical suite. Students perform as first (under supervision) or second surgeons for orchietomy or ovariohysterectomy on dogs and cats from the local shelter. Students discuss the anaesthesia protocol with the supervising teaching staff and assist the veterinary anaesthetist in performing animal sedation and anaesthesia. Students practice the vascular access and the intubation and perform the

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perioperative patient monitoring, filling in an anaesthesia record which is a document that provides information about perioperative care (e.g. data on preoperative assessment, anaesthesia management, vital parameters, and intraoperative events). Students also administer drugs (SC, IM, EV), always under the supervision of the teaching staff. On hospitalized animals, students perform daily physical examinations and provide nursing care. Under the supervision of teaching and clinical staff, students are asked to fill in the daily hospitalization sheet, with regards to dose calculation, and way of administration of different drugs; fluid requirements in terms of typology of fluid solution, rate, and way of administration; oxygen supplementation; daily caloric intake, typology of prescription diet, and way of administration (nasogastric tubes, esophagostomy tubes). Students assist the clinician in the emergency visit, are trained in cardiopulmonary resuscitation and participate to the procedure, when needed. Students are trained to perform Point of care ultrasound and laboratory test (blood gas analysis, microhematocrit, blood smears, urine specific gravity and total solid with refractometer). Students are made aware of biosecurity procedures and are actively involved in the maintenance of biosecurity standards, especially in relation to infective patient isolation. Students are also trained to store and safely transport different specimens to the laboratories, and they are asked to discuss, and critically analyze physical and laboratory findings, to formulate a list of likely differential diagnosis, and to suggest a therapeutic plan. They are exposed to the communication process with owners, and they familiarize with the electronic prescription system. In case of euthanasia, they assist the clinician in the communication with the owner and in the entire procedure. They learn how to obtain an informed consent by the owner and to make a cost estimate for the owner.

Hands-on clinical procedures on Equines.

Activities are conducted both intramural at the VTH and extramural. Equine intramural clinical training is limited due to the small number of patients actually visited. Activities include reproduction, occasional podiatry, orchiectomy and arthroscopy. Extramural activities include internal medicine, surgery, and emergency medicine.

In general, students learn how to safely approach and handle patients during clinical examination, they assist the clinician in collecting different biological samples, using venipuncture, urethral catheterization, fine needle aspiration, catheter and needle for peritoneal fluid and joint tap, in the placement of intravenous catheter, in tubing colic animals. They assist in reproduction clinical activities during the equine mounting season and assist in collecting stallion semen. Students perform trans-rectal palpation, pregnancy diagnosis and ultrasound in mare or jennies. Moreover, students assist the teaching staff in gynecological, andrological or neonatal examination. Students are also trained to store and safely transport different specimens to the laboratories, and they are asked to discuss, and critically analyze physical and laboratory findings, to formulate a list of likely differential diagnosis, and to suggest a therapeutic plan. Students assist the clinician during the most common clinical procedures (vaccination, deworming). They are exposed to the communication process with owners, and they familiarize themselves with the electronic prescription system. In podiatry, students learn basic farrier principles and assist in medical and surgical foot care management. Students also assist the surgeon performing surgical procedures (laparotomy, neutering, arthroscopy, wound repair, arthroscopies). Students discuss with the veterinary anesthetist the anesthesia protocol, practice vascular access and intubation and perform patient perioperative monitoring. Students are taught the basic principles of thoracic and abdominal ultrasound, echocardiography, radiography, and endoscopy by assisting the clinical staff in the procedure and discussing the results. They perform electrocardiographic monitoring. Students learn the use of on-site testing (e.g. lactate, etc.) and rapid screening test. Students are involved in hands-on activities on patients requiring hospitalization, and they take part in nursing activities of hospitalized patients. Under the supervision of staff, students calculate the dose of drugs and fluid requirements and help in administering them. Students are made aware of biosecurity procedures and are actively involved in the maintenance of biosecurity standards, especially in relation to infective patient isolation.

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Hands-on clinical procedures in Cattle.

Students spend 1 day in the mobile clinic with teaching staff at the “CandiaBio” dairy cattle farm (see Areas 3 and 4) to acquire competency in rectal palpation and pregnancy diagnosis. Each student performs, under the supervision of the staff, 20 rectal palpations completed by ultrasound examinations for the correct evaluation of the genital system, identification of pregnant cows and confirmation of already confirmed pregnancies. Ultrasonographic foetal sexing is routinely performed on all pregnant cows between 55 and 75 days of pregnancy, and evaluation of pregnant cows before drying off as well as evaluation of uterine involution between 15- and 30-days post-partum. Other activities include systematic examination/assessment of new-born calves and their feeding systems, analysis of farm fertility data through the computerized management system, as well as activity patterns of monitored cows to identify those that are in heat and which must be inseminated, confirming or excluding them through manual palpation and ultrasound examination. Students spend a further 5 days with contract professors accompanying them during their daily activity. The field situations that arise during the extramural training activities are those that most commonly a veterinarian must be able to deal with and range from preventive medicine, metabolic-nutritional, infectious, and surgical diseases that can be found in adult cattle and in calves. Cases are approached as previously described: students are actively involved in the complete patient work up, including signalment and history collection, physical examination, diagnostic problem-oriented decision making, and therapeutic strategies. Students assist the clinician during the most common clinical procedures (vaccination, deworming). Students assist during surgery (i.e. caesarian births; abomasal dislocation) and in providing nursing care. They collect different biological samples (blood, urine, faeces, rumen fluid). Students learn the use of on-site testing (i.e. ketone bodies, etc.) used in field practice. Students get exposed to the basic principles of thoracic and abdominal ultrasound. Herd health management gives the student the opportunity of working on preventive medicine, infectious diseases, neonatology, metabolic status assessment and on-farm mastitis control. The herd approach always includes herd/flock data collection and data analysis, along with environmental and clinical inspection. They are exposed to the communication process with farmers and referring veterinarians, and they familiarize themselves with the electronic prescription system.


Hands-on clinical procedures in Pigs. Students spend 5 days with contract professors accompanying them during their daily activity. During the training, students acquire competencies in managerial activities, such as flow management, batch rearing, assistance with farrowing and piglet batching. They learn how to safely approach and handle patients during clinical examination, they collect blood sample by venipuncture, they perform vaccinations. They perform supervised ultrasound diagnosis of pregnancy as well as the ultrasound of the thickness of the back fat. They assist the surgeon performing surgery for inguinal, abdominal and scrotal hernias, discussing anaesthetic protocols and surgery techniques. They discuss the health management of the farm, vaccination plans, feeding, welfare and biosecurity. The herd approach always includes herd/flock data collection and data analysis, along with environmental and clinical inspection. A deep revision of the farm’s target is discussed at the end of each visit.

PPT in Pathological Anatomy/Infectious Disease. Students are on duty for three consecutive weeks in the necropsy room. Under the supervision of academic staff, students perform diagnostic necropsies, in addition to being involved in post-mortem analyses. Furthermore, students are also involved in report writing, sample processing and microscope examination. Necropsies are performed by small groups of students (usually composed of 2-3 students per cadaver). Further training is extramural at the Parma IZS, where students observe necropsies on a variety of animals. In the PPT in **Infectious diseases** (2 consecutive weeks), students apply techniques of microbiological culture and sensitivity testing on several biological samples (e.g. blood, urine, skin, ear swabs, fluids...) and perform serological tests.

Discussion, thinking, reading. Students become deeply involved in the daily management of the cases and patients. At the VTH, from admission to discharge, time is dedicated daily to discussion of

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the case with particular attention to clinical examination findings, data recording, problem listing, differential diagnosis, diagnostic procedures and workup, treatment options and prognosis. Teachers address the issues raised by the students and encourage their active and critical participation to the decision-making process. The same approach is used during rotations in extramural clinical activities. During intramural PPT in the VTH, daily discussion sessions (*rounds*) are organized involving students on duty and the responsible clinical staff. Intern students of other years, PhD students, internships, residents participate to discussion sessions on a voluntary basis. During these sessions, the case is approached with the “problem-oriented approach” (POA) method. Students in clinical PPT at the VTH have easy on-line access to the electronic patient record system (*Fenice* Software) and to the digitalized archive of diagnostic imaging (PACS Emaging). Students are invited to join the Journal Clubs organized by clinical services for internship, residents, PhD students and other junior staff. Moreover, students are invited to seminars on continuing education held monthly by teaching staff, residents, PhD students, internships at the VTH. All students enjoy easy on-line access to clinical literature through services offered by the VEE Library.

Patient recording system. Since 2014, the VEE patient record system relies on *Fenice*  a software used by other Italian universities, based on Microsoft SQL Server. *Fenice* includes an administrative section which allows to issue direct invoices to clients. All data about admitted patients is stored, allowing complete retrieval of any patient, case management and administrative information. Also, diagnostic imaging reports are included in *Fenice*, while digital images from radiography, ultrasonography and CT are stored with the PACS Emaging (Eurochimica). Staff and students (with different security levels) can access to both PACS and *Fenice* from every computer of the VTH (including labs) and from several offices as well; it is not currently possible for students to access *Fenice* from outside of the VEE. Students learn how to access, retrieve information, and compile clinical files during the practical training in clinical courses and the intramural PPT.

Fenice Software and PACS Emaging are used for teaching with the POA method during discussion sessions with students in practical training, to prepare clinical case for students and by students, and for supervised self-learning (e.g. at the end of each PPT period in internal medicine, students in group of two prepare and discuss a clinical case and the presentation is judged by supervisors of the teaching staff and by the other students in practical training in the same period).

The system can be searched for retrospective and prospective studies by researchers, PhD students, and students preparing their graduation thesis. Moreover, students learn how to comprehensively fill in medical records and other documents (e.g certificates, official forms) according to good practice and the rules of Professional Ethics.

Comments on Area 5

In the years prior to this visitation, all ESEVT indicators dealing with the number and variety of healthy and diseased animals, cadavers and teaching material of animal origin have been the object of sustained and structured monitoring. The suboptimal caseload in the anatomy and pathology practical training identified in the previous visitation has been corrected by increasing the flow of small animal cadavers having died/been euthanized in the VTH, offering free disposal to owners in exchange for authorization for educational purposes. Moreover, since the academic year 2019/2020 extra-mural practical training in diagnostic pathology was implemented at the National Veterinary Diagnostic Laboratory (IZS) to increase the number of large animal necropsies observed by each student. They are not included in Table 5.1.6 as students are not allowed to carry out “hands-on” activity due to national legislation for reference laboratories, but they observe necropsies, identify lesions and discuss results of the necropsy with the contracted staff from the IZS. The number of necropsies performed at the IZS during the last complete PPT period (January-September 2022) can be found here .

The flow of material of animal origin for practical training in Anatomy and Pathological Anatomy has also been increased by setting a procedure to collect, store and dispose organs and carcasses from

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local providers (slaughterhouses and farms) involving teaching staff, support staff and students that receive financial aid for work-study activities.

Pre-clinical and clinical activities on cattle have been implemented by enrolling contracted teaching staff and agreements with farms for educational visits and ambulatory clinic visits on a routine basis. The excellent relationships of the teaching staff with the cattle farmers must be maintained to guarantee for the future the practical training in several areas of knowledge.

The concern of students not being exposed enough to clinical equine cases in practice has been faced by enrolling contracted teaching staff for intramural activities and agreement with a private equine hospital where students spend a week during the PPT. Moreover, a procedure for the recruitment of a full professor has been completed and a new academic staff member has been hired (September 2023).

Activities on exotic animals (medicine, surgery, diagnostic imaging) have been implemented by recruiting a contracted practitioner and a PhD student, supporting the dedicated teaching staff.

The purchase of several SA simulators was started in 2019 and equine and bovine simulators were ordered in 2022. The use of these has been promoted to enhance manual skills in inexperienced students, thus reducing unnecessary stress to patients of all species ("Never the first time on a live animal"; see Area 6).

Suggestions for improvement in Area 5

Based on the satisfactory results of the experience with the private equine clinic, it would be desirable to stipulate a similar agreement with a cattle farm where students could spend one week carrying out both clinical and HHM activities while housed h24/7 near the site.

Clinical work on exotics could be increased by converting several spaces in the VTH dedicated to medicine, surgery, and hospitalization of non-conventional animals.

The intramural flow of horses will be increased thanks to the recent recruitment of a full professor in Equine Surgery, creating a team of professionals starting from the staff currently available, with the possibility of also providing first aid, emergency medicine, hospitalization and h24/7 intramural intensive care. This could also increase the number of intramural necropsies on horses.

Clinical activity on small ruminants must be increased.

Area 6. Learning resources

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

The VEE's general strategy on learning resources is aimed at providing students and staff with a wide range of available literature resources, electronic periodicals and databases, an efficient e-learning platform, and spaces for personal study and self-directed learning. Stakeholders are free to access the DVS Library when needed.

Since the last ESEVT visitation, the VEE has become increasingly aware of the needs and demands of the latest generation of students towards advanced interactive learning resources. Undoubtedly the COVID-19 pandemic accelerated the process, resulting in a rapid and widespread use of digital resources and tools.

At enrolment, students are given an institutional e-mail address and login credentials for access to all electronic learning resources (see Standard 6.2). At the beginning of each academic year (during "Lecture Zero"; see Area 7), the head librarian introduces I-year students to the learning resources and access methods, and to the University Library System (SBA [\[link\]](#)).

Staff are also given credentials for access to all online resources and can consult the SBA website and the head librarian at the VEE for any and all information. The SBA also offers online courses in ELLY (e-learning platform) for staff and students.

Students are also given credentials for access to the online registry service ESSE3 [\[link\]](#), that allows students to manage the various aspects of their academic life cycle.

The Main Library provides the following services:

- access to textbooks, scientific books, and specialized journals;
- book loans;
- on-line research and distribution of scientific literature;
- purchase of books and periodicals using Library funds;
- self-service photocopying; inter-library book loans;
- find bibliographic material for degree thesis.

The librarian is available to guide users on database research, on the use of the University Catalogue and the resources of the Digital Library and on useful services for finding material not owned by UniPr Libraries.

There is no formal DVS committee structure for the management of the VEE Library. The SBA sends annual requests to all academic staff members for the purchase of learning resources (e.g. books, periodicals; databases). All of the e-learning services of the VEE (ELLY; see Standard 6.2) are managed by the UniPr central administration and academic staff members can upload the teaching material of their choice, which students can then freely access. The JSTC, at the end of each academic year, prepares a report on the state of teaching, didactic and tutoring services, as well as learning resources provided by the VEE (see Area 1), and proposes suggestions for their improvement. This report is discussed in the DCVM and DVS boards.

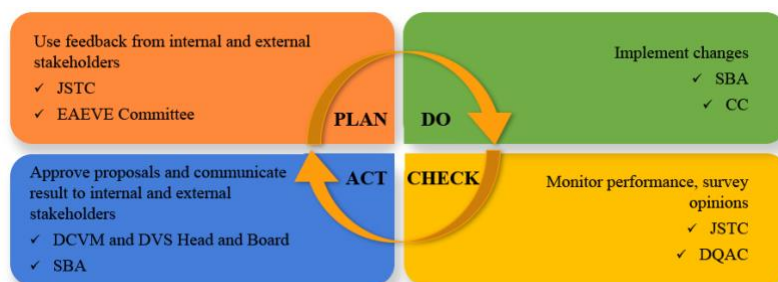


Figure 6.1. QA process for learning resources

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

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

The DVS Library [\[link\]](#) is one of the eleven Central Libraries of the UniPr which are managed by the SBA [\[link\]](#); The DVS library belongs to “Library of Science and Technology”, one of the three Units into which SBA is divided. SBA manages all the University's bibliographic resources with a budget that exceeds 4 million € per year, which is allocated primarily to electronic periodicals and access to electronic databases. The SBA is also responsible for allocating human resources and for the purchase of IT equipment. The DVS library is managed by one full-time librarian and one part-time employee and has an annual budget of about 10,000 € (10,556.66 € in 2022), used mainly for the purchase of veterinary textbooks. It is equipped with a study room with 65 places (24 electrical outlets), a separate room with 8 computer stations, offices and restrooms for a total of 380 sq m. The library is open from 9:00 to 19:00, Monday to Friday. It is wheelchair accessible.

As described in Area 4, there are 7 subsidiary libraries at the VEE in the different departmental units, which function mainly as study rooms for student interns, postgraduate students, V-year students in PPT and staff. Each subsidiary library contains textbooks and final year theses related to past and present research activities of the unit.

The VEE currently has 1 support staff member for IT services who, together with the UniPr central administration, manages all online services, and offers all useful information, including e-learning modules for staff and student development on the use of services provided [\[link\]](#), [\[link\]](#).

Since the last ESEVT visitation, the number of computer stations with IT access at the VEE has been reduced due to the suboptimal use of the space dedicated to the IT room. Indeed, students increasingly rely on their own devices (laptops, pads, etc.) and use the free Wi-Fi access available throughout in the entire VEE. The former IT room has been converted to a meeting room for staff and group-based learning for students. However, the current project for the new “Students' Center” (see Area 4) will include some places for computers and the 8 stations that are available in the main library will remain (even though these are also rarely used by students).

The Moodle based e-learning platform ELLY hosts course materials, supplementary documents, suggestions for further reading, exercises, or educational activities, as well as formative and summative assessment tests.

The entire VEE has Wi-Fi coverage both through the UniPr Wi-Fi service and through Eduroam. Cable connection is also available for PCs in staff offices, laboratories, the VTH and in the main library.

All electronic learning resources are accessible both on and off campus, through remote VPN access, including:

- SFX (UniPr e-periodicals) [\[link\]](#);
- Parma libraries [\[link\]](#);

- Databases [🔗](#);
- (E)books [🔗](#);
- Dspace [🔗](#);
- ELLY [🔗](#).

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

Number of veterinary books and periodicals. The VEE has approximately 8,000 books and 636 hard copy journals, mostly located in the main library, but that can also be found in subsidiary libraries. All books, including recommended textbooks for curricular courses, are available for loan.

Number of veterinary e-periodicals. There are currently 152 veterinary (e)periodicals available to staff and students through the SFX database.

Number of other (e)books and (e)periodicals. Students and staff also have access to numerous databases where they can retrieve open-access publications of other e-periodicals [🔗](#).

Available learning resources. As described above, the DCVM makes use of a Moodle based platform, ELLY, which offers numerous services to students. It is possible to enrol in all courses and receive news and updates from the reference teacher, actively participate in the student forum, request specific information, view the video lessons on the platform, consult the exam results and much more. ELLY is accessible both on and off campus.

Organization and supervision of the Skills Labs.

The current Skills Lab is located in temporary premises until completion of the new “Students’ Center” (see Area 4). The first simulators were purchased in 2019 (SA mannequins, suture pads, etc.) and the most recent acquisitions include the Equine Colic/Palpation Model with integrate neck venipuncture, IM injection and adjustable rolling stand and two Bovine Theriogenology Models with bovine uterus set. The VEE has also recently ordered 3 simulators for catheterization (female dog, male dog, male cat) and a further canine emergency model.

There is also an IT station with access to the *Fenice* Software and PACS where student can refer to clinical cases.

The skills lab is used for practicals and assessments, with current access allowed only together with staff, and is not yet organized for self-learning. Student tutors and junior staff assist academic staff in the organization of activities and the general upkeep of the lab.

Comments on Area 6

The VEE’s learning resources strive to provide students and staff with a wide range of available literature resources, electronic periodicals and databases, an efficient e-learning platform, and spaces for personal study and self-directed learning. The completion of the new “Students’ Center” will be an important addition to the realization of this vision. The very long delivery time for simulators from VetSimulators [🔗](#) has impeded the full potential of skill-lab based teaching in LAs (equine/bovine).

Suggestions for improvement in Area 6

The key to successful management of learning resources is the people behind them. In order to improve services (e.g. Skills Lab), it would be necessary to recruit further support staff, in particular for the Skills Lab.

Opening hours of the main library could be improved to include evenings and weekend.

Area 7. Student admission, progression and welfare

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

In relation to enrolment, the VEE must provide accurate and complete information regarding all aspects of the educational programme in all advertisings for prospective national and international students. Formal cooperations with other VEEs must also be clearly advertised.

Advertisement to prospective students include several initiatives, which can be found at [☞](#):

- presentations to secondary school students are carried out by members of the teaching staff and student tutors several times a year. Information provided includes admission procedures, course structure and content and all the employment opportunities of the profession;
- prospective students may participate in the so-called “Open Day” which is organized by UniPr in April and is advertised in local/national newspapers, social networks and broadcast media, and on the UniPr and DCVM websites. During “Open Day”, an information desk service is available for future students, providing first-hand information on the DCVM programme. The information desk staff comprises teachers and student tutors. During the event, each course organizes orientation sessions with the aim of providing prospective students with more details on study location and University life. Information includes admission test criteria, class timetables, campus facilities and career perspectives. All sessions are streamed live and saved on the UniPr website [☞](#);
- the UniPr “Info Day” is held in July and is aimed at a more in-depth introduction to the DCVM course and includes a visit to the VEE facilities [☞](#).

Prospective students can also find information on enrolment, including procedures and deadlines [☞](#), admission test [☞](#), fees [☞](#), and transfers from other VEEs [☞](#).

Detailed information on the DCVM student “life cycle” is available on the UniPr website [☞](#).

Information on the following phases include:

- Course presentation [☞](#);
- Learning objectives [☞](#);
- Professional outlets [☞](#);
- Course Regulations [☞](#) and organization [☞](#);
- Quality of teaching [☞](#);
- Advising and guidance [☞](#);
- Study programme [☞](#).

Each year, the s.c. “*Manifesto degli Studi*”, a document that contains all the necessary information about the new a.y. (enrolment procedure, fees and administrative deadlines), is updated and approved by the DCVM and DVS boards and published on the UniPr website [☞](#).

The calendar of teaching activities, approved by the DCVM and DVS boards (including student representatives), reports the periods in which classes and examination sessions are held, specifying the start/end dates of activities and any suspension periods.

I-year students are given the s.c. “*Vademecum Studenti*” [☞](#) that illustrates all the relevant information that new students may need to guide their way through the VEE’s learning environment. This includes all committees, services, tutoring activities, Logbook compilation, etc. One the first day of year I, students attend the s.c. “*Lecture Zero*” where representatives of all the VEEs QA organisms, student reps, library personnel, etc. present themselves and their activities.

Information about international mobility and partner universities are available on the website [☞](#).

Here students who would like to spend a period abroad can find partner universities in the ERASMUS and OVERWORLD programmes and the members/contact info of the International Mobility Committee.

Area 7. Student admission, progression and welfare

Formal agreements with the VEE's of the University of Turin and the University of Naples are advertised among the facilities for "Orientamento" and year V PPT [\[4\]](#).

Specific information for foreign students (e.g. extra-EU), related to pre-evaluation, pre-enrolment and enrolment, is available at the link [\[4\]](#).

Information on the final year thesis evaluation can be found at the website (how the final grade is calculated [\[4\]](#), dates of final examination sessions [\[4\]](#), proper behaviour during graduation ceremony [\[4\]](#) and finally, information for the state licensing examination [\[4\]](#)).

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

The number of students admitted per year is established by the MUR. Before MUR sets the intake number, Establishments are requested to submit their own proposal with regard to the number of students they would like to have admitted, taking into consideration available resources (in particular, facilities, equipment and teaching staff). The proposal is drawn up by the DCVM board (see Standard 7.3), approved by the DVS board and finally submitted to UniPr and MUR. The assigned quota is the result of a Ministerial country-wide survey of the perceived needs of the profession and discussion with stakeholders. The veterinary programme at UniPr attracts a large number of applicants each year. As a result, there is no difficulty in filling allocated places.

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

Type of students	2021/2022	2020/2021	2019/2020	Mean
Standard students	65	60	50	58.3
Full fee students*	-	-	-	
Total	65	60	50	58.3

*Please note that there are only Standard students at the VEE.

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

Year of programme	2021/2022	2020/2021	2019/2020	Mean
First	65	60	50	58.3
Second	56	46	48	50
Third	41	48	38	42.3
Fourth	45	40	41	42
Fifth	35	39	47	40.3
Total	242	233	224	233

Table 7.2.3. Number of veterinary students graduating annually

Type of students	2021/2022	2020/2021	2019/2020	Mean
Standard students	43	42	46	43.7
Full fee students	0	0	0	0
Total	43	42	46	43.7

Table 7.2.4. Average duration of veterinary studies

Duration	% of the students who graduated		
	2021/2022	2020/2021	2019/2020
+ 0	67.4%	73.8%	71.7%
+ 1 year	11%	4.7%	15.2%
+ 2 years	6.7%	0	0
+ 3 years or more	13.9%	21.4%	13%

Area 7. Student admission, progression and welfare

Table 7.2.5. Number of postgraduate students registered at the VEE

Programme	2021/2022	2020/2021	2019/2020	Mean
Interns	1	0	0	0.3
Residents	4	2	1	2.3
PhD students	23	16	13	17.3
Masters	144	135	146	141.7
Specialisation schools	21	21	21	21
Post-Doc	8	8	13	9.7

Standard 7.3: The selection and progression criteria must be clearly defined, consistent, and defensible, be free of discrimination or bias, and consider of the fact that students are admitted with a view to their entry to the veterinary profession in due course.

The VEE must regularly review and reflect on the selection processes to ensure they are appropriate for students to complete the programme successfully. If the selection processes are decided by another authority, the latter must regularly receive feedback from the VEE.

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

Selection criteria.

Candidates for enrolment must sit and pass an admissions exam, which is given at the national level by the Italian Ministry of Education, Universities and Research (MUR; Law 264, August 2nd, 1999). The test is carried out on the same day throughout the country. All students must pre-register on-line [\[link\]](#). Every year a description of admission requirements is published on UniPr website [\[link\]](#) and the DCVM Course website [\[link\]](#).

To enrol in the DCVM, candidates must hold an Italian high-school diploma.

Foreign candidates (from both EU and extra-EU countries) must have a similar qualification certified by the relevant Consular and Academic Authorities (additional information for extra UE are available on website [\[link\]](#)). Free preparatory courses and tests for Italian language proficiency are offered by UniPr [\[link\]](#).

The test includes 50 MCQs where only one answer out of five is correct. Students have 100 minutes to complete the test. A ranking list of candidates is established at the national level. Results are scored within a range from 0 to 90.

Although admission is based on student performance (ranking), candidates are expected to successfully pass a predefined "minimum threshold score", which is currently set at 20 points. In case of students who score the same, priority is given to those with a higher score in chemistry, logic, general knowledge, biology, physics/mathematics, in descending order. In case of a further tie, priority will be given to the younger candidate [\[link\]](#).

Procedures for accessing the results and scrolling through the rankings are reported at website [\[link\]](#).

Students who have passed the admission test with a score of less than 40% in the sections of biology and/or chemistry must fulfil Additional Educational Obligations (OFA) within the first year of the course, in accordance with the provisions of the Course Regulations. Students who must fulfil OFAs are communicated to the relevant academic staff by the head of the admission test commission. Training activities in biology and chemistry are carried out by DVS academic staff at the end of the training activities, the skills achieved are verified [\[link\]](#).

Composition and training of the selection committee. Although the selection process is managed exclusively by the MUR, an internal selection Committee is designated annually by the Rector (upon DVS proposal) to ensure that procedures are properly implemented, considering also policies for students with disabilities. The selection Committee meets at least once before the test date to ensure procedures are shared. The committee is responsible for identifying candidates at arrival to the examination centre, surveillance during the examination and collection of the examination papers,

Area 7. Student admission, progression and welfare

which are then given to UniPr administrative personnel for transfer to the Ministry. Exam grading is carried out by ministerial personnel.

Policy for disable and ill students. Students with certified physical and/or specific learning disabilities (SLDs) are eligible for special admission procedures (e.g. extra time and/or the use of specific devices such as non-scientific calculators, video-magnifiers, tutor assistance, etc.). Detailed information is available at [\[link\]](#).

Appeal process. Students excluded from the national ranking list or denied transfer from another University (see below) can appeal to the Regional Administrative Court.

Adaption of admitted students to available resources. As reported above, the VEE proposes to the MUR the number of admissible students based on available resources, including:

- capacity of classrooms and other teaching facilities (laboratories, VTH, affiliated external structures; libraries)
- number of teaching and support staff.

Adaption of the number of effectively enrolled students (decided by MUR) aims in particular at guaranteeing the possibility to divide students into small groups for hands-on activities and at maintaining minimum values for ESEVT indicators.

Transfer into the DCVM from other VEEs is possible if there are free places in the years II-V of the course (attrition, transfer to other courses, etc.). Each year, the call for applications for admission and the availability of places are published [\[link\]](#). Admission criteria is established by the Students Career Committee and include:

- possession of a minimum number of ECTS for admission into each year of the course, certified by transcripts from the outgoing University.
- correspondence of programme contents for each course taken at the outgoing University.

Prospective number of new students for the next 3 academic years. For the a.y. 2022/2023, the VEE proposed 80 admissible students and the MUR assigned 80 places to the VEE. As reported in “Comments and Suggestions”, this number should not increase to maintain current standards and respect of ESEVT indicators.

Progression criteria are reported in Standard 7.5

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

All information regarding policy, procedures and support for students with physical/cognitive disabilities is available at the UniPr website of the “Welcome and Inclusion Center” (CAI [\[link\]](#)). The CAI offers a variety of services, depending on the particular needs and type of disability [\[link\]](#). The VEE has a dedicated academic staff member responsible for all matters concerning students with disabilities enrolled in the DVS and who liaisons with the CAI [\[link\]](#). Services include tutoring, assistance, and special measures for taking exams, mobility (with dedicated transport), consultancy services (speech therapy, sports, and sports medicine), and specific software for computer-based study in various locations throughout the university, including one at the VEE Library (see Area 6). Students with >66% disability are also exempt from tuition fees. The VEE is equipped with stair lifts for those facilities that do not have wheelchair access.

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

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respond and amend admission selection criteria (if permitted by national or university law) and student support if required.

General progression criteria are described in the “Regolamento Didattico del Corso di Studi” (DCVM Teaching Regulation [🔗](#)).

Briefly, students must:

- achieve the minimum percentage of attendance per each course (mandatory to the 75%);
- pass barrier exams in order to sit subsequent exams (e.g. Anatomy and Biochemistry must be passed before Physiology [🔗](#) [🔗](#));
- obtain a minimum number of ECTS to enrol in subsequent years (see table 7.5.1; students who do not obtain the required ECTS become “off-course”).

Table 7.5.1. Progression criteria (ECTS)

Year of study	ECTS
I	37 to enrol in year II
II	80 to enrol in year III
III	120 to enrol in year IV
IV	160 to enrol in year V

- complete the s.c. “Portfolio” to begin PPT (see Areas 3 and 8);
- complete the PPT diary, pass all examinations and prepare the graduation thesis (see Area 8 for evaluation criteria for the Graduation thesis).

Remediation and support for students who do not perform adequately.

Annual monitoring of progression is carried out through the drafting of the SMA and consultation of data from ANVUR (see Area 1).

The DVS has a system of tutoring support that is aimed at assisting students who are having difficulty in progression.

Briefly, these include:

- **Academic staff tutor.** At enrolment, each student is assigned a tutor from among the academic staff. These are available at any time (by appointment) to meet students and discuss any problems during the course. At the end of each a.y., tutors must ask all of their assigned students to complete a questionnaire on different aspects of the student life-cycle, including progression. These are sent to the DQAC for analysis and reporting to the JSTC, and to the DCVM and DVS boards.
- **Student tutors.** The student tutor is an experienced student or doctoral/postgraduate student who puts his or her practical experience at the service of those in need. In particular, they are responsible for welcoming first year students, assisting with the compilation of programmes of study, advising on courses on offer (curriculum, prerequisites, examinations), helping with the organisation of study and examinations, assistance with final year thesis preparation. Moreover, postgraduate tutors are involved in the PPT shift organisation and support the students during their PPT activities. They also support opening hours of the Anatomy Museum.
- **Supplementary student tutors.** Following recent analysis by the JSTC and the DQAC, several barrier courses have been identified as particularly challenging for I and II-year students (Mathematics, Chemistry, Anatomy and Physiology). Supplementary student tutors have been assigned since 2022/2023 to support students through offering dedicated hours of individual study, group study and periodic mock assessments.

Advertisement to students and transparency of these criteria/procedures. Students are actively involved in the decision-making process concerning progression criteria by means of their representatives in the different Committees and DCVM and DVS boards. Progression criteria for the whole program, courses and the graduation exam are published on the DCVM website [🔗](#).

Area 7. Student admission, progression and welfare

Attrition. As reported in the Annual Monitoring Report (SMA; see Standard 1.4), the dropout rates at the Parma VEE are low and have remained stable over recent years. In the last three a.y., a mean value of 6 students (about 2.6%) withdrew from the course. The main reason is related to transfer to other courses at UniPr or to other Italian Universities.

As mentioned previously, the admission procedures, the admission criteria, and the number of admitted students to year I of the course is decided by the MUR. The admission procedures for transfer into years II-V has been described above.

Planning, implementation and monitoring of services follow the PDCA cycle as described in Figure 7.1. The composition and role of the various committees and boards are reported in Area 1.



Figure 7.1. PDCA cycle for planning, implementation and monitoring of admission, progression and welfare

Standard 7.6: Mechanisms for the exclusion of students from the programme for any reason must be explicit. The VEE's policies for managing appeals against decisions, including admissions, academic and progression decisions and exclusion, must be transparent and publicly available.

Mechanisms for the exclusion of students. According to UniPr regulations, there is no limit with regards to the number of times students can enrol in supplementary years. Similarly, there is no possibility to exclude even the lowest performing student from the programme. The student who does not sit exams for eight consecutive years from the last year of enrolment loses the status of the student. According to the UniPr Disciplinary Regulation [\[1\]](#), any student that commits a serious disciplinary offense can be temporarily expelled from the University. Offenses include (but are not limited to):

- damage to University property;
- damage to the reputation of the University and/or defamation of its employees and fellow students;
- acts of violence (verbal or physical) or discrimination against employees and fellow students;
- unauthorized occupation of University spaces.

Appeal process. Students may appeal against disciplinary actions through the Regional Administrative Court.

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

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

Student support services are provided both by UniPr and the DVS, including:

UniPr:

- there are several sections of the University website dedicated to student services [\[1\]](#), [\[2\]](#), [\[3\]](#);

Area 7. Student admission, progression and welfare

- updated information on orientation services and Study support and opportunities are available [↗](#);
- students may seek support regarding online administrative procedures that are relevant to their career via the following link [↗](#);
- a University Equal Opportunities Committee (Comitato Unico di Garanzia - CUG) works towards promoting equal opportunities, well-being in the workplace and non-discrimination [↗](#);
- a University counseling service is made available by trained psychologists to all students. Such a service can be accessed on a voluntary basis and is free of charge. Sessions are confidential and take place off campus [↗](#);
- students can also report special needs by completing an online form [↗](#) (commonly referred to as “ticket”).

DVS:

- the Student Administration Office supports students with administrative requirements throughout their university experience. The office operates in close contact with the central UniPr offices responsible for admission, registration and any other administrative matters concerning undergraduate and postgraduate studies [↗](#);
- the Manager for Teaching Quality provides information and guidance to students on the entire study programme and the graduation thesis [↗](#);
- the Department offers an on-site service for student orientation [↗](#), tutoring [↗](#) and placement [↗](#) and student tutors [↗](#);
- the Library provides reading rooms and further services (e.g. library/interlibrary loan, document delivery, self-service photocopying of available material, literature search procedures, computer stations, etc.; see Area 6);
- on-demand counselling for disabled students (including specific learning disabilities) is provided by the dedicated delegate [↗](#).

All UniPr students are covered by an insurance which includes accidents and third-part liability. Among categories eligible for insurance cover are also students on temporary bursaries, students who are abroad as part of international mobility programmes, and students enrolled in post-graduate and master courses.

Veterinary students are specifically trained to protect their own health/safety and that of others. First year students are expected to complete a 12-hour course [↗](#). During year III, an additional 3-hour training course on radiation protection is compulsory for all students.

Student Associations.

- “Coordinamento Studentesco- IL MATTONE” has been active for over 20 years at the VEE [↗](#). It is run by the student representatives of the VEE and provides teaching support, helping students with teaching materials, study help and supplementary seminars on topics of interest. It is located next to the cafeteria and is equipped with a self-managed study room.
- IVSA. In 2021, the DCVM students opened a chapter of the International Veterinary Students Association (IVSA). It is a non-profit organization run by volunteer students of the DCVM. The mission of IVSA is “to benefit the animals and people of the world by harnessing the potential and dedication of veterinary students to promote the international application of veterinary skills, education and knowledge”. The initiatives of the association include seminars on topics such as veterinary medicine, soft skills development, professional orientation, and welfare. IVSA members can take part in national and international exchanges with other IVSA local chapters as well as IVSA events, initiatives, and assemblies on a global scale. Members of IVSA Parma sit on the national IVSA board of directors establishing a permanent connection with other Italian local chapters and veterinary students. A detailed list of the association’s events can be found at this link [↗](#).

Area 7. Student admission, progression and welfare

Student work-study programmes

All VEE students enrolled from the year II onwards can compete for part-time working positions within the University which are remunerated activity (“part-time cooperation”), for a maximum of 100 hours per year. Such cooperation refers to administrative, technical, laboratory, vigilance, porter services and library activities [↗](#).

Resolution of student grievances. The Department has prepared a form [↗](#) for reporting observations, complaints, appreciations and suggestions for improvement. The claims are received by the Teaching Quality Manager, who forwards them to the DCVM course coordinator, the DQAC and the JSTC.

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

Students convey their needs and queries to the Establishment through:

- their representatives in the various committees and boards [↗](#);
- opinion questionnaire that all students must provide at the end of every semester (OPIS) [↗](#);
- surveys conducted by the JSTC/DQAC on student satisfaction with the course;
- yearly reports and face-to-face meetings with their academic staff tutor;
- on-line claim form, which goes to the Quality Manager.

Comments on Area 7

As mentioned above, the VEE strives to propose a number of admissible students that guarantees the possibility of dividing students into small groups for hands-on training and the maintenance of ESEVT indicators. The current enrolment number of 80 for the a.y. 2022/2023 is likely the limit for the VEE.

The VEE has been particularly attentive to student progression and the newly introduced supplementary student tutors for barrier exams like Anatomy and Physiology will be monitored for effectiveness over the next a.y.

Starting from the a.y. 2023/24, the admission procedure to the DCVM has undergone modifications by Ministerial Decree 1107/22 [↗](#). The new admission exam is called TOLC-VET (Test Online CISIA) and is conducted nationally, with two exam sessions held within the year in April and June, as defined by the MUR. Candidates are required to pre-register on the online portal [cisiaonline.it](#) and select the examination site where they wish to take the exam. For each TOLC session, the test is administered in person at the chosen examination center, as indicated during the registration process. The test is delivered to each candidate through the CISIA online platform, using dedicated computer stations. The test includes 50 MCQ divided into 4 subjects (15 - Biology, 15 - Chemistry and Physics, 13 - Mathematics and logical reasoning, 7 - text comprehension) to be carried out in 90 minutes. Candidates have the option to participate in both exam sessions (April and June) and request that their best result be taken into consideration for admission. Candidates are given an “equalized result” which is the combination of the candidate’s result and a “equalization coefficient” based on the test difficulty [↗](#).

Suggestions for improvement in Area 7

Despite the changes described above, the current admission procedures do not take into consideration the vocational aspect of potential veterinary students. This could be greatly improved. Furthermore, if enrolment numbers from the Ministry continue to rise, the VEE will need to enlarge (facilities, human resources). The next 3-year strategic plan should include a proposal for this. Finally, it would be beneficial to increase students’ awareness of the many options they have for support and wellbeing. Tutorial sessions at the beginning of each a.y. (and not only to I-year students) should be considered.

Area 8. Student assessment

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

The general student assessment strategy at the VEE foresees examinations at the end of each course. These can be either oral, written, or practical or a combination (see Table 8.1). Examination methods and assessment criteria for each course are available for consultation on the VEE's website at the beginning of each a.y. [↗](#).

There are no limits on the number of times students can re-sit examinations. However, each student must acquire a minimum of credits at the end of each academic year to enrol in the next year (see Standard 7.2). If the student does not achieve the minimum number of credits, he/she must enrol as a repeater for that year and becomes "off-course". Furthermore, students are required to pass propaedeutic (barrier) exams before sitting specific exams (as reported in Standard 7.5). The list of barrier exams is published on the DCVM Course website [↗](#). Finally, class attendance is compulsory and certified by the academic staff at the end of each course. Certification is given to students who have attended 75% or more of lecture and practical activities. Without class attendance certification, students are not allowed to sit the corresponding exam.

For each course, a minimum of 5 exam sessions/year are offered during intervals between teaching periods, while 2 extra sessions are reserved to off-course students. Every year the DCVM board approves the examination calendar, which is then posted on the website [↗](#) at the beginning of the a.y. The participation of students in the scheduling of exams is guaranteed through their representatives in the DCVM board.

Soft skills (learning and communication skills, judgment and problem-solving abilities, self-confidence, dealing with criticism) are taught and evaluated during year V. Acquisition of practical skills is assessed during laboratory practical and intra- and extramural clinical training and verified through Logbooks and PPT diaries (see Area 3).

The final grade and the DVM title are obtained following the oral presentation of the undergraduate dissertation thesis after all exams are passed and all ECTS have been obtained. As described in Area 3, nine credits are obtained for preparation and successful assessment of the final year thesis.

The final grade is based on the student's career (on or off-course, thesis in English; ECTS obtained abroad in ERASMUS, etc.) and on the quality of the thesis dissertation; the maximum score that can be obtained is 110 cum laude (with honours).

Different methods are used to assess theoretical knowledge, preclinical and clinical practical skills.

Theoretical knowledge is usually evaluated through oral or written examinations. This latter type of assessment, which may vary according to the topic that is dealt with, includes:

- multiple-choice questions, on/or short answers;
- open-ended answers;
- 1-2 page essays.

In some courses, intermediate written self-assessment tests are made available to the student and assessments made using online quizzes in the multiple-choice questions format, followed by discussion in class. Oral examinations are used to test theoretical knowledge and may be supported using scoring rubrics to decrease subjective bias. For some courses, the oral exam is based on the written exam done previously. The oral exams are intended to evaluate the presentation and reasoning skills, the use of appropriate terminology and the aptitude for problem solving.

Pre-clinical practical skills. As described in Area 3, the student Logbook is the main verification tool for the acquisition of pre-clinical skills. Academic staff are responsible for signing the Logbook once a skill has been acquired (yes/no). The Curriculum Committee is currently discussing the need

for qualitative assessment criteria (see “Suggestions”). Further skills and competencies are also assessed during exams involving practical tasks (usually a combination of oral-practical or written-practical format), contributing to the final exam grade.

Clinical practical skills are mainly evaluated during the last two curricular years. As already mentioned for pre-clinical skills, assessment of clinical practical skills occurs in a formative way during practicals and PPT, and in a summative way during the practical part of clinical exams. Along with the Portfolio, which must be completed by the end of the first semester of the year V, students keep a PPT diary and, as of 2022/2023, a Case Log (see Standard 8.4 for details). Indeed, following recommendations from the EAEVE Committee, the actual verification of skill acquisition must be done, when possible, in real-time.

As mentioned in Area 5, students are now obliged to record all FPA and equine patients seen in extramural training in Google Forms, to better monitor activities carried out and patient numbers [🔗](#) (see Comments). Furthermore, to improve organization of clinical rotations and to encourage peer-mentorship, study grants are now available to postgraduate students who take responsibility for organizing rotation calendars for intra and extramural “Orientamento” and PPT.

Soft skills. In year V, the course entitled “Organisation of Veterinary Service, Business in Practice and Communication Skills” [🔗](#) teaches basic communications and managerial skills. Furthermore, the successful outcome of activities such as practical, clinical rotations, “Orientamento” in EPT and PPT presuppose that the student has received adequate training to develop a wide range of soft skills.

Table 8.1. Different types of assessment formats

	Curricular year					Total
	I	II	III	IV	V	
Number of teaching subjects	6	8	6	6	4	30
Only oral exam	2	3	3	2	1	11 (37%)
Only written exam	0	0	0	1	0	1 (3%)
Oral-written exam	1	3	1	2	2	9 (30%)
Practical-oral exam	1	2	2	1	0	6 (20%)
Practical-written exam	1	0	0	0	0	1 (3%)
Written-practical-oral exam	1	0	0	0	1	2 (7%)
Mixed format of assessment methods Tot (%)	4 (67%)	5 (63%)	3 (50%)	3 (50%)	3 (75%)	18 (60%)

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

The VEE must properly document the results of assessment and provide the students with timely feedback on their assessments. Mechanisms for students to appeal against assessment outcomes must be explicit.

Advertising and transparency of the assessment criteria/procedures. The UniPr teaching regulation (art. 38) and DVS teaching regulation (art. 13.4), set the general framework whereby assessment procedures must be implemented. Requirements include:

- 5 exam periods per year;
- for each course there must be a total of at least 8 exam sessions distributed among the 5 periods, with at least a 14-day interval between sessions in each period;
- no overlap between exam and lecture periods;
- exams may consist of one or more tasks in an oral, written or practical format, laboratory tests, computer exercises, papers or the recognition of training activities carried out in international mobility programs;
- exams are public and the student can register for all the exams for which he/she has the certificate of attendance and in compliance with barrier exams;

- dates of the exams of each course are published at the beginning of the a.y. Any change to the exam schedule must be promptly communicated to the students with a suitable notice, through the computerized exam registration system.

Assessment criteria of each subject, and passing requirements are reported in detail in the course syllabi, which must be updated annually by the course coordinator. These are reviewed by the DQAC (which includes student representation) each year. Assessment procedures are also explained at the beginning of each course by all professors. A question concerning the clarity of information provided is included in the questionnaire that students must complete at the end of each semester.

Updated information on all aspects of the assessment procedures (including the yearly schedule of exam dates) are available to all students via the following sections of the DVM Course website:

Calendar of teaching activities [↗](#)

Dates of all sessions - Department of Veterinary Science [↗](#)

Grading criteria and assessment methods of the individual teaching units (*please insert the year of enrolment 2018/2019 to access the current study programme*). [↗](#)

Graduation exam: [↗](#), [↗](#), [↗](#)

State exam: [↗](#)

DVS Teaching Regulation: [↗](#)

Academic staff Receiving hours: [↗](#)

Processes for awarding grades. Grades for exams are awarded based on a total of 30 points. The passing grade is 18 and the maximum grade is 30 “cum laude” (with honours). The examination committee for each course must include at least two professors, one of which is the course coordinator. Individual students are notified of exam grades at the end of oral and practical components or, for written exams, by electronic mail. If the student accepts the grade, this is recorded on the UniPr platform (ESSE3). Students cannot re-sit the same exam once the grade has been accepted and registered.

Students may ask teachers directly for feedback on the outcome of the exam and any advice for their improvement (where necessary).

Grades for the graduation thesis are awarded by a Commission made at least up of 5 academic staff members, including the supervisors of theses to be defended within the same daily session.

Each student begins the final exam with a grade equivalent to her/his grade point average, as expressed in 110. Points are then attributed by each member of the Commission, for a maximum of 11 points divided according to the following criteria:

- from 0 to 4 points awarded by the supervisor;
- from 0 to 2 points assigned by the co-supervisor;
- from 0 to 3 points assigned by the Exam Commission;
- 1 point in case of achievement of 40 CFU at the end of the first year of the course (with verification on December 31st);
- 1 point in case of degree obtained within the legal duration of the course [↗](#).

The thesis supervisor and an independent co-advisor (selected among the teaching staff) are responsible for evaluating the quality of the manuscript and the experimental or bibliographic work behind it. The remaining members of the Commission evaluate transversal and soft skills (e.g. quality of the presentation, communication skills of the candidate, ability to properly reply to questions asked by the Commission). Additional points may be attributed in the case of:

- having achieved ECTS in ERASMUS mobility = 1 point;
- active participation in University/Department Organs = 1 point;
- thesis in English = 1 point.

The final grade is the sum of the starting grade point average plus the points awarded by the Commission. “Cum laude” (with honours) distinction may be awarded when the final grade exceeds 110, provided that the Commission is unanimously in favour of it. The Commission, unanimously, can also propose an honourable mention, to underline the brilliant career of the student, when the starting grade point average is greater than or equal to 108/110.

Students can appeal against any assessment outcome directly to the examination board or to the President of the degree course; moreover, students can file a motion to the Quality Assurance Manager using the appropriate complaint form available on Department website [\[4\]](#). Students can also appeal to the UniPr Equal Opportunity and Anti-discrimination Committee [\[4\]](#).

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

As reported in Area 1, the VEE's activities are periodically monitored and reviewed through its QA system, in particular by DQAC and JSTC. In recent years, with a view to continuous improvement, the DQAC has launched a substantial revision of the methods for compiling the course program (Syllabus) with particular attention to the evaluation methods and criteria [\[4\]](#). In this process, which is implemented every year, the involvement of students is evident, both by the very nature of the DQAC and JSTC, and by their participation and vote within the two boards (DCVM and DVS). Furthermore, feedback from students on the conduct of the exams is obtained from the JSTC through an *ad hoc* question within the questionnaire that is administered to students every year.

The minutes of all Board meetings are transmitted to all members (including students' representatives). If the decisions adopted require widespread communication, the DCVM and DVS websites, the institutional social channels, and the teaching staff are also used.

The review of the assessment process, as required by ANVUR, takes place:

- annually during the monitoring activities carried out by the DQAC which evaluates the indicators relating to assessment procedures;
- whenever students raise a problem.

The DCVM coordinator can also propose corrective/improvement actions directly to the teaching staff member or in collegial sessions during the DCVM board meetings.

Finally, the JSTC annually reviews the performance of the degree program, with the drafting of an annual report. In this report, section 4 evaluates "the reliability of the methods for assessing the knowledge and skills acquired by students in relation to the expected learning outcomes", also reporting the analysis of the causes and the specific corrective actions [\[4\]](#).

It is the responsibility of the teacher of the course to ensure consistency between the learning outcomes and the assessment design of his/her discipline. The mapping of courses topics to D1Cs and the design of the current Logbook have been important tools for assisting teaching staff in this regard (see Appendix 2). As previously reported, the JSTC and DQAC carry out annual monitoring, based on the students' opinions aimed at assessing consistency, identifying any misalignments, and guiding teachers towards continuous improvement. The written examination has been adopted in various clinical and professional subjects (see Table 8.1). The introduction of this modality was positively evaluated by the students. In clinical subjects, the discussion of clinical cases is particularly encouraged, as it allows for the assessment not only of theoretical knowledge but also of clinical reasoning and communication skills. In the first curricular years, the oral exam modalities (considered a must of the Italian academic tradition) have been progressively integrated by the written ones. However, the oral exam continues to be the most frequently assessment method used by teachers, as a tool able to stimulate verbal interactions and the use of appropriate terminology.

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

The learning objectives and assessment strategies for each course are clearly defined in the corresponding Syllabus, which is readily accessible to students on the UniPr website. The certification of the achievement of learning outcomes varies depending on the nature of the activity.

A positive grade in the final examination of the single course certifies that the student meets the required learning outcomes. All the grades are registered in the students' digital career on the ESSE3 platform and are not accessible to the teaching staff due to privacy regulations. Students' career may be checked by authorized support staff members to verify the compliance with prerequisites.

Laboratory Practicals. Many of the competencies listed in the Portfolio (see below) are acquired during laboratory practical during the course curriculum. Attendance and activities are recorded by academic staff in the laboratory activity register ("Registro di Esercitazioni").

The "Portfolio" is a Logbook which enumerates all the preparatory skills required to access the final PPT (see Area 3). These skills are obtained by students during the practical phase of their courses, "Orientamento" and EPT. The successful achievement of these skills is validated by the signature of the respective teacher in charge, upon examination of the attendance sheet. The list of the teachers responsible for this task can be found on the UniPr website [🔗](#). Before attending the final PPT students must complete all the activities listed in the "Portfolio".

The "Libretto del Tirocinio" (PPT diary) serves both as an attendance register and activities logbook for the year V PPT. Students must compile the PPT diary, giving a brief description of the activities carried-out, which is to be signed by the supervising staff member or the supervising veterinary practitioner for EPT (non-academic tutor; see Standard 3.6). The fulfilment of the training activities and the acquisition of D1Cs is certified with the signature and a written final judgment of the teaching staff responsible for the specific area of the PPT.

The "Case Log". Starting from the a.y. 2022/23, it is mandatory for students to maintain a daily Case Log, documenting the clinical cases they have observed and the procedures they have performed. The log is signed daily by the supervising member of the VTH staff/contracted professor. At the end of each PPT period, students are required to submit their completed Case Log to the responsible tutor, together with the PPT diary. The main purpose of the Case Log is to enable a more accurate monitoring of students' exposure to a variety of clinical cases during their training.

Previously, the PPT diary was often signed by the responsible staff member at the end of the PPT period, but this was considered limiting to the actual verification of skill acquisition, which must be done, when possible, in real-time. As mentioned in Area 5, students are now obliged to record all FPA and equine patients seen in extramural training in Google Forms [🔗](#), to better monitor activities carried out and patient numbers (see Comments). Furthermore, to improve organization of clinical rotations and to encourage peer-mentorship, study grants are now available to postgraduate students who take assist in organizing rotation calendars for intra and extramural "Orientamento" and PPT.

Final Year Thesis. The final examination takes the form of the presentation and discussion of a written thesis, prepared independently by the student under the supervision of a teacher and concerning a specific veterinary science topic. The Examination Committee, awards the graduation grade (See Standard 8.2)

Strategy to encourage students to take an active part in the learning process. Students are encouraged to actively participate in both theoretical and practical activities. During theoretical lessons students are required to respond to questions and actively take part in the discussion to allow a self-evaluation of their level of comprehension of the subject. Furthermore, some courses include case-based problem-solving exercises, in class exercises as well as collaborative group work and multiple-choice quizzes. In some cases, students are required to prepare and discuss oral presentations, e.g. on research papers or clinical cases. The practical arm of courses is usually organized in small groups of students to facilitate the active participation in "hands-on" activities and the direct supervision of teachers. During practical lessons students are required to carry out specific tasks (autonomously or in groups). As reported in Area 3, students are directly responsible for organizing and verifying activities carried out in summer "Orientamento". They must discuss and define learning objectives together with both the academic and non-academic tutors.

Furthermore, the VEE now has (2022) a Skills Lab where students have the opportunity to practice clinical skills. This implementation allows students to engage in hands-on practice sessions within a controlled environment, fostering both autonomous learning and guidance from instructors. Students also have the option to participate in the "student intern" program which offers an additional opportunity for students to actively engage in practical and research activities related to their chosen thesis topic [🔗](#).

During year V PPT, students can take part in various journal and book clubs related to different fields. The process of thesis preparation and defense is another excellent opportunity for students to actively engage in independent research and exploration of a topic that interests them. During this process, students can participate in a number of different activities that they organize themselves: conduct experimental design, perform literature reviews, engage in fieldwork, laboratory work, and clinical analysis. Finally, as reported previously, students are required to complete a questionnaire prior to undertaking the final examination for each course. The purpose of this questionnaire is to facilitate the provision of feedback and to allow students to offer valuable advice aimed at enhancing the overall quality of teaching.

Starting in a.y. 2018/2019, opinion surveys of non-academic teaching staff (VTH, extramural CCT) have also been carried out. Indeed, these teachers were excluded from the formal opinion surveys as they do not make up part of the formal examination commissions. Students can express satisfaction and criticisms, also through open-ended questions. Results from the surveys are used by the VTH Management Committee and the DCVM board to evaluate performance.

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

Both the expected learning outcomes and the assessment methods are aligned to the ESEVT D1Cs (See Area 3 and Appendix 2). Formative assessment is usually based on informal methodologies:

- classroom discussions: teachers engage students in discussions about a topic;
- formative quizzes: teachers can give students short quizzes throughout the learning process;
- one-on-one meetings with academic staff: teachers can meet with individual students to discuss their progress and provide feedback on their learning;
- observations: teachers can observe students as they work on a task or activity;
- presentations: students deliver a presentation on a specific topic or a clinical case.

These methods can help teachers gather information about their students' learning and adjust their instruction to meet their needs.

Summative assessment takes place in the final exams of each unit of study and relies on different assessment strategies defined in the corresponding Syllabus. As mentioned above, final exams can be oral, written (essay, short answers, multiple choice, true/false), practical or a combination of these methods.

The evaluation of clinical skills occurs mainly in the clinical settings of the year V PPT, where students receive continuous support from academic and VTH staff, as well as from contracted staff. As part of their training, students are required to maintain diaries and logbooks of their activities (please see Standard 8.4 for details).

Following graduation, each student is evaluated by the State Examination Committee, which is responsible for assessing the general knowledge and the acquisition of D1Cs. The examination procedure consists of a practical test involving three main areas of veterinary medicine including Companion Animal Medicine (including equines and non-conventionals), Food Safety and Quality

and Veterinary Public Health, Animal Production and Food-Producing Animal Medicine. The State Board Examination to obtain the national veterinary qualification is the only phase during which the student's level of competences and skills are assessed by external committee members.



Figure 8.1. PDCA cycle for planning, implementation and monitoring assessment.

Comments on Area 8

As mentioned above, students are now obliged to record all FPA and equine patients seen in extramural training in Google Forms, to better monitor activities carried out and patient numbers [\[4\]](#). The VEE is also considering the inclusion of the new Case Log (see above) in the final assessment of the PPT. Indeed, as reported in Standard 5.1, beginning with the current a.y., a pilot project for assessment of students at the end of the practical training in internal medicine has been undertaken which assigns a level of competence acquisition for the D1Cs relevant for the subject [\[4\]](#).

As mentioned in Standard 8.5, after graduation, every student undergoes evaluation by the State Examination Committee before entering the veterinary profession. However, this process has undergone modifications through Ministerial Decree 652/22 [\[4\]](#) and Law 163/21 [\[4\]](#). These regulations have introduced a practical assessment test, known as the PPV, to be completed prior to the graduation exam and thesis discussion, replacing the previous State exam. The PPV is aimed to assess the skills and DOCs obtained by the student during the final PPT and will be divided in three parts: a) Pet, Horses and Exotic animal clinical sciences, b) Veterinary public health and food safety c) animal husbandry and livestock medicine. The examination committee will be composed of 3 Professors of the VEE and 3 external veterinary practitioners.

Suggestions for improvement in Area 8

Since the mandatory evaluation questionnaires required by the QA organism ANVUR (see Standards 7.8 and 9.5) are completed by students at the end of the courses, and this does not allow them to evaluate the assessment methods. The questionnaire does have a question on the clarity with which the teacher explains the exam, but there is no formal survey on how examinations are indeed carried out. This gap is filled by the JSTC which includes a question in their annual questionnaire for students. The JSTC in agreement with DQAC suggest that this is modified, by ANVUR. Replacing the paper Logbooks (Portfolio and PPT Diary) with electronic versions could implement the quality control and an easier validation. As of the a.y. 2023/2024, the Ministerial procedures for admission into the Italian VEEs have changed (Decree 1107/22 [\[4\]](#)). The new admission exam is an online test (TOLC) and is conducted nationally, with two exam sessions held within the year in April and June. The test is administered in person and candidates are required to pre-register on the online portal [\[4\]](#) and select the examination site where they wish to take the exam. The test is delivered to each candidate through the CISIA online platform, using dedicated computer stations. The test includes 50 MCQ divided into 4 subjects (15 - Biology, 15 - Chemistry and Physics, 13 - Mathematics and logical reasoning, 7 - text comprehension) to be carried out in 90 minutes. Candidates have the option to participate in both exam sessions (April and June) and request that their best result be taken into consideration for admission. Candidates are given an “equalized result” which is the combination of the candidate's result and a “equalization coefficient” based on the test difficulty.

Area 9. Academic and support staff

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

A formal training² (including good teaching and evaluation practices, learning and e-learning resources, biosecurity and QA procedures) must be in place for all staff involved with teaching.

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

The global strategy to ensure that all requested competences for the veterinary programme are covered and that staff are properly qualified and prepared for their roles depends on the category of teaching staff.

Academic staff (Full, Associate and Assistant Professors; Table 9.2.1a).

These are professors employed by the VEE, holding a PhD and able to demonstrate their ability in research. The required skills and competences for academic staff in the DCVM programme are defined by the scientific-disciplinary sectors and the corresponding recruitment fields. Permanent staff (Full and Associate Professors) must have the s.c. *Abilitazione Scientifica Nazionale* (National Scientific Qualification; NSQ) in at least one discipline for the tenure position (Associate or Full Professor). A list of scientific-disciplinary sectors for teachers in the DVM course can be found here [☞](#). Positions for Assistant professors were permanent until 2010. They have been slowly phased out and have been replaced by temporary positions (s.c. “Type A and Type B temporary researchers”). Type A positions are non-tenure track and last 3 years, with the possibility of a further 2-year extension (based on an interim assessment by the Department). Type B positions are tenure-track and last 3 years. Only Type B positions can progress to permanent positions if the applicant obtains the NSQ. Applicants for both positions must hold a PhD. Teaching activity is mandatory for both positions.

Non-academic teaching staff (practitioners contracted by the VEE; Table 9.1.2b).

Practitioners contracted by the VEE are involved in both intra- and extramural core clinical teaching activities, in both companion (equine) and FPAs. The selection and recruitment of these positions are the responsibility of the DVS. Funding comes from both the UniPr central administration and from proceeds of the VTH. Each year the DCVM board deliberates on the needs and requirements (based on past case load, feed-back from students, ESEVT indicators, etc.) and puts out public calls. Selection is done by an internal committee made up of 3 academic staff members. Applicants must have a DVM, demonstrate experience in the specific clinical field and (preferably) previous teaching experience. The commitment to teaching is explicitly required in the contract and they are obliged to follow the UniPr Code of Conduct. They undergo student appraisal and assessment at the end of each training period. The VEE currently has three contracted practitioners for training in bovine health management, three for training in porcine health management, two for training in equine internal medicine and surgery, two for animal production and husbandry, two for training in poultry medicine, one for training in FQS (aquatic species) and one for non-conventional species.

Even though not reported in the tables below, the VTH currently has approximately 25 private practitioners that are hired on a part-time basis for the running of the VTH clinical, diagnostic and h24/7 emergency services [☞](#). They are recruited by the VTH through a selection process that includes evaluation of CV and interview [☞](#). The commitment to teaching is explicitly required in the contract and they are obliged to follow the UniPr Code of Conduct. They undergo student appraisal and assessment at the end of each training period.

Finally, PhD students can participate (unpaid) in support activities (practicals, seminars, etc.) following approval by the PhD programme board. Interns and residents participate in support of

Area 9. Academic and support staff

practical clinical activities in the VTH, under senior staff supervision (for numbers of PhD students, Interns, and residents see Tables 7.2.5, 9.2.4 and 10.3.1).

Support staff

Laboratory technicians are involved in many practical teaching activities. Their skills and competencies are attested to by their academic staff supervisors and their participation in teaching is approved by the DCVM board.

The DVS is committed to assuring that staff are capable of good teaching and assessing practices and have knowledge of (e)learning resources, biosecurity and QA procedures.

All academic staff must complete an activity report every three years. The report, which includes a detailed list of teaching, research and organizational activities carried out, is subjected to evaluation by the DCVM board. teaching staff members are also evaluated for teaching and assessment skills through analysis of student opinion reports (see below Standard 9.5).

All staff must attend a compulsory course on security (UniPr (e)learning platform, the DVS BAWC has prepared a course on biosecurity in teaching laboratories and the VTH that all Academic and support staff must attend [\[link\]](#)).

QA procedures (results of student opinion surveys in particular) are communicated to all teaching staff during DCVM and DVS board meetings. Furthermore, as a small department, many components of the academic staff are members of departmental QA committees, thus guaranteeing full participation in and knowledge of QA procedures (see Area 1).

Approximately 73% of academic staff involved in veterinary training are veterinarians (see Appendix 1).

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

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

Table 9.2.1a. Academic teaching staff of the veterinary programme

Type of contract	2022	2021	2020	Mean
Permanent	47.2	47.2	49.2	47.9
Temporary (Type A and B researchers)	2	2	1.5	1.8

Table 9.2.1b. Non-academic teaching staff of the veterinary programme

Type of contract	2022	2021	2020	Mean
Contracted practitioners for core clinical training	14	14	14	14

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

Type of contract	2022	2021	2020	Mean
Permanent (%)	71.7	71.7	71.7	71.7
Temporary (%)	1.9	1.9	1.9	1.9

Table 9.2.3. Support staff of the veterinary programme

Type of contract	2022	2021	2020	Mean
Permanent	42	36	33	37
Temporary	-	-	-	-
Total	42	36	33	37

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Table 9.2.4. Research staff of the VEE

Type of contract	2022	2021	2020	Mean
Permanent	5	5	5	5
Temporary (Type A and B, PhD students, Post-doc)	45	61	34	46.7
Total	50	66	39	51.7

It is prospected that the number of academic teaching staff and support staff will remain stable for the next three years given that there are no foreseen retirements. There will be a slight increase in tenured academic staff as there are currently several fixed-term researchers that have obtained the NSQ and that are eligible for tenure. Indeed, the possession of the NSQ for a specific academic discipline ensures that the permanent academic staff can provide up-to-date research-based education. support staff will increase by approximately 20% as the VEE has requested several new positions to replace colleagues that have recently left the DVS administrative offices.

Selection and recruitment of academic staff depend on available public funding. A budget for Academic and support staff recruitment is assigned annually to the DVS from UniPr on the basis of several parameters including fulfilment of research and teaching objectives, the student population size and the expected academic turnover. The use of allocated resources for academic staff recruitment at the DVS is discussed and approved by the DVS Board, based on proposals by the DCVM board. Proposals are then approved by the UniPr Board of Governors. Public calls are sent out by the UniPr central administration.

Since the last EAEVE visitation, the DVS has strived to allocate resources for academic staff in several clinical disciplines (1 Full professor in Internal Medicine, 2 Full Professors surgery, 2 Associate Professors Internal Medicine, 2 Associate Professors in Obstetrics and animal Reproduction) and has hired several EBVS Veterinary Specialists in order to improve training and acquisition of D1Cs.

The DVS periodically identifies the need for specific support staff, both for administrative and laboratory/research activities, and makes recruitment/promotion proposals to UniPr. If these are accepted, recruitment procedures with specific selection criteria begin. Candidates are selected via competitive examinations. Therefore, the selection and recruitment of support staff falls within the competence of the central administration. The selection procedure is based on a profile describing the required specific/general skills. There is a service for the support staff CPD that is managed by the UniPr [\[link\]](#).

Full time permanent staff cannot carry out outside work. Part time staff can carry out outside work as long as it is not directly in competition with services offered by the DVS.

Standard 9.3: Staff must be given opportunities to develop and extend their teaching and assessment knowledge and must be encouraged to improve their skills. Opportunities for didactic and pedagogic training and specialisation must be available. The VEE must clearly define any systems of reward for teaching excellence in operation. Academic positions must offer the security and benefits necessary to maintain stability, continuity, and competence of the academic staff. Academic staff must have a balanced workload of teaching, research and service depending on their role. They must have reasonable opportunities and resources for participation in scholarly activities.

The national ministerial contract for permanent academic staff requires that full-time staff members dedicate no less than 350 h/year to teaching (at least 120 h/year lectures and practicals), mentoring, tutoring, and learning assessment, while part-time academic staff members are required to dedicate 250 h/year.

Partial reductions of the teaching workload may be conceded in case of commitments to institutional roles (for example, DVS Head, Vice-Rector, Rector).

In order to receive the periodic salary increases foreseen by law [\[link\]](#) academic staff members must:

- compile and submit an annual “teaching register” with all direct teaching activities reported for the a.y.;

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- compile and submit an annual “diary” where other activities (mentoring, tutoring, public engagement, CPD, board meetings, examinations, etc.) are reported for the a.y.;
- have published at least one scientific article;
- have participated in at least 70% of DVS board meetings.

Academic staff are invited, but not required, to dedicate a part of their time to the s.c. “Third Mission” (public engagement, organization of CPD courses, etc.).

Type A and Type B temporary researchers are required to teach at least 60 h/year. As these are not permanent positions, the other activities as described above are not required. However, achievement of the NSQ (see above Standard 9.1) relies heavily on research output; therefore, these staff members dedicate a marked part of their time to scientific research if their final goal is a tenured position.

There is no formal system of reward for teaching excellence in operation (see “Comments and Suggestions”).

Opportunities for didactic and pedagogic training and specialisation are available but are not compulsory (see “Comments” below). As mentioned in Standard 3.4, UniPr has embraced the culture of continuous professional development for academic staff and recently established a working group for the innovation of training processes. The working group aims to develop teaching skills that respond to the need for acquisition of “soft-skills” (critical thinking, problem solving and collaborative skills, responsibility, management of emotions, etc.) and of innovative teaching and assessment methods. Courses for the last 3 a.y. can be found at website [🔗](#).

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

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

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

Professional growth and development of teaching staff is aimed at encouraging colleagues to update recent research advances in their area and to exchange information and expertise with other teachers, and include:

- international mobility and exchange programmes [🔗](#);
- periods of paid leave for research and/or teaching [🔗](#), that staff can take for 6-12 months;
- annual research grants from UniPr to all teaching staff that have published at least 1 scientific article in the last three years; the sums are small, but can be used to attend conferences, pay publication fees, begin basic research projects, etc. [🔗](#);
- CPD courses for didactic and pedagogic training, as described above.

Professional growth of support staff at the DVS includes the recognition of experience and expertise in scientific disciplines through the figure of the s.c. “Cultore della Materia”: these are support staff members that have demonstrated excellence in teaching and research activities and that can participate in final examinations and in thesis preparations. Proposals for the title are made by academic staff supervisors and approved by the DVS.

As described in Standard 9.3, salary increases for all permanent academic staff are dependent on specific criteria based on teaching, research and participation in departmental governance.

Promotion along the tenure track depends firstly on available public funding, as described in Standard 9.1. Only academic staff with the NSQ for Full professorship can progress from Associate professorship. Proposals for progression are discussed and approved by the DVS and are then approved by the UniPr Board of Administration.

As mentioned in Standard 9.1, appraisal of all academic staff is based on a compulsory activity report that must be submitted every three years. The report, which includes a detailed list of teaching,

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research and organizational activities carried out, is evaluated by the DCVM and DVS boards. Teaching staff members are also evaluated for teaching and assessment skills through analysis of student opinion reports (see Standard 9.5).

Support staff members may benefit from vertical economic progression, following annual internal calls managed by the UniPr central administration, based on available resources. Support staff are evaluated each year by the DVS Head, based on performance criteria.

Mentoring and support for teaching and support staff is offered by:

- the UniPr Center for Welcome and Inclusion's counselling service, which is available for all those working and studying at the UniPr [🔗](#);
- the UniPr Equal Opportunity and Anti-Discrimination Committee [🔗](#), that is open to all those working and studying at UniPr and has the main function of offering support to staff in cases of verbal, physical or psychological violence, including legal support.

Support staff is also supported by their representatives in the various boards and QA committees.

Teaching and support staff are directly involved in the decision-making process regarding their progression and appraisal. The principal organisms that foresee participation of staff (directly or through their representatives) include:

- DCVM board;
- DVS board;
- UniPr Academic Senate [🔗](#);
- UniPr support staff Council [🔗](#);
- University Unions [🔗](#);
- National University Council (CUN) [🔗](#).

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

The VEE teaching staff is assessed by students:

- with mandatory and anonymous online questionnaires that each student must compile before sitting the final exam of each course. Results from the surveys are discussed in DQAC and in the DCVM board to evaluate performance. The questionnaire scheme follows the ANVUR guidelines and is divided into four main themes, namely, subject (4 questions), teaching (6 questions), interest (1 question), and suggestions (10 suggestions) [🔗](#). Specific questions for teaching staff assessment include:
 - Is the schedule of lessons and other learning activities respected?
 - Does the teacher motivate you to learn the subject?
 - Does the teacher clearly explain class material during the lectures?
 - Are the practical activities (exercises, laboratories, etc.) useful for learning the subject?
 - Was the teaching content carried out according to what was written on the Degree Course website?
 - Does the teacher clearly explain the examination procedures?
 - Is the teacher available for explanations and assistance?
- opinion surveys of non-academic teaching staff (VTH, extramural CCT). Starting in a.y. 2018/2019, contracted professor and staff has also been carried out. Indeed, these teachers were excluded from the formal opinion surveys as they do not make up part of the formal examination commissions. Results from the surveys are used by the VTH Management Committee and the DCVM board to evaluate performance;
- Academic tutor reports. As described in Area 7, at enrolment, each student is assigned a tutor from among the academic staff. At the end of each a.y., tutors must ask all of their assigned students to complete a questionnaire on different aspects of the student life cycle. Among the questions asked there is "Was the teaching staff willing and available for assistance"?

Area 9. Academic and support staff

- The DQAC, following feedback from students on the need to evaluate criteria not included in the end-of-course questionnaire, surveyed students' opinion on teaching activities during the COVID-19 pandemic. These are illustrated in the COVID-19 Addendum, Area 9.

As described above, selection and recruitment of academic staff depend on available public funding. A budget for academic and support staff recruitment is assigned annually to the DVS from UniPr based on several parameters including fulfilment of research and teaching objectives, the student population size and the expected academic turnover. The use of allocated resources for academic staff recruitment at the DVS is discussed and approved by the DVS board, based on proposals by the DCVM board. Proposals are then approved by the UniPr Board of Administration. Public calls are sent out by the UniPr central administration. The need for contracted professionals for core clinical training is monitored by the CC, the EAEVE Committee and VTH, based on ESEVT indicators and feedback from the SC. All decisions are communicated to all interested parties through the DCVM and DVS boards.



Figure 9.1. QA system for DVS staff recruitment

Comments on Area 9

As mentioned in the DVS SWOT analysis (Area 1), recruitment of qualified teaching staff in clinical disciplines is a constant challenge. The VEE has been fortunate to find a highly motivated equine surgeon who will become an essential part of the academic teaching staff. The compensation for suboptimal teaching staff in FPA medicine has continued to be potentiated through contracted professionals, who guarantee hands-on training in a work-based environment. Recent student opinion surveys of contracted staff have also assured constant feedback and any necessary corrections.

Suggestions for improvement in Area 9

Contracts for academic staff members (duties, obligations, etc.) are regulated by the Ministry for Higher Education and Research. There is no provision or obligation for formal training, as described in Standard 9.1. While this is undoubtedly not a good thing, we cannot oblige our academic staff to participate in the many training opportunities that are available. That said, the national QA system ANVUR is now considering making continuous professional development for academic staff mandatory for Italian Universities [\[1\]](#).

It would be necessary to include clinical activity in the VTH as part of teaching hours for academic staff. Finally, many members of the VEE support staff are essential for both teaching and research. It would be necessary, together with the UniPr central administration, to increase the offer of continuing professional development in specific areas of scientific research and teaching (including practical activities for students with specific disabilities). CPD for support staff should contribute to vertical career progression.

Area 10. Research programmes, continuing and postgraduate education

Standard 10.1: The VEE must demonstrate significant and broad research activities of staff that integrate with and strengthen the veterinary degree programme through research-based teaching. Appendix 5 reports a total of 411 indexed publications (Scopus indexed journals) of the DVS academic staff from 2019 to 2022. Of these, approximately 63% were published in journals belonging to the first quartile of their subject area. Figure 10.1 shows research performance for the last 4 a.y.

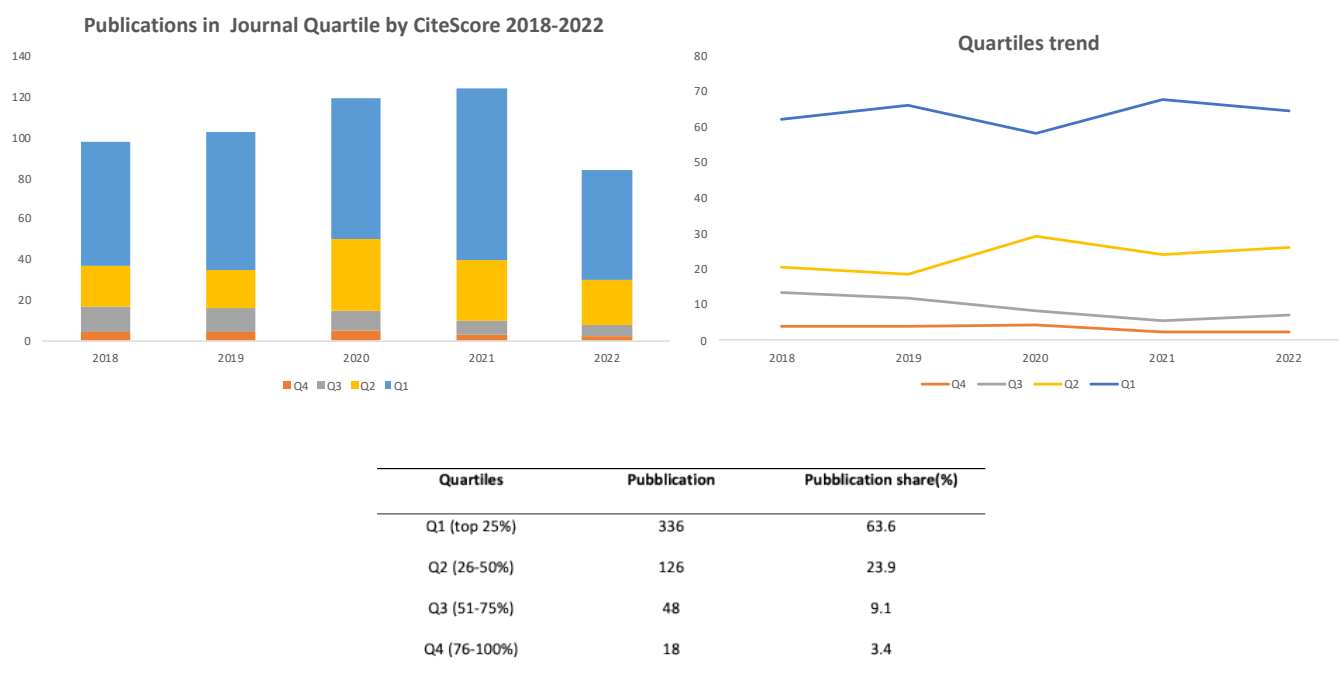


Figure 10.1. Research performance of DVS academic staff for 2018-2022

The research activity of the VEE's academic staff covers a wide range of topics, including but not limited to Physiology, Pharmacology and antimicrobial resistance, Animal Production and Nutrition, Infectious diseases, Food-borne zoonoses and numerous clinical disciplines. Funding of research comes from both public and private sources. The broad research activities of the VEE integrate with and strengthen the degree programme. Indeed, the VEE strives to prepare students to be lifelong inquirers and learners. The VEE's research topics deal with many of the current issues regarding "One Health", "Food Security" (intended as reliable access to a sufficient quantity of affordable, nutritious food) and a sustainable environment. The VEE's students are exposed not only to the importance of the veterinarian in protecting animal health and welfare, but also to the profession's role in safeguarding public health and the planet. Furthermore, the national and international collaborations of the staff members in research activities often become opportunities for the students to find receiving institutions to attend mobility periods for study or traineeship purposes (ERASMUS Plus SMS – Student Mobility for Study- or SMT - Student Mobility for Traineeship). The Visiting Professors' scheme in place at UniPr [is](#) further stimulus for students to appreciate research carried out by colleagues from other countries.

Finally, as described in Standard 10.2, the final year thesis, which is compulsory, guarantees the acquisition of skills associated with research-based education (bibliographical search, experimental hypothesis, problem solving, practical research activity, thesis preparation and discussion).

Area 10. Research programmes, continuing and postgraduate education

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 (2022)

Agency/ Company/Institution	Scientific topics	Grant (€)/year	Duration (Yrs)
MIPAAF	Animal Production	43,410	2
MIPAAF	Animal Production	34,273	2
MIPAAF	Animal Production	58,428	2
Regione Lombardia	Animal Production	35,834	3
Fondazione AGER	Animal nutrition	14,516	3
Fondazione AGER	Animal Production	25,636	3
Regione Lombardia	Animal Production	14,762	2
UniPR	Genetics	93,500	1
UniPR	Anatomy and Morphology	144,584	1
UniPR	Radiology	185,00	1
Vaxinano Sas	Parasitology	18,000	1
Osti Leila	Reproduction	12,600	1
Prometheus Srl	Biochemistry	5,000	1
Swedish University of Agricultural Sciences	Genetics	11,500	3
Università degli Studi di Padova (DAFNAE)	Animal nutrition	20,000	1
Bivans Srl	Reproduction	4,200	1
Vigliani Alessandra	Reproduction	4,200	1
Caseificio Castellan Urbano SAS	Animal Production	1,500	1
Consorzio Agrario di Parma Soc. Coop. A.r.l. in c.p.	Animal nutrition	6,666	1
Chiesi Farmaceutici Spa	Anatomy and Morphology	50,000	1
Guna Spa	Biochemistry	7,000	1
Farmer Spa	Infectious Disease	12,000	1
Danisco France SAS	Animal Production	12,500	2
Bioethic Alliance Srl	Biochemistry	2,000	1
Arcoblu Srl	Parasitology	10,000	1
Chiesi Farmaceutici	Physiology	8,600	1
Promocoop Lombardia Società Cooperativa	Animal Production	3,000	1
Gruppo Italiano Mangimi Spa	Animal nutrition	20,000	1.5
Kemin Cavriago Srl	Animal nutrition	20,000	1
Ricci Daniele	Reproduction	4,200	1
Chiesi Farmaceutici	Anatomy and Morphology	30,000	1
Chiesi Farmaceutici	Infectious Disease	60,000	1
Nutristar Spa	Animal Production	20,000	1
Danstar Ferment A.G.	Animal nutrition	3,000	1
Chiesi Farmaceutici	Anatomy and Morphology	55,000	1
Chiesi Farmaceutici	Infectious Disease	30,000	1
Arcoblu Srl	Parasitology	3,000	1
Chiesi Farmaceutici	Anatomy and Morphology	50,000	1
Consorzio del Formaggio Parmigiano Reggiano	Animal Production	35,000	1
Queen Mary, University of London	Anatomy and Morphology	10,100	1
Università di Pisa	Surgery	2,400	1
European Commission – Horizon 2020	Animal Nutrition	24,000	4 +6 months
European Commission – Horizon 2020	Animal Nutrition	24,000	4 + 6 months
UniPR	Parasitology	8,200	1
UniPR	Physiology	34,000	1

Area 10. Research programmes, continuing and postgraduate education

UniPR	Animal Production	25,200	1
UniPR	Pharmacology	43,410	1.5
UniPR	Food Inspection	34,273	1.5

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

During the course curriculum, the VEE provides students with the opportunities to receive a grounding in evidence-based veterinary medicine, to experience research, to consider research as a career, and to develop the knowledge and skills to use research outputs as part of evidence-based practice. Briefly, students can:

- apply to become a student intern (see Standards 3.2, 8.4);
- participate in the ERASMUS Plus Mobility consortia, where students can participate to mobility for either study or traineeship [↗](#);
- attend all seminars and conferences organized by DVS;
- attend annual PhD dissertations and discussion;
- during year V PPT, participate in Journal Clubs and case report presentations;
- participate in research promotion events, such as the Night of Researchers [↗](#).

Finally, all students must prepare a final year thesis. This is the most important process that allows students to understand the importance of scientific research, evidence-based medicine and lifelong learning. Students must choose their thesis topic, by the end of year IV at the latest, from a list of topics that is available on the DCVM website [↗](#). It is also possible to contact teaching staff directly to explore together a thesis topic of particular interest, based also on the ongoing research programs of the potential supervisors. In year III, 2 ECTS are assigned to thesis preparation. The course is taught by postgraduate student tutors (see Area 7.4) and includes how to carry out bibliographical research. In year IV, 3 ECTS are dedicated to thesis format, writing techniques and clinical/laboratory activities if the thesis is experimental. In year V, 4 ECTS are devoted to the final drafting of the thesis and its presentation on the date of the graduation session. All relevant information for the final year thesis, including the slides from the year III course “How to write a Thesis”, can be found at website [↗](#). The minimum requirement for the final year thesis is the submission, presentation and discussion of either a literature review or the results of research activity (carried out together with the supervisor and collaborators), in basic or clinical sciences. The thesis supervisor is a member of the academic staff. Other academic or support staff, colleagues from other Universities or research centres, private practitioners, etc. that have participated in research activities can be chosen as “co-supervisors”. Supervisors are responsible for planning the thesis structure and content, defining the research activities in the case of an experimental thesis, offering all necessary guidance throughout drafting of the thesis and for revision of the thesis before submission. The assessment process for the final year thesis has been described in detail in Standard 8.2.

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

The currently active post-graduate programmes at the DVS include:

PhD in Veterinary Sciences.

UniPr PhD programmes are organized according to ministerial regulations [↗](#). Courses last three years and the title of “Dottorato di Ricerca” represents the highest level of education in the Italian academic system and provides the needed skills to perform highly qualified research activity. It is also required to continue along the University tenure track. Each year a new cohort of PhD students is admitted, following an open call and selection process [↗](#).

The DVS PhD programme in Veterinary Sciences is managed by the PhD board and is led by the PhD coordinator [↗](#); [↗](#). The composition and functions of the PhD board are defined by a specific

Area 10. Research programmes, continuing and postgraduate education

regulation [↗](#). The PhD course is divided into five different curricula: Basic sciences; Clinical Sciences; Bio-pathology; Animal Reproduction; Food Safety and Quality.

Grants for PhD students are financed by the MUR, by UniPr and by the private sector. They can also be funded with research project financing and co-financed with VTH income.

Specialisation Schools (SS).

- Food Inspection of Animal Origin [↗](#);
- Animal health, breeding and livestock production [↗](#).

Specialisation schools are activated every three years and have a duration of three years. The diploma of the SS is a prerequisite to access the National Health System through public competitions. Since the ay 2020/2021, grants are available from the NHS for specialisation students in Food Inspection.

Approved EBVS Residency programmes.

- EC Veterinary Internal Medicine-CA (Cardiology);
- EC Veterinary Neurology;
- EC Veterinary Surgery;
- EC Porcine Health Management.

Others.

- * Masters. The VEE offers post-graduate Masters courses in several clinical and non-clinical disciplines (see Tables below). These last 1 year and offer 60 ECTS of training;
- * Post-doctoral fellowships. These are grants given to graduates who wish to continue specific research activities in each discipline; they can last from 1-5 years and are funded by research projects of individual academic staff members, the VTH, UniPr or private industry.

Table 10.3.1. Number of students registered at postgraduate clinical training

Training	2021/2022	2020/2021	2019/2020	Mean
Interns				
Companion animals	7	-	-	2.3
Equine	-	-	-	-
Production animals	-	-	-	-
Others	-	-	-	-
Total	7	-	-	2.3
Residents EBVS disciplines				
ECVIM-CA	1	1	-	0.7
ECVS	1	-	-	0.3
ECVN	2	1	1	1.3
ECPHM	3	3	3	3
Total	7	5	4	5.3
National Specialisation				
Italian Specialisation in Food Safety	9	9	9	9
Italian Specialisation in Animal health, breeding and livestock production	12	12	12	12
Masters				
Companion Animal Internal Medicine	29	0	30	19.7
Non-conventional animal internal medicine and surgery	-	22	23	15
Wildlife Management	15	28		13.3
Zooanthropological cognitive behavioral medicine	29	-	-	9.7

Table 10.3.2: Number of students registered at postgraduate research training

Training	2021/2022	2020/2021	2019/2020	Mean
PhD	23	16	13	17.3
Post-doctoral Fellowships	8	8	13	9.7

Area 10. Research programmes, continuing and postgraduate education

Table 10.3.3. Number 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)

Degrees	2021/2022	2020/2021	2019/2020	Mean
International Masters in Food Technology	70	85	93	82.7

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

Courses	2021/2022	2020/2021	2019/2020	Mean
Number of courses	29	33	19	27
Attendees	949	1105	480	844.7

It is likely that the number of PhD positions financed by MUR will increase, given the availability of public funding through the Italian Recovery and Resilience Plan, financed by the European Commission.

Postgraduate trainees provide support to teaching staff during undergraduate students' hands-on professional training and clinical activity at the VTH. Their qualified contribution is especially useful during practical training sessions in small groups. Undergraduate and postgraduate students (PhD students, Specialisation school students; residents) collaborate under the supervision of the academic staff during the clinical activities and share experience, knowledge and skills for clinical case management. Training of postgraduates is not in conflict with undergraduate training, given the variety of cases, with different levels of complexity: indeed, having both undergraduates and postgraduates working together is considered an excellent resource for creating an environment conducive to learning.

As described in Area 1, the SC, which is made up of representatives of the profession's stakeholders from the public and private sectors, meet annually to discuss the developments of the veterinary profession and the needs not only of the undergraduate (in terms of skill and competencies), but also those for continuing education. Indeed, the profession is becoming increasingly "specialized" and it is impossible, with the current curriculum overload, to guarantee training in all areas and with the depth required to undergraduate students. The continuing education that is offered by the VEE strives to fill this gap.

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

The most important QA mechanism used by the VEE to ensure that its research activities contribute to research-based education is the final year thesis, as illustrated above. Without a majority of academic staff members, PhD and other post graduate students involved in active research, it would be impossible to guarantee thesis topics for all graduating students.

The presence of EBVS residents and specialisation students is also very stimulating for undergraduate students to learn how to apply research-based education. All residents must publish at least 2 scientific articles in order to be eligible to sit the EBVS college examination; it is therefore of added value to have these colleagues working in the clinical disciplines with students who are then exposed to clinical research. Specialisation students, on the other hand, must prepare a final year research dissertation and their contribution to the research activities of their Academic Supervisors leads inevitably to up-to date teaching.

As described in Area 9, academic staff promotion is dependent on research activity and publication in scientific journals (please see Standard 9.3 for further details).

As described in Area 1, the QA system at the VEE is a tiered system with the involvement of national, university and departmental organisms and the drafting and submission by the VEE of different QA documents. This is true for research activity as well. The DVS Research Committee drafts an annual

Area 10. Research programmes, continuing and postgraduate education

report on the scientific activity (publications and funding) of academic staff members. The UniPr monitors research production through the Evaluation Unit's annual report.

Finally, the MUR carries out periodic (every 5 years) evaluation of Universities' research activity (in terms of number of publications in the different disciplines) called the "Valutazione della Qualità della Ricerca (VQR)" [\[4\]](#).

Decisions on postgraduate and continuing education programmes are made by the DVS board, following proposals from members of the DCVM board and other committees (for example the SC). Programmes are communicated to staff, students and stakeholders during board meetings and through the UniPr and DVS websites.



Figure 10.2. QA system for Research programmes, continuing and postgraduate education

Comments on Area 10

The DVS is devoted to conducting quality research and to providing post-graduate and continuing education programmes that meet the needs of the veterinary profession and society. The VEE students are able to be involved on both a voluntary and compulsory basis in the research activities. They have the opportunity to interact with researchers, PhD students, residents, etc. in a stimulating research environment where they can enhance their awareness and knowledge on evidence-based veterinary medicine.

Suggestions for improvement in Area 10

Future improvements in the Area 10 include increasing the participation in staff exchange programs and the mobility of PhD students. The department has recently become a member of the "EU GREEN, European Universities Alliance for Sustainability" project, which has, among others, the scope to facilitate and promote mobility and to increase the intra- and inter university collaborations related to research activities [\[4\]](#).

ESEVT Indicators

Name of the VEE:		Department of Veterinary Science, University of Parma			
Name & mail of the VEE's Head:		Prof. Giacomo Gnudi; giacomo.gnudi@unipr.it			
Date of the form filling:		06.07.2023			
Raw data from the last 3 complete academic years		Year -1	Year -2	Year -3	Mean
1	n° of FTE teaching staff involved in veterinary training	47.2	47.2	49.2	49.20
2	n° of undergraduate students	242	233	224	233.00
3	n° of FTE veterinarians involved in veterinary training	34.7	34.7	35.7	35.03
4	n° of students graduating annually	43	42	46	43.6666667
5	n° of FTE support staff involved in veterinary training	42	36	33	37
6	n° of hours of practical (non-clinical) training	877	877	877	877
7	n° of hours of Core Clinical Training (CCT)	822	822	822	822
8	n° of hours of VPH (including FSQ) training	485	485	485	485
9	n° of hours of extra-mural practical training in VPH (including FSQ)	40	40	40	40
10	n° of companion animal patients seen intra-murally	5043	4487	4084	4538
11	n° of individual ruminant and pig patients seen intra-murally	2	0	2	1.33333333
12	n° of equine patients seen intra-murally	97	51	59	69
13	n° of rabbit, rodent, bird and exotic patients seen intra-murally	81	97	66	81.3
14	n° of companion animal patients seen extra-murally	0	0	0	0.0
15	n° of individual ruminants and pig patients seen extra-murally	19224	19620	0	12948.0
16	n° of equine patients seen extra-murally	216	448	0	221.3
17	n° of rabbit, rodent, bird and exotic patients seen extra-murally	0	0		0.0
18	n° of visits to ruminant and pig herds	15	1	0	5.3
19	n° of visits to poultry and farmed rabbit units	0	0	1	0.3
20	n° of companion animal necropsies	88	114	124	108.7
21	n° of ruminant and pig necropsies	115	18	20	51.0
22	n° of equine necropsies	1	1	0	0.7
23	n° of rabbit, rodent, bird and exotic pet necropsies	90	3	95	62.7
24	n° of FTE specialised veterinarians involved in veterinary training	5	5	5	5.0
25	n° of PhD graduating annually	6	6	8	6.7

Name of the VEE:		Department of Veterinary Science, University of Parma			
Date of the form filling:		06.07.2023			
Calculated Indicators from raw data		VEE	Median	Minimal	Balance ³
		values	values ¹	values ²	
I1	n° of FTE teaching staff involved in veterinary training / n° of undergraduate students	0.211	0.15	0.13	0.085
I2	n° of FTE veterinarians involved in veterinary training / n° of students graduating annually	0.802	0.84	0.63	0.172
I3	n° of FTE support staff involved in veterinary training / n° of students graduating annually	0.847	0.88	0.54	0.307
I4	n° of hours of practical (non-clinical) training	877.000	953.50	700.59	176.410
I5	n° of hours of Core Clinical Training (CCT)	822.000	941.58	704.80	117.200
I6	n° of hours of VPH (including FSQ) training	485.000	293.50	191.80	293.200
I7	n° of hours of extra-mural practical training in VPH (including FSQ)	40.000	75.00	31.80	8.200
I8	n° of companion animal patients seen intra-murally and extra-murally / n° of students graduating annually	103.924	67.37	44.01	59.914
I9	n° of individual ruminants and pig patients seen intra-murally and extra-murally / n° of students graduating annually	296.550	18.75	9.74	286.810
I10	n° of equine patients seen intra-murally and extra-murally / n° of students graduating annually	6.649	5.96	2.15	4.499
I11	n° of rabbit, rodent, bird and exotic seen intra-murally and extra-murally / n° of students graduating annually	1.863	3.11	1.16	0.703
I12	n° of visits to ruminant and pig herds / n° of students graduating annually	0.122	1.29	0.54	-0.418
I13	n° of visits of poultry and farmed rabbit units / n° of students graduating annually	0.008	0.11	0.04	-0.037
I14	n° of companion animal necropsies / n° of students graduating annually	2.489	2.11	1.40	1.089
I15	n° of ruminant and pig necropsies / n° of students graduating annually	1.168	1.36	0.90	0.268
I16	n° of equine necropsies / n° of students graduating annually	0.015	0.18	0.10	-0.085
I17	n° of rabbit, rodent, bird and exotic pet necropsies / n° of students graduating annually	1.435	2.65	0.88	0.555
I18	n° of FTE specialised veterinarians involved in veterinary training / n° of students graduating annually	0.115	0.27	0.06	0.055
I19	n° of PhD graduating annually / n° of students graduating annually	0.153	0.15	0.07	0.083

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

Comments on Indicators

The indicators that are under the recommended minimum values are due to various factors, including difficulties in visiting pig and poultry farms for legislative restrictions and suboptimal extramural activity during 2020. Equine necropsies continue to be critical, despite compensation with the national diagnostic laboratories.

Suggestions for improvement on Indicators.

The number of herd visits has already increased for ruminants and pigs (see Addendum COVID19). The outlook for equine necropsies is positive, given the recent recruitment of an equine surgeon.

Glossary

A

ANVUR: National Agency for the Evaluation of Universities and Research Institutes

AY: Academic Year

B

BAWC: Biosecurity and Animal Welfare Committee

C

CdA: Board of Administration/ *Consiglio di Amministrazione*

CC: Curriculum Committee

CRR: Cyclic Review Report/ *Rapporto di Riesame ciclico*

D

DCVM: Degree Course in Veterinary Medicine

D1Cs: Day One Competences

DQAC: Departmental Quality Assurance Committee

DRC: Departmental Research Committee

DVS: Department of Veterinary Sciences

E

EAEVE: European Association of Establishments for Veterinary Education

EBVS: European Board of Veterinary Specialisation

ECTS: European Credits Transfer System/ *Corresponding to Italian Crediti Formativi Universitari (CFU)*

EPT: External Practical Training

ESEVT: European System of Evaluation of Veterinary Training

F

FSQ: Food Safety and Quality

FFO: Ordinary University Financing Fund

FPA: Food Producing Animals

FTE: Full Time Equivalent

H

HHM: Herd Health Management

I

ISEE: economic and financial situation indicator/ *Indicatore della Situazione Economia e Finanziaria*

IVSA: International Veterinary Student Association

IZS: National Veterinary Diagnostic Laboratory

J

JSTC: Joint Student-Teacher Committee

M

MRI: Magnetic Resonance Imaging

MUR: Ministry of University and Research

N

NSQ: National Scientific Qualification

O

ORIENTAMENTO: intramural or extramural activities in various disciplines to deepen knowledge and skills

OFA: Additional Learning Requirements/

P

PNRR: National Recovery and Resilience Plan

PPT: Professional Practical Training/*Tirocinio*

Q

QA: Quality Assurance

R

RG: Review Group

S

SBA: University Library Service/ *Servizio Bibliotecario di Ateneo*

SC: Steering Committee

SLD: Specific Learning Disorders

SMA: Annual Monitoring Form/ *Scheda di Monitoraggio Annuale*

SUA-CdS: Annual self-Assessment-Degree Course/*Scheda Unica Annuale-Corso*

U

UEU: University Evaluation Unit

UniPr: University of Parma

UQAC: University QA Committee

V

VQR: Research Quality Assessment/ *Valutazione della Qualità della Ricerca*

VTH: Veterinary Teaching Hospital/ Ospedale Veterinario Universitario Didattico

List of Appendices

Appendix 1. Current academic staff, qualifications, their FTE, teaching responsibilities and departmental affiliations

Appendix 2. Units of study of the core veterinary programme (including clinical rotations, EPT and graduation thesis): title, reference number, ECTS value, position in curriculum (year, semester), whether it is compulsory or elective, hours and modes of instruction, learning outcomes and their alignment with the ESEVT Day One Competences)

Appendix 3. Maps of the VEE and the intra-mural and extra-mural facilities used in the core veterinary programme.

Appendix 4. Written assessment procedures for QA

Appendix 5. List of scientific publications from the VEE's academic staff in peer reviewed journals during the last three academic years

Other relevant documents

- Biosecurity Manual Introduction and Summary
- Portfolio
- COVID-19 Addendum