UNIVERSITÀ
DEGLI STUDI DI BARI
ALDO MORO

SER 2023

SELF–EVALUATION REPORT
EAEVE VISITATION – OCTOBER 2023

Foreword and Acknowledgments

This SER is the result of efforts from the members of the Degree Course Council (DCC) and the VEE (Department of Veterinary Medicine of Bari - DiMeV), including students, support staff and academic staff. The report has been prepared in compliance with the ESEVT SOP Zagreb 2019 as amended in September 2021, and was sent for comments and corrections to the DCC and DiMeV members and finally approved by the DCC and DiMeV Councils on July 7th and 24th, 2023, respectively.

We sincerely thank all contributors for their willingness to provide factual data and specific information, without seeking to gloss over one or two issues that can be overcome in the next few months. A special thanks to Maria Tempesta, Liaison Officer of EAEVE visit, for the generous devotion with which she has guided SER drafting. Her enthusiasm and hard work are gratefully acknowledged. We are deeply grateful to the University of Bari for the great support received throughout this process, in particular from the Rector, the General Head, the Academic Senate, the Board of Governors, and all the Administrative Divisions.

We are sure that the EAEVE expert visit will be an opportunity for us to show the improvements that have been made since the ECOVE approval in 2016, but also to receive suggestions on how to further ameliorate our facilities, procedures and organisation to ensure outstanding training for our veterinary students.

We are also confident that this SER will provide the EAEVE experts with accurate and updated information to prepare for the on-site visit scheduled in October 2023. We welcome and thank them in advance for their work, time, and efforts in helping us to improve our veterinary training.

Nicola Decaro
Head of the Department of Veterinary Medicine

List of Contributors

Redactors: Gabriella Elia, Pasquale De Palo, Giuseppe Crescenzo, Giuseppe Passantino, Andrea Zatelli, Claudia Zizzadoro, Elisabetta Bonerba, Antonio Crovace, Francesco Staffieri, Marcello Siniscalchi, Annalisa Rizzo, Domenico Borromeo.

Students Redactors: Olga Andriulo, Valeria Buonfrate, Mauro Marsella.

Proofreader: Anthony Green.

Liaison Officer: Maria Tempesta.

Table of Contents

INTRODUCTION

Introduction

In its early years, the Degree Course in Veterinary Medicine (DCVM) at the University of Bari Aldo Moro had a rather chequered history until it began a path of linear evolution in the 1970s. In fact, Apulia, a land with a strong vocation for livestock husbandry, initially looked to the University of Naples for higher veterinary studies. Subsequently, during the Second World War, travel between the different regions was severely curtailed, and so in 1943 the first two-year course in veterinary medicine was established in Bari. After being suspended for several years, the DCVM was definitively activated by ministerial decree in the Academic Year (AY) 1971-72 and from that moment on, it has contributed over the years to training numerous professional figures at national and international level.

In 2004, the VEE was awarded Full Approval by the EAEVE. DiMeV was then evaluated by ESEVT in January 2014 and the ECOVE gave it Conditional Approval due to one Major Deficiency, i.e. Lack of Strategic Objectives'. The Re-visitation Team considered that this Major Deficiency had been fully corrected by the VEE and therefore ECOVE rewarded the DiMEV Full Approval in 2016.

In 2018, the DiMeV was visited by the National Agency for the Evaluation of the University and Research system (ANVUR) leading to a positive outcome.

On November 4th, 2022, in the lecture hall of the Veterinary Medicine Campus (VMC), the DCVM celebrated its fiftieth anniversary, an opportunity to take stock of the evolution which the veterinary profession has undergone in many areas, from animal health to food safety, to the protection and preservation of the environment, thus highlighting the now increasingly central role of veterinary medicine in the context of One Health. Indeed, it was a project on One Health that was to earn DiMeV the prestigious recognition of Department of Excellence, making it the only department at the University of Bari and one of the five Italian departments of veterinary medicine in the 2018-22 selection promoted by the Italian Ministry of Universities (MUR).

Location and facilities. The VMC is located in a 12-ha area in the municipality of Valenzano, about 12 km from Bari city centre and consists of 6 educational and research buildings, plus the Veterinary Teaching Hospital (VTH), where students can take advantage of several services and spend the whole day not only for attending lectures and practical works, but also for studying and performing recreational activities.

Students. Students of the DCVM are highly motivated due the limited number of places offered by the veterinary curriculum. Students represent the main stakeholders of the DCVM and are constantly involved in all the VEE activities and decisions, sitting in almost all the DiMeV and DCVM committees. Their advice is continuously taken into account for the improvement of facilities, services and teaching programs. They also have the opportunity of high-level international mobility due to the close ties of the VEE with outstanding Universities, and of on-site post-graduate education which completes the educational offers of the VEE.

Staff. A great effort has been made in the last years in order to recruit teaching and support personnel and to reduce the median age of the VEE staff. These efforts have created a youthful atmosphere, with great energy addressed to ameliorate the VMC education, research, infrastructures and services.

Research. The VEE is conducting high-quality research in the field of veterinary sciences and animal productions, as accounted for by an impressive number of scientific publications and high bibliometric scores of several professors and researchers. Based on the scientific production, DiMeV was the only department at UniBA, which was granted 7.5 millions of euros by the Ministry of University and Research (MUR) in the national selection of the "Departments of Excellence 2018-22".

Area 1 - Objectives, Organisation and Quality Assurance Policy:
The adoption of a national Quality Assurance (QA) System can be considered one of the most relevant changes since the EAEVE's last full visit. The ANVUR is formally accredited as an ENQA member and the Italian accreditation process follows the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG 2015).

The DiMeV and DCVM have implemented all QA procedures to meet both the ESEVT Standard Operating Procedures (SOP) and the ANVUR Requirements.

In 2018, DiMeV and DCVM underwent an accreditation visit by ANVUR experts, receiving full approval and periodic accreditation.

Area 3 – Curriculum:

Major modifications to the DCVM curriculum were implemented in 2018 and 2021. The DCVM curriculum has been completely redesigned with a new study plan, setting up a system for monitoring feedback from students and training external tutors from private and public bodies. All practical activities have been increased, starting from the first year of the course (clinical and non-clinical) and a compulsory Biosecurity course was introduced. A radical change has been adopted in the teaching of Veterinary Anatomy, increasing hands-on learning, practical training and providing a new module, Surgical Anatomy, in the fourth year of the DCVM. A new approach to studying and acquiring English language skills has been adopted, so that it is expected students have the availability of a native English-speaker tutoring for achieving B1 level (PET) before enrolling in the second year and subsequently, by following a compulsory course in English, reach level B2 (FCE) before graduating. The new degree course provides extramural stages, practical training in clinical and non-clinical activities, modulated according to three veterinary specialisation areas (pet and non-conventional clinics, farm animal and horse clinics, public health and food safety). A significant increase in meetings, summer schools, scientific events, and job placement sessions with private companies has been planned and implemented, strengthening the relationship between the DCVM and local and national stakeholders, but also improving the opportunities for students to gain competencies, soft and core skills directly from professionals and veterinarians working in public and private bodies.

Area 4 - Facilities and equipment /Area 5 - Animal resources and teaching material of animal origin:

The veterinary assistance service (open H24) at the VTH was temporarily discontinued in 2017 due to a lack of economic and human resources. The VEE promptly adopted strategies starting in the same year to ensure a continuous and effective service. In the following years, new economic resources linked to University funding meant that the service could be reactivated, but the restructuring and adaptation works, due to the COVID-19 lockdown, were completed only in 2022.

Agreements enabling students to carry out Extramural Practical Training (EPT) have been enhanced, and additional external tutors have been appointed. Many of the VMC facilities have been renovated and brought into line with biosecurity standards.

New activities have been started, such as the **LabDog** (research and teaching structure for ethology and behaviour clinics), and the **Sea Turtle Clinic** (STC: clinical and surgical services for rescued sea turtles requiring care and hospitalisation).

The tasks carried out by the **Mobile Clinic (MC)** for farm animals have been enhanced, while wild birds and mammals are treated at the **Regional Fauna Observatory**. Moreover, a series of technological innovations now help to boost student competencies in veterinary pathology and necropsies. One of these, a video recording system, enables students to follow practical training remotely so that students have the choice of attending both live and recorded training sessions.

Area 9 - Academic and support staff:

The 2020-22 Strategic Plan focuses on the need to increase the number of teachers with clinical skills, achieved through new recruitments. Support staff for clinical activities at the VTH have also been reinforced.

Area 10 - Research programmes, continuing and postgraduate education:

Italian research facilities are regularly assessed by ANVUR and in 2018 DiMeV was the only department at the University of Bari to be evaluated as outstanding for its research activities. This recognition enabled DiMeV to obtain further financial resources from MUR.

The development program presented by DiMeV to MUR focused on One-Health. The funding made it possible to invest in the quality of veterinary research and teaching, in the reorganisation of some facilities (Vinci Pavilion) and in planning new facilities and services (One Health Center).

COVID-19. The pandemic has dramatically impacted on the VMC activities, including education, research and Third Mission (TM). The lockdown was decreed without prior notice and we were all forced to move to an online teaching system. In addition, a major consequence of the lockdown was the reduction of clinical cases and necropsies. However, there was a collective effort by professors and students to rapidly overcome these issues and one of the most of our learnings from this pandemic is that we are prepared to face the emergencies.

Bureaucratic burden. Italian procedures are affected by heavy bureaucracy and Kafkian rules that slow down each process. Selection of the personnel is long-lasting, although the recent changes of the UniBA rules has significantly reduced the time to recruit both teaching and support staff. The tender procedures also require much time, so that the construction of the One-Health Centre granted by the "Department of Excellence" has not been started yet.

Version and date of the ESEVT SOP which is valid for the Visitation 2023 - This SER has been drafted and completed with the ESEVT SOP approved in 2019 and amended in 2021.

1.

OBJECTIVES, ORGANIZATION AND QA POLICY

Objectives, Organization 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.

DiMeV's mission encompasses higher education, cutting-edge scientific research, ongoing engagement with the global scientific community, and continuous public dialogue. This commitment extends to Veterinary Medicine, Animal Science, and Food Safety, aligned with EU and ESG guidelines. Our approach emphasises ethical, research-driven, evidence-based veterinary training.
DiMeV is committed to educating and training students to perform in all branches of the veterinary profession. The DCVM is a single-cycle degree course lasting 5 years that is defined by 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 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 from 2019.
Student training is progressive and combines theoretical knowledge with practical skills and the development of competences. The first two curricular years are mainly dedicated to basic sciences and animal production, whereas over the following three years animal production training continues, with students also being taught Veterinary Public Health (VPH), Food Safety and Quality (FSQ), and Clinical Sciences. Professional Practical Training (PPT) is provided during the third, fourth and fifth years.
Compliance with the ESEVT requirements and indicators is also regularly verified by the DCC. The DCC is tasked with planning and proposing actions to increase curriculum compliance with the latest version of the EAEVE SOP by proposing changes and actions to improve the core curriculum of the DCVM.
The overall objectives of the DiMeV, as reported in the Strategic Plan 2022-24, can be summarised as follows:
Educational and training objectives:
  a) Enhance the attractiveness of our educational offering;
  b) Ensure the sustainability of our educational offering;
  c) Expand opportunities for postgraduate education.
Research objectives:
  a) Elevate research competitiveness and the ability to attract external funding;
  b) Improve the quality of the PhD programme.
Internationalization objectives:
  a) Strengthen the international scope of our training offering;
  b) Strengthen the internationalisation of DiMeV's research efforts.
Third Mission objectives:
  a) Foster closer ties with the economic-social sector;
  b) Promote a culture of sustainability;
  c) Facilitate scientific and cultural dissemination across diverse stakeholders and social contexts.
Human, Structural and Infrastructural Resources:
  a) Cultivate well-being and human capital development within DiMeV;

b) Encourage the development and usage of digital services;
c) Optimise and enhance the DCVM library assets;
d) Promote sustainable development initiatives.

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.

Details of the VEE – DiMeV is one of 19 departments that constitute the University of Bari. More information is available on the university website.
The University is a public institution answerable to MUR. The Ministry sets out the general guidelines for certified degrees and determines the general policy for higher education in Italy, allowing a limited degree of autonomy to University administrations, as well as to its research, teaching and organisation facilities.
The Department serves as the basic unit of the University, fostering and coordinating research activities, while each individual has the right to pursue funding for research directly, at local, national and international levels. The Department also autonomously organises and oversees educational activities.
Name of the Department: Department of Veterinary Medicine of the University of Bari
Address: Strada Provinciale per Casamassima km 3, 70010 Valenzano (Bari)
Telephone: +39 080 5443943
Fax: +39 080 5443822
Website: https://www.uniba.it/it/ricerca/dipartimenti/dipmedveterinaria
E-Mail: direttore.dimev@pec.uniba.it
Director of the Department: Prof. Nicola Decaro, DVM, PhD, Dipl. ECVM
Telephone: +39 080 5443832
E-Mail: nicola.decaro@uniba.it
DCVM Coordinator: Prof. Gabriella Elia, DVM, PhD, Dipl. ECVM
Telephone: +39 080 5443805
E-Mail: gabriella.elia@UniBA.it
Veterinary Teaching Hospital (VTH) – Director: Prof. Andrea Zatelli, DVM
Address: Strada Provinciale per Casamassima km 3, 70010 Valenzano (Bari)
Telephone: +39 080 5443804 - 5443809;
Website: https://www.Uniba.it/it/ricerca/dipartimenti/dipmedveterinaria/ovud
The principal management and government bodies of the Department are:
a) **The Council**
b) **The Head (Deputy Head)**
c) **The VetBoard**
d) **The Giunta (DiMeV Administrative Board)**
The **DiMeV Council** is the decision-making body for all matters for which the Department is responsible. It is made up of all the professors and researchers belonging to the DiMeV, 8 representatives of the technical-administrative staff, 13 representatives of the students of the study programs organised and managed by DiMeV and 2 representatives of the PhD students. The Council

elects the Head, who presides over the Council and represents the Department for all institutional purposes, and the Giunta which assists the Head.

DiMeV Head: chairs and fosters the activities of the Department, presides over the Council and the Giunta, maintains relations with the other organs of the University and exercises all the powers established by the Statute and by the Regulations of the University of Bari.

DiMeV Deputy Head: replaces the Head in case of absence or unavailability and performs the duties delegated to him/her by the Head.

VetBoard: made up of the Head's delegates it serves as the forum for formulating and presenting the strategies and improvements to QA processes to the DiMeV Council.

The VetBoard oversees the organisation and functioning of Department sectors, ensuring the implementation, monitoring and verification of QA processes in their respective domains. Each delegate has the authority to set up a working group, comprising teaching and technical-administrative staff, with student representatives to address specific issues. The VetBoard meets whenever specific topics need to be addressed or urgent improvements proposed.

Giunta (**DiMeV Administrative Board**): assists the Head in carrying out his/her functions and executes tasks delegated by the Council, following guidelines set out in the General Regulations of the University. The Administrative Coordinator of the Department attends the meetings of the Board in an advisory role and performs the functions of recording secretary.

Comprising members elected to represent the various teaching roles (Full Professors, Associates and Researchers), the QA Committee oversees the administrative functions of the Department and contributes to defining strategic objectives outlines in the Department's Strategic Plan (Fig.1.1).
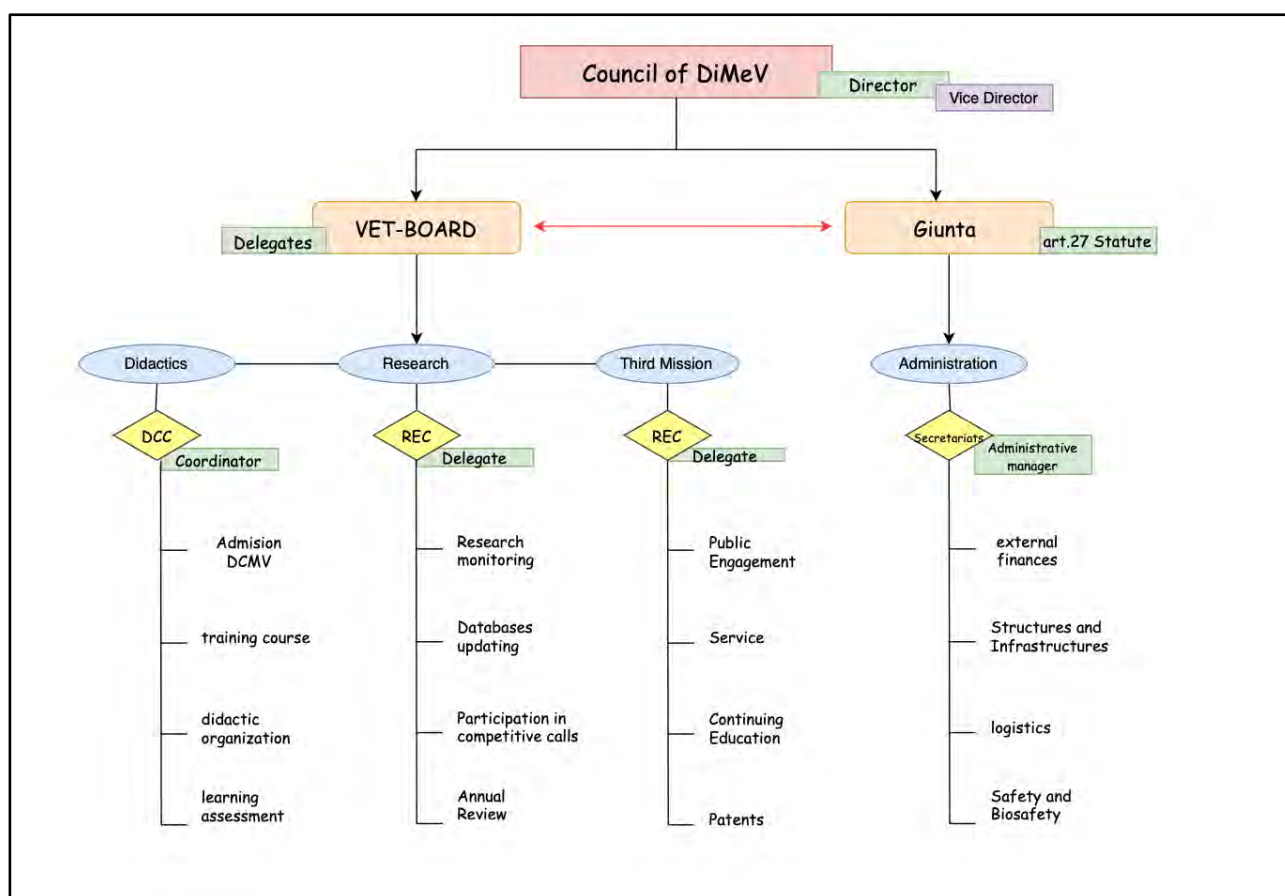

Fig.1.1: *Organisation of DiMeV*

In addition to the management and government bodies in the Department there are other bodies and other commissions, the most important being:

a) **Degree Course Council (DCC);**
b) **Teacher Student Joint Commission (TSJC);**
c) **Research Evaluation Committee (REC).**

Degree Course Councils (DCCs): DCCs are made up of all professors, researchers, adjunct professors responsible for teaching on the Course in the current AY, as well as elected student representatives from the Degree Courses. The DCC is chaired by the Coordinator, elected by all the DCC members.

The DCC decides on the organisation and planning of Course Degrees, on the lesson timetable, on the calendar of exams and final tests, and draws up Teaching Bylaws and the Study Plan. The DCC resolutions are transmitted to the DiMeV, which then publishes them on the Department and DCC website.

The curriculum programme is periodically reviewed and adjusted according to the requirements of several internal and external bodies of Quality Assurance. The DiMeV and DCC annually monitor and cyclically review the curriculum in accordance with ANVUR guidelines.

The DCC Coordinators are responsible for the Quality Assurance processes and draft the annual SUA CdS form and the Cyclic Review Reports (CRR). To this end, the DCC appoints its QA groups and review groups. The QA Groups, made up of teachers and students from the DCC, work in collaboration with the Coordinator. Their task is to constantly monitor all the teaching activities of the course and send periodic reports and any reports to the Coordinator. The RGs have to be made up of the Coordinator and a student. They engage in scheduled evaluations, to ensure that the Course learning objectives are appropriate. The results of the work of the RGs are summarised in the Annual Review Report, a document that helps to shape the QA process for the training activities offered by the DiMeV.

Teacher Student Joint Commission (TSJC): .The TSJC is composed of 5 teachers and 5 students and carries out tasks assigned to it by the Statute, the University Teaching Regulations and the current legislation on QA. Its main tasks are to:

✓ monitor the educational offering and how teaching and all related activities are delivered, as well as the quality of student services;
✓ draw up indicators to assess teaching outcomes and student service activities;
✓ express opinions on the establishment, initiation, discontinuation, removal and modification of study programmes, as well as suggesting amendments to teaching systems and regulations within each study programme.

Research Evaluation Committee (REC): the REC is responsible for the census, monitoring and self-evaluation of the Department's research efforts and Third Mission activities.

The REC, appointed by the Department Council, is made up of professors from the various scientific areas, who periodically monitor the research results from the specific thematic areas, making use of the various databases available to the department and the University. The REC helps disseminate research results and fosters participation in competitive tenders for funding research efforts.

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.

DiMeV strategic documents contain a SWOT analysis, as well as operational objectives, including targets and indicators.

A General SWOT analysis of the Department is set out below:

SWOT Analysis of DiMeV

Strengths	*Weaknesses*
Modern functional facilities, infrastructure and student services. Ongoing monitoring and verification of teaching quality. Comprehensive and highly attractive doctoral and post-graduate offerings tailored to the needs of graduates. General sharing of research lines in the "One Health" perspective with the presence of leading research groups, at an international level. Consolidated ongoing collaborations with public and private bodies both nationally and internationally, which help develop research and teaching networks.	Disparity in scientific productions between the different research groups Logistical limitations for the development of innovative educational activities due to the limited availability of facilities Shortage of technical and administrative staff for the administrative management of the Veterinary Campus Lack of centralised services
Opportunities	*Threats*
Creation of the One-Health Centre (OHC), financed by the Department of Excellence 2018-22 project, which will strengthen departmental efforts in this area and centralise some services. Participation in numerous projects backed by regional and national structural funds aimed at implementing research and teaching structures. Economic and human resources granted by the Central Administration of the University of Bari for the implementation of clinical activities at the VTH. Revision of existing DC regulations and establishment of new DCs to expand and improve training in the field of animal health and production.	Limited economic and human resources impede the development and future growth of the Department. Excess bureaucratic burden on departmental structures and low turnover of technical personnel. Overly complex decision-making processes hinder some strategic objectives. Relations and communications between the headquarters of the Veterinary Campus and the Central Administration of the University of Bari are slow and difficult.

A more in-depth analysis is contained in the Strategic Planning Document 2022-24, in which a SWOT analysis is shown for each strategic area (Human Resources, Facilities and Infrastructures, Economic Resources, Education, Research and Third Mission, Biosecurity) aligned with a list of objectives and an operational plan featuring timelines and performance indicators.

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.

DiMeV has full responsibility for the management, organisation and promotion of teaching, research and TM efforts, in compliance with the Quality principles set out in the European (ENQA) and national (ANVUR) agencies and the ESEVT Guidelines.
The QA System adopted by the DiMeV is part of the broader framework of the Quality System of the University of Bari, which attributes responsibilities to each Department, pursuant to Art. 26 of the Statute (Fig.1.2).
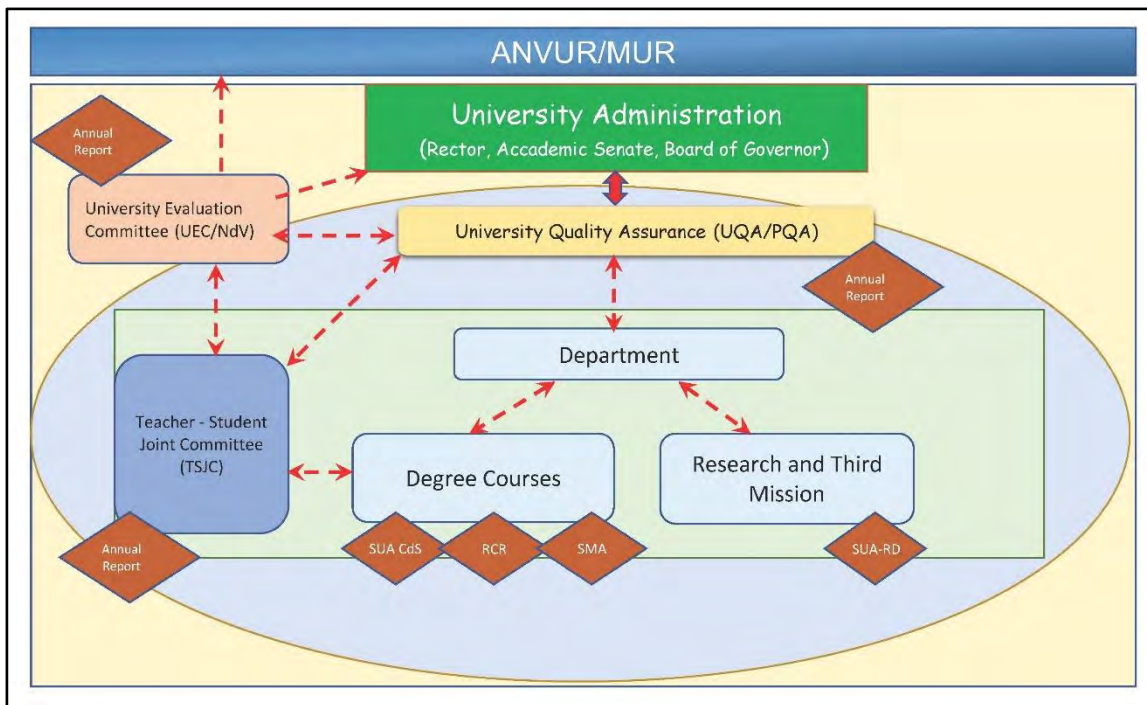
Fig. 1.2: *University of Bari Quality Assurance System*

QA Organisms
ANVUR is a full member of the European Association for Quality Assurance in Higher Education (ENQA). Every 5 years, ANVUR evaluates and accredits Italian Universities' degree courses. DiMeV underwent ANVUR evaluation in 2018 and was fully accredited. Annual reporting to ANVUR by both University and Departmental QA systems is mandatory.
The UniBA QA System features two main organs: 1) the University Evaluation Committee (UEC), that collects and analyses data from departmental QA committees (particularly TSJC); 2) the University QA (UQA/PQA), which monitors and offers guidelines for departmental QA processes.
DiMeV aligns its medium and long-term objectives with the University of Bari's Strategic and Programmatic objectives (Integrated Planning Document 2023-25) and with the needs of all Stakeholders. DiMEV formally undertakes to achieve them and to continuously strive for improvement This vision is set out in public strategic and operational planning documents (DiMeV Three-year Planning Document 2023-25).
DiMeV periodically defines its own objectives, in line with the University's Policies, set out in the University's Strategic Plan 2022-24 (SP).
The objectives identified by DiMeV regarding teaching, research and Third Mission activities are regularly monitored and verified using effectiveness indicators.
DiMeV is committed to achieving the following objectives and strategies:
✓ Continuous qualitative improvement, at both individual and collective level;
✓ Apply new concepts, ideas and creative approaches to teaching and research;
✓ Promote teamwork, recognising the important role played by each member of the teaching and administrative staff, technicians and external tutors, as well as students;
✓ Behave honestly and fairly, embracing diversity in terms of race, culture, gender and sexual orientation.
The strategic areas earmarked for continuous improvement and QA serve as the main guidelines on which to base DiMeV's efforts, aimed at enhancing:
• Adaptability of teaching contents to the needs of students and society;
• Promotion of research activities as essential for improving teaching quality;
• Training academic staff based on self-assessment and QA;

- Implementation of technologies to support teaching;
- Services rendered externally by the Department using its academic, research and clinical expertise;
- DiMeV's social impact;
- Development of initiatives aimed at improving the welfare of animals, humans and protecting the environment;
- Promotion of DiMeV's profile within international networks, in the various fields of veterinary medicine;
- Improvement of external relations with customers and stakeholders;
- Increase in the number of European graduates and post-graduates and related services.

The Quality Policies adopted by DiMeV involve the entire organisation, channelling its efforts towards defining objectives and planning use of resources.

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.

DiMeV promotes engagement with the socio-economic, productive and cultural fabric of the area through the creation of collaborations and integrations that contribute to the area's growth. Through regional and national scientific-cultural and dissemination activities, DiMEV disseminates and enhances its culture in line with the professional profile of DiMeV teaching staff.
DiMeV helps to shape public health programmes, sustainable and quality animal husbandry, animal welfare initiatives and territorial development projects. It does so by involving businesses, local associations and other public and private entities, providing technical and scientific collaboration and consultancy services. The various activities carried out by DiMeV are described in detail in Chapter 6 of the Strategic Plan 2022-24.
The DiMeV Job Placement Desk supports undergraduates and graduates in the transition phase from University to the world of work and offers institutions/companies a point of contact with graduates for their entry into the workforce.
DiMeV also organises various continuing education, lifelong learning and open didactic activities such as the "Paths for transversal skills and orientation" project, which is illustrated on a dedicated page of the department's website.
Many teachers are also engaged in scientific dissemination and public engagement activities.
The DCVM keeps up to date with the various needs of the working and professional landscape through consultation with veterinary professionals, associations and graduates.
All documents regarding the previous ESEVT evaluation, including the self-evaluation report and the visitation report are available on the home page of the DiMeV institutional website.

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 already described in Standard 1.4, DiMeV monitors and reviews the Quality Assurance procedures, through the following mechanisms:

- drafting a departmental strategic plan, whose objectives are constantly monitored and updated;
- the DiMeV QA system, which carries out self-assessment, monitoring and continuous review of the teaching, research and Third Mission processes so as to ensure a quality improvement and a correct flow of information between teachers, students and staff.

Strengths and weaknesses are detected and improvements are made public in the Annual Monitoring Report (SMA), and in the annual reports of the TSJC and the CRR.

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

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.

A Category 1 deficiency was found in the last full visit by the ESEVT (20-24 January 2014):

Lack of strategic objective. In accordance with ESEVT Standards and based on the educational requirements of EC Directive 2005/36, Article 38, the VEE was awarded <u>CONDITIONAL APPROVAL</u>.

In the following years, the DiMeV invested heavily in identifying achievable strategies and objectives. The tasks required by ANVUR helped DiMeV to adopt a strategic, concrete, clear and shared plan with the stakeholders. This led to a further visitation by EAEVE on 05-06 April 2016. The Revisitation Team concluded that the Major Deficiency identified in 2014 had been rectified and the status of DiMeV was changed to <u>APPROVAL</u>.

In addition, DiMeV has implemented various initiatives to improve the efficiency of the facilities and the levels of biosecurity.

Finally, the interim report (July 2020) highlights indicators with non-optimal values regarding the clinical cases involving specific animal categories. In response, DiMeV has since bolstered the number of clinicians and intensified intramural clinical activities by offering a round-the-clock service, as well as reaching agreements with external livestock farms.

Comments on Area 1

The national QA system has grown a lot since the last EAEVE visit. Organisation, policies and individual processes are constantly monitored and evaluated by national and local QA groups, thus helping to improve educational objectives, the curriculum, and relations with stakeholders and the public. This QA system serves to equip students with the knowledge, skills and competencies needed to meet the challenges of the veterinary profession.

Suggestions for improvement of Area 1

The weaknesses and threats identified in the SWOT analysis need to be addressed, in collaboration with the central University institution and MUR. Continued efforts are required to limit the excessive bureaucratisation of University processes and to recruit support staff who are motivated and competent and who provide the department with high-quality efficient services.

2.

FINANCES

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).

Despite the difficulties generated by the complex bureaucracy of the public funding system, DiMeV has sufficient financial resources to support and innovate the training of DCVM students in compliance with ESEVT standards, and enjoys sufficient autonomy and flexibility to ensure efficacy in their management. The active involvement of its academic staff in Third Mission activities and research programmes has allowed DiMeV to attain partial financial autonomy. However, DiMeV remains highly dependent on official public funding (from UniBA and MUR) to cover the considerable costs involved in the practical and teaching activities carried out at DiMeV, and a series of negotiations with UniBA are always required in order to ensure that such costs are covered by the University.

As detailed in Table 2.1.1, the educational, research and service activities carried out at the VMC during the years considered for the SER (2020, 2021, 2022) have involved expenditures in different areas that are described below. A point to be kept in mind is that, for each expenditure area, there are costs entirely covered by UniBA (central expenditures) and costs falling within the competence of the VEE (VEE expenditures).

Table 2.1.1. Annual expenditures during the last 3 academic years (in Euros)

Area of expenditure	2022	2021	2020	Mean
Personnel costs	*9,680,743.00*	*8,750,594.00*	*8,173,601.00*	*8,868,313.00*
Operating costs	*571,819.00*	*600,590.00*	*413,561.00*	*528,657.00*
Maintenance costs	*402,447.00*	*419,516.00*	*42,220.00*	*288,061.00*
Equipment costs	*193,896.00*	*331,168.00*	*110,339.00*	*211,801.00*
Other costs	*602,198.00*	*490,482.00*	*125,989.00*	*406,223.00*
Total expenditures	**11,451,103.00**	**10,592,350.00**	**8,865,710.00**	**10,303,054.00**

Personnel costs – These are costs of the workforce serving in the VMC, including: **(a)** costs of the salaries paid by UniBA to the permanent and temporary **academic staff** and to the permanent **support staff**; **(b)** costs of the wages paid to **other temporary staff** by UniBA (e.g., PhD students; visiting fellows; students holding tutoring contracts; seasonal workers for maintenance of the green areas) or by the VEE (e.g. contract practitioners for the H24; contract professors, post-docs, holders of research fellowships or contracts, seasonal workers for animal handling).

Note: The progressive increase in the value of this item occurred from 2020 to 2022 can be explained in the light of: (a) the **individual pay increments** (awarded every two or three years to the individual members of the permanent academic staff based on their work performance); (b) the **contract veterinarians** that starting from 2021 have been hired for H24; (c) the **new recruitments** and **career promotions** that have resulted from the policy of academic and support staff recruitment implemented by DiMeV (thanks to the financial resources acquired for the five-year period 2018-2022 as a "Department of Excellence" - see below) and the policy of academic staff recruitment and career advancement implemented by MUR (that - since 2019 - has made additional resources available to the Universities, UniBA included, in order to promote the enrollment of Fixed-term

Researchers Type B (RTDBs) and the progression to the professor level of assistant professors in possession of the National Scientific Qualidicatio (NSQ).

Operating costs – These include both direct and general costs paid for the regular daily functioning of all fixed and mobile facilities used for the teaching, research and service activities at VMC. More specifically, such costs are for: the purchase of consumables, personal protective equipment, feed and litter for stabled and hospitalised animals; disposal of carcasses; hazardous waste management; transportation of students to extramural facilities; postal and courier services.

As for the utilities (particularly water and electricity), the costs specifically paid by UniBA for the VMC during the last 3 financial years have been estimated as follows:

water	2022: € 9,430.00	2021: € 23,163.00	2020: € 2,698.00
electricity	2022: € 956,265.00	2021: € 508,603.00	2020: € 307,547.00

The overall lower amount of operating costs recorded in 2020 is likely due to the restrictions on activities imposed by the COVID-19 pandemic. Cleaning and hygiene services and security service are also paid directly by UniBA, but these expenses are not deductible from the total cost charged to UniBA for providing these services to all its departments, headquarters and other facilities.

Maintenance costs – These include costs paid for ordinary and extraordinary maintenance of all fixed and mobile facilities used for the teaching, research and service activities of the VMC, as well as of the recreational facilities and green areas. Maintenance of buildings and facility systems (wiring, plumbing, air conditioning system, water system, elevators, fire protection, communication systems) is charged to UniBA, while maintenance of equipment (such as water deionizers, photocopying machines, computers), vehicles (vans used for student and staff transportation during extra-mural activities; farm tractor for stable-related works) and green areas is charged to the VEE.

Notes: The respective competences of UniBA and DiMeV in covering the indicated costs are specified here below:

UniBA	2022: € 354,000.00	2021: € 391,000.00	2020: € 30,500.00
DiMeV	2022: € 48,447.00	2021: € 28,516.00	2020: € 11,720.00

The higher costs paid UniBA in the last two years (2021, 2022) mainly reflect various extraordinary interventions including renovation and modernization of lecture halls (for conforming to new standards in terms of security, safety and accessibility for the disabled), modernization of the wireless system, renovation of the buildings of the VTH (roof waterproofing) and other older buildings (painting of facades), modernization and restructuration of areas within the VTH (for creation of H24 and examination room for non-conventional pets, and to increase compliance with biosecurity standards of ESEVT).

The higher expenditures paid by DiMeV in 2022 are ascribable to van repair (€ 7,500), scientific equipment repair (€ 21,428) and computer service (€ 11,788).

The indicated values do not include costs paid in 2021 for modernization of the necroscopy and dissection rooms at the so called "Vinci Pavilion". Although this expenditure (of about € 370,000.00, excluding specific equipment) was entirely managed by UniBA's Central Administration, the resources to cover it were part of the funding "Department of Excellence" awarded to DiMeV by MUR for the five-year period 2018-2022 (see below).

Equipment costs – These include costs related to purchase of specialised and general technical equipment (of scientific, medical, computer or other nature), as well as of specialised and general furniture.

Notes: The costs recorded in 2021 include an investment of about € 11,000 related to the modernization of the necroscopy room at the Vinci Pavilion (cold-storage chambers and linear guideways); the resources to cover this expenditure were part of the funding "Department of

Excellence". The costs recorded in 2022 include the purchase of equipment for the functioning of H24 (funded by an extraordinary contribution of € 134,000 by UniBA), as well as for the Skill Labs (dystocia simulator: € 21,300).

Other costs - include (a) article processing charges for paper publications in scientific journals; (b) purchase of bibliographical material for the Library operating at the VMC; (c) reimbursement of work mission expenses; (d) expenses for academia-related events (e.g. seminars, conferences, workshops, celebrations) organised by members of the staff and/or students of the VMC e.g. contributions to the organisation, reimbursements for invited speakers).

Notes: The indicated values include the costs paid for bibliographic material and general expenses for the Library sited on the VMC (2022: € 1,170; 2021: € 5,428; 2020: € 1,378). Until 2022, these costs were entirely managed by DiMeV through specifically allocated funds that were transferred to it by UniBA. Starting from 2023, the VMC Library has become an expenditure centre of the University Library System (SiBa), to which its costs are charged.

As detailed in Table 2.1.2, the above-mentioned expenditures paid for the activities taking place at the VMC during the three accounting years considered for the present SER have been covered by means of **various sources** of **revenues**, that are described below.

Table 2.1.2. Annual revenues during the last 3 academic years (in Euros)

Revenue source	2022	2021	2020	Mean
Public funding	*9,747,224.00*	*8,852,007.00*	*8,216,921.00*	*8,938,717.00*
Tuition fees	*643,082.00*	*683,869.00*	*695,453.00*	*674,135.00*
Clinical services	*118,118.00*	*85,352.00*	*34,147.00*	*79,206.00*
Diagnostics services	*3,219.00*	*3,008.00*	*3,078.00*	*3,102.00*
Other services	*122,550.00*	*173,828.00*	*122,239.00*	*139,539.00*
Research grants	*1,139,027.00*	*690,449.00*	*671,019.00*	*833,498.00*
Post-graduate education	*381,959.00*	*341,188.00*	*28,011.00*	*250,386.00*
Other sources	*156,835.00*	*13,816.00*	*167,471.00*	*112,707.00*
Total revenues	**12,352,014.00**	**10,843,517.00**	**9,938,339.00**	**11,044,623.00**

Public funding – These include the total funding received annually by UniBA from MUR that UniBA uses for the VMC. In this respect, it is worth remembering that UniBA, as a public academic institution, is mainly dependent for its overall functioning on funding from the governmental budget. Therefore, each year, MUR provides UniBA (just like any other Italian University) with the so called **"Ordinary Financing Funding"** (FFO), which represents the bulk of the University yearly budget (74%, on average, of its revenues in the years 2020, 2021 and 2022). The specific amount of FFO that MUR yearly allocates to UniBA is determined by a complex algorithm that considers several parameters, including the educational and scientific productivity of the University. Most of the total annual UniBA-FFO (about 90%) is used directly by UniBA for salary payment of all members of its academic and support staff, including those in charge of the different Departments. The remaining part of the total annual UniBA-FFO (about 10%) is distributed among the 20 UniBA Departments (in the form of the so called **"ordinary endowment fund"**) for autonomous use in covering the costs of their teaching activities and overall functioning.

In addition to the above, it must be mentioned that, starting from **2018**, MUR has established a structural funding programme called **University Departments of Excellence**, that - every five years - financially supports five-year **development projects** presented by Departments of Italian public Universities that are judged as "excellent" on the basis of the results obtained in the Research Quality Evaluation (VQR). The projects are required to set out scientific, organisational and educational objectives. Based on the results of the 2011-2014 VQR, DiMeV participated in the funding

competition with a project focused on the One Health concept and was awarded funding for the **five-year period 2018-2022**, for a total amount of **€ 7,325,000.00**. According to the funding programme rules, part of this considerable income was earmarked for academic and support staff recruitment (**€ 4,275,000.00**), part for research infrastructures (**€ 2,008,000.00**), part for staff reward (**€ 304,000.00**), and part for highly qualified scientific and educational activities (**€ 738,000.00**). These funds are not included in the table.

Tuition fees – These are the income from annual fees paid by students enrolled on the degree courses offered by the VEE. After FFO, tuition fees represent the second main portion of the University yearly budget (12%, on average, of UniBA revenues in the years 2020-22). Student fees are not transferred directly to departments, but retained by UniBA's Central Administration to form a sort of "**UniBA fund**" for the fulfilment of all necessities that are not covered by FFO and for investment. Through an internal negotiation process governed by University regulations, UniBA sets aside part of this fund for the routine and extraordinary needs involving the VMC. So, it is from this fund that UniBA has taken most of the resources for the interventions made in recent years in favour of the VMC. These **UniBA-funded interventions** include: (a) co-funding (with **€ 4,335,000.00**) of the project presented by DiMeV for the Departments of Excellence 2018-22 call; (b) the investments made, since 2021, for renovation, modernization and restructuration of the buildings (other than the Vinci Pavilion) used for teaching activities at the VMC; (c) the two extraordinary contributions granted to DiMeV in 2021 (€ 100,000.00) and 2022 (€ 134,000.00) for the functioning of the H24 service (for contract veterinarians, equipment and consumable).

For completeness, the annual tuition fee for a standard student of UniBA is determined on the basis of the student's family income (as indicated by the ISEE value) and of the student's merit (evaluated in relation to the year of enrolment). Students can use an online procedure to calculate their specific tuition fees. For the current AY 2022-23, the maximum annual contribution for regular students amounts to € 2,043.00 (to be paid in four instalments). International students (both EU or non-EU students) are considered equivalent to Italian ones (except for those from poor or developing countries, who benefit from a fee reduction). More details can be found on the UniBA web page dedicated to student fees

Services – This income is generated by the various **commercial services** that are delivered (both on-site and in field) to private clients or public institutions by the academic and support staff working in the facilities of the VMC. Particularly: (a) **clinical services** (e.g.: scheduled examinations and operations by internists and surgeons of the various specialties at the VTH, including H24, (b) **diagnostics services** (e.g.: diagnostic pathology, microbiology, parasitology), and (c) **other services** (e.g.: advisory services; food control service; contract research).

Notes: The indicated amounts represent the total invoiced income from the commercial services delivered through DiMeV. The lower income from **clinical services** recorded in **2020** is likely due to the restrictions on activities imposed by the COVID-19 pandemic, while the higher income recorded in **2022** likely reflects the activation of H24.

Based on UniBA regulations, a percentage of the income from commercial services is paid to UniBA as overheads, of which an aliquot is reassigned to the Department where the service has been delivered. The remaining part can be used to cover the production costs of the commercial service. The three aforementioned aliquots are 10%, 5% and 85%, respectively, for clinical services, and 19%, 4% and 77%, respectively, for all other services.

Research grants – This income is from funds that UniBA, other public institutions (regional, national, European or international) or private companies grant to the VEE academic staff to perform research projects.

Note: The higher income from research grants recorded in **2022** reflects an increased capacity of the academic staff members of DiMeV to attract funds (consistent with objectives of the triennial planning 2021-23).

Based on UniBA regulations, 5-15% of income from research grants is paid to UniBA (depending on the total amount of the grant). This margin is partially channelled into local University funds for research and/or staff rewards, with a small quota returning to the Department managing the grant to cover general expenditures.

Post-graduate education – This is the income from total fees paid by students enrolled on the rich portfolio of post-graduate degree courses delivered at the VMC. Of the total amount of the fee paid by each enrolled post-graduate student (which is specific for the post-graduate course and not dependent on income), a part is transferred to the DiMeV budget to cover the general expenditures paid for the administrative and logistic management of the courses.

Other sources of revenues include: (a) income from agreements signed by DiMeV with **local authorities** (Apulia Region) for provision of veterinary assistance at the Sea Turtle Clinic, the Regional Fauna Observatory and the Russoli Farm of Martina Franca donkeys; (b) **monetary restitution** from the provider of the automatic drinks and snacks vending machines for the electricity consumed.

The **financial balance** between the **expenditures** and **revenues** that have involved the VMC during the three accounting years considered for the present SER is reported in Table 2.1.3.

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

Financial Year	Total expenditures	Total revenues	Balance
2020	*8,865,710.00*	*9,938,339.00*	*1,072,629.00*
2021	*10,592,350.00*	*10,843,517.00*	*251,167.00*
2022	*11,451,103.00*	*12,352,014.00*	*900,911.00*

Standard 2.2: Clinical and field services must function as instructional resources. Instructional integrity of these resources must take priority over financial self-sufficiency of clinical services operations.
The VEE must have sufficient autonomy in order to use the resources to implement its strategic plan and to meet the ESEVT Standards.

Clinical services are delivered both on-site and in field by specialised staff through the following fixed and mobile facilities: VTH, H24, Mobile Oncology Service for dogs and cats, Mobile Clinic, Sea Turtle Clinic, Regional Fauna Observatory, Russoli Farm of Martina Franca donkeys.
The clinical activities carried out at the last three facilities are financially supported through agreements with Apulia Region. Funds from this source allow the VEE to buy relevant consumables and small equipment and to activate specific fellowships or contracts (where needed) for seasonal workers who have to handle the animals.
The clinical activities carried out in the VEE facilities are financially supported by different sources:
(a) revenues from the paid clinical services (85% overhead revenue from the total service income). This resource, however, is far from being sufficient per se to cover all the costs;
(b) the "ordinary endowment fund" regularly transferred to DiMeV by UniBA. Although potentially exploitable, this fund is also needed to ensure other aspects of the regular functioning of the whole VMC. Therefore, only the operating costs of the clinical services are charged to it (where needed);
(c) extraordinary contributions by UniBA. The VEE depends on them especially for major investments involving personnel (temporary staff) or equipment of the clinical services. It must be said that UniBA is aware of how important clinical activities are for the education of its veterinary students (particularly for ensuring that they acquire the expected skills on the Day One Competences). Consistently, UniBA's Central Bodies are prone to approve requests of financial support for clinical services made by DiMeV, as demonstrated by the two substantial contributions granted by UniBA to DiMeV in 2021 (€ 100,000.00) and 2022 (€ 134,000.00) for the activation and functioning of the H24.

Finally, it should be pointed out that all the academic staff members of the VMC acknowledge the operational efficiency of the clinical activities as a priority of the departmental teaching mission. Therefore, there is general availability to approve the strategic financial decisions of the VEE governmental bodies when aimed to strengthen the operational capacity of the clinical facilities (like those taken in the last years), as well as the administrative practice of temporarily channelling other spendable resources of the departmental budget in the direction of the expense items related to clinical teaching activities.

Based on UniBA's Statute and Regulations, DiMeV is not an independent spending centre, since there is a Single University Balance, but it can manage autonomously the budget assigned annually by UniBA. This means that DiMeV is empowered to set up its own budget and investment plan, as well as to administer and manage it autonomously, with responsibility for the efficient use of the available resources in achieving the goals announced in its Strategic Plan (which are formulated also considering the ESEVT standards). As already described, the financial resources forming the budget autonomously managed by DiMeV can be used for expenditures and investments that fall within the departmental competence (see above), taking into account that the main investments related to teaching and support staff and several centralized services are in charge of UniBA. Management of the departmental resources takes place through the activity of the DiMeV Operating Unit (OU) for Accountancy and Negotiations, supported by the Administrative Coordinator. The procedures for purchasing goods and services, as well as for drawing up contracts for teaching, research and other professional services and making the payments agreed upon them are carried out according to the national regulations on public administration (involving, where needed, the comparative evaluation of 3 different quotes or tenders for the identification of the most favourable quality/cost ratio).

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

At Departmental level, financial decisions involve different actors and follow different processes depending on the **area of expenditure** to which each specific resource is primarily addressed.
Financial resources primarily addressed to fulfil the day-to-day needs of research activities (i.e. Research Grants) - The whole staff of the VEE is aware of how important high quality research is, not only for building a quality research-based education, but also for increasing the financial resources of the VEE, both directly (through access to the "Departments of Excellence" funding programme) and indirectly (through contribution to the scientific merit of the whole university, that will result in a more sizeable FFO). Therefore, the Head of DiMeV, the Research Delegate, the whole REC, along with the departmental OU for Research, Third Mission and Internationalisation implement actions to continuously monitor and improve the quality of the research performed by each research team of DiMeV (e.g. an aliquot of the resources acquired through the "Departments of Excellence" programme 2018-2022 was used to award prizes to the most deserving scientists), as well as to promote access to research funding programmes (e.g. by timely email notification of new funding opportunities to all academic staff members). Possible participation of departmental research teams in calls for research grants is usually notified to the whole DiMeV Council. Individual members of the academic staff are empowered to independently decide on the expenditures related to their funded projects, making them by means of the departmental OU for Accountancy and Negotiations and under the supervision of the Administrative Coordinator and Head of the Department. For most types of projects, a **financial statement** must be presented to the institutions or companies who financed the research. Therefore, the expense decisions are usually bound to the specific objectives and expense items of the project plan. If a project involves a **fixed-term research contract**, then the whole department Council is invited to approve the recruitment of the new temporary staff unit.

Financial resources that are primarily addressed to fulfil the needs related to teaching activities and day-to-day overall functioning of the VMC facilities – These resources are directly managed by the Head of the Department and Administrative Coordinator, who receive specific requests from the <u>Giunta</u>, students representatives, Coordinators of the Degree Courses, Professors responsible of the Sections, DiMeV OU General Services. Proposals are made regarding: a) how to use the available and envisaged funds to cover the envisaged expenditures (with priority being given to ordinary needs of teaching activities), b) which of the investments strategically planned for the year of interest can be realised by the available resources and which require actions for acquiring additional resources (e.g.: submission of a funding request to UniBA). The proposals are then presented to the DiMeV Council for final approval.

After the decisions are taken, **revision** and **adjustments** of internal resource allocation is possible if specific further needs or new proposals arise. The new unforeseen needs are communicated to the DiMeV Council for discussion and approval.

At the end of each accounting year, the overall efficacy of DiMeV in managing its resources is **assessed** by UniBA Central Bodies, who have to review the closing balance prepared and transmitted by the Administrative Coordinator for inclusion in the UniBA's Single Balance.

In addition, there is an "internal evaluation", performed - on the one hand - by students (who express their level of satisfaction regarding the teaching activities and facilities via their questionnaires), and - on the other hand - by the Giunta itself and the whole departmental Council. Indeed, "financial resources" are the focus of a dedicated chapter in the <u>2022-24 Strategic Plan of DiMeV</u>. This means that the financial situation of DiMeV is now regularly monitored, using the SWOT analysis to identify strategic actions that should be undertaken in order to ensure adequate resource availability for achieving other finance-dependent objectives (including maintenance and/or improvement of compliance with the ESEVT Standards).

List of the **ongoing and planned major investments** for developing, improving and/or refurbishing facilities and equipment, and origin of the funding

- During the drafting of this SER, various extraordinary maintenance works are still in progress at the VMC for the completion of the renovation and modernization of the VTH and other teaching facilities, mainly aimed to increase their compliance to the ESEVT biosecurity standards. The necessary resources for this process have been set aside and directly managed by UniBA and account for more than 600,000 euros;
- During the course of 2023, thanks to a dedicated fund from UniBA, DiMeV has invested further € 52,833.90 in technical equipment for innovative teaching activities (**horse and dog veterinary simulators** for the Skill Lab). Moreover, a sum of € 100,000 (equally funded by UniBA and Apulia Region) has been assigned for the creation of a new clinical facility in the VMC that will serve as an **Equine Breeding Centre**;
- The tender procedure for the realisation of the **One Health Centre** (OHC), a centre for advanced research and services in the One Health area, that will also hold a lecture hall and teaching laboratories, have been finalised. The necessary resources (about € 2,500,000) are part of the 2018-22 "University Departments of Excellence" funding received by DiMeV from MUR (€ 1,500,000), with a co-funding of € 1,000,000 from UniBA. The contract with the tenderer enterprise has been already signed and the works will start in the next few months;
- For the three-year period **2023-25**, UniBA has allocated significant funds of its own budget **(€ 4,200,000)** for a major facility-related intervention at the VMC (and another UniBA site), to implement the **photovoltaic system** to reduce energy costs and contribute to the principle of environmental sustainability. The project is part of the <u>UniBA's three-year plan of public works</u>;
- The Academic Senate and Board of Governors have also approved the construction of a multifunctional sports court and a barbecue area for students, which will cost approximately 200,000 euros.

Prospected expenditures and revenues for the next 3 academic years

- In July 2023, three academic positions were assigned by UniBA to DiMeV, including two upgrades to full professors and one RTDB position, accounting for € 2,137,500. The RTDB will implement the clinical staff at the VTH in order to increase the caseload and clinical activities. The recruitment procedures are ongoing. In the course of the same year, 6 veterinary technicians (total annual cost of € 236,176.98) and 3 additional animal groomers (total annual cost € 95,417.64) will be hired for the needs of the VTH, including the H24. The recruitment procedures have been completed for the technicians and are ongoing for the groomers;
- Revenues are expected to increase over the next three years due to the enhancement of the services offered at the VMC through the growth of the VHT, including the H24 and the Equine Breeding Centre, and the creation of the OHC;
- By increasing the intramural clinical caseload, it will be possible to reduce the costs generated by transportation of students to extramural facilities;
- The Next Generation EU Funds, through the 3 PNRR projects recently assigned to DiMeV, along with 12 projects funded by the PRIN 2022 call of the Italian MUR, will provide new opportunities of investment in equipment, infrastructures, for the promotion of quality in scientific research and research-based teaching;
- OrientaVET project has been approved during these drafting days with a financing of 50.884 € in the three-year period 2023- 2026. The project based on Orientation and Tutoring activities will also include the implementation of practical laboratory activities through digital technologies.

Comments on Area 2

The costs of delivering a quality Veterinary Medicine teaching course are undoubtedly high. However, the mechanism underlying the distribution of the ordinary endowment fund does not consider these specificities, so that the ordinary resources allocated to DiMeV by UniBA are usually not enough to cover all the expenditures. Nevertheless, the financial data presented in this document demonstrate that the necessary additional resources are made available by UniBA in the form of a number of extraordinary contributions provided upon request, allowing - in the end - that DiMeV meets its stated mission. The high scientific merit of the academic staff members of DiMeV likely plays a key role in the creation of this condition, as the significant contribution to the prestige of the whole university translates into more power for DiMeV in the process of negotiation with UniBA's Central Bodies. However, a major problem with this funding system is a complex fractionated bureaucracy, which can be very detrimental in case of particularly urgent needs. Even ordinary resources are often provided in an irregular and unpredictable way, which makes any financial planning difficult and affects the overall efficiency of many processes. Despite these difficulties, these last three years after the COVID-19 pandemic have been characterised by numerous and important investments of resources, particularly addressed towards the implementation of staff and facilities. During the incoming years, further new investments are envisaged, but it is also expected that the fruits of DiMeV's industry and commitment will be reaped.

Suggestions for improvement in Area 2

Despite the availability of UniBA to welcome the recurrent requests of extraordinary contributions made by DiMeV, the following suggestions for improvement can be made:

1) UniBA should formally recognize the specificities of the DCVM and its higher costs in comparison with other degree courses, transforming the exceptional nature of its transfers of additional resources to DiMeV in structural measures of supplementary funding. The EAEVE accreditation could be the key to the success of the negotiation that DiMeV should undertake to attain this goal;

2) All efforts should be made to increase the financial autonomy of DiMeV. This is jointly ensured by research grants, revenues from commercial services, sponsorships and donations from the

non academic world. Therefore, any initiatives aiming at increasing the capacity of DiMeV's academic staff to attract and access these funding channels would be appropriate and advisable.

With particular regard to commercial services, it would be desirable that not only the overall level of service provision were to increase, but also that the current UniBA's regulations on the distribution of the related income be revised (envisaging a reduction of the share for UniBA and an increment of the share for the Department).

CURRICULUM

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 aims to inspire and educate veterinary professionals who will practise their profession conscientiously, with dignity, and in keeping with the principles of veterinary medical ethics. While embracing the traditional values of professionalism, the VEE makes attempts to promote the awareness of social expectation of what "being a vet" means and the moral obligation to undertake lifelong education and training. The aim of the curriculum is to provide students with the knowledge, scientific basis and clinical/practical skills they will need to successfully manage professional challenges in all branches of veterinary practice. Upon completion of the programme, students will have developed the necessary knowledge and skills to:

- protect the health and welfare of pets and livestock;
- recognize, treat and prevent infectious and parasitic animal diseases including zoonoses
- develop, implement and monitor veterinary public health plans;
- assure animal food safety and quality by an integrated, multidisciplinary approach, considering the whole of the food chain;
- improve animal production managing genetic selection, breeding technology, nutrition and reproduction;
- resolve clinical, medical, surgical and obstetrical events in animals.

Curriculum design - According to Ministerial decree 270/2004, the entire study cycle is structured over a single period of five years, subdivided into 20 so-called "bimesters", for a total of 300 ECTS. One ECTS credit corresponds to the standard workload of 25 hours' activity, whether attending teaching sessions (theoretical or practical training) or spent on independent self-study. The ratio of contact and independent work is not fixed, depending on the subject.

Generally, the academic year starts in mid-September and finishes in June. With a bimester system, each session lasts approximately 7 weeks, interspersed with periods of so-called "didactic silence" (about 3 weeks) in which the students take their exams. As a bimester is only 7 weeks long, the intensity of the classes may be higher than those with a semester organisation, requiring an extra effort by students. On the bright side, having fewer classes to focus on at one time can alleviate the confusion of juggling multiple tasks at once. Theoretical knowledge, pre-clinical and clinical practical skills are specifically assessed (see Area 8). The achievement of learning outcomes is verified through ongoing assessment and specific exams at the end of each subject.

More specifically, students must achieve knowledge and skills across the following domains:

Basic courses: basic subjects and basic sciences (62 ECTS);
Characterising veterinary courses (162 ECTS);
Integrative subjects (22 ECTS);
PPT (30 ECTS);
Optional courses (8 ECTS);
Other activities (8 ECTS)
Graduation thesis (8 ECTS);

The first two years are devoted to basic veterinary sciences and to introductory skills in handling and examining companion animals, including horses, and farm animals. Starting from the third year,

exposure to professional subjects gradually increases with a greater emphasis on the preclinical/clinical disciplines, herd health management and food inspection. The last bimester of the fifth year is devoted to 6 Professionalising Didactic Paths (PDPs) which students can choose on the basis of their own vocation. In line with the learning areas established by the SOPs, PDPs are made up of different subject blocks which deal with areas of most common interest in veterinary medicine: Dogs and Cats Clinic, Farm Animals, Wild and unconventional animals, Emergency Medicine and Intensive Care, Equine Clinic, Public Health and Food Safety.

In order to improve the students' knowledge and skills in any of the above tracks, modules are delivered using a range of practical activities from seminars and/or workshops to clinical/non clinical animal work or laboratory. Moreover, some subjects provide time to spend at public or private affiliated companies, learning and carrying out specific duties or tasks. Some ECTS of the PDPs are attributed to external practitioners on contract thus allowing the educational offer to explore new areas, with a view to the evolution of the profession.

The current undergraduate curriculum has been in effect since the AY 2018-19. However, starting from AY 2023-24 a new curriculum will be adopted in order to comply with the national provision (MUR Decree n. 652 del 5-7-2022) which established that the single-cycle degree programme in Veterinary Medicine qualifies for the exercise of the profession by merging degree and state exams and simplifying the entry of graduates into the job market. This has provided an opportunity to review the curriculum, aligning it better with learning outcomes from ESEVT and stakeholders suggestions. The primary responsibility for the development, management, review and self-assessment of the curriculum lies with the DCC. The DCVM Coordinator represents the primary and most important level of oversight, being able to identify critical issues right away and ensuring timely action. The Coordinator is also responsible for involving the DCC, keeping its members abreast of the University strategies and the decisions taken with regard to the degree course. Proposals of the DCC about planning, monitoring and revision activities are then shared with the DiMeV Council which must provide adequate resources and support, so that a quality curriculum can be attained in a cost-effective manner.

With reference to the provisions of MUR. Decree 47/2013 and subsequent amendments, the Coordinator works with selected DCC members, QA group and review group (RG) in the QA process to verify the adequacy of the objectives and learning outcomes and the effectiveness of the way in which the Course is managed. The QA group and RG are called upon:

- to draft the annual review report, called SMA, and CRR (every few years). By using specific indicators both documents critically evaluate the different aspects of the Degree Programme and monitor the curriculum and the quality of education. CRR also draws up the main inputs for corrective actions and changes to the curriculum;
- to discuss teaching matters and related services;
- to define, adopt and implement corrective actions and changes following the review activity;
- to monitor the results of improvement actions;
- to ensure interaction with the QA group of the DiMeV and the UQA.

In the monitoring and self-assessment process regarding the curriculum, some other mechanisms are involved, such as:

- TSJC which is established at department level and plays an important role in curriculum improvement and external assurance processes and evaluation, since the students who are part of it are simultaneously active members of the academic community and service users. It examines issues encountered with the learning path and the experience of students;
- Annual meetings with stakeholders which ensure constant alignment with the changing needs of the profession;
- The PPT Committee which analyses and discusses the various types of feedback received in order to improve the level of service for students;

- Students who play a leading role in the QA System of Teaching, as they provide anonymous feedback on teachers and courses through the UniBA online evaluation platform (student opinion survey) and through students' Teaching Course Evaluation Forms at the end of each bimester. The outcomes of the surveys are submitted to the Coordinator and discussed at the TSJC in order to propose corrective actions. Effectively addressing student complaints is considered a pivotal aspect of AQ processes;
- Supervisory teachers for each year of DCVM who work alongside the Coordinator to structure the teaching and to address student concerns, providing constructive guidance;
- The EAEVE Committee which plans and proposes ways to comply with the curriculum with the most recent versions of ESEVT SOPs.

Any challenge in curriculum implementation is shared and discussed in DCC, then forwarded to the VEE for the final approval.

Correction of overlaps, redundancies, and lack of consistency - Self-assessment exercises, especially student feedback, enables the Coordinator to work with the QA Committee and TSJC to remove any redundancy or overlap between teaching courses, particularly core courses, as well as to identify any gaps between courses and include such topics that are regarded as important to fill in these gaps.

Legal constraints and the degree of autonomy - Over the last two decades, the Italian University system underwent a radical transformation by which new degree structures and credit and QA systems were introduced in order to open up to a European Higher Education space. Landmark reforms (MUR Decrees nos. 509/1999, 270/2004 and 240/2010) have directly affected the overall organisation of the veterinary medicine curriculum by defining:

- the length of the programme (5 years, 300 ECTS);
- the number of core subjects and the maximum number of exams (30);
- the minimum number of ECTS for the basic (58 credits) and characterising subjects (130 credits);
- the minimum number of ECTS to be attributed to the general areas in which basic and characterising subjects are subdivided.

Although the constraints imposed by national regulations severely limit institutional discretion in terms of characterising programmes, autonomous decisions may be taken regarding:

- the ratio of contact and independent work in theoretical and practical teaching;
- hours per ECTS that must be dedicated to different learning activities, such as lectures, seminars, supervised self-learning, work on animals, etc.;
- the weight (in terms of ECTS) to be attributed to specific subjects;
- the organisation of subjects into integrated courses, with two or more teaching units, or into single-topic courses.

However, some of these changes require a long lasting process of evaluation at National University Council (CUN). This bureaucratic burden together with centralised ministerial control over content actually limits the flexibility of the curriculum, as well as its ability to interpret and respond to a rapidly changing and competitive job market.

Optional courses - outside the core curriculum plan are a part of the student experience and selected according to individual passion and personal interests. For the successful completion of the curriculum, students must have passed optional courses corresponding to 8 ECTS, which may include:

- seminars or conferences organised by or approved by VEE;
- courses on transversal skills recently set up by UniBA. Only one course per AY may be used for ECLTS.

Students can also attend external training courses, once the course content has been evaluated and approved by the TSJC to ensure alignment with learning outcomes, as well as an appropriate number of ECTS to be learned.

As part of the optional courses, the Coordinator organises conferences on soft skills. For example during AY 2021-22 and 2022-23 events were organised as part of the project #DiMeVAltuofianco on effective communication strategy, communication for relational, interpersonal and intrapersonal bonds, empathy and professionalism.

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

Academic years	A	B	C	D	E	F	G	H
Year 1	363	10	11	48	78	0	0	510
Year 2	299	15	17	61	5	44	0	441
Year 3	448	9	33	101	20	12	10	633
Year 4	478	22	13	58	112	88	34	805
Year 5	280	28	17	37	74	182	211	829

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 (specify); H: total

Table 3.1.2. Curriculum hours taken by each student

Subjects	A	B	C	D	E	F	G	H
Basic subjects								
Medical physics	*16*							*16*
Chemistry	*32*							*32*
Animal Biology, zoology and cell biology	*48*							*48*
Feed plant biology and toxic plants	*16*							*16*
Biomedical Statistics	*16*			*10*				*26*
Total	**128**	**0**	**0**	**10**	**0**	**0**	**0**	**138**
Specific veterinary subjects								
Basic Sciences								
Anatomy, Histology and embryology	*124*	*6*	*6*	*21*	*48*	*15*		*220*
Physiology	*64*	*4*	*2*	*5*	*25*			*100*
Biochemistry	*80*		*3*	*17*				*100*
General and molecular genetics	*20*							*20*
Pharmacology, pharmacy and pharmacotherapy	*60*	*2*	*7*	*6*				*75*
Pathology	*144*	*5*	*10*	*25*	*45*			*229*
Toxicology	*40*		*10*	*5*				*55*
Parasitology	*65*			*30*				*95*
Microbiology, Immunology and Mycology	*60*		*5*	*30*				*95*
Epidemiology	*26*		*3*	*10*				*39*
Information literacy and data management (also included in Biomedical Statistics and Thesis preparation)	*10*	*4*	*2*					*16*
Professional ethics and communication	*Incorporated in the courses in "Clinical practical training in common species"*							
Animal health economics and practice management	*46*				*30*			*76*
Animal ethology	*26*	*4*		*2*		*13*		*45*
Animal welfare (also included in Animal production)	*24*	*2*		*9*		*6*		*41*

	A	B	C	D	E	F	G	H
Animal nutrition	60			10	5			75
Total	849	27	48	170	153	34	0	1281
Clinical Sciences								
Obstetrics, reproduction and reproductive disorders	59	2	4	2	17	21		105
Diagnostic pathology	26			20				46
Medicine	64				9	32		105
Surgery	61	14	3	61	13	25	3	125
Anesthesiology	6	5	6	6	3	7	0	33
Clinical practical training in common animal species	100	20	11	13	21	105	4	274
Preventive medicine	122	4	2	25	15	12	10	190
Diagnostic imaging	23	3		8	5	25	2	66
Therapy in common animal species	13				20			33
Propaedeutics of common animal species	*Incorporated in courses under Medicine and Surgery*							
Total	474	48	26	80	103	227	19	977
Animal production								
Animal Production, including breeding, husbandry and economics	96	3	5	14	5			123
Herd health management	85				30	45		160
Total								0
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	91	34	5	11	30			171
Control of food, feed and animal by-products	29		6	10		21		66
Zoonoses (also included in courses in Preventive medicine)	32	6						38
Food Hygiene and food microbiology	34			15	8			57
Food technology	20					15		35
Total	206	40	11	36	38	36	0	367

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 (specify); H: total

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

DISCIPLINES	DURATION (ECTS)	PLACE	N. STUDENT	YEAR
Emergency service	10	IM*	1-3	4th - 5th
Animal Production	4	IM**	1-4	4th
Avian Pathology	1	IM	4-6	4th
Clinical rotation in VTH (Surgery, Internal Medicine, Obstetric and Gynaecology)	6	IM	2-4	5th
Pathology	2	IM	1-2	5th
Food Safety	4	IM**	1-2	5th

Legend: IM=Intramural; * Starting from april 2022 re-activation of emergency service 24/7 allowed students to carry out these activities in IPT form;** to address particular needs of students, some shifts may be carryied out intramurally; in this case, students will be guided by academic staff;

Table 3.1.4. Curriculum hours taken as electives for each student

Electives	A	B	C	D	E	F	G	H
PDP Farm Animals								
Pre clinical								
MANAGEMENT MEDICINE AND ANIMAL WELFARE CERTIFICATION					30			30
NECROSCOPIC INVESTIGATIONS		4			11			15
PROPHYLAXIS OF INFECTIOUS DISEASES IN CATTLE BREEDING						15		15
Clinical								
CLINICAL-DIAGNOSTIC APPROACH TO PRODUCTION DISEASES IN DAIRY CATTLE				4		26		30
DIAGNOSTICS AND SURGERY OF PRODUCE ANIMALS				4		11		15
THERIOGENOLOGY				10		35		45
TOTAL	_0_	_4_	_0_	_18_	_41_	_87_	_0_	_150_
PDP Wild and Unconventional animals								
Clinical								
ANESTHESIA AND EMERGENCY THERAPY OF WILDLIFE AND NON-CONVENTIONAL ANIMALS						15		15
REPRODUCTION OF WILD AND EXOTIC ANIMALS						15		15
CLINICAL PATHOLOGY OF WILD AND UNCONVENTIONAL ANIMALS				15				15
PARASITIC DISEASES OF REPTILES	6		2	12	5	5		30
PRACTICAL CLINICAL ASPECTS OF WILDLIFE AND NON-CONVENTIONAL ANIMALS	5					10		15
DIAGNOSTICS AND SURGERY OF WILD AND UNCONVENTIONAL ANIMALS						30		30
DISEASES OF WILD ANIMALS AND UNCONVENTIONAL						30		30
TOTAL	_11_	_0_	_2_	_27_	_5_	_90_	_0_	_150_
PDP Public health and Food Safety								
Pre clinical								
ZOONOSES AND GLOBALISATION				8	7			15
PARASITIC ZOONOSES							15	15
OFFICIAL FOOD CONTROL							30	30
ANIMAL HEALTH							30	30
FOOD SAFETY RISK ASSESSMENT				20	10	0		30
HYGIENE AND MILKING TECHNOLOGY						15		15
FOOD MYCOLOGY				15				15
TOTAL	_0_	_0_	_0_	_43_	_17_	_15_	_75_	_150_
PDP Emergency medicine and intensive care								
Clinical								
EMERGENCY MEDICINE AND THERAPY IN OBSTETRIC CLINIC AND ANDROLOGY FOR SMALL ANIMALS						30		30
EMERGENCY MEDICINE AND INTENSIVE THERAPY OF INTERNISTIC INTEREST		17				28		45
CARDIO-CIRCULATORY EMERGENCIES				3	4	8		15
APPROACH, STABILISATION AND INTENSIVE TREATMENT OF SURGICAL EMERGENCIES					7	8		15
ABDOMINAL AND THORACIC SURGICAL EMERGENCIES		5				10		15

	A	B	C	D	E	F	G	H
MANAGEMENT OF SPINAL AND CRANIAL TRAUMATOLOGY AND OF THE MULTI-TRAUMATIZED PATIENT					15	15		30
TOTAL	*0*	*22*	*0*	*3*	*26*	*99*	*0*	*150*
PDP Equine Clinic								
Clinical								
NECROSCOPIC INVESTIGATIONS		3			12			15
DIAGNOSTICS AND PROPHYLAXIS OF EQUINE INFECTIOUS DISEASE					8	7		15
GYNECOLOGICAL AND ANDROLOGICAL HORSE CLINIC						30		30
PRACTICAL CLINICAL ASPECTS, LABORATORY DIAGNOSTICS AND IN-DEPTH IN EQUINE MEDICINE		5		5		35		45
ANESTHESIA AND PAIN THERAPY IN EQUINES					7	8		15
SOFT TISSUE SURGERY IN EQUINES					7	8		15
PODOLOGY AND ORTHOPAEDIC SURGERY IN EQUINES					7	8		15
TOTAL	*0*	*8*	*0*	*5*	*41*	*96*	*0*	*150*
Dogs and Cats Clinic								
Clinical								
TRAUMATOLOGY OF SMALL ANIMALS					7	8		15
DIAGNOSIS AND SURGERY OF DISEASES OF THE LOCOMOTOR SYSTEM					15			15
SMALL ANIMAL ONCOLOGICAL SURGERY						15		15
LABORATORY DIAGNOSTICS IN THE MAJOR BLOOD DISEASES				15				15
MANAGEMENT OF THE CARDIAC PATIENT PATIENT			3			12		15
INTERNAL INSIGHTS					7	8		15
VETERINARY PARASITIC DISEASES			3	7	5			15
OBSTETRICS AND ANDROLOGICAL CLINIC OF DOGS AND CATS	3			5		22		30
DIAGNOSTICS OF INFECTIOUS DISEASES OF DOGS AND CATS	6			9				15
TOTAL	*9*	*0*	*6*	*36*	*34*	*65*	*0*	*150*

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 (specify); H: hours to be taken by each student per subject group

Description of the core clinical exercises/practicals/seminars prior to the start of the clinical rotations - Prior to the beginning of clinical rotations (*Tirocinio*), students are trained on methods of animal handling and biosafety, clinical/laboratory examination and diagnosis for Companion Animals, including Equines, Farm Animals. Students also practise clinical examination procedures through simulation devices and simulation strategies.

Small-size groups of students, supervised by the teachers and collaborators must attend the following:

Biosecurity in laboratories and in the relationship with animals (*I year****):*** safety and security issues and practical animal handling skills before carrying out any activity in laboratories, clinics, farms, slaughterhouses.

Statistics (I year): data collection and processing through MS Excel and/or online platforms

Biochemistry 1 & 2 (I year): Separative techniques on blood samples; analytical assays for proteins and enzymatic activities; extraction, purification and separation of nucleic acids.

Anatomy 1 & 2 (I year): knowledge of healthy systems by organs/carcasses examination and dissection. Basic steps of the physical examination and diagnostic imaging.

Veterinary Physiology 1 & 2 (II year): practical evaluation of heart sounds, blood pressure, respiratory rate, vision and olfaction, physico-chemical examination of urine, laboratory analysis for hormonal assays. Behavioural visits and behavioural disorders of dogs and cats.

Veterinary Microbiology and Immunology (II year): collection and processing biological samples to make students confident with laboratory skills in microbiology and serology, including antibiotic susceptibility testing.

General Pathology (II year): Preparation of slides for light microscopy. Recognition of the major types of lesions at microscopic levels.

Animal Nutrition (II year): Recognition and evaluation of feed for pets and farm animals. Nutritional requirements estimation. Formulating animal rations.

Veterinary pharmacology and toxicology (III year): Sample collection for toxicological analysis. Comparative analysis of different drug formulations. Calculation of drug doses and rates of drug administration. Drug prescription.

Parasitology (III year): Identification of parasitic agents by using their micro and macroscopic features. Slides reads and practices on the diagnosis, treatment and control of parasitic diseases in animals.

Infectious Diseases 1 & 2 (III year): Biosecurity issues and measures in laboratories, clinical facilities, including the Isolation Unit (IU) of the VTH, kennels/shelters, stables and farms. Sampling techniques for the diagnosis of infectious diseases. Vaccination protocols. Laboratory diagnostic procedures. Necroscopic examination of poultry and bird; Necropsy findings and diagnostic hypotheses. Use of open source statistical software to visualise, manage, manipulate, analyse data for epidemiological studies.

Animal Productions 1&2 (III and IV year): Age estimation by teeth, identification of the main breeds and their morphological evaluation. Animal welfare and management assessment in different livestock systems.

Veterinary Pathology (IV year): carcasses dissection and macroscopic examination of all organs; collection of appropriate tissue samples. Histo-cytopathological examination of tissues and cells. Exercises on descriptive written report and confidence with good-quality photographs.

Clinical examination and medical pathology (IV year): history taking, clinical examination, recognizing signs of disease, selecting diagnostic procedures, client communication.

Veterinary Surgery 1 (IV year): history taking; basic surgical disease and recognition of different clinical signs of surgical diseases; performing examination through basic imaging equipment with its interpretation and descriptive report.

Obstetrics and Pathology of Reproduction (IV year): obstetrical examinations, semen evaluation /storage and artificial insemination; vaginal cytology, diagnosis of pregnancy.

Food Safety 1 (IV year): fishery products, milk and eggs hygiene and safety and related foodborne diseases; food legislation aimed to ensure food safety and consumer health; development and application of HACCP and official control along the production and distribution chain. Practical work, inspection and management of by-animal food producing plants. Management of beehive diseases and food safety of beekeeping products.

Food Safety 2 (V year): inspection techniques and procedures on slaughtered animals. Good practices applied to the production of fresh and processed meats Evaluation of the main animal-based parameters for the assessment of animal welfare.

Obstetric Clinic (V year): Caesarean section; Obstetrical-gynaecological examinations of farm animals and equine; Ovariectomy and ovariohysterectomy procedures in bitches and/or female cats

Veterinary Surgery 2 (V year): anatomic landmark propaedeutics for the clinical methodology; Evaluation of the surgical patient, discussion on the decision-making algorithm; approach to surgical methods; management of expected and unexpected complications; issuing a prognosis; anesthesiologic management; anatomical approach and application of basic surgical techniques; projection of slides referring to clinical cases and discussion.

Veterinary clinical medicine (V year): client communication and history taking; Clinical examination of different species, discussion of clinical cases referring to the VTH with a problem

solving approach. Interpretation of radiographic and ultrasonographic exams patient; developing treatment plans.

Practical activities in one of 6 elective tracks, chosen by student:

Farm animals: clinical and surgical approach, preventive measures related to infectious diseases, theriogenology, necroscopic techniques, guidelines for the management and welfare of farm animals.

Equine clinic: management of horses in the field of infectious diseases, gynaecology and andrology, surgery, treatment of pain, necroscopic techniques, lab analysis and podology.

Wild and unconventional animals: clinical and surgical approach, anesthesiological procedures, most common diseases, parasitic diseases of reptiles, reproduction issues.

Public health and Food Safety: activity to guarantee health and safety of animals and foods of animal origin, zoonotic pathogens transmitted by animals, mycology and control of food, milking hygiene.

Emergency medicine and intensive care: stabilisation and management of the patients affected by multiple trauma, respiratory, cardiac and internal diseases.

Dogs and cats clinic: clinical and surgical approach, preventive measures related to infectious diseases**,** obstetrics and andrology, musculoskeletal system diseases, oncology surgery and traumatology.

As stated previously, at the beginning of the 5th-year programme, students may freely choose from 6 **elective tracks** based on practical activities (10 ECTS) dedicated to the fields of professional interest most common in veterinary medicine and in line with the areas of learning established by the SOPs. Currently, the minimum number of applicants per track has not been determined since the fragmentation of students enrolling in the 5th year across the six paths makes it possible to run practical activities in small groups.

Electives are included in the complementary subjects, the so-called "*Affini e Integrativi*" whose amendments do not require ministerial approval except for the number of ECTS assigned. This makes it possible to establish the number of optional tracks and their field of interest each Academic Year in order to make the curriculum more flexible and responsive to an ever changing and dynamic job world.

Clinical rotations are part of the PPT activities. These can be carried out both intramurally (IPT) and extramurally (EPT).

Both IPT and EPT are designed to enable the students to acquire the skills and competencies to practise the veterinary medicine profession, according to EU Directive 2005/36/EC (as amended by Directive 2013/55/EU). Students have to acquire 30 ECTS (18 hours of practical activity per ECTS) of practical activity in all the branches of the veterinary profession. Activities are regulated by the DCVM PTT Regulation. PPT Committee (composed by a Coordinator and 7 teachers of DCC, responsible for the different subject areas, and 2 students) manages the yearly organisation and schedules. The main tasks of PPT Committee are:

- to organise rotation calendars in the different subject areas;
- to finally sign and certify the achieved learning outcomes by each trainee, acquired both intramurally and in external facilities;
- to interact with the external tutors;
- to organise surveys to assess the suitability of the contexts where PT is carried out, as well as the evaluation by external tutors of our trainees;

Students have access to PPT activities in the 4th and 5th year of course;

- 4th year: Infectious and Parasitic Diseases, Animal Production, Avian Pathology and clinical rotations in emergency services;
- 5th year: Veterinary Pathology, Internal Medicine, Surgery, Obstetrics and Food Safety.

Clinical rotations in emergency services (10 ECTS)

From 2019 to March 2022, trainees carried out these activities as EPT, in private veterinary clinics that had an official agreement with the VEE. Fourth year-students were scheduled to spend

nights/holidays daytime/holidays nighttime experience in these clinics, under the supervision of an external tutor. This strategy was due to the lack of the 24/7 service offered by the VEE. With the re-activation of this service, students started to carry out these activities in IPT form. Each student has to carry out 16 shifts of 12 hours each, both during nighttime on weekdays and during daytime and nighttime over holidays. Trainees are supervised in 24/7 service by a contract practitioner. Both in EPT and IPT activities, the number of students per shift is 1-3. Students carry out these activities independently from the lectures calendar and for the whole year. Clinical rotation in emergency services is organised to allow students to acquire hands-on experience in the management of emergency cases and to provide care for hospitalised patients. During the rotations at the Emergency and hospitalisation services, the students assist, discuss and actively participate in the procedures to treat emergency cases (triage), standard hospitalisation (grooming, therapies, etc) or Intensive care procedures. The students assist clinical staff, who are responsible for the cases, even during case discussions with owners, discharge instructions and follow-ups.

The calendar of annual shifts is sent to students by the PPT Coordinator.

Clinical rotation in VTH (6 ECTS)

During the 5th year, students carry out 15 shifts at the VTH services. The number of students involved per shift ranges from 2 to 4. The group's schedule is organised by the PPT Coordinator at the end of the fifth year course lectures (from mid-June). The shifts are during daytime and last 8 hours. Each trainee has to carry out 5 shifts in Internal medicine, 5 in Surgery, and 5 in Obstetrics and Gynecology. During clinical rotations, students actively participate in daily activities at the VTH, including communication with owners, history taking, performing a clinical examination, collection of biological samples, planning diagnostic investigations, suggesting a list of differential diagnoses with corresponding therapies and prognoses, plan patient follow-up, reports and clinical records editing, image analysis interpretation, drug prescription. During the rotation, students are also educated to discuss and report clinical cases to colleagues and refer them to the teacher. All caseload and all clinical activities performed are recorded and signed into the student's daily diary.

Activities involving farm animals including occasional equines are also carried out through the MC activities during this training period.

Other than clinical rotations, the PPT enables students to acquire competencies and skills related to Public Health and Animal Production, as follows:

Parasitic Diseases (1 ECTS) and Infectious Diseases (2 ECTS)

The trainee carries out both lab activities and work experience in external facilities (clinics, slaughterhouses, kennels, public health offices). Some of these activities are supervised by the teaching academic staff (IPT) while others will be conducted in EPT mode with external tutor supervision, as has to be previously arranged under the training plan. This PPT provides activities with small animals, equines, food producing animals and non-conventional animals (e.g., exotics and/or wildlife). Lab activities are carried out with a maximum of 6 trainees, while the groupin external facilities needs to be consistent with biosafety standards.

Avian Pathology (1 ECTS)

Trainees have 5 working days at the Regional Fauna Observatory, under the supervision of academic staff. They acquire skills and competencies related to the overall management, handling and health care of wild birds and mammals.

Animal Production (4 ECTS)

Trainees engage in EPT activities on farms, supervised by an external tutor, usually the farmer or a farm vet. This training lasts 3 weeks. The maximum number of trainees per farm varies according to the structural capacity of the facilities, and ranges from 1 to 3. For students unable to undertake EPT, the course offers IPT in labs at the Animal Production Section. IPT training lasts four weeks with each group limited to 5 trainees. However, students are actively encouraged to pursue on-farm training. Students develop skills and competencies in reproduction management, herd health

management, milking hygiene and technology, animal welfare assessment, and the use of state-of-the-art management and PLF tools, etc.

Pathology (2 ECTS) and Food Safety (4 ECTS)

During this professional training, students are involved in practical sessions dealing with: ante-mortem inspection: identification of animals and official checking of paperwork, evaluation of relevant food chain information, animal welfare, inspection of stunning and slaughtering procedures, post-mortem inspection: inspection and monitoring of cutting and boning operation of the carcasses, visual inspection of external surfaces and additional inspection of carcasses and waste products, specified hazardous material and other animal by-products, monitoring of removal, separation and labelling of products in batches, collection and referral of samples to the competent laboratory, laboratory diagnosis and monitoring for notifiable diseases in slaughterhouses, monitoring of the cold chain for fresh meat, recording activities in slaughterhouse logbook bureaucratic documents filling, identification of seawater animal species, freshness evaluation and inspection of seafood for macroparasites, HACCP, sampling to investigate food safety, sampling to investigate conformity of working space to legislation, report writing, milk and dairy products technology and inspection, meat and meat products technology and inspection food producing labelling, sanitary inspection of restaurants and catering establishments. The professional training in pathology is carried out both in farm and in the necropsy room, under the supervision of accademic staff (IPT); students are involved in carcasse dissection, extraction of organs and appropriate methods of tissue sampling for laboratory investigations in order to draw up a complete autopsy report. Organization of shifts during the week and subdivision of students for the different activities is the responsibility of the teaching staff. Such decisions are based on the timing of the scheduled visits and any on-call opportunities during the day.

In addition to an overall agreement between the VEE and the external facility, the EPT requires a Training Project to be signed for each trainee by their academic supervisor, the trainee and the legal representative of the external facility. This document shows:

- Timing and facilities available for the trainee;
- External tutor identification;
- Insurance info for student;
- Activities to be carried out.

Each student can download and print the daily diary template from the VEE website. The student is required to record the activities carried out within each training programme. These entries are validated and countersigned by the academic tutor (IPT) or external tutor (EPT). Finally, the competencies and skills, including soft skills acquired by the student are evaluated, again by the external tutor (EPT) or academic tutor (IPT) recording their opinions using the same template. The trainee submits the diary, including the tutor's assessment to the appropriate member of the PPT Committee who validates the ECTS and documents the analytical assessment of the trainee in the case log.

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.

By both theoretical and practical teaching the curriculum aims to ensure that students can manage successfully the "Day One Skills" as stated by the EAEVE. In order to improve the performance of the curriculum, learning outcomes of each course programme are reported in the syllabi according to a format drawn up by UQA. The format outlines the Dublin descriptors which allows to monitor the alignment between the teaching/learning activities and students' achievement of the learning outcomes. The programs are reviewed annually by the competent teachers and published on the DiMeV web page (DCVM study programmes). Based on feedback from students collected through the teaching evaluation questionnaires, TSJC and QA group review the syllabi for coherence, redundancy and overlaps, suggesting corrective actions. Students who are simultaneously active members of the academic community and service users, are part of these committees as a guarantee that their opinion and suggestions are taken into consideration.

Finally, the annual consultation with private and public stakeholders allows a continuous dialogue between academia and territory from which suggestions to link training objectives with the need of professional realities emerge.

DCVM has a limited enrolment number at national level. This itself ensures a collegial atmosphere of learning and supports quality education, as it means no more students enrol than the resources of the VMC can support. Moreover, almost all the facilities the student must attend are located in the VMC area, thus reducing the mobility stress.

Student well-being has recently emerged as an enabling condition for successful learning, becoming a priority area in the policy of DiMeV. As students spend a significant part of their time daily in the VMC, investments have been made in creating an academic environment able to address the students' personal needs: students should work in a comfortable environment, should be able to relate to other students and to receive help if needed. To this purpose, "Verderinaria" (a pic-nic like area where students can stay together for studying, eating or resting), the resting room, Auletta studenti (a room where students provide information and share didactic materials with other students, especially with incoming students), Aula Carelli (a room dedicated to studying), and counselling services (psychological counselling; anti-violence service) have been implemented. An Islamic praying room makes the academic environment more amenable for Islamic students.

More recently, a skill lab has been set up to develop the practical, handling skills and self-confidence of students, reducing their levels of anxiety. Through plastic models and simulators the students can repeat a task in the following days, enhancing their learning of practical skills.

Students, as young people, tend to be highly interested in environmental issues. Consequently, affordable practices have been implemented to make the VMC more eco-friendly and plastic-free. A recycling effort was held by placing appropriate recycling bins and containers throughout the VMC. A water bottle refill station was installed and free water bottles were distributed to the members of the VMC community. Seminars about environmental challenges are organised to provide ongoing sustainability education and awareness to the community.

The feeling of belonging to the academic community that all these things develop in students can encourage their educational success and motivational outcomes in multiple ways.

Thanks to the equipment and teaching facilities (simulators, clinical skill development devices, Anatomy softwares, library), VEE supports students in becoming **lifelong learners**. During the practical teaching and PPT activities students are encouraged to think critically and to express their opinions, leading them to reflect on their learning process, and what they need to make progress. Moreover, some lectures are structured as flipped classrooms thus training students' independent learning and placing more emphasis on it. Also, many lecturers in the teaching staff are leading academics working in their field, so lectures are a fantastic opportunity to find out about the latest research which fascinates students and encourages them to become long-lasting lovers for learning.

Standard 3.3: Programme learning outcomes must:
- **ensure the effective alignment of all content, teaching, learning and assessment activities of the degree programme to form a cohesive framework**
- **include a description of Day One Competences**
- **form the basis for explicit statements of the objectives and learning outcomes of individual units of study**
- **be communicated to staff and students**
- **be regularly reviewed, managed and updated to ensure they remain relevant, adequate and are effectively achieved.**

The educational aim of VEE is to inspire and educate veterinary professionals by ensuring students develop solid knowledge, skills and behaviours they will need for a spectrum of career choices, including, but not limited to, animal care, public health, clinical or basic research. As stated above, the curriculum is defined primarily at the national level with few changes by the University being possible. In compliance with the ministerial deadlines, VEEs are annually requested to outline planning, implementation, self-assessment, and revision of their educational aims through a dedicated document called <u>SUA-CdS</u>. SUA-CdS contains information about the objectives, resources used and results obtained, as well as the roles and responsibilities involved in the QA system. This tool aims to periodically review the structure of the course and its effects in order to identify possible areas for improvement and achieve a cohesive framework.

The strategy to manage self-assessment, revisions and updates to the degree programme is based on recommendations from several committees including TSJC, the PPT Committee, and the QA group. TSJC provides a forum for students to give feedback and evaluations of their experience, to identify good practice within the teaching, learning and assessment of programmes as well as identify areas that they consider need to be reviewed. Once approved by TSJC and DCC, the SUA-CdS is published on the Universitaly website where it is made available to stakeholders and society.

As reported above, a dedicated EAEVE Committee is working on the analysis of learning outcomes and subject programmes, providing suggestions for their better alignment and matching to the DOCs. For this purpose a Tuning matrix has been drawn up that allows the academic staff to list learning outcomes for each single subject.

Standard 3.4: The VEE must have a formally constituted committee structure (which includes effective student representation), with clear and empowered reporting lines, to oversee and manage the curriculum and its delivery. The committee(s) must:
- **determine the pedagogical basis, design, delivery methods and assessment methods of the curriculum**
- **oversee QA of the curriculum, particularly gathering, evaluating, making change and responding to feedback from stakeholders, peer reviewers and external assessors, and data from examination/assessment outcomes**
- **perform ongoing and periodic review of the curriculum at least every seven years by involving staff, students and stakeholders; these reviews must lead to continuous improvement. Any action taken or planned as a result of such a review must be communicated to all those concerned**
- **identify and meet training needs for all types of staff, maintaining and enhancing their competence for the ongoing curriculum development.**

As mentioned above, different committees provide necessary inputs and can also make recommendations for the core curriculum management:

- **TSJC**, established at department level, plays an important role in curriculum improvement and external assurance processes and evaluation. Students, who are part of it, are simultaneously active members of the academic community and service users thus providing feedback on good practice within the teaching, learning and assessment of programmes as well on areas that they consider need to be reviewed;
- **PPT Committee** which deals with all the aspects related to both IPT and EPT and analyses each kind of feedback in order to improve the service for the students;
- **RG** carries out yearly and periodic review of the degree programme; drafts the SMA for approval by the TSJC, DCC Council and VEE;
- **Supervisor teachers** for each year of DCVM who work with the Coordinator to organise and monitor teaching activities for the specific year and to identify any problem reported by the students;
- **QA group** carries out the monitoring and review activities of the Degree Programme in order to identify opportunities and actions for improvements, together with the timing, methods and responsibilities. It is made up of the Coordinator, four teachers of DCC council, two students and the teaching manager. The QA group drafts the QA documents such as annual form (SUA-CdS), the annual monitoring form SMA and CRR;
- **EAEVE committee** plans and proposes actions aimed at increasing compliance of the curriculum to the most recent version of EAEVE SOPs;
- **VEE** bears the final responsibility of all teaching activities by monitoring the core curriculum, maintaining and promoting excellence in teaching/learning activities.

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.

As the H24 was reactivated in 2022, EPT was the unique way for ensuring students on skills and competencies in emergency services, such as clinical acumen and procedural skills. AY 2022-23 was a transition year from EPT to IPT for the emergency medicine services. So, the VEE needed to enrol all the trainees in the newly activated service to support the reactivation. Now the system has reached an equilibrium and the new PPT Regulation (from AY 2023-24) requires clinical activities to be carried out intramurally, although 2 ECTScan be earned via an experience in private veterinary clinics in order to experience a work context different from a teaching structure.
Since the VMC has no slaughterhouse or teaching farm, practical activities related to these facilities are carried out in external facilities, under the supervision of both academic and external tutors.

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

DISCIPLINES	DURATION (ECTS)	PLACE	N. STUDENT	YEAR
Emergency service	*10*	*EM**	*1-3*	*4th - 5th*
Infectious and Parasitic Diseases	*3*	*EM*	*3-8*	*4th*
Animal Production	*4*	*EM*	*1-4*	*4th*
Food Safety	*4*	*EM*	*1-2*	*5th*

*Legend: EM=Extramural; * Before re-activation of emergency service 24/7.*

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.

EPT is offered to students for a learning experience outside the VMC walls where students encounter authentic problems, test for real solutions, and interact with others than academic teachers in the learning process. EPT is organised using a network of agreements, upon proposal of the PPT Coordinator, with local practitioners, institutional partners (State Veterinary Officers), livestock farmers and food industry, thus allowing students to attend slaughterhouses, milk and food processing plants, fish markets, public health offices, private clinics, etc. The structures list operating with the DCVM for extramural activities is published on the DiMeV website. In agreement with the responsible teachers of EPT students can choose the structure from the list of collaborating private or public units which are checked for their ability to offer successful training. The EPT is guaranteed by veterinary and non-veterinary tutors (graduated in Agronomy, Animal Production, Food Technology, etc.) but it is always carried out under the supervision of tutors. Students have to apply for admission to the EPT. The area responsible member of the PPT Committee supplies students with the program of the training activities that they are going to attend at the external structure (Individual Training Project) by itemising the modalities for training, activities to be performed, duties of the students and name of the external tutor supervisor. The tutor supervises the student's learning progress, supplies with documentary evidence her/his daily attendance and activities and, at the end of the training period, draws up a synthetic report on the student activities. Each responsible teacher for EPT activities periodically collect constructive feedback by external tutor supervisor in order to propose adjustments and better suit the students' need. A periodic meeting the responsible for the supervision of the EPT activities are: Prof. Carmela Valastro (PTTC Coordinator), Prof. Annalisa Rizzo (Clinical area University Tutor teacher), Prof. Alessandra Cavalli (Infectious diseases University Tutor teacher), Prof. Riccardo Lia (Parasitic Diseases University Tutor teacher), Prof. Aristide Maggiolino (Animal Production University Tutor teacher), Prof. Angela Dambrosio (Food Safety University Tutor teacher).

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.

Students who experience EPT are all aware of the features of the external facilities before the beginning of the activities, as they sign a Training Project, setting out timings, facilities, external tutor info, location and insurance details, as well as biosecurity tools needed (if any). This document allows the academic tutor to share such info with the trainee before EPT begins. Each trainee records daily activities in the diary, and each record is validated by the external tutor. At the end of each EPT experience, each trainee is asked to fill in a survey on the quality of the teaching experience, on the overall suitability of the external facility for passing on specific skills and competencies. This survey is collected by the area members of the PPT Committee and the same body analyses and evaluates the overall experience of each external facility. Each student directly (or indirectly through the student representatives on the PPT Committee) can report any difficulties or problems encountered during their EPT experience in order to solve the problem or to terminate the agreement. Over the years

some external bodies are no longer being used for EPT activities since trainees' experiences were not positive.

Comments on Area 3

Since the Bologna process, European universities have been re-shaped mainly in response to socio-economic changes in society. Higher education has moved from an elite system to a "mass" system where students are thought of as "users and customers". In this regard the role of quality teaching has become of crucial importance along with its multidimensional meaning where elements such as teaching and learning processes and outcomes as well as the learning environment supporting education, are to be taken into account. However, Italian University teaching is assumed to be an "art" where "excellent teachers" are those who have empathy for students, passions for learning, for their field and for teaching. However, research points out that quality teaching depends not only on the teacher's pedagogical skills, but on the knowledge of strategies promoting flexible and learner centred education. The result is that in spite of many excellent practices introduced for QA processes within the Italian University system, most teaching approaches are still lecturer-centred, and teaching quality often shrouded by management aspects rather than practice of teaching. Moreover, institutions are not playing an effective role to enhance quality teaching since it is often regarded as being of lesser importance in terms of academic value, far behind the importance assigned to research upon which academic recruitment and advancement decisions are exclusively based. So good teaching does not bring any benefit to teachers except self-satisfaction.

In our opinion, quality teaching should have access to more complex evaluation procedures than questionnaires and feedback from students and should be considered as a complex activity closely linked to knowledge, engagement and innovation as a basis of quality.

Suggestions for improvement in Area 3

The need to review the curriculum in the light of the national provision of qualifying degrees has given us the opportunity to make changes which could address some critical issues.

-   The new curriculum has been implemented by a more rational distribution of the subjects over the five years. However, some concerns over the core curriculum contents must be addressed as students complain about the excessive amount of content to be covered within the limited time available. This puts pressure and stress on students with resulting delays in taking exams and risk of underachieving;
-   Emphasis must be placed on assigning teaching to external practitioners, considering their specific professional profiles or areas of expertise. This would allow students to better understand an increasingly competitive and ever-changing occupational landscape;
-   The new curriculum incorporates a greater clinical teaching load to improve clinical and procedural skills in students. However, additional efforts must be made to ensure sufficient exposure of students to large animal practice. Some strategies already in place such as agreements with farms and slaughterhouses must be enhanced in order to meet this challenge;
-   Significant decisions need to be taken to enhance teaching skills, by organising tailored training courses and motivating teaching staff to attend these programmes;
-   Even if a course on effective communication is not included in the curriculum, the role of communication skills in veterinary practise must be enhanced, by providing optional courses;
-   The new curriculum should be properly evaluated over the coming years and thoroughly compared to the old curriculum, for comparative analysis in order to evaluate/re evaluate the benefits of some changes;
-   There is the need to refine the assessment of DOCs and to ensure a more standard setting for examinations.

FACILITIES AND EQUIPMENT

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 VMC lies in the Municipality of Valenzano and is located at Strada Provinciale per Casamassima Km 3, about 2 km from the centre of the village. It is about 12 km from Bari city centre, where the Administrative Buildings and the humanities Degree Courses of UniBA are located, and at about 10 km from the second main location of UniBA scientific Degree Courses (Mathematics, Chemistry, Agronomy, Pharmacy, etc.), the so-called "Campus" (see Map Appendix).
A well run bus service connects the VMC to Bari city centre, which can be easily reached from Valenzano also by bicycle.
The entrance to the VMC is open from 7:00 am until 8:00 pm. Outside these hours, entry is permitted for the needs of the H24 and for other authorised people. Parking for students and visitors is available outside the VMC area, whereas those inside are reserved for the Teaching and Support Staff.
The VMC was built in the present location starting from 1986 and was completed in 2001 with the construction of the VTH. The VMC has an extension of approximately 12 ha and consists of 6 educational and research buildings, where the services are also included, plus the VTH (see Map Appendix).
Since the last visit, the facilities have remained unchanged except for the Vinci Pavilion and the reorganisation of the VTH.

Vinci Pavilion

The Vinci Pavilion has been completely renovated and functionally divided into two areas to ensure biosecurity standards:
- Pathology Area: Necropsy Rooms (Avian Pathology and Necropsies/Veterinary Pathology);
- Anatomy Area: Dissection Room and a research area.

The Anatomy Area in the Vinci Pavilion consists of one area for research and another for teaching, with separate access. Both areas have biosecurity manuals, departmental code of conduct manuals, and a registration form for users.
Research Area - consists of three laboratories, a meeting room, five offices and a storage room.
Teaching Area – consists of an entrance/locker room, a main classroom, an exit area equipped with boot washers and a -10 °C freezer cell. The classroom is equipped with several cabinets where all skeletal materials are catalogued. These materials include bones from various skeletal regions and mounted skeletons of horses, small ruminants, and dogs. In addition, several anatomical models, both fixed and detachable, are available for students use. The classroom is used for dissections as well. It is equipped with a bio shredder connected to a sink, six metal anatomical tables, a refrigerated cabinet at a temperature of 4 °C, for storing teaching material, and a stainless-steel sink featuring four stations.
The Pathology Area hosts the Units of Veterinary Pathology and Avian Pathology. This area is divided into:
- Necropsy Rooms: fully-equipped facilities for performing autopsies on small and large animals, zoo animals, rabbits, and birds. Both rooms have refrigerated cells inside;
- Laboratory: A facility used for teaching and research purposes;
- Separate locker rooms, bathrooms, and showers for males and females, as well as facilities for people with reduced mobility.

All procedures are well described in the Biosecurity Manual, available at the entrance of the facility, which is explained during the first days of the respective course lectures and on the DiMeV website.

Sea Turtle Clinic (STC) - A research and training centre focused on the care and rehabilitation of turtles affected by severe pathologies, primarily resulting from human activities, has been operating for over 20 years. The facility consists of two rooms: one housing 9 tanks for the rehabilitation of hospitalised turtles; the other is a surgery room, enabling 8-10 students to participate in hands-on learning experiences in the field of turtle medicine. Since 2005, it has been a part of the Scientific Coordination of WWF Italy. Students have the opportunity to acquire management and clinical techniques aimed at the care and preservation of these important species. A Biosecurity Manual is available at the entrance of the facility and online on the DiMeV website

Experimental Apiary - The experimental apiary, located next to uilding 02, has 15 productive beehives. These are used for the study of bee diseases, for research into varroa mites and the study of bees as bioindicators. This teaching tool for students provides knowledge on the different beekeeping techniques for proper bee health, environmental factors and the behaviour and biology of *Apis mellifera*. Numerous activities are performed in the experimental apiary, such as the collection of honey, which occurs in the consortium Mieleria, a specially equipped honey collection room. It can also be used by professional beekeepers and by students for the production of beeswax and propolis.

LabDog - The LabDog is used to study dogs' behaviour and cognition, with particular regard to dogs' emotions and senses (hearing, smell and sight). The LabDog is placed in three rooms located in Building 11: in Room 002, behavioural tests are carried out which are remotely monitored using video cameras and computers from Room 012. In Room 013, the Lab provides medical (specialist) consultation for the diagnosis and treatment of behavioural disorders in cats and dogs. The LabDog activities are designed to encourage student participation and teach them the basic concepts of animal behaviour.

Museum - The Bernardo Terio Faunistic Museum takes its name from an illustrious zoologist; it exhibits a collection of skeletons and stuffed animals both domestic and wild, especially birds and mammals, including various species present on CITES lists, all duly reported to the competent offices. It has belonged to the UniBA University Museum System (SiMA) since 2016; it is currently under renovation.

Facilities extra-mural

Regional Fauna Observatory
Since 2013, DiMeV has been providing assistance and rehabilitation for captive wildlife on behalf of the Apulia Region. These activities offer a significant training opportunity for students in the DCVM. As a result, a part of the practical internship in avian pathology is carried out at the rehabilitation aviaries of the Regional Recovery Center.

Practical lessons are conducted under the guidance of the instructor or their assistants within the aviaries where the animals are housed. Here, students engage in basic activities such as capturing, handling, conducting general and specific objective examinations, direct observation of bird movement and flight, and other clinical tasks essential for acquiring fundamental skills in managing distressed wildlife.

Moreover, students have the opportunity to administer prophylactic treatments and therapies to animals in need and independently collect biological samples to monitor the health status of the animals. Whenever new animals are brought in during these activities, students may assist in triage and first aid operations at the Recovery Center's infirmary.

Other extramural facilities managed by private companies are accessible to students under the supervision of teachers. A list of some of them can be found in the maps appendix.

All areas of the VMC are covered by Wi-Fi (except for the Vinci Pavilion, where we are still waiting for implementation).

Parking, all facilities including at the VTH are accessible to people with reduced mobility.

Animal welfare and care standards are in line with EU and national regulations.

The general maintenance of all VMC facilities and the green areas is the responsibility of UniBA. The cleaning contract provides for proper specifications regarding routine and deep cleaning of the VTH. The maintenance of all electrical, plumbing, air conditioning, lifts, fire hydrants, toilets, telephone lines are under the responsibility of UniBA according to maintenance contracts stipulated with external suppliers which, in addition to periodic checks, respond to official (recorded) calls from the VEE for emergency technical intervention within 6-12 hours.

A dedicated local staff regularly checks the functionality of the equipment necessary for teaching, such as the projectors, the audio system and the functioning of the WI-FI line.

For the maintenance of scientific equipment, such as clinical equipment or relevant laboratory equipment, a periodic assistance program is performed by specialised personnel according to agreements with instrumentation suppliers. The upgrading of the equipment is made according to necessity and resources availability.

In recent years, the old part of the buildings of the VMC underwent renovation for energy efficiency purposes, application of an external thermal coat, with renewal of air conditioners, airtight fixtures and the installation of a photovoltaic system.

Green areas are constantly kept in good condition by a gardening service.

The VMC is monitored during working hours by a security service (GSA - Global Security System) which during nighttime hours is present only in the VTH.

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.

A brief description of the facilities is provided in the following tables and in the maps presented in the appendices.

4.2.1

PREMISES FOR LECTURING					
PREMISE	LOCATION MAP	ROOM N°	SIZE M²	SEATS	DESCRIPTION
Aula Magna	*Building 01 (Ground floor)*	*NA*	*447.07*	*300*	*Equipped with a computerised projection system, a full-size screen, and a professional sound system. It is used for graduations, for scientific meetings and conferences and, sometimes, for lectures to students.*
Aula 7	*Building 01 (First floor)*	*003*	*55.24*	*40*	*Projector, Wi-Fi, board*
Aula M. Mastronardi	*Building 01 (First floor)*	*004*	*72.65*	*54*	*Projector, Wi-Fi, Sound system, board*
Aula P. Minoia	*Building 01 (First floor)*	*005*	*148.66*	*150*	*Projector, Wi-Fi, Sound system, board*
Aula B. Terio	*Building 04 (Ground floor)*	*001*	*147.78*	*116*	*Projector, Wi-Fi, Sound system, board*
Aula M. Compagnucci	*Building 04 (Ground floor)*	*003*	*109.84*	*96*	*Projector, Wi-Fi, Sound system, board*

Aula G. Tiecco	*Building 04 (Ground floor)*	*005*	*109.85*	*96*	*Projector, Wi-Fi, Sound system, board*
Aula Ostetricia	*VTH (Building 08b)*	*015*	*98.26*	*50*	*Projector, Wi-Fi, Sound system, board*
Aula ex Triage Chirurgia	*VTH (Building 08b)*	*002*	*72.26*	*50*	*Projector, Wi-Fi, board*
Aula 10	*Building 07*	*001*	*36.94*	*25*	*Projector, Wi-Fi, Sound system, board*
Aula didattica SSMI	*Isolation Unit*	*016*	*27.29*	*25*	*Projector, Wi-Fi, Sound system, board*
Aula didattica SSMI	*Isolation Unit*	*005*	*32.72*	*25*	*Projector, Wi-Fi, Sound system, board*
Aula didattica SSMI	*Isolation Unit*	*009*	*33.47*	*25*	*Projector, Wi-Fi, Sound system, board*
	TOTAL		*1392.03*	*1052*	

4.2.2

PREMISES FOR GROUP WORK					
PREMISE	**LOCATION MAP**	**ROOM N°**	**SIZE M²**	**SEATS**	**DESCRIPTION**
Miscellanea	*Building 06 (Ground floor)*	*NA*	*37.20*	*10*	*Table, seats, wi-fi*
Reading and Library Room Internal Medicine	*Building 03 (Ground floor)*	*013*	*42.08*	*10*	*Table, seats, wi-fi*
Reading and Library Room Obstetric	*Building 03 (First floor)*	*025*	*41.83*	*20*	*Table, seats, wi-fi*
Reading Room Food Safety	*Building 02 (Ground floor)*	*038*	*20.24*	*10*	*1 table and chairs, wi-fi, projector*
Reading and Library Room Infection Disease	*Building 02 (First floor)*	*016*	*50*	*30*	*Table, chairs, wi-fi, projector*
	TOTAL		*191.35*	*80*	

4.2.3

PREMISES FOR PRACTICAL WORK					
PREMISE	**LOCATION MAP**	**ROOM N°**	**SIZE M²**	**CHAIRS**	**DESCRIPTION**
Necropsy Room (Pathology)	*Vinci Pavillion*	*018*	*118.41*	*37*	*See Appendix Map*
Necropsy Room (Avian Pathology)	*Vinci Pavillion*	*022*	*92.47*	*35*	*See Appendix Map*
Avian Pathology Lab	*Vinci Pavillion*	*015*	*44.43*	*12*	*See Appendix Map*
Anatomy Room	*Vinci Pavillion*	*022*	*94.27*	*38*	*Dissection, Osteology, Clinical exercises*
Clinical Lab	*VTH (Building 08a)*	*002*	*72.22*	*20*	*Basic equipment for internal medicine (i.e. eco ultrasound)*
Obstetric Room	*VTH (Building 08b)*	*014*	*75.01*	*12*	*Two horse restraint cages*
Surgical Lab	*VTH (Building 08a)*	*014*	*94.58*	*25*	*Tables, GAIT4dog*
Microscopy Lab	*Building 06*	*005*	*36.93*	*18*	*15 microscopes, tables and chairs*

(Ground floor)				
TOTAL		**628.32**	**197**	

4.2.4

PREMISES FOR SKILL LABS					
PREMISE	**LOCATION MAP**	**ROOM N°**	**SIZE M²**	**CHAIRS**	**DESCRIPTION**
Clinical Lab	*VTH (Building 08a)*	*002*	*72.22*	*20*	
Surgical Lab	*VTH (Building 08a)*	*014*	*94.58*	*25*	*See Area 6*
Main skill Lab	*VTH (Building 08b)*	*010*	*75.01*	*20*	
TOTAL			*241.81*	*65*	

4.2.5

PREMISES FOR STUDY AND SELF-LEARNING					
PREMISE	**LOCATION MAP**	**ROOM N°**	**SIZE M²**	**SEATS**	**DESCRIPTION**
Central Library and multimedia centre	*Building 01(Ground floor)*	*001*	*137.93*	*89*	*Table, chairs, wi-fi and multimedia workstations*
Aula "Carelli"	*Building 04(Basement)*	*001*	*151*	*50*	*Table and chairs, wi-fi*
TOTAL			*288.93*	*139*	

4.2.6

PREMISES FOR CATERING					
PREMISE	**LOCATION MAP**	**ROOM N°**	**SIZE M²**	**SEATS**	**DESCRIPTION**
Canteen	*Building 01(Ground floor)*	*NA*	*132.06*	*50*	*Snack lunches, complete meals*
Cafeteria	*Building 01 (Ground floor)*	*NA*	*141.74*	*50*	*Breakfast, soft drinks, snacks, fast lunch, complete lunch including warm dishes*
Vending machines	*NA*	*NA*	*NA*	*NA*	*Available in different buildings Snacks and soft drinks Personal items such as OTC medicines, sanitary pads, phone chargers and USB sticks*
TOTAL			*273.8*	*100*	

4.2.7

PREMISES FOR ACCOMODATION FOR ON CALL STUDENTS/STAFF					
PREMISE	**LOCATION MAP**	**ROOM N°**	**SIZE M²**	**SEATS**	**DESCRIPTION**
VTH	*Surgery Section (Building 08a)*	*024*	*24.70*	*4*	*Kitchen, table, sofa*
VTH	*Obstetrics Section (Building 08b)*	*017*	*25.13*	*2*	*Two beds and kitchen*
VTH	*Internal Medicine Section (Building 08a)*	*011*	*17.85*	*4*	*Table and chairs*
VTH	*H24*	*010*	*30.87*	*3*	*Two bedrooms with restoring area*

Isolation Unit	*Isolation Unit*	*014*	*16.62*	*2*	*Two bedrooms and a table*
	TOTAL		**115.17**	**15**	

Inside the VMC, the leisure spaces include a recreation room for students, an Islamic praying room, an area equipped with tables and benches called "Verderinaria" and numerous benches scattered throughout the green areas. For a description of other leisure spaces see Area 7.7.

Toilets, washing/showers are located in all buildings on the VMC. Overall there are 109 toilets and 14 showers. In all the VMC facilities, lockers are made available to students to store their personal belongings (backpacks, coats, books) during practical activities in the laboratories. In the VTH, Vinci Pavilion and Isolation Unit there are changing rooms equipped with lockers (separate for males and females) to enable students to change for activities that require a change of clothing for biosecurity reasons (e.g. Necropsy Room).

Brief description of the personnel offices and research laboratories:

The personnel offices cover an area of approximately 20-25 sq. m. Most of the offices are shared spaces (2-3 desks). All offices enjoy natural light.

Their location is on the same floor as the research laboratories. Overall there are 65 research laboratories, ranging in size from 10 to 80 sq. m, for the following Sections/Units: Anatomy and Histology, Biochemistry, Physiology and Animal Behaviour, Veterinary Pathology and Comparative Oncology, Food Safety, Infectious Diseases, Avian Pathology, Parasitology and Mycology, Veterinary Pharmacology and Toxicology, Animal Husbandry, Internal Medicine, Surgery, Obstetric Clinic (see Map Appendix).

Vehicles Washing Area

A new concrete pitch, near the Vinci Pavilion, is currently under construction for washing and disinfecting vehicles when transporting animals to the VMC: the cleaning and disinfection procedure must be carried out by the driver of the vehicle and recorded in a specific register.

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.**

The intramural activities are carried out in the laboratories of the Food Safety Unit and are focused, in particular, on: conventional culture-dependent microbiological methods to isolate, identify and enumerate pathogenic and spoilage microorganisms (Food Microbiology Lab); conventional and advanced biomolecular methods for the identification, characterization and typing of pathogenic microorganisms and biomolecular methodologies applied to food authenticity (Food Molecular Biology Lab); new emerging topics, such as application and development of experimental methods for the isolation, quantification, and physicochemical characterization of microplastics in foods (Food Microbiology Lab 2).

As the VMC does not have an internal slaughterhouse or premises for FSQ practical training, during the course, students have the opportunity to visit private farms and slaughterhouses with their teachers. A more detailed description is givenin area 5.

Healthy animals –Healthy horses and ruminants are housed in stables at the VMC. There are 2 horses in two boxes and one external paddock, where they are brought daily by students, assisted by groomers. There are two cows and 13 small ruminants in two different stables with access to external

paddocks. These animals are handled by students in different learning activities, from containment to clinical examinations, always respecting their welfare.

Facilities and equipment for clinical activities – The VTH extends over a single floor, and is made up of several separate buildings: one is dedicated to Companion Animals & Exotics Emergency procedures and hospitalisation, one to Surgical Procedures, the third to routine examination procedures (Companion Animals & Exotics; one area with isolated entrance for wild animals i.e. STC) and one to hospitalisation of Companion Animals affected by infectious diseases (Isolation Units). Moreover, there are separate hospitalisation units for horses, sheep and goats, and swine. Clinical facilities are listed in Table 4.3.1, while the relevant equipment is described subsequently. The facility offers natural-lighting in the large central reception area (with separate cat and dog waiting areas; work in progress) and a second small reception and waiting area dedicated to the emergency service. Moreover, there are separate entrances for animals known or suspected to be affected by infectious diseases.

Table 4.3.1 Premises for clinical facilities at the VTH

Species	Room	Number
All	*Reception*	*1*
	Waiting room	*1*
	Lab room	*5*
Companion Animals & Exotics	*Examination Room*	*7*
	Treatment room (oncology; cytostatic hood)	*1*
	Radiology	*1*
	Ultrasound	*1*
	CT	*1*
	Surgical suite	*5*
	Anaesthesia	*2*
	Hospitalisation Room	*5*
	Hospitalisation Room (Grey Area)	*2*
	Surgery Day hospital (dogs)	*2*
	Surgery Day hospital (cats)	*1*
Companion Animals & Exotics (Emergency)	*Reception & Waiting Room*	*1*
	Examination Room	*2*
	Radiology	*1*
	Surgical suite	*1*
Companion Animals (Isolation Unit)	*Examination Room*	*1*
	Hospitalisation Room	*3*
Food Animals	*Hospitalisation units*	*2*
Equines	*Examination and Radiology*	*1*
	Anaesthesia	*1*
	Surgical suite	*1*
	Hospitalisation boxes	*11*
	Treatment room	*1*
	Lameness examination tracks	*1*
Wild Animals	*Waiting Room*	*1*
	Radiology	*1*
	Surgical suite	*1*

		Hospitalisation (Turtles)	1

Hospitalised animals – The premises for hospitalisation of animals in the VTH are listed in table 4.3.2.

Premise	Location	# of places	Species
Hospitalisation	VTH	8 cages (2 for large dogs)	Dogs
		8 cages	Cats
Hospitalisation/ICU	VTH	4 cages (2 with oxygen)	Dogs
			Cats
Isolation facilities (Grey Area)	VTH	2 single unit parvo isolation cages	Dogs
		2 single unit parvo isolation cages	Cats
Surgery Day Hospital	VTH	6	Dogs
		7	Cats
Isolation facilities (Red Area)	IU	6 single unit parvo isolation cages	Dogs
		6 single unit parvo isolation cages	Cats

Legenda: **VTH** Veterinary Teaching Hospital; **ICU** Intensive Care Unit; **IU** Isolation Unit.

The Grey (VTH) and Red (ICU) Areas are equipped with Single Unit Parvo Isolation Cages that isolate potentially infectious patients and use a drainage system that makes clean-up easy. A raised floor system keeps the patient elevated, minimising contact with their waste while a lexan door splatter guard and raised bottom retaining lip help to contain diarrhoea, vomitus and urine.
Hospitalisation facilities for companion animals are organised separately for dogs and cats.

Facilities and equipment for diagnostic services including necropsy - The Clinical Biochemistry and Haematology Laboratories are located both inside and outside the VTH, and are equipped with high-performance equipment including haematological, chemistry and blood gas analyzers, centrifuge, serum electrophoresis machine, microscopes. The service also manages other specialised exams thanks to several agreements with other laboratories either inside the DiMeV (1.e., parasitology, virology, bacteriology, and pathology) or private national and international reference laboratories. The SOPs for lab services and handling biological services are available in the Appendix.

The Necropsy service
The Necropsy service provides internal and external pathological diagnostic support. Currently, necropsies are performed in the necropsy room of the Vinci Pavilion and in the field at external farms and stables. In order to provide maximum exposure to the students, these activities are scheduled, and groups of students are organised via a Telegram® group (see Area 6.3).

Equipment of VTH – The VTH is equipped with state of the art diagnostic instruments for routine examination and surgery, anaesthesia and intensive care, imaging, minimally invasive surgery, and endoscopy. Instruments are used with dual purpose: teaching during practical sessions and rotations, and clinical services. Dedicated rooms are provided for emergencies (2 rooms), ultrasonography (2 rooms), radiology (1 room for small animals, 1 room for small animals and equine and 1 room for wild animals), CT (for small animals). Students have full access to examination and surgery rooms, hospitalisation rooms, ICU, diagnostic equipment, and they participate and assist the academic staff/VTH staff during medical, surgical, and diagnostic procedures. A complete and detailed list of the equipment present in the VTH can be found in the Appendix.

Standard 4.4: Core clinical teaching facilities must be provided in a veterinary teaching hospital (VTH) with H24 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.

VTH management –Starting from April 2022, the VTH is managed by a committee composed of 6 professors involved in the clinical activities and a representative from UniBA. A Technical Committee consisting of the Medical Head, 4 heads of internal medicine, obstetrics, anaesthesia and surgery services and an administrative representative from UniBA has also been set up.

VTH organisation - The VTH offers a H24 emergency service for companion animals (internal cases and first aid to stray animals (dogs and cats) based on agreements with local municipalities) and equines (referral), while for food-producing animals the on-call service is provided by academic staff members. The VTH team includes 6 contract practitioners and academic staff teachers, while post-graduate students, and PhD students are also involved in clinical services and training of students at the VTH.

A total of 21 staff, including technicians, groomers, and administrative staff complete the VTH team. The VTH provides services of primary care, general and referral consultations, ICU as well as hospitalisation and isolation for small animals. General consultations are available from Monday to Friday, while emergency, hospitalisation and ICU are offered round the clock, 365 days a year. Admitted patients are clinically evaluated, and if necessary, referred for second opinion, hospitalisation, or ICU (Fig. 1). Referral services (internal medicine, surgery and obstetrics) with specialised academic staff are available during weekdays or on-call during night-time and weekends. The VTH is provided with three clinical services available for all the specialties: diagnostic imaging, anaesthesia and pain management and hospitalisation, emergency and intensive care.

Students take part in all activities within the VTH; e.g. students assist hospitalised patients and perform medical and surgical procedures during clinical rotations.
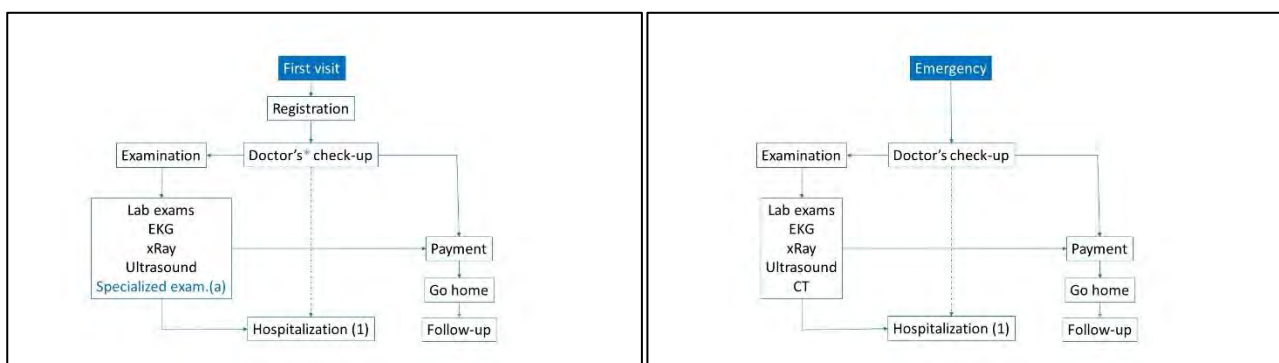

Figure 4.1 Patient flow

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.

During the mandatory PPT all students have access to diagnostic and therapeutic facilities and a variety of patients of different species starting from the 4th curricular year.

Students' clinical rotations include:

Surgery and anaesthesia rotation: the surgical training of the students (4th and 5th year) includes the following duties: manage and handle case records, provide assistance and perform clinical consultations, assess cases for scheduling of surgical and anaesthetic interventions, provide assistance and perform sedation and anaesthesia for the different surgical needs (diagnostic and therapeutic), provide assistance and perform surgical procedures, manage the postoperative period including pain assessment.

Diagnostic Imaging rotation: students actively participate in ultrasonographic imaging activities (7 devices are available at the VTH: 2 in the small animal emergency and hospitalisation unit, 2 in the surgery service, 2 in the dedicated ultrasound room, and 1 dedicated to wild animals), and archived image review activities are planned. Radiology areas are available at the small animal and wild animal emergency and hospitalisation unit, as well as a central afferent area for the various services, where also the CT is allocated. Students participate in radiology investigation reporting and advanced diagnostic activities under the supervision of academic staff.

Obstetric rotation: during training in clinical obstetrics, students are involved in surgery preparation, anaesthesia control, bringing round anaesthetized patients, assisting the surgeon during reproductive surgery, performing basic reproductive surgical procedures, nursing activities after caesarean section, performing vaginal swabs to monitor the oestrus cycle, using ultrasound to diagnose pregnancy and reproductive pathologies, performing rectal palpation in large animals to diagnose reproductive pathologies. In addition, students are involved in the management of the obstetric service, as they prepare the surgery rooms, sterilise surgical instruments and add medical reports to the electronic patient system (Smartvet).

Internal medicine rotation: students (4th and 5th year) participate in primary care activities, referral visits and clinical rounds, planning daily activity, writing reports on the database. For example, students take care of examinations (including all basic and instrumental parameters, such as the determination of blood pressure) and handle blood samples (e.g., setting up blood smears, centrifugation, preparing requests to be sent to the laboratory). During clinical visits, students also actively participate in performing diagnostic tests (e.g., electrocardiography, abdominal ultrasound, echocardiography) and interpreting radiographic studies. All activities are carried out under the supervision of academic staff.

Hospitalisation and Emergency rotation: students are involved in all the activities of the service H24 with dedicated rotations. The main duties of the students include management of clinical cases, case monitoring and performing therapy. Regarding emergency cases, students support the clinicians in all phases of the procedure from admission to examination and stabilisation up to and including the therapeutic approach, including surgery and anaesthesia.

Evidence-based clinical training of students is guaranteed through the participation and supervision of academic staff in clinical services provided at the VTH. Journal Club activities are organised weekly and available for all interns and PhD students. In addition, students receive articles and updates on evidence-based veterinary medicine procedures and guidelines inherent in the most common diseases, their diagnosis and management. Interns and PhD students involved in clinical trials actively participate in writing protocols and preparing applications to be sent to the Ethics Committee.

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.

Two IUs, for companion animals, are located in the VTH. One IU may accommodate up to 2 dogs and 2 cats in individual single unit parvo cages in the Grey Zone (animals suspected to be affected by infectious disease/s.). In the Red zone of the second IU there is one examination room, 6 parvo cages available for dogs and 6 for cats. IUs are isolated and with private and external entrances. Entrance to IUs is clearly identified with pictograms identifying biohazard rooms and prohibiting unauthorised personnel from entering. Access to the IUs is permitted with the use of individual protection devices. In accordance with biosecurity rules (available at the VTH and also disseminated by social media) patients suspected or known to be affected by infectious diseases are directly admitted to the IU/s and examined in a dedicated examination room. Students are instructed in these protocols and utilise them whenever relevant, under staff supervision. All IUs are adequately equipped and operate in accordance with approved biosecurity guidelines and protocols (Isolation Unit SOP). Specific protocols are in place in the IUs to enforce optimum biosecurity and prevent dissemination. Starting from May 2022, technicians, veterinarians and academic staff who may have access to IUs are trained, and training reviews are conducted on a semiannual basis. Specific measures for disinfection and material handling to and from the IUs have been appropriately detailed and recorded in special manuals available to technical staff. All materials are treated as "special waste" with separate collection and disposal. The waste is collected in containers for biologically infected/dangerous materials, both for liquids (watertight) and for dry materials that are disposed of by an authorised company. All areas are considered at high risk and identified in red.

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

The Mobile Clinic (MC) was established in 2013 for the teaching of clinical animal production and surgery. The MC was created in order to provide a laboratory for up-to-date and continuing education for students on the DCVM program. Thanks to this activity, students are taken 1-2 times a week to livestock farms in Southern Italy where they deal with topics related to surgical, obstetric and medical clinics of farm animals. The activity of the MC aims to offer emergency services to ruminant (cattle, buffalo, sheep and goat), equid (horse and donkey) and swine farms, aided by the Farm Veterinarian and without any additional expense for the farmers.
Students can sign up for the MC activities, from the first year of the course, via a Telegram® group, organised by the academic supervisors. Fifth year students can choose to participate in these activities, during their clinical PPT.
All students can view and study the clinical cases previously treated by the MC by consulting the blog at the following link.
The MC provides practical feedback on the theoretical concepts learned and the opportunity to participate directly in the clinical-surgical, obstetrical-gynaecological and medical activities carried out by academic supervisors, thus ensuring an unmissable opportunity for real learning of veterinary skills. In addition, it provides skills that a recent graduate must have from Day One, including knowing how to communicate with clients, prepare a clinical case, work effectively in a team, and have basic veterinary clinic knowledge essential for setting up a differential diagnostic, in the field.
Being an extra-mural activity, the MC provides students with an opportunity to interface with the livestock industry, and thus begin to integrate into the working sector, as well as learn cutting-edge veterinary knowledge and techniques.
The MC consists of a 9-passenger van (Opel Vivaro), equipped with complete and innovative veterinary medical and surgical equipment for field activities (Eco-color-Doppler, surgical instruments, drugs, anaesthetics, video vaginoscopy, ozone generator, thermal imaging camera, laparoscope, coagulation device and vessel dissection, colostrometer).

For Herd Health Management, 4th year students are divided into small groups (4-5), by the academic supervisor and they follow the activities of farm veterinarians at affiliated farms (bovines, swine, equids, small ruminants). The students carry out routine husbandry procedures on farm animals, participating in several aspects of feeding (total mixed ration management), milking and management. Then, they learn to consult the farm management software, to evaluate the farm's reproductive and productive performance records.

Students attending the Animal Production I course visit animal shows, so as to gain a deeper understanding of morphological phenotyping and evaluation, as well as of the breeding strategies for different livestock breeds.

Students on the 4th year Livestock Technologies and Hygiene course enjoy technical visits to ruminant farms, where they apply knowledge acquired during lectures dealing with overall farm management analysis through management softwares, evaluation of the main aspects related to animal welfare according to the livestock system, evaluation of the animals' conditions through Animal Based Measurements (ABMs), such as BCS, lesions, dirtiness scores, etc.

All these activities are carried out with the lecturer/professor of the subject in cooperation with professors of other subjects (i.e. pathology of reproduction), transporting students by bus and then subdividing them into small groups on the farm, carrying out different activities, each supervised by a member of the teaching staff. The activities are usually the following: Buildings and facilities evaluation; Feeding management evaluation; Milking technology and procedures; Animal Based Measurements of animal welfare; Blood drawing procedures; Rectal inspection procedures; Data analysis by test day records and from the management software.

Finally, students involved in PDP "Farm animals", have several technical visits to farms with different species and livestock systems, focusing on herd health management strategies, production medicine, data analysis using Precision livestock farming software.

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.

Transportation of students - The transportation of students to off-campus facilities is provided by two 9-passenger vans owned by DiMeV (Opel Vivaro and Ford Transit). In the event of larger groups, specially rented vehicles (e.g., coaches) are used.

Transportation of live animals - DiMeV does not have vehicles for transporting live animals, so all patients, including equines, are transported to and from the VTH by their owners.

Transportation of cadavers/organs - DiMeV owns one 9-passenger van that is properly authorised (Opel Vivaro) for the transportation of small-sized cadavers and organs. This van is sanitised before use for student transportation (see Area 5).

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.

Starting from 2020, VEE has undertaken a process of revision and updating on the issue of Biosecurity in laboratories, in the facilities related to the VMC and in activities with animals in the university setting.

This process has led to the drafting of a <u>Regulation</u> for access, attendance and functioning of the laboratories, available online for maximum dissemination and sharing by everyone attending VMC laboratories.

Furthermore, in order to raise knowledge and awareness among students about Biosecurity, a course on Biosecurity in the laboratory and in relationships with animals has been included in the DCVM starting from the first year of attendance, which includes a final exam to certify the skills acquired by the student.

The continuous updating of these skills is also ensured in subsequent curricular years, in all course programmes. It is considered particularly useful that the student be guided during their university career on the specific measures/procedures for the management of the risks connected with highly professional activities. Students must acquire the knowledge/skills that will allow them to operate safely in all veterinary facilities and in those activities that involve contact with animals.

In 2020, a theoretical-practical course of soft skills "<u>Let's work safely!</u>" was activated, now in its third edition, which has been attended by numerous students. The topics enable students, PhD students, research fellows and scholarship holders the to acquire an attestation relating to Biosecurity in University facilities in accordance with the provisions of current legislation (Legislative Decree 81/2008, State-Regions Agreement 21.12.2011), with particular regard to animal handling and biosecurity in laboratories. The course includes a final exam.

In January 2022, the figure of a Biosecurity Delegate was established for the DCVM, in order to supervise, through continuous monitoring, the management and implementation of biosecurity protocols in the VMC and report any previously unidentified critical areas relating to specific risks, connected to research and teaching activities.

Moreover, an ambitious programme for the upgrading, renovation and construction of buildings is in place and some of the construction work is on-going to assure compliance with current biosecurity requirements.

To this purpose, the Delegate asked all the Laboratory Managers of each scientific field to carry out a more in-depth risk analysis aimed at drafting separate Biosecurity Manuals for each area/risk and drawing up SOPs for their management/mitigation/reduction/elimination. Biosecurity SOPs include best practices for waste handling and management. A UniBA-authorised waste collection company supplies all the research units with special bins which are collected weekly.

In November 2022, a Biosecurity Committee was set up and is composed of 1 delegate and 9 managers for each area.

These Manuals are available at the educational activity areas/laboratories/VTH and are available <u>online</u>.

All the Biosecurity Manuals are illustrated first during the classroom lessons by the responsible teacher/laboratory manager and, subsequently, every time the students access practical activities in order to transfer specific skills, procedures and operations for the management of the risks involved. For the VTH, all the procedures have been described in the <u>manuals</u>. Furthermore, all the SOPs are available, the technicians undergo training and a final questionnaire. Finally, videos have been made that illustrate the main hospital SOPs, which can be viewed via QR codes positioned at strategic points.

Comments on Area 4
Thanks to the recommendations received following the previous visitation, facility accessibility has been radically improved, with particular reference to biosecurity. The renovation works on the Vinci Pavilion, while causing a serious inconvenience that affected the number of the necropsies and anatomy practical activities, now allow students to carry out the activities in a modern, safe way and with a multi-species approach (horses, cattle, zoo animals). The renovation of an area of the VTH in order to restore H24 clinical service has resulted in the implementation of clinical cases and the acquisition of competencies related to emergency care. The LabDog set-up will lead to an increase in

canine clinical cases, boosting students' clinical skills with regard to canine behavioural problems. The three skill labs are empowering students' practical skills and supervised self-learning and will contribute to reducing the number of live animals used for teaching purposes.

Suggestions for improvement in Area 4
The VEE intends to enhance its teaching, research and leisure facilities. Moreover, a project has been approved for the construction of an equine breeding centre. The "ex Surgery" pavilion has received MUR funding for renovation in order to set up a One-Health Centre, which will improve research and teaching by providing new, centralised laboratories and a 50-seat teaching room. The Academic Senate has also approved the construction of a multifunctional sports court and a barbecue area, which will augment leisure opportunities for students, teaching staff and support staff and reinforce the friendly atmosphere of the VMC.

5.

ANIMAL RESOURCES AND TEACHING MATERIAL OF ANIMAL ORIGIN

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.

Regarding the use of animals and materials of animal origin, the VEE is actively involved in ensuring adequate resources (number and variety of animal species) available to students to achieve DOCs. Specifically, material for pre-clinical training (anatomy and pathology) and for food safety and quality training is mainly provided through agreements with external facilities, including farms, regional slaughterhouses, public and private kennels, cat associations, pet owners, practitioners, and the Regional Fauna Observatory. Materials for clinical training (PPT and core practical courses) are provided by the VTH, by the practitioners and students.

When dealing with animals and materials of animal origin, the VEE seeks to comply with the 3R principles:

Replace animals by using anatomical plastic models, phantoms, and simulators. To this end, a skill lab has been set up, involving a considerable financial investment by DiMeV.

Reduction by optimization of cadavers, all parts of which are used for educational and training purposes. For better cadaver re-use, materials are preserved in -20'C freezer/cell for future use.

Refine by limiting the repetition of manual invasive/stressing procedures on the same animal.

Student training for the acquisition of DOCs takes place during:

- practical activities in pre-clinical and clinical teaching subjects included in the core curriculum;
- elective courses, PDPs, which students select according to personal interest; these electives are offered both in-house and externally through structured programmes;
- PPT, devoted to clinical practical skills which also includes compulsory EPT activities. The organisation of PPT is described in detail in Standard 3.

During practical activities, students are divided into small groups in order to ensure hands-on training. Non-clinical animal work starts from foundational subjects via purchase of organs and carcasses as well as models. It continues throughout the core subjects until the 4th and 5th year PPT rotations that provide students with hands-on training in all fields of veterinary medicine.

The overall strategies adopted by the VEE for material of animal origin changed drastically in AYs 2019-20 and 2020-21 due to the pandemic outbreak and to the renovations to make the Vinci pavilion compliant with biosecurity standards. Regarding necropsies and practical activities for Anatomy and Pathology, the above issues had a profound effect on the indicators during the aforementioned AYs.

The UniBA administration, through rectoral decrees, banned all teaching activities in AY 2019-20 followed by a limited re-activation in AY 2020-21 (allowing the presence of a limited number of students attending in person with the others in remote connection), in order to limit contagion. These actions had a negative impact on the number of necropsy cases and the availability of materials for Anatomy and Pathology. The renovation, which started in June 2020 and was completed in September 2021, made it almost impossible to schedule practical labs because there were no other suitable environments in terms of biosecurity to carry out such activities.

During those two years, the various units implemented some strategies to address these deficits. The Anatomy Unit used software, videos and streamed practical activities using the Teams platform. Regarding the necropsy activities, the use of videos played on the Teams platform was extended by streaming autopsies performed in an alternative area located in the IU. Avian and rabbit pathology activities, on the other hand, were carried out at the Regional Fauna Observatory, under an agreement established in 2018.

Furthermore, thanks to an e-learning project (I.L.A.H. -Interactive Lessons At Home) funded by UniBA in 2016, it was possible to share autopsy activities interactively, allowing students to follow these activities, ask questions in real time and record everything from home. Unfortunately, renovations in the Vinci Pavilion temporarily interrupted the use of this valuable tool, which was promptly reactivated upon completion of the works. The I.L.A.H. project installed a video system within the Vinci Pavilion for local recording/projection and streaming of the educational activities conducted during the scheduled courses and practical training activities (both core and elective ones). When the Vinci Pavilion reopened, Autopsy Wednesday was established: every week, through a Telegram® group (a social media application), students of any year of the course can book and carry out autopsies divided into groups (maximum 8-10 for Veterinary Pathology and 5 for Avian Pathology). At the end of the activities, each group share their findings orally, first with their peers, then with the academic supervisor. After the discussion, students edit an autopsy report that is annexed to the autopsy register.

Furthermore, field autopsies were organised with up to 8 students at farms, veterinary clinics and stables, with authorised vehicles made available by the DiMeV.

Since AY 2021-22 necropsy numbers have increased significantly, with indicators that are higher than required standards, thus confirming the aforementioned limitations.

In the Anatomy room (Vinci Pavilion), practical sessions are divided into two types of learning activities: learning on bones and teaching models, and learning on non-pathological biological material (carcasses and organs). Learning on bones and teaching models is enabled by the presence of several cabinets where all skeletal materials are catalogued, providing students with opportunities for self-directed learning. These materials include bones from various skeletal regions and mounted skeletons of horses, small ruminants, and dogs. In addition, to aid the study of organs and muscles, several anatomical models, both fixed and detachable, are available for students use. Usually, in the practical training provided during the Veterinary Anatomy course, students are subdivided into two groups of 30 students each and further split into 6-student groups. This strategy allows a more useful interaction between students and teaching staff during this activity.

For Applied Anatomy, groups of 15-20 students are involved in the study and evaluation of anatomical concepts applied to surgical practice. These practical lessons involve the use of cadavers, including those of carnivorous and equine animals. Through dissection and practical examination of these specimens, students acquire knowledge of anatomical structures relevant to surgical procedures. During clinical practical sessions, as well as during anatomy subjects applied to clinical sciences, students have the opportunity to perform propaedeutic activities (surgical anatomy, ultrasonography, simulated surgery, simulated access to urinary and reproductive tracts, etc). The carcasses used come from animals that died naturally or were euthanized, without having infectious diseases.

Both for pre-clinical activities (i.e. Animal handling, Physiology) and for clinical sciences, healthy animals are used. Companion healthy animals are usually pets owned by students. The healthy cows, horses, sheep and goats are usually the ones reared in the VTH and for Obstetrics and Animal Production the subjects may also include healthy animals directly used on farms (transporting students in the MC or by minibus), which students attend under the supervision of the academic staff.

For Clinical Science, students are first involved in the activities of the VTH in their 4th year (and this will change to the 3rd year from AY 2023-24). There are 2 different forms of involvement in the core curriculum:

1. Practical activities related to the specific clinical course (e.g. surgery, internal medicine, obstetric medicine). These are held in small groups in which students can directly assist in the case, being involved in the most basic activities. These activities cover surgery, internal medicine and obstetrics and involve small and farm animals, equines and exotics. These may be held according to the current availability of appropriate clinical cases at the VTH, or else related to specific topics of the course, or directly scheduled by the teacher. In the case of farm animals and equines, the teacher can transfer the students to external facilities;

2. Clinical rotations are also carried out for the mandatory practical, hands-on parts of the course (in the 4th and 5th years). Students are individually scheduled for rotation in the different clinical disciplines (surgery, internal medicine, obstetrics and hospitalisation and emergency), earning mandatory ECTS for these sessions. Students are directly involved in the clinical tasks and in case management. The activities are logged in a case log signed by a member of the PPT committee. Companion animals and equines are provided by the VTH. Equines and farm animals can usually be found directly on farms, with students being transferred using the MC.

Students also approach animals and animal-derived materials in elective activities, such as PDP or practical activities related to their thesis.

As set out in more detail in Area 8, the DCC has improved the panel of ESEVT DOCs achieved through each subject, ensuring that all the students receive the relevant core. With regard to practical training and clinical rotations, the use of a case log is not in itself a balanced and traceable system able to monitor the acquisition of all the ESEVT DOCs by each student. This weakness, addressed below in Area 8, is being handled by the VEE governance that has updated the Practical Training Regulation by introducing a temporary Log book for AY 2023-24, which should help to resolve this issue.

The overall balance between clinical disciplines is mainly monitored and managed by the DCC and DiMeV Council that allocate to each clinical subject an amount of teaching activity consistent with the expected learning outcomes and with ESEVT DOCs. In the latest DCVM update, that will start in AY 2023-24, the ECTS assigned to clinical sciences have been increased, while those for foundational subjects have been reduced, thus rectifying the imbalance in the previous DCVM structure between these two subject macro-areas.

With regard to the balance between species, the first monitoring is carried out by DCVM coordinator and QA Committee that checks it on the syllabi and programmes. Then, for highlighting the necessity of a balanced approach for each domestic and non domestic species, in the new curriculum, courses have been labelled according to species categories (companion, horses and non conventional/farm animals/public health and food safety and quality). Responsibility for achieving a balance between clinical cases (acute vs chronic, new cases vs follow-ups, etc) is assigned to clinical academic staff involved both in lectures and in practical training activities.

The EAEVE Committee monitors the balance and indicators every three months and benchmarks trends against the ESEVT indicators.

The use of animals in both teaching and research activity complies with national and European regulations (D.Lgs No. 26/2014 Italian law implementing EU directive 2010/63/UE). All activities carried out with animals, including animal teaching, are authorised by the Italian Ministry of Health (See Area 10).

Even in the case of non-experimental clinical or livestock activities, DiMeV authorises them with an approval number from its Animal Ethics Committee (CESA DiMeV), which also includes a student of the DCVM. In this way students, interns and PhD students are all properly and adequately informed about the procedures and the appropriate management of animals with acquisition of skills (soft skills) in veterinary bioethics.

Non-pathological and pathological material from farm animals and equines is obtained from authorised slaughterhouses, with which agreements have been signed. Carcasses of cattle and swine are provided by a veal calf and beef farm and by a pig farm, respectively, via specific agreements. Transportation of this material is done by VEE technicians using an authorised vehicle with authorised tanks. Cadavers and material from companion animals come from the VTH, affiliated kennels, veterinary clinics and directly from owners. Pet owners and practitioners are responsible for transporting the material to the VEE.

Carcasses and organs for the anatomy practical activities are stored for extended periods in a freezer unit. For thawing, short-term storage and upcoming use, the material is kept in a refrigerator cabinet available in the Anatomy room.

All materials used for Pathology are registered upon arrival, separating infectious (or suspected) cases from non-infectious ones, and placed in a freezing room using a dedicated entrance for material loading and unloading. Subsequently, the material to be used for the upcoming practical activity is moved to a cold room for gradual thawing. At the end of the activity, the material is stored in the freezing room within containers that are authorised for disposal. A specialised and certified company for disposal collects the containers on call. The return of the containers occurs after an adequate sanitisation.

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

Species	2021/2022*	2020/2021	2019/2020	Mean
Cadavers	*21*	*online*	*online*	*7*
Organs (Cattle, Small ruminants, Pigs, Companion animals, Equine)	*710 kg (50 kg Companion)*	*online*	*410 kg (20 kg companion)*	*373.3 kg*
Poultry & rabbits	*/*	*/*	*/*	*/*
Aquatic animals	*/*	*/*	*10 kg*	*3.3 kg*
Exotic pets	*/*	*/*	*/*	*/*

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	*10*	*10*	*6*	*8.7*
Small ruminants	*13*	*13*	*13*	*13*
Pigs	*0*	*0*	*0*	*0*
Companion animals	*40*	*40*	*16*	*32*
Equine	*2*	*2*	*2*	*2*
Poultry & rabbits exotic pets and others	*0*	*0*	*0*	*0*

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

Species	2021/2022	2020/2021	2019/2020	Mean
Cattle	*4*	*5*	*0*	*4.5*
Small ruminants	*29*	*16*	*25*	*23.33*
Pigs	*13*	*23*	*13*	*16.33*
Companion animals	*1763*	*1359*	*694*	*1272*
Equine	*70*	*65*	*45*	*60*
Poultry & rabbits	*18 (rabbits)*	*15 (rabbits)*	*10 (rabbits)*	*14.33*
Exotic pets	*8 (reptiles, parrots…)*	*6 (reptiles, parrots…)*	*5 (reptiles, parrots…)*	*6.33*
Others (sea turtle, wild birds and mammals)	*273*	*323*	*247*	*281*

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

Species	2021/2022	2020/2021	2019/2020	Mean
Cattle	*118*	*23*	*36*	*59*
Small ruminants	*413*	*393*	*24*	*277*
Pigs	*22*	*26*	*53*	*33.66*
Companion animals	*291*	*497*	*137*	*308.33*

Equine	*48*	*42*	*19*	*36.33*
Poultry & rabbits	*-*	*-*	*-*	
Exotic pets	*-*	*-*	*-*	
Others (deers)	*6*	*-*	*-*	*2*

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

Species	2021/2022	2020/2021	2019/2020
Cattle	*50*	*50*	*50*
Small ruminants	*50*	*50*	*50*
Pigs	*50*	*50*	*50*
Companion animals	*5*	*5*	*5*
Equine	*80*	*80*	*80*
Poultry & rabbits	*100*	*100*	*100*
Exotic pets	*100*	*100*	*100*
Others	*100*	*100*	*100*

Table 5.1.6. Cadavers used in necropsy

Species	2021/2022*	2020/2021	2019/2020	Mean
Cattle	*31*	*4 + online*	*0 + online*	*11.7*
Small ruminants	*11*	*11 + online*	*0 + online*	*7.3*
Pigs	*13*	*0 + online*	*0 + online*	*4.3*
Companion animals	*104*	*26 + online*	*14 + online*	*48*
Equine	*9*	*1 + online*	*0 + online*	*3.3*
Poultry & rabbits	*278*	*134 + online*	*108 + online*	*173.3*
Exotic pets	*/*	*/*	*/*	*/*
Others (Zoo and Wild Animals)	*10*	*1*	*1*	*4*

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	*30*	*20*	*20*	*23.33*
Small ruminants	*8*	*6*	*6*	*6.66*
Pigs	*5*	*5*	*4*	*4.66*
Poultry	*20*	*18*	*32*	*23.33*
Rabbits	*2*	*-*	*-*	*0.66*
Aquatic animals	*2*	*1*	*4*	*2.33*
Others (buffaloes)	*7*	*3*	*3*	*4.33*

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	*1*	*online*	*online*	*0.33*
Pig slaughterhouses		*online*	*online*	*0.33*
Poultry slaughterhouses	*online*	*online*	*online*	*0*
*Related premises ** *	*3*	*online*	*6*	*2.66*
Others (specify) Rabbit slaughterhouses	*online*	*online*	*1*	*0.33*

*** Premises for the production, processing, distribution or consumption of food of animal origin*

At the beginning of the AY, each teacher notifies the quantity, variety and kind of material of animal origin needed to the DiMeV logsitics delegate. This facilitates the procurement and transport of this material, both healthy and pathological, from slaughterhouses, farms and other external facilities.

As previously stated, the DCVM Coordinator and QA Committee oversee the variety and quality of animals and materials of animal origin to be used in the different subjects and practical training sessions planned at the beginning of each AY. The academic staff involved in each teaching activity.are responsible for the practical implementation and use of animals and material of animal origin.

The EAEVE Committee is charged with the periodic monitoring of the use of animals and materials. It has to continuously check the compliance of each activity with the ESEVT standards. The VEE has experienced some criticisms on this, given the paucity of equines available for clinical activities. The EAEVE Committee, made up of the head of the VTH, other clinical academic staff members and two student representatives, directly notifies any weaknesses to the manager, who activates corrective actions to address the issue. Additionally, each weak point highlighted by the EAEVE Committee is reported officially to the DCC, so that the information can reach a wider audience.

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 VEE has no teaching farms or food processing plants. Hence, several activities, ranging from animal production to clinics, as well as VPH and FQA are carried out in external facilities that have an official agreement or simply agree to be visited by students with the supervision of the academic staff.

Activities carried out in external facilities are classified as follows:

- Non clinical training supervised by academic staff: students reach the external facilities on buses provided by the VEE or departmental vehicles with the academic supervisor. They carry out the activities as planned, after which they come back to the VMC;
- Clinical training supervised by academic staff: the main strategy foresees use of the MC. The students can sign up via Telegram® groups and the academic tutors choose them on the basis of the number of cases available. On farms, the students are involved in a variety of tasks, from the containment of animals to clinical case management, performing diagnosis, administering drugs, managing anaesthesia of animals during the surgery, assisting the surgeon, all activities under the supervision of academic tutors. The students are also involved in the reproductive examinations of farm animals, management of the births, neonatal cares and postpartum evaluation. The academic staff brings the students by OPEL Vivaro, a 9-seater van, which also holds the equipment needed for the clinical field visit;
- Unsupervised training: this forms part of the PPT and involves students spending a continuous and longer period in external facilities (farms, food producing plants, public health offices, etc.), under the supervision of an external tutor. This part of the core training enables students to acquire skills and competencies related to process based events (births, milking procedures, slaughtering quality control procedures, production and reproductive monitoring, biosecurity, animal welfare, quality procedure protocols, etc).

In all these activities the students carry out hands-on activities through informal agreements before the visit supervised by academic staff and through the Training Project before the unsupervised sessions. Consequently, the activities for each student are planned by academic staff before visiting the external facilities. The MC uses a different approach, in which the farm vet notifies the academic staff about the clinical case.

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.

Nursing care skills and nursing procedures - The nursing care skills are provided to undergraduate students from the first year of the curriculum to the end. They start by acquiring information incorporated in a biosecurity course that includes how to correctly handle animals. The VTH enables the student to actively participate in clinical and animal management activities, both during outpatient visits and with inpatients. Student activities are carried out under the supervision of academic teaching staff and support staff. During practical training, students are assigned clinical cases for which medical records and diagnostic investigations are available; after a clinical examination of the patient and viewing of the medical records, the student discusses the diagnostic and therapeutic approach with the supervisor and completes their activities by practising writing a discharge letter. In the management of hospitalised animals, students learn to handle animals, perform clinical examinations and therapies, under the supervision of medical and technical staff. At these times, the student also practises compiling medical records. Particular attention is paid to the management of all student activities in accordance with the principles of safety, biosecurity and environmental compliance (including the management of separate waste collection, regulations pertaining to special waste and drugs). Manuals and SOPs are available at the VTH to which students and all staff can have access through printed versions or viewable via QRcode with android, iphone, tablet, ipad tools. In collaboration with students, a multimedia channel is also developed and implemented on which explanatory videos showing the main procedures to be followed in the hospital are shared.

Hands-on training on small animals and equines is carried out mainly in the VTH, while clinical training on farm animals and equines is also performed extramurally, under the supervision of academic staff. During the clinical rotations at the VTH, there are usually 1-4 students in each clinical service. The maximum group size for extramural professional clinical training on equines, ruminants and swine, is 7 students, as this is the number of seats in the VEE's vehicles, used by the MC. This organisation into small groups ensures that each student can personally get hands-on with all activities.

On companion animals at VTH, the students are involved in daily clinical work in each clinical service, internal medicine, reproduction and surgery. In addition, the students participate in emergency case management, and hospitalised patients. They support the academic staff and carry out hands-on activities, actively in all clinical procedures, such as blood sampling, administration of therapy, induction and maintenance of anaesthesia and routine surgery. They are also involved in writing case reports, history taking, assisting the academic staff to set up and discuss the diagnostic and therapeutic protocols. At the end, the students edit the electronic patient record system. In this way, they can follow all the aspects of clinical examination, from identification of the patient to the treatment protocol setting.

With regard to farm animals/equines, the students are involved in setting up the MC, animal identification, proper animal restraint, history taking, clinical visit, biological sampling, diagnosis discussion, to setting a therapeutic protocol (both pharmacological and surgical) and planning follow up monitoring.

The students are also involved in the reproductive examination of farm animals, in the management of births, of neonatal care and of the postpartum period.

During clinical rotations, the students discuss the clinical cases, from diagnosis to therapy, with the academic staff involved in the activities. This discussion is performed briefly during the clinical examination and, in a more extensive and thorough manner, at the end of the clinical visit. In addition, for the MC activities, the students, in groups, are recommended to write the clinical case reports, uploading them onto the MC's official blog site. The latter activity is also useful to allow other students, who did not attend the case, to learn about the clinical procedures carried out.

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

Since January 2022, the VTH has been equipped with an electronic records system, named SMARTVET. This software is a cloud system in which data can be inserted and assessed from any device. In this system, the client and patient data are recorded, by academic and support clinical staff (teachers, PhD students, technicians, and practitioners). In addition, also the students can edit and update the clinical records in the system, exclusively under the supervision of academic staff. The system is divided into several services, such as clinical pathology, internal medicine, behavioural medicine, imaging diagnostics, wild animal clinic, surgery, emergency and intensive care, reproduction and anaesthesia. For all services, there is an option to select intramural or extramural visits.

From September 2023, the students will be able to consult the clinical cases entered in the system. Any personal or confidential client data will be anonymised for privacy. These activities are designed to facilitate the study of cases, from diagnosis to treatment, and to track the clinical history of patients, even if the student did not personally handle the case.

Comments on Area 5

During the last three AYs, there has been a clear increase in clinical cases. The difficulty in finding new clinical cases can be ascribed to the reduced number of clinical and technical staff and the concomitant lockdown due to the COVID-19 pandemic. Regarding the latter point, UniBA imposed a total ban on practical activities in the period March-May 2020 and a severe restriction in May-October 2020, with regards to the number of students attending in person. Furthermore, the potential for expanding the clinical and technical staff, as well as enhancing and adapting facilities, is determined solely by the University's available resources and timelines, which may not always align with the immediate and practical needs. It must be noted that UniBA does not have its own teaching farm that would allow students to conduct training activities on farm animals. Under national regulation, pigs, ruminants and equines require permits and certifications prior to transportation, which results in excessive paperwork for owners and veterinarians. In addition, in recent years, farmers have had to face greater economic difficulties due to a dramatic increase in the cost of raw materials and energy. As a consequence, moving animals has become particularly difficult and costly. Therefore, there are few intramural clinical cases of pigs, ruminants and equines. The MC was implemented in order to compensate for these deficiencies, which has allowed extramural training to be conducted at different farms and equine stables. Despite these difficulties, the increase in clinical caseload is evident in a continuous and constant manner.

Suggestions for improvement in Area 5

New strategies of implementation will be undertaken for improving the clinical services, such as:

- Agreements with municipalities for dealing with stray animals (dogs and cats), and with new farms and stables would be useful. On this strategy the VEE has already started with concrete actions, through agreements with the municipality of Valenzano (stray cats and dogs) and with a small ruminants farm capable of bringing animals to the VMC;
- Setting up of an equine breeding centre (project already approved), where proper management will allow students to experience all the procedures taking place in an equine reproduction centre, thus also increasing the number of internal and surgical equine cases;
- Improvement of the quality and variety of clinical services provided by the VTH and activation of a dissemination strategy for communicating these services to clinics and the public;

- Combine clinical services with continuous training and education plans able to retain veterinary practitioners and clinics;
- Implementation of skill lab facilities for increasing and improving students' clinical ability and to promote the 3R principle.

6.

LEARNING RESOURCES

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.

One of the objectives of the VEE is to offer a sustainable and conducive learning environment providing adequate resources for graduate and undergraduate students. To achieve this, the VMC has a dedicated library and multiple skill labs: these are vital tools for fostering competences and for empowering responsible scientific development among students and staff. The Veterinary Medicine Library (VML) is a part of the UniBA Library System (*Sistema Bibliotecario di Ateneo* - SiBA). It plays a key role in conserving, enhancing, expanding and facilitating the use of the University's whole bibliographic system, including the documentation, and employs advanced methods for the effective dissemination of bibliographic information. Since the end of 2022, the UniBA Library System has been centrally managed and is therefore currently being re-defined in terms of service provisions, allocation of financial resources and administrative procedures. The UniBA's 20 library facilities are divided into 6 Poles, on the basis of disciplinary or logistical affinity. Each Pole comprises a central library and one or more branch libraries. The VML is part of the Medical-Veterinary Pole within the SiBA and operates as a branch library. All bibliographic holdings, held at the different libraries at the UniBA, are accessible to all institutional users. Within the UniBA Library System, the VML serves as a unique and indispensable hub of bibliographic resources in the field of Veterinary Medicine. It caters for users, including professors, researchers and students at the VMC, as well as the wider scientific community.

At the beginning of the first year, newly enrolled students are welcomed by the Coordinator, the staff, other students and the representative from the main student association. During this introduction, they are shown the various services and opportunities available to them at the VMC. In particular, new students are guided on how to activate and use their institutional email accounts, access the Esse3 platform for their academic progress and make use of the e-learning and library services. They are also invited to join WhatsApp class and Instagram groups administered by student representatives. These groups serve as valuable resources for tutorials and information related to accessing learning resources.
In addition, students are invited to take part in study groups (known as "Gruppi Studio") which consist of virtual spaces where they can study together via video calls, sharing information on all the learning resources.
Twice a year the library manager runs dedicated sessions ("Chiacchierata con il bibliotecario "*A chat with the librarian*") for new students, graduating students, PhD students and staff where all the resources and the services offered by the library are presented. They receive guidance on web browsing for bibliographic research. Furthermore, certain lectures, particularly in Statistics and Informatics in the first year and Epidemiology during the third year, also provide instruction on accessing electronic learning and bibliographical resources. Finally, throughout the preparation of their graduation thesis, students extensively cover the accessibility and use of learning resources
At the VEE, prior to the establishment of the Veterinary Library Committee (VLC) (DR 4577 of 20.12.2022), there were three academic members of the VEE, one of them as Delegate of the Head of the Department, appointed as components of the branch library of Veterinary Medicine within the Medical-Veterinary Cluster with responsibility for implementing and improving library resources. In

agreement with the Delegate of the Head of the Department, in an email to VEE academic staff the library manager periodically solicited suggestions for the purchase of books or other resources. Based on the availability of library funds, the librarian would then formalise the purchase request by sending a written application to the Department's accounting office. Purchases were notified to academic staff and students at Department meetings. Following the transposition of Rector's Decree No 45477 of 20/12/2022, the VLC will coordinate the budget for the purchase of electronic resources and materials and for the preservation of the existing library and other teaching resources. The VLC consists of the head of the library and three members of the department, appointed by the departmental board, one of whom acts as head or coordinator. The committee must meet at least twice a year or when necessary to discuss the implementation and improvement of library resources. Its responsibilities include drawing up the budget for material acquisitions, electronic resources and the preservation of the existing library heritage, taking into account proposals from the LibraryManager. SiBA will receive specific funding from the Board of Heads, which will then allocate it to the individual hubs, which in turn will allocate it to their respective library facilities (budget to be determined). The VLC operates with a certain level of autonomy in planning purchases and allocating funding, although it is conditioned by the economic resources provided by the University. The annual budget is about € 4,000.00.

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).

MAIN LIBRARY
The VML is located on the ground floor in the Southern wing of VMC Building 01 Ground floor (see Chapter 4 - Facilities and Equipments) and is made up of:
- one reading room measuring 139 m^2 with 70 seats;
- three PCs available dedicated to students;
- three administrative offices;
- 92 m^2 room for storing books and print magazines

The Library has a <u>website</u> that is regularly updated and accessible to all users on the website of the DiMeV. The website provides all information needed about the library (opening hours, contact details, etc.) and all the information needed to access the services (Online Public Access Catalogue - OPAC, database, book loan, document delivery).
The library is open MON-FRI from 8.30 am to 6.30 pm, as a reading room, and from 9.00 am to 1.00 pm for services. It is closed on the weekends, during the central weeks of August and during the national and religious holidays listed in the academic calendar.
Library Staff: Like the other libraries at the UniBA, the VML is run by a manager, who is appointed by the Head General of UniBA. At VMC, the Head of the library has a University degree and an advanced course diploma in cataloguing of bibliographic resources. She manages the organisation and staff of the library, ensures the quality of the services offered, the organisation and preservation of the library's holdings, and the use of the library's equipment and premises. She collects requests for bibliographic and documentary acquisitions for study and research needs. Join training projects for students such as transversal skills about Information Literacy. The library manager will be assisted by a Library Committee. The VML offers and provides most library services. There is currently only one staff member in the position of Head assigned by the Head General of UniBA due to the

retirement of the previous Head. The library relies on the help of a volunteer who assists with front and back office activities. The volunteers are managed by the central government but funded by the Ministry. The volunteer has an annual contract of about 1400 hours. It is part of the '*books for all 2*' project. There are also part-time students (usually one at a time) managed and paid by the central government.

Technological Services: Inside the reading room there are three consultation areas where online electronic resources may be consulted using computers (including the use of veterinary anatomy software). Students can also use their personal computers for their research activities through the Wi-Fi network**.** PCs and software are regularly updated. Two specialised technicians working at the VMC are responsible for the electronic equipment maintenance (both hardware and software platforms) used for educational and institutional purposes (internet connections, wireless networks and mailing systems).

Library Services: The VML ensures the provision of front office services supported by back office activities.

Front office services: provision of ample space with adequate hours for staff on duty; consultation; local loan; interlibrary loan; document delivery; bibliographic information and user training; training/information meetings (e.g. "A chat with the librarian") organised twice a year when the library staff (or manager) introduces students to the research tools and services. It also offers guidance service to promote research, selection and use of OPAC, bibliographic resources, especially electronic resources such as databases, discovery tool esploraRE, e-journals and e-books (advanced reference).

Local loan: The library provides a service of local loan (LL) aimed at encouraging the widest circulation access to the documents. The LL service is available for teachers, researchers, graduate students, undergraduate students, research assistants, administrative staff of the UniBA.

Interlibrary Loan: The library provides an inter-library loan (ILL) service designed to promote the circulation of books between the libraries belonging to the University Library System and/or Italian and foreign libraries, in order to enable users to access documents that are unavailable locally. The ILL service is available for: professors, researchers, graduate students, undergraduate students, research assistants, and administrative staff of the UniBA.

Document delivery: The document delivery of (DD) service involves both external libraries (lending) and internal users (borrowing): at the request of other libraries, the library provides copies of articles held by the VML and, on request from local members, the search and request of documents in other libraries. The VML uses NILDE (*Network Inter Library Document Exchange*) software for DD. This software was developed with the primary aim of setting up a technologically advanced online DD network among libraries. It connects a vast network of University libraries, research institutions, public and private agencies, enabling DD requests to be sent, received and processed seamlessly. Indeed, it has the advantage of real-time registration of all transactions. Libraries subscribing to NILDE can obtain any documents they need free of charge.

Subsidiary Libraries

Despite the absence of subsidiary libraries in the VEE, a small number of specialised books and journals are stored within some Department Units. These bibliographic resources either belong to the Main Library or are purchased by one the VEE. The decentralised bibliographic material is stored in reading rooms open to users on demand. There are reading rooms located at different department Units, equipped with reading places for users, where these thematic bibliographic collections inherent to the specific areas of scientific interest of each Unit can be consulted. Students, and users in general, can access these resources following the rules laid down by the Regulations of each departmental section.

The VMC is covered by Wi-Fi supplied by the UniBA-802.1x and Eduroam apart from Vinci Pavilion, which is in the final implementation step. Wi-Fi access allows students and staff members to connect freely through their credentials to the Internet at high speed from PC, tablet or smartphone as long as it is equipped with a Wi-Fi connection card (802.11 a/b/g/n). The Wi-Fi network can be

accessed via authentication and encryption upon connection. This allows the credentials to be stored on the device in order to connect automatically when accessing again. The Eduroam network service provides Wi-Fi access at participating institutions, by which users connect using their personal credentials provided by their respective organisations. Each user can then access Wi-Fi services at any Eduroam Service Provider (usually operated by the entities themselves), located anywhere in the world. For more details, please visit www.eduroam.org. To receive technical assistance of any kind, students and staff members can contact the UniBA assistance office at any time at the following email address: info.csi@uniba.it.

Furthermore, the presence of a proxy server ensures that students and staff members can access UniBA library databases, full-text articles, electronic journals and bibliographic resources in off campus mode.

UniBA students and staff can install all Microsoft Office 365 Education products free of charge, a licensing formula designed by Microsoft for the world of education and qualified training. The products can be installed on up to 5 PCs or Macs and other mobile devices, such as Windows, Android and iPad tablets.

The service includes both online and offline software (Word, PowerPoint, Excel, OneNote, Teams, Publisher, Access, Exchange, OneDrive, Forms, PowerApps, ect), 5TB of OneDrive storage, Yammer and SharePoint sites.

Licensed software (Mendeley and EndNote) are available to all institutional users for bibliographical research and the management of bibliographic data through the Microsoft 365 and Wos UniBA subscription. Microsoft Teams, along with integrated applications such as OneNote, is currently the recommended software for remote team work, video conferencing, real-time lessons and for remote tutoring activities. All these remote activities have been increasingly implemented since the start of the COVID-19 pandemic.

The MyUniBA App is available free of charge from Android and Apple stores. This is the UniBA's official application, designed in collaboration with UniBA students, for managing their University career simply and quickly via mobile devices. MyUniBA enables students to consult the details of study courses in real time, check data and register for exams, check the progress of their career and consult their University record book, fill in teaching evaluation questionnaires, check the status of payments and receive messages and notifications.

Furthermore, UniBA also offers the Esse3 online secretariat service which enables students and graduates to for admission tests, matriculations and enrollments, to consult their University career data and to print self-certifications.

Academic and support staff and students can access to electronic resources also outside UniBA by Virtual Private Network by using their own credentials

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.

The VML has numerous print and electronic bibliographic resources covering the educational and scientific needs of users. The library holdings to date consist of about 2.400 monographs and about 250 print periodicals (only 5 with current subscriptions as of 2022). Following the University policy on dematerialization, over the years priority for acquisition has been given to online information resources. There are multidisciplinary databases and the discovery tool (esploraRE) that provides access from a single interface to most of the electronic resources of SiBA, including the University catalogue. The UniBA Library System enables the VML and its users to access periodicals and electronic books. By entering one's personal UniBA credentials, the following journals and

platforms may be accessed through this service: ACS American Chemical Society Journals; BMJ Group (Access to a package of 5 BMJ (British Medical Journal) periodicals to support doctors and healthcare professionals, relevant to specific clinical, public health and Evidence-Based Medicine (EBM) areas); Nature Publishing Group (access to 6 journals published by the Nature Group including Nature and Nature Medicine; Science; SCIRP (Scientific Research Publishing - over 200 open-access journals covering the areas of Science, Technology and Medicine); Springer Link (collection of full text periodicals starting from 1997); Science Direct (Elsevier Journals), Scopus, Web of Science and Wiley Online Library. In addition, three 3D veterinary anatomy software packages (dog, horse, bovine) have been purchased by the library as learning resources for students and are available during opening hours.

The library also hosts a section known as *Biblioteca di Firmino* (*Firmino Library*) where users can relax by reading non-academic books.

Available learning resources to students: most of the teaching material (e.g. tutorials, videos, clinical cases, slides from the lectures, selected articles and other discipline-specific resources) is made available to students via the Teams platform; student representatives organise all the material uploaded by teachers into study groups through dedicated channels for each discipline. Three 3D veterinary anatomy software in the library and video tutorials in the VTH are also available. Students have permanent access to clinical folders of patients visited at the VTH, as well as to instrumental and laboratory exams, allowing them to follow the clinical case independently and to evaluate the progression of the diagnostic and therapeutic plan including the final diagnosis.

Organisation and supervision of the Skill labs: particular attention is paid to setting up and continuously implementing skill labs. At the VTH, a large room is dedicated to the main skill lab for pets, farm animals and horses, equipped with several workstations where different animal phantoms are available to students in order to improve their training in medicine, surgery and obstetrics.

Funding from the project OrientaVET will be used to improve the skill lab by introducing innovative digital technologies such as virtual reality and Hybrid Learning Spaces.

In a similar way, the activities of the main skill lab are supported by those of two other smaller labs also present within the VTH, i.e. the Clinical and Surgical labs. Students can attend the laboratories either during curricular teaching hours or on request to the Course Manager by email or through dedicated Instagram groups. The training activities are supervised by tutors, veterinarians such as PhD students or assistants paid by the University to perform tutoring activities.

Since September 2022, "*Autopsy Wednesdays*" have been activated. Every Wednesday teaching autopsies are carried out for students enrolled on the DCVM. Students can book a place on the Wednesday of the following week via dedicated Telegram® groups, thus allowing teachers to ensure optimum availability of animals and improve division of students into groups. Finally, some surgical and applied anatomy skills are taught in the Anatomy room on fresh (or frozen) cadavers (see Area 5) under the supervision of the Course Manager or support staff.

Comments on Area 6
The VML provides a comprehensive quality service to all authorised users. The Library premises and equipment are capable of meeting the needs of veterinary students, and users in general. Efficient organisation by Library staff enables them to satisfy the needs of a growing number of visitors.

Suggestions for improvement in Area 6
The main suggestions to enhance the services offered by the Library are represented by: i) increase the number of employees and computer stations in the library; ii) increase the budget allocated to the library; iii) creation a dedicated multimedia area for students; iv) organisation and maintenance of a greater continuity of skill lab sessions according to funding availability.

7.

STUDENT ADMISSION, PROGRESSION AND WELFARE

Student admission, progression and welfare

Standard 7.1: The VEE must consistently apply pre-defined and published regulations covering all phases of the student "life cycle", e.g. student admission, progression and certification.
In relation to enrolment, the VEE must provide accurate and complete information regarding all aspects of the educational programme in all advertisements for prospective national and international students.
Formal cooperations with other VEEs must also be clearly advertised.

Information on the general admission procedures and rules, requirements for student progression and student welfare can be found on the UniBA site.
From the University website, students are able to access information on national selection procedures, that, starting from AY 2023-24 are based on the TOLC-VET (an online test run by CISIA, the Inter-University Consortium for Integrated Access Systems). Every year, the VEE also formulates a proposal for a number of places reserved for non-EU citizens/Chinese citizens (under the Marco Polo and Turandot projects). Prospective students complete an admission application indicating one or more VEEs in order of preference. Applicants who score at least twenty on the admission test are considered to have been admitted and will be ranked. Students whose score allows admission to the location they have chosen as their first option, will be considered an 'assigned student' and must formalise their enrolment within four days or they will forfeit their right to enrol. Students whose results allow admission to a location they did not choose as the first option is considered a "booked student" and does not have to formalise enrollment within a time limit. The students who are admitted register with the Student Secretariat, which provides them with their enrollment number and the access data to the VEE.
Non-EU students residing abroad can apply to UniBA first providing all the necessary documents proving their proficiency in the Italian language and later on they need to pass an Italian language test. Following they can formally apply for one of the places reserved every year for foreign students. In addition to high school graduates, students who are already enrolled on other academic programs may also enrol to the DCVM in one of two different ways. The first is to apply via the national selection procedures. If they qualify, according to the rules described above for High School graduates, they are enrolled, after which they may request validation of the ECTS from their previous teaching course(s) by applying to the Student Secretariat. After receiving the discharge certificate from the previous course, the students forward the dossier to the DCVM Coordinator, who sends the programs carried out to the respective teachers of the DCVM indicating: i) complete validation, ii) partial validation, iii) no validation. The procedure is discussed and approved in the QA Committee. The second way is for University students from other degree courses (DCVM, Animal Science, or similar) or for those who already have a degree in para-veterinarian subjects (Animal Science or similar), both from domestic and foreign University systems. In this case, applicants are not obliged to undergo the national selection procedure, but can enrol at years subsequent to the first (from the second to fifth year of the DCVM), although they have to show that they have acquired a sufficient amount of ECTS in the scientific fields provided by the DCVM to enrol in the year of the course for which they have applied. This opportunity is given yearly, through a public call by the VEE, replacing any students who may have freed up places from the second to the fifth year due to mobility to other VEEs, abandonment, etc.). Due to the stringent rules of the DCVM, the number of enrollments in this latter way is so low as to actually be non-significant.
A specific section of the UniBA website shows all services and opportunities offered to international incoming students. The DCVM also strongly encourages the mobility of its students across European countries under the Erasmus+ framework. The DCVM has reached 10 bilateral agreements with European University partners for a total of 20 student places. These agreements allow a regular flow

of 20 outgoing and 20 incoming students per year. Furthermore, the outgoing students can apply for different mobility positions for traineeship and for the preparation of the final thesis Global Thesis. Every year, the DiMeV organises Erasmus+ orientation events. Orientation and Placement events provide information for both future enrollments on the UniBA programme and for graduates to help them enter the world of work. Every year, UniBA offers future students orientation activities for all the teaching facilities and training courses at the University. These activities are advertised on the UniBA webpage, and also through social media (Facebook, Linkedin, and Instagram). In the framework of these orientation events, activities specific to the VEE are the "Orientamento Consapevole" (Aware Orientation) courses. This project is the outcome of an agreement between the Regional school system and UniBA, that offers courses on thematic topics held by the different Departments, including the DiMeV, where attending students will acquire ECTS that will be recognised in case of later enrollment at UniBA. The UniBA website also shares videos, presentations and other documents on the DCVM. Furthermore, every year UniBA holds presentations of the degree courses, through agreements with the Regional High School Administration. The overall management of these future student orientation events is assigned to the Central committee of the University, called CAOT (University Committee for Orientation and Tutoring), and its meetings can be followed online, where each Department has a delegate. The VEE's delegate is Prof. Marcello Siniscalchi.

The Orientation activities for the VEE are implemented through agreements approved by the DiMeV Council with single nearby High Schools within the "Alternanza Scuola-Lavoro" (high school students spend some hours within the VEE in order to provide them with experience in the field and overcome the training gap between academia and the world of work in terms of skills and preparation). Thanks to these activities the students who plan to join the DCVM can interact directly with University students and, when necessary, with the Coordinator of the DCVM and/or with academic staff in charge of tutoring and orientation services.

Orientation activities for enrolled students (UniBA website; DiMeV Website) and Job placement opportunities (UniBA Website; DiMeV Website) are described in Section 1.5.

Information on student services and incentives can be found at the following links: Fee reductions and exemptions; funding for books; funding for informatic devices; scholarships; funding for accommodation; Students' Residencies; Transport agreements and funding; psychological counselling; anti-violence desk; leisure rooms; sexual orientation and gender identity desk; inter-University centre for research on theatre, visual arts, music and films; University sports centre; University orchestra.

Front-office services for students are outlined in the following links: students' secretariat; operative unit for teaching and students' services; Student Guarantor.

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.

In Italy, the number of students that can be enrolled in a DCVM has been limited since 1999 (Law 264/1999). Since 2004, access has been regulated by the MUR through a national selection procedure. The number of places is set by the MUR after consulting the National Federation of Veterinary Professional Associations (FNOVI) and shared across the 13 Italian VEEs. Over the years, the number of enrolments has gradually decreased. During the pandemic, a request was made to increase the number of available places at national level, due to the key role played by Veterinarians in the One Health system. This increase was granted only for AY 2020-21. For this reason, the number of places available and students in that AY is higher than for other years. In 2023-24 that cohort is in their fourth year.

Each year the VEE approves the maximum number, after the proposal of the DCC and communicates to the MUR the maximum number of students (both EU and Non-EU students residing in Italy) that can be admitted. The total is based on the resources available (i.e. teaching capacity, structures, facilities).
All the data presented below are from the University Informatic System.

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

Type of students	2021/22*	2020/21	2019/20	Mean
Standard students	*50*	*80*	*50*	*60*

* The last full academic year prior to the Visitation

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

Year of programme	2021/22*	2020/21	2019/20	Mean
First year	63	93	54	70
Second year	98	70	86	84.6
Third year	44	59	49	50.6
Fourth year	57	45	34	45.3
Fifth year	74	74	81	76.3
Total	**346**	**341**	**304**	**330.3**

Table 7.2.3. Number of veterinary students graduating annually

Type of students	2021/22*	2020/21	2019/20	Mean
Standard students	18	36	40	31.3

Table 7.2.4. Average duration of veterinary studies

Duration	% of the students who graduated in AY*
+0**	16.66
+ 1 year	5.5
+ 2 year	33.33
+ 3 year	44.44

** The total duration of the studies matches the minimum number of years of the programme (e.g. 5 or 6 years)

Table 7.2.5. Number of postgraduate students registered at the VEE

Programmes	2021/22*	2020/21	2019/20	Mean
Interns	*2*	*0*	*0*	*0.66*
Residents	*4*	*2*	*0*	*2*
PhD students	*44*	*33*	*28*	*35*
Research fellow	*19*	*20*	*19*	*19.33*
Student of the Specialization School	*152*	*135*	*148*	*145*

Standard 7.3: The selection and progression criteria must be clearly defined, consistent, and defensible, be free of discrimination or bias, and take into account 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 - As for other Italian VEEs, the DCVM cannot enrol students directly; total admissible students in Italy and procedures are established centrally by the MUR, following proposals from FNOVI and the DCC of each University through their respective Academic Senates.

Admission tests are regulated and organised by the MUR at national level, taking place on the same day and at the same time at all Italian Universities. Under MUR Decree No. 1107 of 24/09/2022, the ministry introduced new rules for the admission procedure, based on the TOLCS scheduled four times per year in April and July 2023.

Italian students applying for the exam must have completed the mandatory education courses required by Italian law (High School Diploma). Foreign students are required to present a Declaration of Value of their diploma issued by the Italian authorities in their home country (embassy) and which verifies that they have completed 12 years of schooling. Alternatively, international students could submit an ENIC/NARIC certificate.

The knowledge, competencies and skills required are specified in an annex to the MUR Decree. CISIA provides interactive tools for candidates to self-assess their level, as well as free courses/materials for candidates needing additional support.

The test assessment methods established by the MUR are clear and known to the applicants. Each applicant can take the test twice a year, in April and in July. If the applicants attempt the TOLC more than once, they can submit the higher score. The test consists of 50 items to be completed in 90 minutes. Following the test sessions, the MUR draws up a ranking list and each applicant is assigned to a VEE on the basis of: i) their score; ii) the number of places available at each VEE; iii) student geographical preferences (students must indicate three Italian Universities in order of preference).

There are no full-fee places in the Italian University System.

Policy for disabled and ill students - Students with a disability or Specific Learning Disorder (SLD) are required to provide official certification of their disability or SLD status during their application for TOLC. According to national laws, they will be provided with additional and/or compensatory support, such as additional time, non-scientific calculators, video-magnifiers, tutor assistance, etc. The specific support tools for each student are decided by the staff at the University where the applicant will take the test.

Composition and training of the selection committee - Although the selection process is managed exclusively by the MUR, an internal admission committee is responsible for ensuring the proper application of general procedures and of the policy for students with disabilities. The admission committee was chaired by the DCVM Coordinator up to AY 2020-21 and by other professors selected by the DiMeV Council. Since AY 2021-22, the admission committee has been composed solely of UniBA technical staff, selected by the General Head of the University. The admission committee, approved through a Rector's Decree, has only a supervisory and management role. The technical staff hold a preliminary meeting in order to become familiar with the procedures set out in the MUR Decree.

Appeal process - The process for appealing against the selection procedures are governed by national legislation. Students excluded from the national ranking list can appeal to the Lazio Regional Administrative Court against the MUR selection criteria/process within 60 days from the date on which the national ranking is published. The Admission Committee is obliged to communicate to the MUR any problems arising, or procedures not properly carried out. If the appeal is rejected, students may further appeal to the Italian Council of State (second appeal).

Advertisement of the criteria and transparency of the procedures - All VEE admission exam procedures and criteria are made public every year on the UniBA site, and MUR, far in advance of

the admission test date. Following the admission test, candidates are given individual protected passwords to access VEE Course national ranking lists.

Adaptation of the number of admitted students to the available educational resources - As mentioned earlier (see Standard 7.2), the DiMeV Council approves and submits an annual proposal to the UniBA Academic Senate regarding the number of students eligible for enrollment in the 1st year of the DCVM for the following AY. The number proposed by the DiMeV Council derives from evaluations and proposals discussed in the DCC and in the TSJC.

The proposal considers the following elements:

- Positioning of the DCVM with respect to the ESEVT indicators in relation to the number of graduating students;
- Adequacy of the classrooms, the library, the students' areas, and general facilities (canteen, cafe, beverage vending machines, transport services, etc.) in relation to student well-being;
- Dimensions of didactic laboratories in relation to biosecurity;
- Monitoring of student satisfaction results (currently from post-lecture students' opinion survey, and in the near future from pre-degree customer satisfaction survey recently added in the QA processes);
- Organization of the PPT and of the activities at the VTH;
- Economic availability to guarantee the needs for professors (e.g., teaching materials and consumables);
- Number of academic staff needed to ensure compliance with the teacher/student ratio;
- Number of technical staff available to support teaching and organisational activities.

The prospective maximum number of new students that the VEE communicates to MUR is 60. The critical points for a higher number are the classrooms and splitting classes into smaller groups for training activities. Although the VEE in previous decades had a higher number of enrolled students (135), for several years the number of enrolled students has been set in the range of 50-70. In 2020-21 the MUR asked for numbers of places to be increased due to One Health issues, which led the VEE to make 80 student places available. This led to some criticisms due to the lack of classroom availability for a large student population and to the difficulties of running training/hands-on/practical activities in small groups, as several facilities were forced to reduce group sizes to comply with mandatory safety standards. So, after that AY the number of students has been reduced to almost 60 students enrolled per year.

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.

Pursuant to Law No. 170/2010 ("New rules on specific learning disorders in schools"), UniBA has paid particular attention to students with disabilities, illnesses, and SLD, trying to remove the obstacles that may interfere with students with special needs and their University life experience. The aim is to allow these students to participate in all activities carried out in the various University structures from admission procedures all the way to graduation. There is a University Services Office called "Servizio agli Studenti Disabili e DSA" (USO office) supporting access and success for students with special needs. The office is open to the public and has dedicated administrative staff and a coordinator responsible for support needs, appointed by the Rector. Furthermore, each Department has a "Referent Teacher" appointed by the DiMeV to ensure easier and more direct contact with special-needs students. All procedures and support services are shown in the brochure and on the web site. They include:

• <u>Didactic tutor</u> - Educational and specialised tutoring to provide study skill support and to identify alternative methods of taking exams.

• <u>Aids and support services for academic life</u> - Consisting of: i) Tutor for reading and/or writing; ii) Accompanying tutor; iii) Sign language interpreter; iv) Video magnifier; v) Audio support; vi) Technological and IT aids; vii) Accessible classrooms ; viii) Authorization for car access to the internal parking lots of the University structures; ix) Fee reductions/exemptions.

• Aids and measures intended for use in a specific examination. Consisting of: i) Additional time; ii) Concept maps (to be agreed with the teacher); iii) Subdivision of the exam into several partial tests (to be agreed with the teacher); iv) Tutor for reading and/or writing; v) Accompanying tutor; vi) Sign language interpreter; vii) Video magnifier; viii) Enlarged photocopies; ix) Audio support; x) Technological and IT aids; xi) Accessible classrooms; xii) Authorization for car access to parking lots within the University structures.

The web site provides a list subdivided according to the <u>following areas</u>:
- Information;
- Financial support and services;
- Public calls and ranks.***

Moreover, UniBA also provides materials for teaching staff, useful for dealing properly with disabilities and cognitive disorders (<u>link</u>, <u>link</u>). The assistance is aimed at ensuring that all students must be capable of meeting the ESEVT DOC by the time they graduate.

In particular cases unconnected with the rules described above (e.g. pregnancy), students are exempted from hazardous practical activities and an alternative practical training is scheduled by the DCVM Coordinator with the teaching staff involved.

Standard 7.5: The basis for decisions on progression (including academic progression and professional fitness to practise) must be explicit and readily available to the students. The VEE must provide evidence that it has mechanisms in place to identify and provide remediation and appropriate support (including termination) for students who are not performing adequately. The VEE must have mechanisms in place to monitor attrition and progression and be able to respond and amend admission selection criteria (if permitted by national or University law) and student support if required.

Students can be differentiated according to the position in their career as follows:
- on-course students: students who have passed a specific number of exams and of ECTS enabling them to enrol in the following year;
- *Fuori corso* students: students who after completing the 5th year are once again enrolled in the $5^{th} + n$ year(s);
- repeating students: figure provided for the student who does not fulfil the compulsory attendance for one or more subjects, or that does not fulfil the minimum progression standard for the enrollment to the following year (see below). This could also be a free choice on the part of students who prefer to accumulate ECTS they have not yet acquired before going on the DCVM.

The progression criteria and the procedures are reported in the TB available <u>online</u>. This document plays a pivotal role as it is mandatory for each degree course and describes the rules, rights and duties of each enrolled student in a specific AY, for the whole Course up to reaching the Degree. This serves as the formal agreement between the VEE and the student. Every year, this document is proposed by the DCC, evaluated by the TSJC, then approved by the DiMeV Council and, finally, by the Academic Senate of UniBA.

This document is then officially uploaded onto the SUA-CdS system and it is available both from the VEE website and from the National future students orientation platform called <u>Universitaly</u>. In the DCVM TB the progression criteria are clearly described as follows:

- First-year students must fulfil Additional Educational Obligations (AEOs). Any students who pass the entry test, but score under 50% on the Biology, Chemistry-Physics and Mathematics-Logic papers, will be assigned AEOs. There is compulsory course attendance (for at least 70% of the specified course hours) and the student must pass the corresponding examination within the first year of the DCVM. Additionally, students have to demonstrate English language competence equivalent to B1 Level (PET) before the end of the first year of the DCVM. Students with AEOs who are unable to fulfil these additional educational obligations, within the first year, can enrol on the second year of the DCVM, but they are not allowed to take any exams until they have fulfilled the AEOs. This condition applies to all first-year students with AEOs, as decided by the Academic Senate for all the Degree Courses at UniBA;
- Compulsory attendance. Each student must attend at least 70% of the teaching hours (lectures and practical activities) in each subject to earn the attendance signature required to book the exam. As the students book exams through the Esse3 System, they are not allowed to book an exam until the Student Secretariat attests attendance of at least 70% at the lectures and practical activities;
- Propaedeutic Exams. Students are required to adhere to the propaedeutic exam requirements, as clearly set out in Annex 2 of the DCVM TB for the AY 2023-24 and Article 6(e) of the DCVM TB for previous AYs;
- Enrollment for each year after the first: to access the following years of the course, the student must have acquired the following ECTS:
  - second year: at least 15 first-year ECTS;
  - third year: students must have passed the following exams: Veterinary Physiology I and II, Microbiology and Veterinary Immunology, General pathology;
  - fourth year: at least 24 of the third year ECTS. A student must also have passed all the 1st year exams;
  - fifth year: at least 14 of the fourth year ECTS.

This info is also available in the DCVM TB AY 2023-24 on page 6, and in 6(d) of the DCVM TB for the previous AYs.

To verify the acquisition of the required learning outcomes (reported in the program as knowledge, skills, and attitudes) a written/practical/oral exam is taken at the end of each subject (see Area 8). The modality (written/practical/oral) of the exam is established by the professor(s) involved in the teaching activity and clearly reported on teaching programs.

Students, in agreement with the professor responsible for the subject, have also the opportunity to take an "intermediate test" (written/oral/practical) during the course. These exams constitute an evaluation method of the learning phases of the subject. In the case of exams consisting of two or more courses (integrated exams), the students can also take a "partial test" (written/practical/oral) of one or more courses. The "partial test" must respect the previously reported propaedeutics of the exam. The use of these "intermediate tests" or "partial tests" must be foreseen and recorded on UniBA Esse3.

Information concerning exam timetables is available online for the entire upcoming AY. Through the UniBA-Esse3 system and the App MyUniBA students can check and verify the progress of their University career (e.g., obtaining the signatures of the attendance of the subjects attended, exams passed, marks of the single subjects and media, validated ECTS).

Students can convey their needs through their representatives in the TSJC, DCC and DiMeV Council.

The student's enrolment in the following AY takes place automatically upon payment of fees up to the 5th year. Students who do not graduate within the last graduation session of the 5th year (April of the sixth year) will be considered students enrolled outside the course (off-course student) and will have to pay the new annual fee.

Students will be able to graduate upon completion of all subjects within their study plan, including PPT, free ECTS, etc.

Remediation and support for students who do not perform adequately - Students who do not perform adequately receive additional support from the Tutoring service. As reported in Article 7 letter 3. of the TB of DCVM AY 2023-24 and Article 11 of the DCVM TB for the previous AYs, annually, for each year of the degree course the DCC identifies a tutor, that is a teacher who lectures in that year and supports students with planning exams, how to overcome a lack of knowledge, skills, abilities, competencies, how to contact and interact with professors responsible for single subjects. This service is for all, not only for who do not perform adequately in their academic progression. Students can contact the assigned Tutor by institutional phone number, e-mail address or through the Teams Platform, to arrange meetings.

As previously reported, tutoring activities are mainly co-ordinated by the UCOT, which assigns financial and human resources to each Department for on-course tutoring activities. This enables the DiMeV Council, after consulting with the TSJC, to find subjects and areas, among the degree courses of the DiMeV, that need specific actions.

The on-course tutoring activities are mainly classified as follows:

- **Information tutoring**: provides students with guidance on various aspects of University life, such as the organisation of teaching, and the student's administrative obligations. It is peer-tutoring, as the tutor is a student enrolled on the same degree course and supports other students;

- **Teaching tutor**: supplementary support in specific disciplinary areas where additional help is deemed necessary to supplement courses, tutorials, seminars, and workshops). The tutors may be PhD students, fixed-term researchers (RTD), or recent graduates. The areas and subjects covered by the teaching tutor are proposed by the DCC and TSJC and finally approved by the DiMeV. This form of tutorship generally covers subjects in the first two years, helping students with additional learning obligations (AEOs) and with completing ECTS more effectively in foundational subjects. In this area we also include the "Pre-Corsi" project, where PhD students hold on-line lessons on subjects identified by the TSJC (where subjects may require specific preliminary competencies or where students tend to find parts of the syllabus challenging). These tutors provide support to students in dealing with their difficulties as well as producing teaching material that will help students with learning disorders with reading, writing etc;

- **Subject tutoring**: each lecturer responsible for a teaching activity, subject, or practical training session undertakes to publish the days and times when they are available to tutor students preparing for their specific exam or who have previously failed it. They will publish their institutional contact details to enable students to contact them. Tutoring can be carried out either in person or remotely, via the Teams platform, which was first used during the COVID-19 pandemic emergency, and still used for tutoring students and for other teaching activities;

- **Special projects for inactive students:** for students who are no longer active (no ECTS completed for a few years) there are specific actions provided by UniBA. The University offers additional financial incentives to teaching administration staff who proactively reach out to students by phone and/or mail, to determine their interest in continuing their studies and drafting individualised plans for resuming their career and completing the course. This is crucial for the overall evaluation of degree courses and, therefore, of the University's performance, as such students are given a high relative weighting in the teaching effectiveness indicators produced by ANVUR.

Academic career information and transparency - Criteria and procedures are available at all times on the official webpages of both UniBA and DCVM. The UniBA-Esse3 system and MyUniBA App allow students to check their study progression and current status, at any time, and print reports.

Attrition rate and main causes- According to the SMA for 2022 based on the ANVUR data (see also Standard 1.4), DCVM dropout rates are low and stable over recent years. In the last five AYs, a

mean value of 4.8 students failed to progress to the 2nd year. When QA entities evaluate ANVUR indicators, indicators are expressed as percentages, as the denominator usually refers to students enrolling for the first time at University. Currently, first-time enrolled students make up almost 50% of the total, while the others are students enrolled in the first year of DCVM, but who have come from other University Degree Courses. This illustrates how percentages may not accurately describe the real situation, making absolute data more informative. Moreover, the modest number of students and the availability of academic staff has led over the years to a rather quiet and close-knit environment being created. This limits the causes of attrition. Students' concerns revolve, above all, around the intensive teaching schedule (leaving minimal time for self-study) and the brevity of the exam sessions. Via the QA Committee, TSJC, DCC and DiMeV Council, the VEE prioritises student satisfaction and addresses students' grievances, so that the VEE stays updated on difficulties/concerns/problems that students are facing. Further information on QA policies is shown in Area 1 above.

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 - At the University of Bari, a student may be excluded from the programme as a consequence of:
- Application to discontinue studies on the part of the student: as reported in the UniBA Annual Taxes and Fees Regulation, Section II, art. 20, "the student has the right at any time during his/her educational career to discontinue their studies and to enrol again in the same or another course of study…". The procedure is described in the UniBA website;
- Inactivity: students who fail to achieve ECTS in the previous eight AYs or fail to pay fees and taxes over the same period are excluded by national law.

As both the above listed ways for excluding students are voluntarily initiated by them, no appeal process is provided.

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).
Service available for students - The principal sources for all the services available to students are the UniBA website (for general University services) and the DiMeV website (for services provided in the VMC), managed by UniBA and DiMeV, respectively. The services available are:
- Forms and documentation - All the forms needed to apply for services are present both on the UniBA website and on the DiMeV one. Moreover, the list of links related to student services are listed on the UniBA website;
- Online services - Every student enrolled at UniBA can access a series of online services thanks to a unified Single Sign-On (SSO) authentication system. To get an SSO account the student needs to register on Esse3 platform. The services offered are: i) Student emails; ii) University WI-FI network; iii) Microsoft Teams; iv) Esse3 online secretariat services. v) Tax and fee payment. vi) Enrollment procedures. vii) Orientation on the degree courses of UniBA;

- University canteens - UniBA offers 4 canteens located in Bari city, near to the University campuses. Moreover, also the VMC has a canteen (exclusively for lunch) and a cafeteria (open the whole day). These facilities and services are fundamental to allow students to have their meals without leaving the educational site they attend;
- Transportation - Under an agreement between UniBA and the Miccolis SpA coach service, students can travel to the VMC with discounted rates; students pay 5,20 € for a monthly pass and they can use buses from Bari to the VMC during the week;
- Areas for students: A space called "Auletta" is set aside for the association of student representatives; here they can meet and use technological devices provided by the University and help one another. Near the Auletta, students can study in Aula Carelli, a room managed by student representatives which can host up to 50 students;
- Verderinaria: An area equipped with tables and seats in the middle of the pinewood available for everyone;
- Psychological Counselling Desk in the VMC, aiming to support undergraduate and PhD students needing support to cope with stress and difficulties in their University life;
- Resting room: it is a service available for students needing a relaxing time, useful for their mental and physical welfare;
- Islamic praying room: due to the high number of undergraduate and PhD students and research fellows of Islamic religion, the DiMeV has set aside a room to allow them to pray according to their routine;
- anti-violence desk: see area 9;
- Procedures for disable support;
- UniBA Library System and particularly the Veterinary Medicine Library (VML);
- University Language Center (CLA) - This is a service center for the promotion of teaching and research for the study, teaching, and learning of languages at the UniBA, open to students and teaching staff;
- Events and projects directly proposed by students: UniBA grants projects and events proposal directly planned, organised and carried out by students;
- Calls for part-time jobs in UniBA for students;
- Agreements between UniBA and mobility companies for services to students on sustainable mobility;
- University Sports Centre.

Resolution of student grievances - As reported also in area 8, UniBA students have several opportunities to present and resolve their grievances. According to the severity and responsibility they can contact:

- Year Tutor;
- DCVM Coordinator;
- Students' representatives in the different committees (PPT, EAEVE Committee, DiMeV Council, DCC, and TSJC);
- Coordinator of the TSJC or each member of this Committee;
- Head of the DiMeV or Teaching Activity Delegate;
- UniBA Student Guarantor The Student Guarantor is responsible for any initiative aimed at reporting and removing irregularities, deficiencies, dysfunctions, delays, and any abuses against students, doctoral students, and postgraduates;
- Students' representatives in the Academic Senate;
- Rector.

The tried and tested procedures and the wealth of experience of the persons in the structures involved (see above), together with the low number of students and the fact that so much time is spent together

in the VMC all help to create a very cooperative environment between students and teaching staff, so that often grievances are solved in a friendly and effective way.

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 can convey their needs, complaints, comments, and suggestions to the VEE, through:
- Their representative in the Academic Senate;
- Their representative in the DiMeV council: asking the Head of DiMeV to insert a point of discussion in the upcoming DiMeV council meetings;
- Their representative in the DCC: asking the DCVM Coordinator to insert a point of discussion in the upcoming DCC meetings;
- Their representative in the TSJC, both asking the Coordinator to insert a point of discussion in the upcoming TSJC meeting and introducing suggestions, comments, complaints in the annual report of the Committee;
- Their representative in the Board/QA Committee of the DCVM;
- Their representatives in the EAEVE Committee;
- Their representatives in the PPTC;
- Their representative in the CESA;
- A Customer satisfaction survey anonymously edited by students that are near to discussing their degree thesis. The survey is related to the overall services in the VMC (library, canteen, cafeteria, transportation, administration services for students, etc.). This survey has been recently approved by the TSJC since ANVUR indicators of overall satisfaction on the part of VEE graduates one year after graduating were low, failing to reach the regional and national benchmark. The TSJC approved this tool in an attempt to better understand the reasons for the dissatisfaction expressed by recent VEE graduates. To date, however, not enough surveys have been created for a statistical evaluation, as this tool is currently still being introduced;
- Using the Open comments in the surveys carried out after lectures and after exams.

Each student knows that representatives can often be found in the Students' areas and they are available to collect suggestions, complaints, comments, ec.
Moreover WhatsApp or other chat applications as well as some social media (Facebook, Instagram) directly managed by students are a smart, easy and simple way to share opinions, informations and complaints between students (see Area 6.1).

Comments on Area 7

The enrollment strategies are taken at the national level, with the number of places set by the MUR. A certain degree of negotiation is possible in the Board of the Heads of Department of Veterinary Medicine where each Head suggests the maximum number of new students in their campus, according to the training potential.
Structural characteristics of the classrooms and the need to carry out practical activities in small groups, through turnations, represent the limiting factors for increasing the number of enrolled students over almost 60. The VMC, with its facilities, is organised for hosting students during the whole day, and sometimes at night. Students' administrative services are all provided in the VMC.
Information on enrollment and on student services (from administration to free-time management and welfare) are easily available on the dedicated websites, although the small number of students allows the creation of WhatsApp groups or other smart tools which are very useful for disseminating

information. Innovative facilities, such as the resting room, the Islamic praying room, and the Anti-violence Centre are very innovative and represent in a concrete way the attention that the VEE pays to students' well-being.

The excellent level of cooperation between teaching/administrative staff and students' representatives plays a pivotal role in sharing info, opinions, complaints, as well as the general willingness to add points of discussion in councils' and committees' meetings, directly requested by students, allowing the VEE to be always responsive to weak and/or critical aspects.

Moreover, the enrollment in the first year is very slow due to the complex mechanism of the rank list scrolling. This affects the timing of enrolment and often the first year class is completed in the months of February-March, although lessons start in the early October. This issue is well known to the VEE and first year teaching staff is committed to contacting students who are late arrivals, planning tutorial activity and other supporting actions aiming to allow students to claw back lectures and training sessions which they could not attend due to the delay in their enrolment. These actions are very fruitful, as the ANVUR indicators of the efficacy in ECTS acquisition at the end of the first year always meet or even exceed the regional and national benchmarks.

Students with disabilities according to our best knowledge nowadays have no complaints as the procedure is clear, easily achievable, and all the teaching staff knows what has to be done.

Suggestions for improvement in Area 7

In spite of the many challenges facing the veterinary profession, the number of students applying for registration in veterinary curricula across Italy has increased considerably over the past decade. Such an increase has further exacerbated the consequences resulting from unsuitable enrolment procedures, which select a population of students with good scores in disciplines such as mathematics, physics or logic, while attaching less importance to aspects such as farm culture or the candidate's attitude towards animals of all species. Indeed, the current admission procedures do not take adequately into account students' motivations to join the veterinary profession; to this regard the Board of Heads of Veterinary Departments in Italy has recently asked the MUR to include a motivation questionnaire that candidates must fill in when registering to sit the admission test.

The customer satisfaction surveys as well as the students' opinions are handled with great care, as we need to ensure anonymous reports, making filling in of the forms not voluntary but mandatory, but we are currently unable to connect these surveys to the Esse3 didactical secretariat platform and to its possibility of management the attendance percentage for each teaching and/or training activity, as this would require a specific suite of Esse3 that has not been purchased by UniBA yet.

8.

STUDENT ASSESSMENT

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.

In the last few years, the VEE has started a process in order to improve the assessment strategy for students. The rules for the assessment strategy are set out in the DCVM regulation <u>TB</u>. The assessment strategies have to be consistent with National Laws, <u>University Teaching Bylaws</u> (UTB) and have to be recognized by <u>ANVUR</u> and by the ESEVT Standards. The responsibility for the assessment strategy is assigned to the DCC. The DCVM Coordinator is supported by the QA committee. The overall assessment strategy and its effectiveness is evaluated by the TSJC. Every year, the QA committee organises the teaching plan, the course timetable, the exam schedule and the graduation session programme.

Teaching program formats have undergone significant change over recent years, prompted by a request from the UQA to use templates for all its courses, and to adapt those templates to the specific needs of the DCVM. The most recent template update occurred in AY 2021-22, while the process for editing programmes has evolved year by year. The most recent changes are listed below:

- Providing students with programmes for each integrated course rather than for each component subject, aiming to give students a clearer understanding of the main features and objectives of the integrated course;
- Improving syllabus-related areas and expected learning outcomes, in terms of the knowledge, skills and competencies required by the ESEVT standard;
- Integrating courses with information on Biosecurity rules;
- Supporting a better clarity and usefulness of the assessment strategies description for the students, providing a focus on this during the first lecture with the class;
- Greater focus on programmes drawn up;
- Greater focus on programmes drawn up by contract professors, who usually are not aware of the learning objectives of the DCVM.

Although the improvement of teaching programmes is still an ongoing process, several actions have been taken to ensure that programmes taken to ensure that programmes are more useful and appropriate, the product of an effective agreement between teaching staff and students, based on clear rules, to be respected by both parties. The last effort carried out by the Coordinator, jointly with the QA Committee, has been to verify if all the day one skills and competencies were properly listed in each program.

The DCVM provides few (20%) monographic courses and the 80% of courses integrated by at least more than a subject. During the last years, the DCVM improved the approach to integrated courses, that must be considered as a unique teaching unit, although with different professors and subjects. The related exam has to be considered in an integrated approach. Only if the examining commission agrees, the UniBA system allows them to subdivide the exam into a partial exam (where the student is assessed for one or more subjects), and a final one (where, other than completing the assessment for the remaining subject(s), they receive a grade).

Grades are defined by the whole exam commission, also considering the outcomes of the partial exam, not applying mathematical formulas (average, weighted average etc), but simply considering the evaluation of the partial exam. The DCVM Coordinator, jointly with the DCC, is encouraging exams commissions and students to reduce the exams fragmentation, when it is possible, through an optimization of subject contents and a higher integration rate among subjects. The overall outcome expected by this action is an increase in ECTS achievement by each student.

The exams are held during the bimesters, where lectures are not scheduled. This kind of organisation aims to stimulate students to take the exams soon after lectures and to allow students to subdivide teaching activities. So, students have periods exclusively dedicated to lectures and periods (called "teaching silence") dedicated to exams at the end of each bimester: in November, February, April, June, July and September. Moreover, in January and September there are exam sessions for students that need to get an exam or few ECTS for having the possibility of enrolling to the following year of the course. The maximum number of exams that a DCVM is stated by national laws, it is 30 in five years.

Each exam, according to the expected learning outcomes, and according to the assessment strategies, can use different ways for assessing knowledge, skills and competencies. In particular, although the UniBA system classifies exams as oral, written or both, in the DCVM there are several exams carried out with a practical test, aiming to assess skills and competencies that are not easily evaluable through oral and written tests. These exams are mainly related to subjects aiming to increase laboratory skills (i.e. microbiology, parasitology), specific veterinary base subjects (i.e. veterinary anatomy), preclinical subjects (i.e. animal handling) or clinical subjects. A sufficient number of subjects provides a practical test in the assessment strategy. Of these, the largest amount are pre-clinical subjects, and the final exams for each clinical branch (internal medicine, obstetrics, veterinary surgery). The PDP have a particular assessment procedure. As this part of the curriculum is elective, students that choose a specific topic, follow practical activities in different areas and with different teaching staff members. During the course, students are put in a professional context (effective or simulated) and each member of the teaching staff assesses each student for the provided skills and competencies. Finally, the examination commission shares the individual evaluations and provides a final vote ranging, as the other exams, from 18 to 30 for allowing the student to pass the exam, and then recognizing related ECTS.

Some subjects, although provide an oral system for the assessment, tend to present to the students a clinical case, or a realistic context, asking to the student to answer as a veterinary professional (calculation of therapeutic dosages, estimation of the quality of a diet, providing a recipe/formula for covering animals' nutritional requirements, etc.). This system allows us to evaluate specific competencies, even if the system is in the form of oral evaluation.

Different methods are used, as specified in the syllabi, to assess theoretical knowledge, preclinical and clinical practical skills.

- Theoretical knowledge is assessed through oral, and written exams. Oral exams are used to test theoretical knowledge, problem-solving, and communication skills, including the use of appropriate terminology. In order to reduce the subjectivity in the evaluation of this assessment method, evaluation criteria are provided by the teaching staff in each subject. The written exam may include: i) multiple-choice questions; ii) questions with short answers; iii) open-ended questions with limited writing space; iv) combinations of the previous methods; v) problem solving by using PC through specific softwares.

In agreement with the students, the teachers can set up one or more ongoing tests to evaluate the acquisition of the various topics covered during the lessons.

- Practical pre-clinical skills are assessed during practical and final exams of each subject. During the final exam, they can be assessed with oral-practical tasks;
- Practical clinical skills are assessed during the last two curricular years. With regards to practical activities (PDPs and PPT) the assessment strategies are going to be deeply modified. The reactivation of the H24 (in 2022) and the recent modification of the professional qualification laws brought the governance to adapt training to the new context. In 2022 National laws have deeply changed these procedures, shifting from an official exam after graduation for reaching the Professional qualification to a graduation that recognizes it self. So, new rules on PPT have to be introduced, although to date they are not yet clearly defined.

So, with regards to the assessment strategies related to the clinical skills, the AYs evaluated by the ESEVT for the visit are under a Practical Training Regulation that is already modified by a new Regulation that fits better ESEVT standards and new National Regulation and that it will be effective for the students from the AY 2023-24.

Students that have the right to access to PPT edit a request and then their activities are scheduled according to their number of exams, their estimated time needed for the graduation and the availability of the facilities.

When, at the end of April of each year, the PPT Committee receives the requests by the students available to carry out some parts of the PPT, each area representative schedules trainees for the whole year (from the 1st of June to the 1st of April of the next year). Moreover, each representative of each area of the PPT Committee assigns trainees to different academic tutors. Each academic tutor is responsible for the activities carried out by the trainees in the VMC and in external facilities. Each trainee edits a daily activity diary that has to be signed daily by the academic tutor (PPT) or by the external tutor (EPT). At the end of the period, the tutor writes a judgement on the skills and softs skills acquired by the trainee in the same module. The member of the PPT Committee receives by the trainee the module with the daily activities, signed by the tutor and with the evaluation and then recognizes the ECTS acquired for that area of PPT in a Case-Log.

Soft skills are not assessed in a formal way. The successful outcome of activities such as exams, exercises, clinical rotations, and PPT ensures that the student has received adequate training to develop a wide range of soft skills.

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

The UniBA teaching regulation (art. 28 and art. 30) sets the general framework whereby assessment procedures must be implemented. Requirements include:
  a) 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;
  b) 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;
  c) dates of the exams of each course are published at the beginning of the AY. Any change to the exam schedule must be promptly communicated to the students with a suitable notice, through the online exam registration system (Esse3).

Assessment criteria of each subject, and passing requirements are reported in detail in the course syllabi, which must be updated annually by the DCVM coordinator with the support of the Teaching Manager, and after a revision carried out by the QA Committee. Assessment procedures are also explained at the beginning of each course by all professors (the so-called "class agreement"). Updated information on all the aspects of the assessment procedures are available to all students via the following sections of the DiMeV website (programmes and syllabi; calendar of teaching activities, exams schedules).

Grading criteria and assessment methods of the subject are sections provided in each program and syllabus.

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 not less than two professors and at least all the professors that got the lectures and training. The Head

of the Department approves the examination committees. 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 UniBA 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), although teachers are asked to give support and advice to all the students that are not able to pass the exam soon after the failed session.

Grades for the graduation thesis are awarded by a Commission made at least up of 7 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^{ths}. According to the average value obtained by the student's carrier, the commission can add points according to the following grid:

Points average in in 110ths	Maximum points for the thesis defence
66-80	3
80,1-85	5
85,1-90	6
90,1-95	7
95,1-97	8
97,1-100	9
> 100	10

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 i) having achieved ECTS under the ERASMUS program (i.e.: mobility for study/traineeship/Global thesis) = 2 points; ii) the student gets the graduation in the legal duration of the degree course = 2 points

The final grade is the sum of the starting grade point average plus the points awarded by the Commission. Cum laude distinction may be awarded when the starting points average is higher than 100/110 and exclusively if the commission unanimously agrees.

Students can appeal against any assessment outcome directly to the examination board, mainly non accepting the vote. Once the vote is accepted, the student cannot appeal against it.

If there are reasons related to non-respect of students' rights, they can appeal to the TSJC or directly to the Students Guarantor.

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.

The VEE's activities are regularly monitored and reviewed through its QA System, in particular by the QA Committee and by TSJC. In recent years, with a view to continuous improvement, the QA Committee has launched a substantial revision of the methods for editing the course programmes (Syllabus) with a specific focus on the evaluation methods and criteria. In this process, which is implemented every year, the involvement of students is evident, both by the very nature of the QA Committee and TSJC, and by their participation and vote within the two boards (DCC and DiMeV Council). Furthermore, feedback from students on the conduct of the exams is obtained from the

TSJC that in the last year started with an innovative project aiming to investigate how exams are conducted by the commissions, with a focus on the assessment strategies.

After the exams periods, each student representative in each year of the course administers a survey for each exam passed to all the students of the class. The survey is anonymous and investigates several aspects related to exams (respect of date and time, availability to tutoring, arguments dealt with during exam and their presence in the syllabus, behaviour of the examination commission in case of difficulties showed by the student, assessment strategies compared to those declared in the programmes and in class at the first lecture, etc.). This project, totally managed by students for students, is in progress and started in December 2022, so, nowadays, the TSJC's data are not enough.

This projects has been built up by the TSJC for several reasons that briefly are listed below:

- Although the VEE provides internal students' opinion surveys after lectures, several aspects related to assessment and exam conduction were missed;
- Almost all the students in the last years edited the post-lectures surveys in a very superficial and always positive way, fearing that any negative judgments could alter the evaluation of the teacher at the exams;
- As the commission can register exams not passed as "retired" (the student chooses to don't go on), "not-sufficient" or "absent (the student is not present), asking directly to students how many times they have effectively carried out an exam before passing is a useful data for understanding if there are some criticisms in some subjects.

The teaching management of the DCVM strongly involves students as an active part of the QA. Several times students propose topics to be discussed officially in the boards and all the students can be updated on the decisions taken as all the minutes are online. The review of the assessment process, as required by ANVUR, takes place: annually during the monitoring activities carried out by the QA Committee first, and then by the TSJC in the evaluation and analysis of the indicators relating to assessment procedures. The DCVM coordinator can also propose corrective/improvement actions directly to the teaching staff member or in collegial sessions during the DCC meeting. Finally, the TSJC annually reviews the performance of the degree program, with the drafting of an annual report. In this report there is the analysis of the "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 issues and the specific corrective actions.

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 course topics and the compliance in the whole subjects of all the knowledge, skills and DOCs provided by ESEVT is a responsibility of the QA Committee and of the DCVM coordinator. Thanks to these indications, over the years many teachers have changed the methods of exams, introducing a greater number of practical and oral/practical exams, in order to obtain a simpler and more objective assessment of the student's competencies. The introduction of this modality was welcomed and positively evaluated by the students. The use of practical exams, as a method of assessment, increases from basic to clinical subjects. 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. Besides, the oral exam is still today the form most used by teachers as an assessment method, as a tool able to stimulate verbal interactions and the use of appropriate terminology.

The evaluation process of the degree exam has been considered a criticism, as it links the final vote strongly to the average points acquired during the career, and reduces the relative weight of the thesis quality. For this reason in the Strategic plan of the VEE it is provided to modify the Graduation Regulation for the DCVM.

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.

According to the Italian University system, the certification of the achievement of the learning outcomes by students must occur for each individual subject. Achievement of learning outcomes is certified in four complementary ways:

- Positive grade (>18/30) in the final exam of any subject (in relation to the learning outcomes foreseen in the corresponding Syllabus);
- Positive grade (>18/30) or "approved" in the partial test, where applicable;
- Signature by academic staff (PPT) and by external tutor (EPT) of the Case-Log and related judgement in relation to expected learning outcomes. In this case the judgement, that has a descriptive approach, is converted in a signature or not (binary approach) by the responsible for the area of PPT/EPT, member of the PTT Committee. The related ECTS are recognized to the student when he/she finishes the whole training program (30 ECTS);
- Grade (in 110ths) assigned by the Committee following the discussion of the degree thesis.

The first two certifications can be found on the UniBA-Esse3. The third one is uploaded on the same platform as an overall amount of 30 ECTS, but from the templates edited by trainees and signed by the tutors it is possible to acquire more deep information on the skills and competencies acquired by trainees.

The latter is the sum of the marks derived from the basic score, the curricular mark and the evaluation of the Degree thesis (see Standard 8.2) and it is recorded on the UniBA-Esse3 portal. Privacy regulations do not allow academic staff to have free access to students' certified grades. Students' careers can only be verified by authorised staff of the Teaching Secretariat, to verify compliance with the pre- requisites (passing AEOs, regular fees, obtaining certification of attendance, preparatory courses). Class/cohort data are available for the QA bodies, asking to the Students Secretariat or to the University Informatic System.

The VEE always shows an active role of students in the teaching management and QA procedures, not only in highlighting criticisms, but also in actively participating in discussion and to setting actions for recovering from the critical point. Students are:

- Encouraged to adopt a proactive rather than passive attitude in all committees in which they participate, to plan arguments to be discussed, directly proposed by them;
- Involved in curriculum management through participation in all decision bodies. Student representatives are, indeed, present in TSJC, DiMeV and DCC, QA Committee, PPT Committee, EAEVE Committee. In the TSJC, where students are present in equal numbers of teachers, they play a pivotal role in the revision of teaching strategies for increasing suitability of programmes;
- Involved in the peer-tutoring activity in the DiMeV;
- Encouraged to provide continuous feedback to individual teachers, Year-Class Coordinators, and the DCVM Coordinator, on any issue that influences their learning process (availability of teaching materials, organisation of the PPT, etc.);
- Involved in collection of Students' opinion surveys and in analysing related outcomes.

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.

To ensure that every graduate has achieved the minimum level of competence, the DCC has placed great emphasis on improving assessment methods. As previously reported, academic staff has improved the adoption of mixed methods of exams (oral-practical), partial exams, on going tests and the use of a grading criteria matrix. These interventions have already allowed a good level of alignment between learning outcomes, ESEVT DOC, and assessment methods.

Actually, this process is far from being completed and reaching an adequate standard with regards to practical skills. The new ESEVT SOP 2019, followed by the pandemic and the several modifications of the National laws with regards to the Graduation enabling also to be a veterinary professional, without having to pass a State exam, brought the VEE to wait for a clear framework before the introduction of a Logbook. Moreover, the introduction of a Logbook, independently from its quality and suitability, is not always an effective meaning for assessing ESEVT DOCs. For this reason, many academic staff of the VEE actively attended national and European working groups meetings aiming to standardise and introduce a well-designed logbook able to assess skills and competencies. Particularly, at a national level, a working group that sees the active participation of all the Italian VEEs and of all the scientific cultural areas has been committed in a one year-work, for editing a standardised draft of a log-book to be used in the national context, trying to satisfy ESEVT and National requirements (both from ANVUR and from the new laws on the professional master degree, where the degree represents the unique standard for being a professional).

Although not all the framework and the context guidelines are nowadays defined, the VEE was established to introduce a temporary logbook from the AY 2023-24, avoiding to postpone the use of these tools. For sure in the subsequent AY, 2024-25 applicative national regulations and outcomes from the national working groups will be defined and the VEE will introduce a more suitable and definitive template of log book, keeping in mind of the role of professional orders in the evaluation of the competencies day-one newly degreed vets.

So, while from 2019-20 to 2022-23 a case-log is used, where trainees describe daily activities, in 2023-24, with the activation of the new PPTRegulation, it will be introduced for the students.

The case log in use registers daily activities carried out by trainees and has to be signed for validation by the tutor, that may be academic (PPT) or external (EPT). At the end of the period, the tutor (both academic and external) describes in an analytic way the main learning outcomes of the trainee, including soft skills and assesses the degree of achieved competencies by each trainee. These documents are finally validated by the members of the PPT Committee expert in the teaching area. When all the activities provided by the PPT have been recognized by each PPT Committee member, the total amount of 30 ECTS are approved and assigned to the student by the Students Secretariat.

In AY 2023-24 the new PPT system deeply changes the overall organisation of internal and extramural activities, as well as of the assessment, giving a useful tool for monitoring the single competencies that each student has to gain and certify before taking the final academic master degree in Veterinary Medicine.

Comments on Area 8

The VEE far from 2019 began a process for improving the assessment area and mainly the competencies certifications. The process is already ongoing and it is not completed. Pandemic first, and the deep modifications of the National laws in 2022, as well as the activation of working groups on the logbook standards has brought to a postponement of the introduction of the logbook. In the Strategic Plan, the logbook introduction was provided in 2022, but there were not the conditions for this, as several practical aspects of the new National laws are actually nowadays unclear. So, although the context and the general framework is not so clear to introduce a log-book more suitable and useful for an effective monitoring of acquired competencies, the VEE decided to introduce in AY 2023-24 a temporary log-book, that is the last draft set from the national working group on log book standardisation. Moreover, this new introduction is in time with the introduction of a new practical

training regulation, that allows to significantly improve the ESEVT DOCs assessment and monitoring.

On the other hand, with reference to the three years 2019-22, the use of a system (case log) where tutors (academic and external tutors) certify activities day by day and edit and sign a brief judgement of the trainees is a useful tool for monitoring and assessing the skills and competencies acquired by them. Moreover, a system of surveys for collecting the opinions of trainees and of tutors is available and it is a fruitful method both for evaluating the quality of our trainees and for verifying if the internal practical services and the external ones are suitable for our students and if there are some aspects to be improved.

During the last 4 years the DCVM has been committed to improving the quality of syllabi and of programmes, trying to increase transparency, clarity and supporting students in their study. The AY 2023-24 will represent a transition stage between the previous practical training organisation and assessment to the new system, fully fitting with ESEVT standards and with new national regulation. The improvement process is ongoing and the results already gained are mainly related to effectively communicate to students the assessment methods, the elements that will be evaluated during the exam, the way of conduction of exams, the reduction of fractionated exams, increasing the rate of ECTS acquisition and considering each single subject as an organic exam where different professors and lectures contributes to an organic and complete approach. Finally, the highlight in programs of biosecurity issues, indicating also PPE and CPE necessary for practical activities provided by each subject and each training. Finally, the experimental setting of a survey on the exams quality (including respect of the assessment rules) managed directly by students that administer, collect and support teaching staff for data analysis and interpretation represents a strength point for monitoring the assessment policy carried out by each examination commission.

Suggestions for improvement in Area 8

As soon as the national working group produces some outcomes, and when the MUR will clarify the new methods for involving veterinary professionals, a definitive logbook will be introduced. In the meanwhile, a new <u>PPT Regulation</u> has been approved and it will be applied from AY 2023-24, as well as a new log book, considered as temporary, will be introduced too. The main differences in the new practical training regulation are listed below:

- Students start with practical training activities from the third year and not from the fourth as previously, with some non-clinical areas and with low responsibility clinical activities;
- There is a high valorization of the H24 structure for carrying out low responsibility and high responsibility clinical practice;
- There is a deep change in the definition of the tutor. In the previous regulation, the tutor was himself responsible for allowing the trainee to acquire provided skills and competencies. In the new regulation there is the possibility for students to don't be linked to a tutor, but they have the opportunity to follow and carry out activities in all the services of th e VTH and H24 according to clinical cases availability, and the tutor has exclusively a coordination role and countersigns the activities, skills and competencies that are directly certified by the staff involved in that clinical activities and in the hands-on activities of the trainees;
- This different approach allows the introduction of the new Logbook in 2023-24 as each teaching staff, at every level, will be able to furnish skills to trainees and then certify the acquisition of ESEVT DOCs;
- The new PPT Regulation complies with the subject's clusterization of the ESEVT standards: pets, horses and non-conventional clinical activities, farm animals clinical activities and production, and FSQ and VPH.

Finally, the improvement of the syllabi and programmes needs to be finalised trying to better standardise for each subject the grading of the evaluation scores, highlighting also which are the minimum requests of the examination commission.

9.

ACADEMIC AND SUPPORT STAFF

Academic and support staff

Standard 9.1: The VEE must ensure that all staff are appropriately qualified and prepared for their roles, in agreement with national and EU regulations and must apply fair and transparent processes for the recruitment and development of staff.
A formal training (including good teaching and evaluation practices, learning and e-learning resources, biosecurity and QA procedures) must be in place for all staff involved with teaching. Most academic staff (calculated as FTE) involved in veterinary training must be veterinarians. It is expected that more than 2/3 of the instruction that the students receive, as determined by student teaching hours, is delivered by qualified veterinarians.

The strategy of the VEE is to offer the specific competence of the academic staff for the preparation and training of the undergraduate and postgraduate students. In Italy, the Academic staff is identified based on a categorization of the Scientific Disciplinary Sector (SSD) related to a specific scientific field of competence (**see Appendix**). Fourteen Veterinary and Animal Production SSDs are involved in the Veterinary Curriculum with other SSDs related to basic sciences.
The Academic staff is composed of Full, and Associate and Assistant Professors. The last profile as permanent one has been running of job since 2010 (Law 240/2010) and has been replaced by temporary fixed-term Type A (non tenure-track) (RTDA) and Type B (tenure-track) (RTDB) researchers, both holding a PhD. RTDA positions last three years with a possible elongation of further two years depending on the decision of the Department and availability of funding; RTDB positions last three years and progress to a permanent position of Associate Professor at the end of this period, provided that the RTDB has achieved the National Scientific Qualification (**NSQ**). Both RTDA and RTDB researchers must have a teaching load of at least 60 hours per AY.
Permanent Academic Staff recruited after 2010, according to the National Regulation of the MUR, must be qualified by the NSQ in at least one discipline of a specific SSD related to their scientific field. The NSQ should ensure to have enough scientific requisites to successively have access to the calls for Academic staff recruitment. Briefly, a National Committee composed of full professors of the same SSD, drawn from a list of potential members with outstanding scientific production, evaluates the qualifications of the candidates according to criteria related to the number and quality of publications, citations, h-index, research activity and other titles, including participation on the editorial boards of scientific journals, fellowships in foreign research centres, achievement of scientific awards, etc. Parameters for NSQ are periodically revised by ANVUR in agreement with MUR. About 2/3 of the Academic staff are veterinarians (49/73 in the AY 2022-23), most of them hold a PhD (46) and several possess an European (6) or a national Specialisation (12); two RTDB researchers are currently residents (**see Appendix**). Apart from the basic subjects, which are taught by Academic staff belonging to the specific SSDs as required by national and UniBA regulations, almost all the teaching hours of the Veterinary programme are delivered by qualified veterinarians.
The VEE as well as UniBA is committed to the professional updating and improvement of teaching performances of the Academic staff. Even though formal training of teaching staff is not mandatory in Italy, the VEE is strongly committed to training young researchers such as RTDA and RTDB to acquire teaching skills. In this context, the TSJC has approved a Regulation on the continuous learning of academic teaching staff of the VEE (see Appendix). To date, this Regulation will be presented to the DCC and then finally approved by DiMeV Council.
In order to improve the quality of teaching and introduce innovative teaching methodologies, UniBA joined the experimental program developed by the University of Padua named PRODID, with the objective of setting up and developing strategies to support teacher expertise, with a view to ensuring progressive improvement of teaching and teaching activities. Alongside this program, Academic staff are also asked to attend online courses or seminars on teaching competences offered by UniBA (courses organised by the Department of Communication and Pedagogical studies) or by other

Universities. An example is the attending of some professors to the national workshop organised by the University of Bologna together with the Royal Veterinary College on "The Fundamentals in Veterinary Medicine" in July 2019. Another example is the opportunity to attend the online course "Training for Teach in Vet" organised by the colleagues of the University of Messina, Sassari and Naples and open to academic staff and practitioners involved in practical training of students.

Quite regularly, UniBA organises online formative courses (FAD - *Formazione a Distanza*) with final online exams and certifications on several topics to update administrative and teaching matters. In particular, in 2020 soon after the onset of the COVID-19 pandemic and the start of the lockdown, UniBA implemented the training and technical support of academic staff on the use of multimedia resources and the platform for the online teaching (Microsoft Teams). Several specific tutorials were made available to the staff.

Particular attention is paid for the training of academic and support staff on biosecurity, with specific reference to safety and protection of workers. In this view, both the Academic and support staff must attend the mandatory online courses on biosecurity every 5 years, as required by current national legislation. A new Regulation on biosecurity in the working places came into being in 2021: a specific mandatory online course on the special biosecurity procedures at the time of COVID-19 (First edition: from 23 March to 7 April 2021. Second edition: from 13 to 27 April 2021) was organised by UniBA for all staff. The UniBA Prevention and Protection Service Operational Unit has a website containing all the documentation for the protection of workers. The management of safety and health at the UniBA is entrusted to a series of institutional figures to whom Legislative Decree 81/2008 and subsequent amendments assigns specific tasks and responsibilities.

Furthermore, the following Regulations are available online: The Health and Safety Regulations of UniBA; Emergency management; Guidelines, procedures and manuals of UniBA; Risk Assessment Document (DUVRI).

The VEE biosecurity manuals are available online (see area 4). Attendance of the course on biosecurity "Let's work safe" (see area 4) is mandatory for students to enter the VMC laboratories. Moreover, UniBA offers the staff a new « Syllabus portal » for personalised training, in e-learning mode, in order to strengthen knowledge, productivity and digital capacity in administrative procedures. QA procedures are communicated during both the DCVM and DiMeV Councils, where representatives of students, PhD students and technical/administrative staff are present. The QA procedures are also reported on the UniBA website and linked on the DiMeV website.

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 9.2.1. Academic staff** of the veterinary programme

Type contract	2021/2022	2020/2021	2019/2020	Mean
Permanent (0,75/1 FTE)	63.65	55	52.5	57.05
Temporary				
Practitioner (0,20 FTE)	0.20	0	0	0.06
RTDA/RTDB, contract professor (0,5/0,75 FTE)	4.75	5.75	2.5	4.33
total	**68.6**	**60.75**	**55**	**61.45**

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

Type contract	2021/2022	2020/2021	2019/2020	Mean
Permanent (FTE)	*65.45*	*66.25*	*67.12*	*60.97*
Temporary (FTE)	*1.83*	*1.26*	*1.39*	*2.40*
Total	**67.28**	**67.51**	**68.51**	**67.15**

Table 9.2.3. Support staff of the veterinary programme

Type contract	2021/2022	2020/2021	2019/2020	Mean
Permanent (1 FTE)	39	33	33	35
Temporary (1 FTE)	19	8	4	10.33
Total	**58**	**41**	**37**	**45.33**

Table 9.2.4. Research staff of the VEE

Type contract	2021/2022	2020/2021	2019/2020	Mean
Permanent (Full, Associate, Assistant professors: 1 FTE)	*65*	*67*	*65*	*65.66*
Temporary (RTDA;RTDB: (0,50/0,25); PhD student; Post-doc; grant fellows:1 FTE)	*61.25*	*55.50*	*45.75*	*54.16*
TOTAL	**126.25**	**132.50**	**110.75**	**123.16**

The number of Academic staff involved in the Veterinary programme, even with yearly slight fluctuations related to the presence of RTDA and RTDB researchers and the engagement in other two degree courses, is a 3-year average of 21 full professors, 38 associate professors, 8 permanent assistant professors, 5 RTDB and 6 RTDA, with a gender balance of about 50%. Noteworthily, the Coordinators of the three degree courses managed by the VEE are women as also are the Coordinators of the PhD course in Animal Health and Zoonosis, of the Postgraduate School of Specialization in Infectious Disease of Animals and of the Postgraduate School of Specialization in Inspection of Food of animal origin, and the Erasmus Delegate.

In the last three years, Non-Academic staff have been represented by a practitioner selected in a public call and recruited for the course in "Practice Management" due to his skill set acquired as President of the Veterinary Board of Bari province.

Support staff engaged at the VMC includes the administrative coordinator, technical/administrative staff and animal groomers with different competencies and duties.

The didactic administrative staff consists of 4 people involved in the management of the graduate and postgraduate courses. Their main responsibilities concern educational offer planning, delivery and monitoring, and all the services to the students ranging from orientation to job placement.

Most of the support staff are graduates, many of them are veterinarians and hold a PhD, so they have a robust scientific background and have been specifically formed in a veterinary environment, enabling them to appropriately be involved in the teaching mission. Furthermore, 5 of them have the title of "expert in a subject" (Cultore di materia) for their scientific productivity and can join the examination commissions for their specific subject. Within the support staff an English mother tongue teacher is in charge of training students to B2 level in the English language.

Practitioners have been recruited for the needs of VTH and emergency. The selection of the candidates was made by a VEE Committee on the basis of qualifications and requisites. Their duties are to work in the VTH and for the H24 service. At the same time, they can supervise students during clinical rotation and may be considered **temporary support staff** since they are contracted for a fixed and renewable term by the VEE. In the last two years, 6 practitioners have been recruited.

Temporary support staff includes mostly graduates recruited on temporary contracts, for project collaboration. PhD students could be included as a temporary support staff since, starting from the second year of course, they are allowed to have "teaching integrative activity" for a total of 40 hours/year. The authorization for teaching is given by the Teachers Board of the PhD course after evaluation of the scientific performance in the first year of attendance. They usually support their

supervisors in the practical training and activities, supervise and instruct students in the skill labs. This activity is never remunerated, but some PhD students appreciate the opportunity to gain experience in teaching and carry out this task with enthusiasm. Grant fellows also could be included in the temporary support staff even though they are mostly involved in research. PhD students and grant fellows are not included in Table 9.2.3.

The VEE yearly awards selected students, PhD students or other fellowship recipients, a total of 8-9 grants to supply support tutorial activities to students who have fallen behind, need orientation or information. In the last three years 15 grants were assigned. Furthermore, the VEE has undertaken some official agreements with ASLs (territorial units of the National Health System), Experimental Zoo-prophylactic Institutes, food production plants, animal production farms, equine breeding and reproduction centres, slaughterhouses, etc. (see agreements) to achieve an adequate supply of qualified joint teaching staff, with expertise in different specific areas. These figures are not included in the tables.

There is a real perspective that the positive trend of the number of FTE academic and support staff keeps continuing the increase seen in the last three years (see Table 9.2.1) despite the retirement of several professors.

Indeed, compared to the past visit, in the recent years, funding for the Department of Excellence and the lack of personnel for VTH activities has resulted in an increase in recruitment of various figures such as technicians, RTDBs and personnel for animal care and services in the VTH, as well as in academic progressions.

In fact, as early as 2023, two RTDBs (an ECVN diplomate and a resident in ECVIM-CA Oncology) have been recruited. In the next few months, 6 veterinary technicians will begin work at the VTH, of which 2 will be involved in the clinics and 4 in the H24 service. In addition, procedures are in place to recruit additional 3 animal groomers for the VTH. Indeed, the DiMeV Strategic Plan foresees the career progression and the recruitment of further academic staff including more selected specialised/diplomate practitioners for teaching practical clinics.

The allocation of Academic staff to the VEE and the DCVM depends on the MUR that periodically grants funds to the Universities for recruitment of new professors and RTDB positions and for the career progression of extant academic staff. The amount of funds depends (also but not only) on the performance of the University in terms of research quality (i.e., VQR). Other parameters are the student population size and the academic retirements and turnover. RTDAs and other temporary staff are recruited on the basis of the availability of specific grants from research projects, as well as national and regional programmes. The different professor positions are assigned by UniBA on the basis of the available budget and departmental requests.

After recognizing the needs, the VEE evaluates the requests coming from the different SSDs. Then the VEE Board decides for the new positions or for the advancement of the academic staff based on the teaching load, research and clinical needs. The requests are forwarded to the UniBA Academic Senate and Board of Governors for the final approval. The positions are assigned through a national public call. Applicants to the position of Full or Associate professor are required to obtain a previous qualification (NSQ) that is assigned through the evaluation, by a National Committee, of the scientific activity performed by the candidate. In fact, as previously reported, in Italy the recruitment of the Academic staff is regulated by National Legislation, so that the access to and progress in the academic career depends on the possession of NSQ ensuring their scientific competence for a research-based veterinary education. The recruitment in the role takes place through a public call, in which the profile of the position and requisites of teaching and research asked to the candidates are well defined. The selection is made by a committee composed of three professors of the same SSD who evaluate and compare the curricula of the candidates in terms of quality and load of teaching (if any) and research and institutional duties (if any). The only commitment for academic staff, as enacted by Law 240/2010, art. 6 paragraph 10, is to teaching and institutional activities. However, for the salary and economic class level increase, a continuous scientific production is also required.

The academic career takes a long time. In fact, to enter in the permanent position, candidates need several years, ranging from 3 to 11 or more, of temporary contracts, which on the one hand allow the VEE to evaluate the aptitude and talent for research and teaching, but on the other hand this process can be daunting due to the length of time it takes compared to other non-academic careers. Academic staff can be recruited also via the transfer of professors from other Universities but usually through a public call or, in the case of outstanding scientists, through a direct call. Full professors and associate professors recruited in national competition procedures are hired for permanent positions. Permanent Academic staff is regularly evaluated on teaching, research and institutional activities. The evaluation, made by UniBA every two years through a departmental Committee and a Central University Committee is required for the salary and economic class level increase.

The positive evaluation by ANVUR (VQR) is important at the Department level for the selection of staff and individually to participate in the recruitment Committees, coordinate projects and receive research funding. Temporary academic staff must write an annual report on their activities to be approved by the DiMeV Council to extend the contract time terms.

The selection and recruitment of support staff follow the rules of National legislation. Depending on the necessity, as for the academic staff, the Department asks UniBA for the recruitment of support staff (laboratory technicians or administrative staff). The selection is made by a public call and candidates must apply their curriculum and all the qualifications required. A blended Academic and Administrative Committee selects the suitable candidates by written and oral examinations focused on the work pattern required. Selected candidates are recruited and then trained on the specific duties they have to do. They are also asked to improve their preparation and skills with the participation in online or onsite courses. The Academic staff is committed to enhancing the competencies of the support staff, especially - but not only - for those holding a veterinary or science degree. Indeed, the VEE wishes to ensure that the VMC serve as an educational environment where students can continuously learn and acquire skills throughout their time there; from this point of view, every single component of the VEE is dedicated to contributing to the veterinary education of the students.

Academic staff can freely decide to work full time for the University receiving the entire salary or opt for part-time with a reduction in salary of 33% and also of the teaching workload (250 h/year). In this case, they can officially work in a private veterinary clinic, or other enterprises and institutions. None of the VEE Academic staff works part-time at the moment. Full-time professors can perform paid activities (or duties) for public administrations, or industrial and commercial (private and public) companies. Permission to the Rector must be requested by the person concerned or by the private or public subject conferring the appointment. In some cases, including seminars, lectures, and limited consultancy activities, it is sufficient to send a written communication to the Head of the Department and Rector. The full-time professor must produce a declaration of commitment to fulfil his/her academic commitments. Support staff such as PhD students may work outside with the authorization of the Teachers Board of the PhD course but the overall outside year retribution must not exceed 16,000.00 €. Administrative and technical staff have the option to work externally by switching to a part-time contract with UniBA, leading to a reduction of 33% of the salary; alternatively, they can ask for an exemption from their UniBA duties for the duration of the outside work if this lasts several months or years.

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.

In Italy, Academic staff such as full and associate professors as well as the assistant professors have a permanent contract with the University that naturally ends with retirement at 70 (full and associate professors) or 67 (assistant professors) years of age. The job as a civil servant guarantees stability and continuity. There is not a perfect balance between teaching, research, laboratory or VTH activities, Third Mission and administrative duties. In fact at present, national regulations (law no 240/2010) only require from full and associate professors no less than 350 hours of overall teaching load (250 h for part-time academic staff). No less than 120 hours must be of teaching activity, of which at least 90 hours "in contact" such as lectures and practice dedicated to degree courses. For RTDB and RTDA positions the teaching activity must account for 60 h/year, while assistant professors have 200 hours/year of teaching load of which 60 h/year for teaching support. The overall teaching load includes lectures, practice, tutoring, exams and graduation exams. Assistant professors are essentially required to provide teaching support, student service, while they are paid for the teaching activities (lectures).

Practical training with small groups of students makes the teaching workload very heavy and so the teaching activity exceeds the hours required for teaching staff. In case of heavy institutional duties (e.g. Head of Department), a partial reduction in teaching activity may be requested.

At present, there is no official reward for the excellence of teaching apart from a mention in the DCC on the basis of the feedback from students.

As reported in standard 9.1, Academic staff is recommended to participate in online courses dedicated to teaching improvement and assessment training offered by UniBA or other Universities or public bodies. In recent years, some workshops were organised on topics such as communications and relation skills. Starting from AY 2021-22 events are organised as part of the project #DiMeVAltuofianco for both students (see Area 3) and teaching staff. The workshops aim to gain skills on effective communication and teaching strategy, communication for relational, interpersonal and intrapersonal bonds, empathy and team-working.

Academic staff are also invited, even though it is not mandatory, to devote some of their time to the TM. The growing burden of bureaucratic obligations pose a threat as it takes up time which could otherwise be used for teaching and research.

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.

The VEE in agreement with UniBA governance is strongly committed to the professional and scientific growth of academic and support staff. As already reported (see above 9.1), UniBA organises online and onsite training on different topics depending on the category of the staff (FAD), which contribute to the improvement of the curriculum. The entire UniBA community is strongly encouraged to participate in these courses.

There is a strong and excellent collaboration between academic and support staff for the diagnostic, research and teaching activities and this good relationship results in a good organisation of the laboratories and the VTH and in the scientific growth of the support staff (as witnessed by the number of co-authoring in publications). Administrative and technical staff is organised in Operative Units (OUs), each of them under the responsibility of a technician/administrative officer with the

supervision of the Administrative Coordinator. Permanent support staff have several objectives related to their role to achieve each year. Support staff annual performances are evaluated by the head of the OU and then by the Administrative Coordinator and the Head of the Department, allowing staff to be awarded financial incentives from UniBA or the VEE, as well as to career and salary progression. In particular, during the project of the Department of Excellence, support staff were financially rewarded according to how well the objectives determined at the beginning of the AY were achieved. In the same period, Academic staff were also financially rewarded on the basis of the number of publications, the author contribution (first or last author) and the ranking of the journals. Academic and support staff are encouraged to participate in the Erasmus Plus mobility programme in order to improve the quality of teaching and communication skills. Full and associate professors have the right to apply for a one-year period of leave (sabbatical year) to dedicate themselves to research/study activities; this time can be spent in Italy or abroad at different research/didactic institutions. In the last three years no professor has taken sabbatical leave. Support staff is also encouraged to attend masters and advanced courses that are useful to expand their competencies and to make progress in their career. Course attendance is paid for by the VEE. One member of the support staff serves as a workers' union representative and advocates for the rights and working conditions of VMC employees. At least one member of the support staff and of PhD students is present on each committee of the VEE, including the DiMeV Council and QA Committee, where they can actively participate in decisions on their appraisal and progression.

Since 2022, UniBA governance is committed for the staff welfare, organising group meetings with psychologists. A particular attention is focused on gender equality, for which a specific plan has started in 2022 and renewed in 2023 (Gender equality plan). Some members of the VEE academic and support staff are appointed also at the Single Guarantee Committee (Comitato Unico di Garanzia - **CUG**) and Interdepartmental Centre for the Studies of Gender Cultures **(CISCUG).** At the VMC an anti-violence centre in collaboration with the Municipality of Bari, especially dedicated to VMC students and personnel has been established.

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.

As reported in standard 8.2, there are two levels of teaching assessment by students: 1) the first is official and mandatory, at UniBA level (see Area 1), an anonymous questionnaire the students have to fill in online (on Esse3 platform) as a prerequisite for registering for the exams and 2) the second at Department level (see Appendix), with an anonymous questionnaire (see Appendix) prepared by the TSJC along the guidelines of ANVUR that students have the option to fill in (online on Microsoft Teams platform during the pandemic) just after the end of the courses when applying for the attendance signature. The latter system is more efficient and rapid in evaluating the teaching quality of the professors and to allow the planning of corrective actions in a shorter time, if necessary. The results of both the questionnaires are published on UniBA and DiMeV websites and allow the QA Commitee, the DCVM Coordinator and the TSJC to discuss with the professors how to improve and/or correct some teaching deficiencies. Starting from last year, the DCVM also introduced an anonymous questionnaire (see Appendix) to be filled in by students after the exams. The results arising from the elaboration of such a questionnaire can allow some corrective actions on the basis of such student assessments.

As reported above (standard 9.1), the selection and recruitment of academic staff depends on the funding delivered by MUR to UniBA. Usually, based on the DiMeV Strategic Plan, each year the VEE receives some assignments for academic and support staff. The job positions are assigned on the basis of the research and teaching needs. The assignment is discussed by the Head of DiMeV with the professors responsible for the department sections and the proposals are then discussed and

approved by the DiMeV Council. The composition of such a consensus, where all the academic staff and representative of all other figures (support staff, students, PhD students) in charge of the DiMeVare present, allows plain discussion and communications

Comments on Area 9
In spite of some limitations, the VEE environment features highly dedicated teaching and technical/administrative staff for Department and University activities. The teaching staff includes some elements of excellence who have received international recognition (members of European Colleges, editors of prestigious international scientific journals, Presidents of world and European scientific societies and top Italian scientists for the Biomedical Sciences branch). Furthermore, a large number of RTDBs and associate professors have achieved the NSQ with the possibility of academic progression. Currently, the DCVM has reached a reasonable academic staff/student ratio that can guarantee the regular progress of all training activities scheduled by the Course program. The recent recruitment of two qualified RTDB researchers in the VTH and the upcoming 6 graduate veterinary technicians recruited for the VTH activities will further increase the size of the teaching staff.

Suggestions for improvement in Area 9
Despite the slight increase in the number of teaching staff, the VTH activities require a further increase in academic and support staff responding to the increasing demand for specialist intervention. The possibility to recruit contract professors with expertise in some specific areas, is an important objective of the VEE, as already reported in Standard 2.3. At the same time the contracts with qualified clinical practitioners who could be directly involved in practical activity would improve the quality of the intra ed extramural practical teaching for students. In AY 2022-23, three qualified veterinary practitioners have been recruited to implement the practical activities of PDPs, specifically a cow practitioner, a horse practitioner and an ECZM diplomate with high specific competencies in their respective fields. As stated above (area 3), relevant decisions should be made about improvement of quality teaching by increasing the opportunities of specific training courses and by encouraging teaching staff to attend these courses.

10.

RESEARCH PROGRAMMES, CONTINUING AND POSTGRADUATE EDUCATION

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.

The teaching at the VEE complies with ESG recommendations and EAEVE indications, aiming to provide students with research-based and evidence-based veterinary training. Most of the Academic staff of the VEE participate with success in local, regional, national and international calls, or have agreements with private pharmaceutical companies and enterprises. The collaboration with colleagues from institutions abroad is one of the milestones enabling students to be introduced to the field of international research. Indeed, the methodologies used in carrying out research, as well as the outcomes of the research activity itself are transmitted through both lectures and practical activities, which provides advanced and up-to-date teaching and also evokes the aptitude of students toward research, thus training future academics or smart professional figures. From the first year onwards, students can also attend laboratory research activities within a particular unit, depending on their grasp of the topic (i.e., even before choosing the subject of their internship and thesis). As reported below, most thesis topics form part of the supervisor's research project.
In general, the scientific productivity of the VEE, especially in some scientific areas, is very high and of excellent quality as shown by the ranking of the journals and the number of citations of the publications. The production in the years 2020-22 exceeds 200 products on average per year as monitored by official databases (Scopus and Wos). This result was achieved thanks to an intense interdisciplinary collaboration of all sectors belonging to the VEE and with international co-authors (about 48%) (see Appendix).

Table 10.1.1. List of the major funded research programmes in the VEE which were ongoing during the last full AY prior to the Visitation (AY*) (this table may be substituted by a VEE list of ongoing research projects)
Note: The list of the main ongoing research projects are reported in the Appendix

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.

Academic staff introduce students to the research environment from the first year onwards explaining the importance of developing a critical approach to the disciplines. In the first year, seminars are organised with the library manager (named "A chat with the librarian") in order to introduce students to the usage of publication databases and to the resources available in the library. The preparation of class presentations and eventually the preparation of the dissertation thesis further introduce students to bibliographic searches, database consultation and to the importance of research. During practical activities in study units (i.e., biochemistry, microbiology), lab techniques are taught not only as diagnostic tests but also as important tools for research and scientific discoveries.
Every year, specific seminars such as "How to write a scientific paper" are given by some professors to introduce undergraduate as well as postgraduate students to the writing of scientific articles. Furthermore, many scientific events are organised by the academic staff to introduce students into the world of veterinary sciences and make them aware of the importance of evidence-based medicine. Students are invited to attend all the events organised by the VEE or by single professors of the VMC as well as from other Departments. This also includes taking part in seminars organised for the Specialization Schools and presented by guest speakers as well as the so-called "defence of PhD

thesis" and all the events organised by UniBA, such as Researchers' Night, which is a Europe-wide event aiming to promote research activities within all University institutions.

Many teaching staff invite students to actively and personally participate in their projects. Students are notified in class, with announcements on social media such as Facebook ("bacheca virtuale di Medicina Veterinaria" - the virtual bulletin board of Veterinary Medicine) and getting student representatives to pass on the news within the students' social media environment (e.g., Instagram, WhatsApp, etc).

Graduation thesis: The curriculum ends, after passing all the exams, with the presentation of the dissertation thesis that is an obligatory, non EU-listed subject, in front of a Commission made up of up to eleven (minimum seven) teaching staff from the DCVM. At least one year before the presumptive date of their graduation, students must officially apply for their thesis, which could be either compilatory or experimental. The topic, of veterinary medical interest, is chosen by the student in concert with the supervisor according to their prehension and wishes. For the experimental thesis, students are involved in all stages of the research project. This introduces students into the world of research, highlighting the importance of animal welfare and 3R rules, when they choose an experimental thesis involving live animals. In such a case, their project must be presented and approved by the DiMeV CESA. Then, students carry out the experimental protocols, search for bibliography and develop the discussion under the guidance of the supervisor. Some of them become involved in international research groups by participating in the call for global thesis, that is granted by UniBA to promote international student mobility, under which they write their dissertation thesis in co-supervision with other institutions abroad. In the past, several veterinary students have successfully applied for this grant, spending 2 to 6 months in important international Universities or Research Centres. In some instances, they have had the opportunity to do a PhD or a post-doc, or even find a job at the foreign facility where they carried out their Global Thesis. As expected, the COVID-19 restrictions reduced the number of applicants to Global Thesis during the pandemic.

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.

PhD courses: The VEE offers several postgraduate doctorate courses, which are the 3rd and highest level of education, dedicated to graduate students. There are three PhD courses in Animal Health and Zoonoses, in Internal Medicine, Surgical and Obstetrics Clinical Sciences and in Tissue and Organ Transplantation.

The PhD course in Animal Health and Zoonosis aims to train students with a high professional profile, capable of interacting with all levels of Health with high competence and professionalism in the universal concept of One Health. Information about the PhD course is available on line. **The PhD course in "Tissue and Organ Transplantation"** converges medical and veterinary areas. Information about the PhD course is available on line.

Starting from this AY 2023-24 a third **PhD programme "Internal Medicine, Surgical and Obstetrics Clinical Sciences"** focused on veterinary clinical sciences has been activated with the aim of training highly qualified research doctors, through the development of projects aimed at updating and improving the veterinary clinic. Information about the PhD course is available on line. Public and private-funded positions are available annually. In recent years, some grants have come from the EU (PON, ESF – REACT-EU and "Research & Innovation" on innovation and green topics) and recently from PNRR funds. In each of the past three years, some places were reserved for foreign students to increase the internationalisation (in total 14 places, 4 or 2/year) granted by the Department of Excellence. Most of a PhD student's time is devoted to a research project under the guidance of a supervisor and to attending learning activities, including short courses, lectures, seminars. In addition

PhD students may also perform limited integrative teaching activity (no more than 40 h/year) and also apply to calls for paid tutoring activities for undergraduate students. At the end of the third year, the Teaching Committee must approve both performance and scientific results of each PhD student for admission to the final examination (defence of thesis) before an external Jury to be awarded the title of PhD.

Postgraduate Specialization Schools. At the VMC, the Veterinary training offers four Specialization Schools, which are open, upon competitive selection, to graduates in Veterinary Medicine. These three-year Specialisation Schools include:
- Specialization School in Infectious Diseases, Prophylaxis and Veterinary Policy;
- Specialization School in Inspection of food of animal origin;
- Specialization School in Pathophysiology of Domestic Animals' Reproduction;
- Specialization School in Technology and Pathology of Avian Species, Rabbit and Wildlife Animals;

This postgraduate education is a fundamental prerequisite to apply for public competitions for official veterinary places in the National Health System. The Specialization schools organised at the VMC provide the student with knowledge and skills required in clinical, food hygiene/public health and animal production professional fields that give the opportunity to the graduate to access to each of them. The Specialization Schools are instituted by the application of specific rules that establishes the general framework of the schools in a similar way to that for the Degree courses. In fact, the School teaching activity consists of 180 ECTS, 60/year with a final thesis and has a Teaching Board who collectively organises the teaching activities. Attendance is compulsory. Students have to pass the different subject exams each year and the last exam consists of the dissertation of a thesis structured as experimental or bibliographic scientific work and prepared under the supervision of a teacher in the specific scientific field.

At the VMC, masters, conferences, seminars, specialty courses, theoretical lectures and practical works are arranged directly by the teaching staff or in cooperation with the major professional Italian private and public institutions and associations. Additionally, sponsorship for several external courses is provided. Patronage is granted on the basis of the scientific content of the course, the curriculum of the external staff involved and the contribution of the VMC teaching staff.

Continuing education is facilitated by logistic premises, since a large multimedia Auditorium (*Aula Magna*) with 270 seats and equipped with a computerised projection system, a full-size screen, and a professional sound system is available at the VMC for these purposes. Members of the teaching staff are frequently called for the organisation of continuing education courses offered by public and private veterinary institutions and associations, such as scientific societies, cultural associations, Professional Board and National Health Service. Moreover, several teachers are invited as expert lecturers and, usually, they are able to cover most, if not all, the scientific fields involved in the different continuing education programmes. During the last three years due to the COVID-19 restrictions several events have been organised online as webinars.

Table 10.3.1. Number of students registered at postgraduate clinical training

Training:	2021/2022	2020/2021	2019/2020	Mean
Interns:				
Companion animals	2	-	-	-
Equine	-	-	-	-
Production animals	-	-	-	-
Total	2	0	0	0.66
Residents:	-	-	-	-
EVPC	1	1	-	0.66
EVMC	3	1	-	1.33

Postgraduate School				
Pathophysiology of Reproduction	*19*	*14*	*10*	*14.3*

Table 10.3.2. Number of students registered at postgraduate research training

Degrees:	2021/2022	2020/2021	2019/2020	Mean
PhD	*44*	*33*	*28*	*35*
Research Fellowship	*19*	*20*	*19*	*19.33*
Total	**63**	**53**	**47**	**51.33**

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

Programmes:	2021/2022	2020/2021	2019/2020	Mean
Specialisation Schools:				
Infectious Diseases of Animals	*96*	*98*	*100*	*98*
Inspection of food of animal origin	*16*	*12*	*12*	*13.3*
Technology and Pathology of Avian Species, Rabbit and Game Birds	*21*	*11*	*26*	*19.3*
Short Masters:				
Food-borne viruses, public health, European regulation, analytical methods for food safety			*13*	
Ultrasound in small animal Veterinary Medicine			*12*	

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

Courses:	2021/2022	2020/2021	2019/2020	Mean
Courses	*11*	*9*	*18*	*12.66*
Attendees	*2106*	*3300*	*2100*	*2502*
*Some courses were online				

It is estimated that the number of students registered at post-graduate programmes will remain approximately the same of the last three academic years, or should increase in consideration of the Innovative Doctorate and PNRR funding involving PhD courses and research grants. In addition several Masters deactivated due to the pandemic restriction are going to be reactivated or newly organised.

Postgraduate students, especially PhD students and research fellows, actively participate in the daily research and diagnostic activities of the VTH and of most of the VEE sections. In this way they give their support for the training of undergraduate students. They participate in practical activities, training, tutoring, also assisting and overseeing students in the skill labs. In the clinical activities at the VTH, although both undergraduate and postgraduate students are supervised by the Academic staff, they play a different role and so there are no conflicts. Overall, students profit from the experience and skills of postgraduate students. Usually, a friendly atmosphere is perceived since most of the postgraduate students graduated at the VEE and share several convivial moments with younger students.

The VEE is involved in the continuing education of veterinarians. This activity is called the "Third Mission" that is an important aspect of the VEE and it is focused on maintaining a strict and proficient bond between the Academy and the veterinarians. In Italy it is mandatory for doctors, veterinarians and biologists to acquire 150 Continuing Education in Medicine (CME) credits in three years (50/year). The VEE, even not always as official CME promoter, contributes to the organisation of such courses with local and National Veterinary Boards, or workshops or seminars with also other

institutions on specific topic referred to veterinary and public health emergencies such as Avian flu, COVID-19 or more recently the African Swine Fever.

In the end, at the VEE two spin-offs are active: <u>EcoFlyTech and Med&Food</u> with the purpose of fostering contact between the University's research structures, the productive world and local institutions in order to enhance and transfer the know-how and technologies developed within the research activity to the market; completing the educational and research mission by promoting the culture of entrepreneurship in the University community and in young graduates and PhD students; promoting the employment and self-entrepreneurship of qualified personnel.

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 Italian universities and other research bodies undergo a periodical evaluation by MUR through ANVUR. The evaluation, referred to as VQR, is particularly important for universities and governmental funds. The academic staff positions are provided to the Departments also according to the VQR output. The funds received through the Department of Excellence allowed academic staff progression and recruitment, staff rewarding, renovation of structures and acquisition of furniture and instruments for the VTH with the aim to improve the research-based education of students. The VEE ensures that its research activities contribute to research-based education, in particular during the internship of the students for the preparation of the graduation thesis (as reported in standard 10.3), and also maintaining in strict daily contact postgraduate students such as PhDs or research fellows in the VTH or in labs activity.

There are two committees for the research, a part from the QA Committees; one is at University level and it is a <u>Committee</u> which has several duties related to the activation of PhD courses, assignment and distribution of grant fellowships, developing evaluation tools with a view to co-financing projects that can aggregate research areas. At the DiMeV level there is an REC, appointed by the Head of the Department and consisting of a Delegate for the Research, and 7 professors and 2 administrative employers, which meets regularly and supervises the research activity of the DiMeV in order to promote departmental research by reserving particular attention to units that need of instruments, human resources and funds; this is to increase production standards in terms of publications and other research products. The responsibility of the Committee is to assist the activities of the teachers in reference to research evaluation systems (SUA-RD, VQR) and to provide useful information for updating each teacher's page on the IRIS platform. The results of the VQR (every 5 years) are discussed in the DiMeV Council meetings in order to ameliorate the outcome of the research in the next 5-years period (i.e 2020-2024).The activation of the Specialisation Schools is proposed by the Teaching Board of the School and discussed and approved by the DiMeV Council. In addition, academic staff members can suggest and organise courses, masters and workshops which have to be approved by the Department Council. After approval Postgraduate education programmes are made available online on UniBA and DiMeV website to ensure the widest dissemination of the information to the community and stakeholders.

Comments on Area 10
The VEE is deeply involved in the research world with the aim to train competent and smart professionals and to further improve the internationalisation of the research. The wide range of postgraduate schools, events, as well as the presence of EVBS diplomates and residents in the Academic staff, allows students to be trained and breathe in a research-rich environment, which makes them understand the importance of the research and the lifelong learning for a better position in the job world.

Suggestions for improvement in Area 10
Research and teaching engagements represent for most academic staff a heavy workload not always easy to manage. In this way, a different and more reliable planning of teaching, research and other institutional tasks of the academic staff would help lighten their workload.

ESEVT INDICATORS

ESEVT Indicators

	Name of the Establishment:	Department of Veterinary Medicine - Univerty of Bari				
	Name & mail of the Head:	Prof. Nicola Decaro - nicola.decaro@uniba.it				
	Date of the form filling:	24/07/2023				
	Raw data from the last 3 full academic years		2021/22	2020/21	2019/20	Mean
1	n° of FTE academic staff involved in veterinary training		68.6	60.75	55	61.45
2	n° of undergraduate students		346	341	304	330.33
3	n° of FTE veterinarians involved in veterinary training		49	42	39	43.33
4	n° of students graduating annually		18	36	40	31.33333333
5	n° of FTE support staff involved in veterinary training		58	41	37	45.33333333
6	n° of hours of practical (non-clinical) training		809	809	809	809
7	n° of hours of clinical training		780	780	780	780
8	n° of hours of FSQ & VPH training		331	331	331	331
9	n° of hours of extra-mural practical training in FSQ & VPH		136	100	100	112
10	n° of companion animal patients seen intra-murally		1763	1359	694	1272
11	n° of ruminant and pig patients seen intra-murally		46	44	38	42.66666667
12	n° of equine patients seen intra-murally		70	65	45	60
13	n° of rabbit, rodent, bird and exotic patients seen intra-murally		299	344	262	301.7
14	n° of companion animal patients seen extra-murally		291	497	137	308.3
15	n° of individual ruminants and pig patients seen extra-murally		553	442	113	369.3
16	n° of equine patients seen extra-murally		48	42	19	36.3
17	n° of visits to ruminant and pig herds		50	34	33	39.0
18	n° of visits of poultry and farmed rabbit units		22	18	32	24.0
19	n° of companion animal necropsies		104	26	14	48.0
20	n° of ruminant and pig necropsies		55	15	0	23.3
21	n° of equine necropsies		9	1	0	3.3
22	n° of rabbit, rodent, bird and exotic pet necropsies		278	134	108	173.3
23	n° of FTE specialised veterinarians involved in veterinary training		5	5	5	5.0
24	n° of PhD graduating annually		6	8	4	6.0

	Name of the Establishment:	DEPARTMENT OF VETERINARY MEDICINE			
	Date of the form filling:	JULY 2023			
	Calculated Indicators from raw data	Establishment	Median	Minimal	Balance
		values	values	values	
I1	n° of FTE academic staff involved in veterinary training / n° of undergraduate students	0.186	0.15	0.13	0.060
I2	n° of FTE veterinarians involved in veterinary training / n° of students graduating annually	1.383	0.84	0.63	0.753
I3	n° of FTE support staff involved in veterinary training / n° of students graduating annually	1.447	0.88	0.54	0.907
I4	n° of hours of practical (non-clinical) training	809.000	953.50	700.59	108.410
I5	n° of hours of clinical training	780.000	941.58	704.80	75.200
I6	n° of hours of FSQ & VPH training	331.000	293.50	191.80	139.200
I7	n° of hours of extra-mural practical training in FSQ & VPH	112.000	75.00	31.80	80.200
I8	n° of companion animal patients seen intra-murally / n° of students graduating annually	40.596	62.31	43.58	**-2.984**
I9	n° of ruminant and pig patients seen intra-murally / n° of students graduating annually	1.362	2.49	0.89	0.472
I10	n° of equine patients seen intra-murally / n° of students graduating annually	1.915	4.16	1.53	0.385
I11	n° of rabbit, rodent, bird and exotic seen intra-murally / n° of students graduating annually	9.628	3.11	1.16	8.468
I12	n° of companion animal patients seen extra-murally / n° of students graduating annually	9.840	5.06	0.43	9.410
I13	n° of individual ruminants and pig patients seen extra-murally / n° of students graduating annually	11.787	16.26	8.85	2.937
I14	n° of equine patients seen extra-murally / n° of students graduating annually	1.160	1.80	0.62	0.540
I15	n° of visits to ruminant and pig herds / n° of students graduating annually	1.245	1.29	0.54	0.705
I16	n° of visits of poultry and farmed rabbit units / n° of students graduating annually	0.766	0.11	0.04	0.721
I17	n° of companion animal necropsies / n° of students graduating annually	1.532	2.11	1.40	0.132
I18	n° of ruminant and pig necropsies / n° of students graduating annually	0.745	1.36	0.90	**-0.155**
I19	n° of equine necropsies / n° of students graduating annually	0.106	0.18	0.10	0.006
I20	n° of rabbit, rodent, bird and exotic pet necropsies / n° of students graduating annually	5.532	2.65	0.88	4.652
I21*	n° of FTE specialised veterinarians involved in veterinary training / n° of students graduating annually	0.160	0.27	0.06	0.100
I22*	n° of PhD graduating annually / n° of students graduating annually	0.191	0.15	0.07	0.121
1	Median values defined by data from Establishments with Accreditation/Approval status in May 2019				
2	Recommended minimal values calculated as the 20th percentile of data from Establishments with Accreditation/Approval status in May 2019				
3	A negative balance indicates that the Indicator is below the recommended minimal value				
*	Indicators used only for statistical purpose				

Comments on Indicators:

From the observation of the indicators, it is possible to infer a significant reduction in caseload during the pandemic period related to the restrictions imposed, even if intermittently, by UNIBA. In fact, a sub-threshold value is evinced for I8. However, it is interesting to note that starting from the year 2020/21, with the reduction of the limitations, there has been a decidedly positive increase in caseload that has brought the indicators to a level above the required standard that compensates for the negative values reported in the Interim report (-8.2%) and that denotes a trend that is now continuously upward thanks also to the implementation of the personnel in the VTH. The same observation is also possible for I18 related to ruminant and swine necropsies, which follows the same trend.

Examination of the raw data, in fact, denotes a gradual increase in both the number of companion animals' visits and the number of necropsies performed in the two academic years following the pandemic. It should be pointed out, however, that for the purposes of student preparation, such shortcomings in case histories have been compensated, as far as possible, by the administration of videos and online exercises.

Finally, it should be noted that the actions taken following the submission of the interim report and the comments received resulted in a reduction or equalisation of the negative values with results that would have been even more gratifying in the absence of the pandemic-related impositions, without which the indicators would have been well above the threshold.

Suggestions:

The positive trend that is being observed when it comes to caseloads should be strongly monitored by the VEE, and certainly the increased recruitment of additional academic staff and practitioners as envisioned in the plans of the DiMeV forecast will have a positive impact on the increase in the Indicators.

A

AEO: Additional Education Obligation / *Obblighi Formativi Aggiuntivi*
ANS: National Student Registry / *Anagrafe Nazionale degli Studenti*
ANVUR : National Agency for the Evaluation of Universities and Research Institutes / *Agenzia Nazionale di Valutazione del Sistema Universitario e della Ricerca*
AVA: Self–Periodic Evaluation and Accreditation / *Autovalutazione, Valutazione periodica, Accreditamento*
AY: Academic Year / *Anno Accademico*

C

CAOT: University Committee for Orientation and Tutoring / *Centro di Ateneo per l'Orientamento e il Tutorato*
CESA: Animal Ethics Committee/ *Comitato Etico per la Sperimentazione Animale*
CME: Continuing Education in Medicine / *ECM*
CPE: Collective Protective Equipment / *Dispositivi di Protezione Collettiva*
CRR: Cyclic Review Report / *Riesame Ciclico*
CSA: Experimental Centre for Avian and Rabbit / *Centro Sperimentale Avicunicolo*
CUN: National University Council / *Consiglio Universitario Nazionale*

D

DCC: Degree Course Council / *Consiglio di Corso di Laurea*
DCVM: Degree Course of Veterinary Medicine / *Corso di Laurea in Medicina Veterinaria*
DiMeV: Veterinary Medicine Department / *Dipartimento di Medicina Veterinaria*

E

EAEVE: European Association of Establishments for Veterinary Education / *Associazione Europea delle Istituzioni per l'Educazione Veterinaria*
EBVS: European Board of Veterinary Specialists / *Associazione Europea degli Specialisti Veterinari*
ECOVE: European Committee on Veterinary Education / *Comitato Europeo per l'Educazione Veterinaria*

ECTS: European Credit Transfer System / *Sistema Europeo di Trasferimento dei Crediti Formativi*
ECZM: European College Zoological Medicine
ESEVT: European System of Evaluation of Veterinary Training / *Sistema Europeo per la Valutazione della Formazione Veterinaria* .
ESG: Standards and Guidelines for Quality Assurance in the European Higher Education Area / *Standards e Linee Guida per l'Assicurazione di Qualità nella Formazione Veterinaria*
EPT: Extramural Practical Training / *Tirocinio extramoenia*
ExC: Examination Committee / *Commissione d'Esame*

F

FFO: Ordinary Financing Fund / *Fondo di Funzionamento Ordinario*
FNOVI: National Federation of Veterinary Professional Association / *Federazione Nazionale Ordini Veterinari Italiani*
FSQ: Food Safety and Quality / *Sicurezza e Qualità degli Alimenti*
FTE: Full-Time Equivalent / *Impiego a tempo pieno*
FVE: Federation of Veterinarians of Europe / *Federazione dei Veterinari Europei*

G

Giunta: DiMeV Administrative Board

I

ICU: Intensive Care Unit / *Unità di terapia intensiva*
IPT: Intramural Practical Activity / *Tirocinio Intramoenia*
IU= Isolation Unit / *Unità di isolamento*

J

JPC: Job & Placement Committee / *Commissione per l'Impiego*

M

MC: Mobile Clinic / *Clinica Mobile*
MUR: Ministry of University and Research / *Ministero dell'Università e della Ricerca*

N

NSQ: National Scientific Qualification / *Abilitazione Scientifica Nazionale*

O

OPAC: Online Public Access Catalogue / Catalogo di Ateneo
OU: Operative Units / *Unità Operative*
OHC: One Health Centre

P

PDP: Professionalising Didactic Paths / *Percorso Didattico Professionalizzante*
PI: Integrated Veterinary Centre / *Polo Integrato*
PNRR: National Recovery and Resilience Plan / *Piano Nazionale di Ripresa e Resilienza*
PPE: Personal Protective Equipment / *Dispositivi di Protezione Individuale*
PPT: Professional Practical Training / *Tirocinio e Clinical Rotating*

Q

QA: Quality Assurance / *Assicurazione della Qualità*

R

RAD: Didactic Order / *Ordinamento Didattico*
REC: Research Evaluation Committee / *Commissione Ricerca*
RG: Review Group / *Gruppo del Riesame*
RTDA: Fixed-term (temporary) Researcher Type A / *Ricercatore a tempo determinato di tipo A*
RTDB: Fixed-term (temporary) Researcher Type B / *Ricercatore a tempo determinato di tipo B*

S

SER: Self-Evaluation Report / *Report di Autovalutazione*
SMA: Annual Monitoring Report / *Scheda di Monitoraggio Annuale*
SOP: Standard Operating Procedure / *Procedure Operative Standard*
SSC: Safety and Security Committee /*Commissione Prevenzione, Protezione e Sicurezza*

SSD: Scientific Disciplinary Sector / *Settore Scientifico Disciplinare*
STC: Sea Turtle Clinic / *Clinica delle Tartarughe Marine*
SUA-CdS: Teaching Course Unique Annual Report / *Scheda Unica Annuale del Corso di Studi*
SWOT: Strengths, Weaknesses, Opportunities, Threats / *Punti di Forza, Debolezza, Opportunità, Minacce*

T

TB:Teaching Bylaws / *Regolamento Didattico*
TM: Third Mission (Public Engagement) / *Terza Missione*
TO: Teaching Office / *Ufficio Didattico*
TOLC: Test Online Cisia
TSJC: Teachers & Students Joint Committee / *Commissione Paritetica Docenti Studenti*

U

UCOT: University Commettee for Orientation and Tutoring / *Commissione UniBA per l'Orientamento e il Tutorato*
UEC: University Evaluation Committee / *Nucleo di Valutazione*
UniBA: University of Bari Aldo Moro / *Università degli Studi di Bari Aldo Moro*
UQA: University Quality Assurance / *Presidio Qualità di Ateneo*
UTB: University Teaching Bylaws / *Regolamento Didattico di Ateneo*

V

VMC: Veterinary Medicine Campus / *Campus di Medicina Veterinaria*
VLC: Veterinary Library Committee / *Commissione Biblioteca di Veterinaria*
VML: Veterinary Medicine Library / *Libreria di Medicina Veterinaria*
VPH: Veterinary Public Health / *Sanità Pubblica Veterinaria*
VQR: Research Quality Evaluation   / *Valutazione della Qualità della Ricerca*
VTH: Veterinary Teaching Hospital   / *Ospedale Veterinario Universitario Didattico (OVUD)*

List of Appendices

Appendix Code	Content	Language
I	The impact of Covid-19	ENG
II	Core of veterinary programme (including clinical rotation, EPT): course, reference number, ECTS value, position in curriculum (year), hours and modes of instruction, learning outcomes and their alignment with the ESEVT Day One Competences ESEVT SOP	ENG/ITA
III	UniBA assessment procedures for QA	ITA
IV	Academic staff, qualifications, positions, teaching responsibilities, departmental affiliations and list of scientific publications in peer reviewed journals during the last three academic years	ENG
V	Internal/External Facilities and Equipments	ENG
VI	Summary of the VEE' Biosecurity Manuals	ENG/ITA
VII	Teaching assessment by students: ANVUR, DiMeV, postexam	ITA
VIII	Regulation on Academic staff continuous learning	ITA