

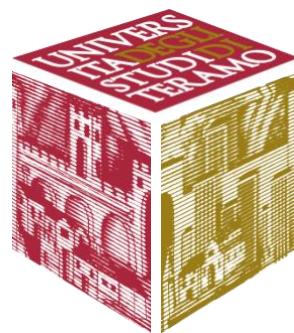


FACOLTÀ

MEDICINA
VETERINARIA
TERAMO

Self-Evaluation Report

EAEVE Visitation Teramo, 2020



UNIVERSITÀ
DEGLI STUDI
DI TERAMO

Faculty of Veterinary Medicine
University of Teramo - Italy



Self-Evaluation Report EA EVE Visitation Teramo, 2020



UNIVERSITÀ
DEGLI STUDI
DI TERAMO

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This Self Evaluation Report has been written by the EAEVE Faculty Committee:

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The Veterinary Medicine Faculty Board approved the present Self Evaluation Report on 28th February 2020.

INTRODUCTION

The Academic Consortium of Teramo was established in the early 1960s. The Abruzzo Region felt the necessity to set up a Veterinary Medicine School since a lot of students were moving towards Bologna or Bari to attend a Veterinary Medicine Faculty.

In 1972 the Academic Consortium of Teramo, with the cooperation of the Faculty of Veterinary Medicine of Bologna, coordinated the first two years of the Degree Programme in Veterinary Medicine. By then, the students from Abruzzo, even if they were enrolled in the University of Bologna, could attend lectures in Teramo.

In 1990 the University of Chieti started the Faculty of Veterinary Medicine in Teramo. In 1994 the University of Teramo was established with the Faculties of Veterinary Medicine, Law and Political Science.

In 1997, two new facilities were introduced: the Molinari building that hosted the pre-clinical sciences and the Cartecchio facility that hosted the clinical sciences and the 24h emergency service.

In 2001 the Faculty obtained the Chiareto Teaching Farm (CTF) to host livestock for teaching, research and third mission purposes.

In 2013 the new and definitive location of the Faculty was settled in the Piano D'Accio Campus and hosted the teaching rooms, the pathology room and the Veterinary Teaching Hospital (VTH).

The Molinari building was definitely dismissed due to structural problems, and all the pre-clinical activities, including the anatomy room, had to move to the Piano D'Accio Campus, modifying the organization of VTH and the anatomy and pathology activities previously settled within the Molinari and Piano D'Accio buildings, respectively.

In 2019 an investment of 18 million of euros was decided thanks to an agreement between the Abruzzo region and the University of Teramo, in order to build a new permanent facility that will host all the teaching rooms, the pre-clinical sciences laboratories and the pathology room. The new facility located in the Piano D'Accio Campus, will be ready within the next three years.

The Faculty of Veterinary Medicine of Teramo was evaluated by the EAEVE in 2007 for the first time. At that time the major deficiencies were:

- The lack of separation between anatomy and necropsy facilities
- Lack of a 24hr emergency service

The Faculty of Veterinary Medicine of Teramo was evaluated by EAEVE for a second time in 2010, receiving the full approval. At that time, a period of two years was agreed with the Faculty for the correction of the deficiencies, followed by a re-visitation. In 2009, a major earthquake (L'Aquila earthquake) struck the region; the Faculty and its staff played a major role in the local disaster relief plan, and many efforts were carried out to remedy the said deficiencies. The construction of the new campus also was significantly hampered. ECOVE therefore granted an extension of one year for the re-visitation. The re-visit took place therefore within the agreed period. The 24hr/7-day a week emergency service was fully operative in Cartecchio, while the necropsy facility was built in the Piano D'Accio Campus, featuring all equipment and procedures necessary for necropsy of carcasses of all types, including large animals. A proper waste management, refrigeration and bio-safety measures were activated. This new facility, combined with an increasing caseload in necropsy and the determination of the staff to put this unit to the best possible use, was convincing evidence that this category 1 deficiency was rectified, too.

The Establishment is one of 13 Schools of Veterinary Medicine in Italy. It is located in Abruzzo, the greenest region of Europe [200400 ha of protected area (National Parks) - 36% of total surface of the region]. The standard of clinical assistance is acknowledged as a reference point by the public and the veterinary professionals. It is based on a constant relationship-exchange with stakeholders, including private professional associations and public entities (i.e. Istituto Zooprofilattico Sperimentale, Abruzzo regional veterinary service). Indeed, the VMF shows a high number of selected practitioners working at VMF facilities or agreements for External Practical Trainings on companion animals, wild and food-producing animals.

The staff is highly qualified in terms of teaching and research. The Degree in Veterinary Medicine Programme (DVMP) of Teramo is very appealing, and despite the number of places limited to 51 in the a.y. 2018-2019, the number of applicants taking the admission tests was 446 students (ratio 1:9). The fair and easy exchange relationship between students, academic and support staff allows a welcoming environment for learning and education.

The Faculty has got a high quality of scientific publications and for this from 2017 the VMF has been designated as "Department of Excellence" by MIUR on the basis of a national competitive research programme. As "Department

of Excellence” the VMF slightly increased the number of full-time professors and young researchers/assistant professors and will improve the laboratory equipment for teaching and research.

The QA system is well developed: the DVMP achieved the ANVUR accreditation in 2017 and the ISO 9001:2015 quality standards validation in 2019.

The degree programme presents innovative and updated teaching courses (emergency management, practice management, comparative oncology, emerging parasitosis, veterinary biodiversity, and other elective courses as specified in Standard 3).

The Students are continuously involved in the Degree Programme committees, in teaching evaluation and management, and in the research activities for the degree thesis preparation. They have several opportunities of high-level international mobility, with a specific programme for students and teachers (Erasmus+ Study and Erasmus+ Traineeship Programmes, International Veterinary Student Association - IVSA). Furthermore, graduates may choose among a wide post-graduate teaching package (four post-graduate schools, one PhD course, masters and post-graduate courses) (see Standard 10).

Finally, the establishment shows an advantageous location easy to reach by public transportations (railway station just in front of the main entrance of the Faculty).

Brief summary of the main developments since the last Visitation

Major regulatory changes have taken place for all Universities at a National level with the approval of the law 240/2010. This law introduced a new composition of the Academic Senate and the Board of Directors of the Universities. Departments (represented by Faculties in the University of Teramo) are now directly involved in teaching and research organization and activities. Regarding teaching staff, the permanent researcher position termed RU was abolished and substituted by fixed-term researcher position. The staff belonging to the permanent researcher position can progress in their career to associate professor or retire as such.

The new position dedicated to research (RTD) are temporary positions of two types: RTD-A with a 3-year contract renewable for 2 years, and then becoming tenure track positions; RTD-B of 3 years, leading to the position of associate professor.

Since 2012, the development and implementation of an internal Quality Assurance (QA) system has been a major progress from the last EAEVE evaluation. The Educational QA Committee has contributed to raise teaching staff awareness on teaching quality issues and to help appropriate bodies to improve DVMP quality. One of the primary objectives of the internal QA system is the achievement of continual improvement of processes through a Plan-Do-Check-Act process.

In recent years, MIUR funding for hiring and managing teaching and research have decreased progressively. However, thanks to the participation of the Abruzzo Region, major investments for the construction of the Piano D’Accio campus were done, totalling approximately 18 million Euros. The law 240/2010, transferring the financial support for teaching to the Departments (Faculties for the University of Teramo), brought a consequent re-organization of the financial flows. The financial support to clinical activities comes in part from the revenues of the VTH that are now directly managed by the Faculty (e.g. teaching animal maintenance) and in part from public funding. The compulsory closure of the Molinari building in 2013 forced some research units (Microbiology and Infectious Diseases of Animals, Parasitology, Pathology, Embryology, Animal Food Sciences) to move into the Piano D’Accio facility modifying general management, area organization and the biosecurity paths. The reduction in Government fund allocation has increased difficulties in hiring academic and support staff. On the other hand, high public costs to maintain the degree programme, complex and slow Public Administration procedures and late final ranking list flow of the first-year enrolled students by MIUR, are problems that the Establishment cannot resolve itself.

Finally, the Faculty is located in a region with a low density of livestock animal population.

Version and date of the ESEVT SOP which is valid for the Visitation: ESEVT SOP 2019 - 30 May 2019, Zagreb



STANDARD 1: OBJECTIVES, ORGANISATION AND QUALITY ASSURANCE POLICY

1.1 The Establishment 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 Establishment must develop and follow its mission statement which must embrace all the ESEVT standards.

Main objective

In agreement with the EU Directives, ESG recommendations and ANVUR guidelines, the main objective of the Veterinary Medicine Faculty (VMF) is to provide an adequate, ethical, research and 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.

Mission Statement

The VMF targets are to give and produce knowledge and competences, concerning basic and professional veterinary sciences:

1. guaranteeing health and welfare of companion, wild and food producing animals and, consequently, of human beings;
2. promoting efficient and sustainable animal productions;
3. assuring guaranteed food quality and safety;
4. ensuring knowledge of European and national veterinary organizations;
5. giving knowledge of veterinary laws and regulatory procedures on a worldwide, European and national perspectives;
6. promoting adequate research-based and evidence-based veterinary lifelong education and training.

VMF ensures that the curriculum enables all new graduates to perform as a veterinarian capable of entering all commonly recognised branches of the veterinary profession through:

- the reports of the stakeholders (at least once a year during the meeting of the Career Day) (https://www.unite.it/UniTE/Career_day_2019), and the questionnaires for the collection of the opinions of the supervisors after the mandatory periods of External Practical Training (EPT);
- the consultations of the AlmaLaurea database on the employment situation of the graduates one, three and five years after the degree (<https://www.almalaurea.it/en/universita/indagini/laureati/occupazione>). For example, the link relative to 2018 situation of the VMF graduates is reported here: <https://www2.almalaurea.it/cgi-php/universita/statistiche/framescheda.php?anno=2018&corstipo=LSE&ateneo=70118&facolta=450&gruppo=7&pa=70118&classe=11047&corso=tutti&postcorso=0670107304300001&isstella=0&presui=1&di-saggregazione=&LANG=en&CONFIG=profilo;>

- during specific-purposed meetings organized by the Establishment (https://www.unite.it/UniTE/Medicina_veterinaria/Convegni_e_seminari_Medicina_Veterinaria/Ad_un_passo_dalla_professione_un_incontro_fra_laureandi_della_Facolta_di_Veterinaria_e_giovani_veterinari; https://www.unite.it/UniTE/Medicina_veterinaria/Convegni_e_seminari_Medicina_Veterinaria/Il_nuovo_Medico_Veterinario_dalla_didattica_alla_professione_evento_formativo_alla_Facolta_di_Medicina_Veterinaria)

1.2 The Establishment must be part of a university or a higher education institution providing training recognized as being of an equivalent level and formally recognized 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 of the Establishment must allow implementation of its strategic plan and of a cohesive study program, in compliance with the ESEVT standards.

Name of the Establishment: Veterinary Medicine Faculty (VMF)

Address: Strada Provinciale 18 – 64020 – Piano d’Accio (Teramo)

Phone number: (39) 0861.266864/6863/Fax number: (39) 0861.266929

Email: didatticavet@unite.it/**PEC:** protocollo@pec.unite.it

Website address: https://www.unite.it/UniTE/Medicina_veterinaria

Head of Establishment: Augusto Carluccio (Full professor, DVM, PhD)

Name of person responsible for the Veterinary Teaching Hospital (Professional, ethical and academic affairs): Augusto Carluccio (Full professor, DVM, PhD)

Official Authorities overseeing the Establishment: Italian Ministry of Education, University and Research (MIUR) and Rector of the University of Teramo – Dino Mastrocola (Full professor)

VMF is firmly convinced that the degree programme in Veterinary Medicine has to belong to the highest educational standards. It aims to be consistent with the highest quality standards. i.e.:

- EU Directives;
- European System of Evaluation of Veterinary Training (ESEVT);
- National Agency for the Evaluation of Universities and Research Institutes (ANVUR) (see Standard 3).
- The VMF organisational chart is reported in Figure 1.1 The VMF is the Establishment and it is responsible for the DVMP. It is dependent on the University of Teramo (UNITE) and MIUR. UNITE is a public university dependent on the MIUR. The University’s central government is the Rector and two collegiate bodies:
 - The Academic Senate (AS), which sets out the university’s operational and developmental strategies and coordinates educational and scientific activities. It is coordinated by the Rector.
 - The Board of Directors (BoD), which oversees financial resource procurement, economic/cultural asset management and technical and administrative staff management. The Managing Director leads the administrative structure, coordinates the work of the technical and administrative staff and implements the plans and objectives set down by the governing bodies.
- UNITE includes 5 administratively and organisationally autonomous Faculties, 20 degree courses, 6 doctoral programmes (PhD) and 6 post-graduate schools. Detailed information is available on the UNITE website (<http://www.unite.it>).
- The Head of the VMF is the Dean. He represents the Faculty, and acts as director and manager. The Dean is elected by the academic staff and by the representatives of administrative and technical staff and students for a three-year term and can only be re-elected once. The Deputy Dean is nominated by the Dean and works on teaching and research issues with the Dean.
- The VMF is governed primarily via the VMFB which is coordinated by the Dean, both supported by various committees and boards. Changes in policy and procedures are made through those supporting committees and boards, with the final resolutions resting within the VMFB before, and the AS and BoD after

VMF ORGANISATIONAL CHART

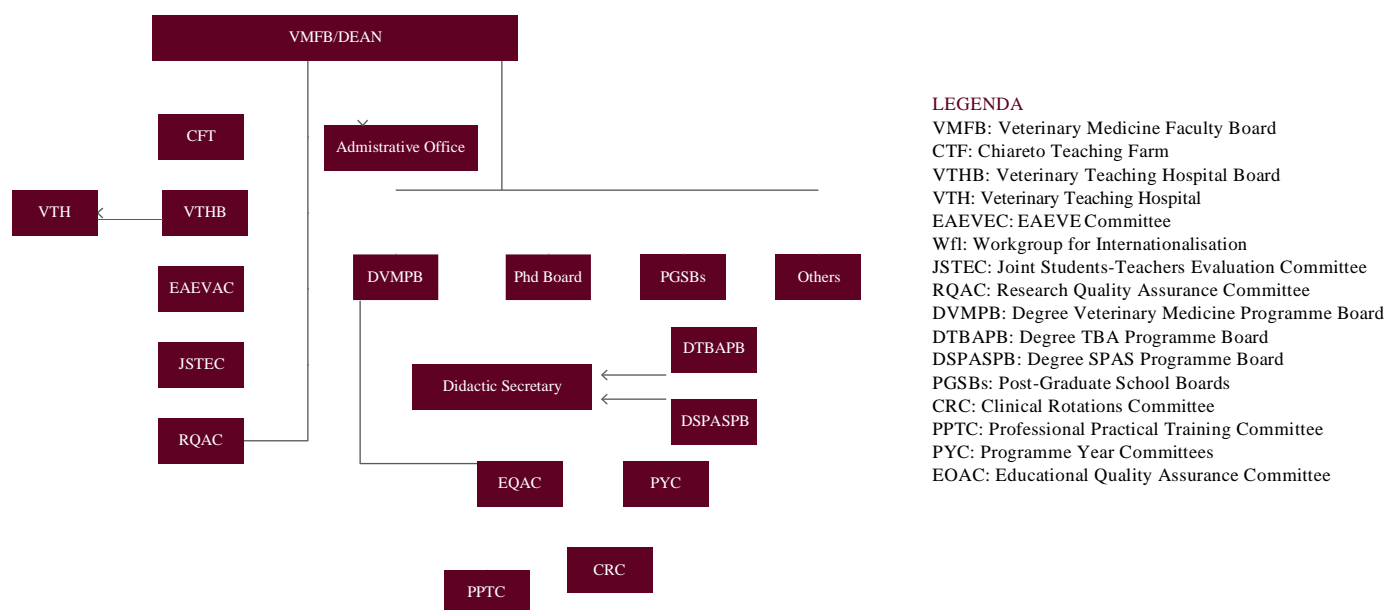


Figure 1.1. Organisational chart of the Faculty of Veterinary Medicine of the University of Teramo

The VMF is not articulated in departments or units. All the activities (teaching, research, third mission) are organised by the faculty. In order to guarantee the best performances of the above activities, the VMF is composed of members set in several academic areas, corresponding to different scientific disciplines:

Agr/01 – Agricultural Economics and Rural Appraisal: 1 Associate Professor (AP), Agr/18 – Animal Nutrition and Feeding: 1 AP, 1 Permanent Researcher (PR), Agr/19 – Animal Science: 1 AP, 2 PR, 1 Temporary Researcher (TR), Bio/10 – Biochemistry: 3 PR, Fis/07 – Physics: 1 AP, Vet/01 – Veterinary Anatomy: 2 Full Professor (FP), Vet/02 – Veterinary Physiology: 1 FP, 1 AP, Vet/03 – Veterinary Pathology: 1 FP, 1 AP, 2 PR, Vet/04 – Inspection of Foods of Animal Origin: 1 AP, 2 PR, Vet/05 – Infectious Diseases of Animals: 1 FP, 3 AP, 1 TR, Vet/06 – Parasitology and Animal Parasitic Diseases: 1 FP, 1 AP, 1 PR, Vet/08 – Veterinary Clinical Medicine: 1 FP, 4 PR, Vet/09 – Veterinary Clinical Surgery: 1 FP, 2 AP, 1 TR, Vet/10 – Veterinary Clinical Obstetrics and Gynaecology: 2 FP, 1 PR, 1 TR.

The VMF has two internal facilities intended for teaching, research and third mission activities. These are the VTH and the Chiareto Teaching Farm (CTF). The Dean coordinates the activities of both facilities.

The VTH is located in the Piano D'Accio Campus, and is organised in Services: Veterinary Emergency, Small Animal Internal Medicine, Equine Medicine and Surgery, Diagnostic Imaging and Small Animals Surgery, Small Animal Internal Medicine, Small Animal Theriogenology, Large Animal Theriogenology, Veterinary Pathology, Microbiology, Infectious and Parasitic Diseases.

The CTF is located in the district of Chiareto, about 8 km far from the Piano D'Accio Campus. It is the facility where the VMF holds livestock for teaching, research and third mission purposes.

List of the councils/boards/committees

Veterinary Medicine Faculty Board (VMFB): Chaired by the Dean of the VMF, is the Faculty governing body. It is made up of all the Faculty's academic staff (10 full professors, 13 associate professors, 16 permanent researchers, 4 temporary researchers), representatives of its administrative and technical staff and representatives of students. It meets regularly (on average 10-11 times per year). It is responsible for final approval of teaching issues decided by the DVMPB and for annual financial and functional management of the Faculty activities. The VMFB provides recruitment strategy proposals for teaching, administrative and technical staff enrolment that is subsequently submitted to the UNITE Boards for a final decision.

Joint Student-Teacher Evaluation Committee (JSTEC): The Committee has monitoring duties on the teaching quality of the different courses of the Establishment and on teachers' activities and services. It is made up of 3 students and 3 teachers representative.

Degree in Veterinary Medicine Programme Board (DVMPB): It is the body responsible for DVMP teaching activities. It is made up of VMF academic staff and that of other UNITE Faculties teaching in the DVMP (See Appendices 1 and 2).

Educational Quality Assurance Committee (EQAC): It establishes the quality assurance procedures for the teaching processes, and it is in charge for quality evaluation and improvement. It is made up of 5 members of the academic staff, 1 of the administrative staff and 5 students. The President of the Veterinary Practitioners Association of Teramo, as the main Stakeholder, can be invited to discuss on topics of specific interest.

Programme Year Committees (PYCs): There are five committees (one for each curricular year) composed of 2 teachers (one from the EQAC Committee and one teaching in the corresponding year) and 2 students (one from the corresponding year and member of the EQAC Committee and one from the following course year).

Clinical Rotations Committee (CRC): It is responsible for the organization of the student's clinical rotations. It is made up of three clinicians of the academic staff.

Professional Practical Training Committee (PPTC): It is the body responsible for the organization of the professional practical training and it is made up of six veterinarians chosen among the academic staff.

Veterinary Teaching Hospital Board (VTHB): It coordinates all the activities in the VTH, including teaching. It is composed of the coordinators in charge of the different Clinical Services of the VTH.

Biosecurity Committee (BC): It establishes all the procedures for infection control, biosecurity and biosafety as essential functions for all healthcare and research facilities of the VMF, including the VTH. It is made up of four veterinarians among the academic staff and one member of the technician staff.

Research Quality Assurance Committee (RQAC): It is responsible for outlining scientific policies and research strategies of the VMF. It is composed of eight members of the academic staff.

EAEVE Faculty Committee (EAEVEC): It coordinates the application and monitoring of SOP for EAEVE accreditation, as well as Self Evaluation Report (SER) preparation. It is composed of 10 members of the academic staff and 3 students.

Placement Faculty Delegate: The University of Teramo runs a Job Placement Service (https://www.unite.it/English/Information_for_students/Job_Placement_Service), with the aim of facilitating graduates' transition from University into the labour market, streamlining the operating systems as well as improving the coherence between the studies carried out and the professional profiles. It also provides specific services to both graduates and stakeholders in order to carry out internships/traineeships aimed at entering the labour market. The VMF appoints a delegate chosen among the academic staff.

University Quality Assurance Committee (UQAC) Faculty Delegate: The UQAC is the body supervising all the teaching and research quality procedures of the University of Teramo (<https://www.unite.it/UniTE/Engine/RAServePG.php/P/202151UTE0431>). The VMF appoints a delegate chosen among the academic staff.

Student Guidance Faculty Delegate: The University of Teramo has established a Guidance Committee with the specific objective to act as a lever to reduce academic dropout, limit the interruption or extension of the university path, and contain the phenomenon of unemployment (it aims to "help people to identify and build fully satisfactory training and professional paths"). The VMF nominates a delegate chosen among the academic staff (https://www.unite.it/UniTE/Medicina_veterinaria/Orientamento_Medicina_veterinaria).

Disabled Students Integration Committee Faculty Delegate: The Committee (https://www.unite.it/UniTE/Servizi/Servizi_per_la_disabilita) outlines the activities to undertake in order to help disabled students. The VMF nominates a delegate among the academic staff.

ERASMUS+ Faculty Delegate: The University of Teramo is involved in the Erasmus+ mobility programme, the new programme combining all the EU's current schemes for education, training, youth and sport (https://www.unite.it/UniTE/Internazionale/Erasmus_Studio_Programme_Countries_EU). The VMF nominates a delegate among the academic staff.

Supervisor for Training Courses on Safety and Health in the Workplace: The VMF organizes compulsory courses on safety and health in the workplace, for the students who will attend the teaching and research facilities of the Faculty. The VMF appoints a supervisor among the academic staff.

Student's Administrative Procedures Committee (SAPC): It is the Faculty's body involved in the evaluation of the career of the students enrolled in other Veterinary Medicine Establishments and asking to continue their university studies at the VMF of Teramo. It is composed of three members of the academic staff and one of the administrative staff.

Description of the formal collaborations with other establishments: In order to allow the students to attend external activities in the teaching and research fields, the VMF signed several agreements with other establishments. (https://www.unite.it/UniTE/Engine/RAServeFile.php/f/news/scheda_di_riepilogo_convenzioni_27_1_20_-_Per_studenti_MedVet_-_Copia.pdf)

Responsible for the veterinary curriculum: Prof. Donato Traversa, DVM, PhD, Dip EVPC

1.3 The Establishment 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.

STRATEGIC PLAN

The current Strategic Plan (SP) of the VMF, according to the Dean's electoral programme, was presented in June 2019 (2019-2021), at the beginning of his second term https://www.unite.it/UniTE/Engine/RAServeFile.php/f/Programma_elettorale_CARLUCCIO.PDF

The programme includes several actions planned to improve the Establishment quality and performances in the three main fields of its mission: Teaching, Research and Third mission, as established by the Strategic Plan (https://www.unite.it/UniTE/Engine/RAServeFile.php/f/operazionetrasparenza/PIANO_STRATEGICO_2019_2021_definitivo.pdf) and Ethics Code (https://www.unite.it/UniTE/Engine/RAServeFile.php/f/regolamenti/Codice_etico.pdf) of the University of Teramo.

Furthermore, the VMF and the Veterinary Medicine Degree Programme (VMDP) were validated on the basis of the ISO 9001:2015 quality standards. To these aims, a document for quality assurance policy was signed by the Faculty in December 2019. https://www.unite.it/UniTE/La_facolta_di_Medicina_veterinaria_accreditata_per_il_sistema_di_gestione_per_la_qualita_1

Vision: the VMF pursues the improvement of the society by high-level teaching, basic and applied research, firm cooperation with the Public National Health Services and environmental protection in synergy with the productive world.

Teaching aims

1. To improve and support the quality, attraction and the efficiency of the Veterinary Medicine Degree Programme, in accordance with international (EU directives, ESEVT) and national (ANVUR) guidelines.
2. To improve and support teaching facilities.
3. To promote high-standard and international teaching.

Research aims

1. To set up a Board to manage and improve research activities.
2. To develop and support research training for young people recruiting young researchers based on their scientific competences.
3. To improve the main VMF research targets (companion animal, public health, sustainable animal production, etc.).
4. To improve facilities and equipment for basic and applied research.
5. To promote the dissemination of the VMF research activities, in order to get national and international funding for research and for international scientific relationships.

Third mission (technology and knowledge transfer):

1. To set up a Third Mission Board to manage and improve the related activities.
2. To develop and improve activities with social implications.
3. To support the development of the VTH and the CTF and their facilities
4. To develop and improve research result transfer.
5. To promote lifelong education and training for public veterinarians and practitioners.
6. To publicize activities performed at the VMF by organizing activities for the students of primary and secondary schools.
7. To act as an active part in job placement for young graduate students.

SWOT ANALYSIS

1) Strengths

- a) High quality of scientific publications.
- b) In 2017 the VMF was awarded "Department of Excellence" by the MIUR on the basis of a national competitive research programme.
- c) As "Department of Excellence" the VMF increased the number of full-time professors and young researchers/assistant professors.
- d) As "Department of Excellence" the VMF has planned to improve the laboratory equipment for teaching and research purposes.

- e) It has a qualified QA system for teaching and had ANVUR accreditation in 2017.
- f) It has an innovative and updated degree course (featuring emergency management, practice management, comparative oncology, emerging parasitosis, veterinary biodiversity and other elective courses as specified in Standard 3).
- g) Close and mutual exchange relationships between the students and the teaching and technical staff.
- h) High number of selected practitioners working at VMF facilities.
- i) High number of agreements for External Practical Trainings (EPT) on companion animals, wild and food-producing animals https://www.unite.it/UniTE/Engine/RAServeFile.php/f/news/scheda_di_riepilogo_convenzioni_25_9_19_-_Per_studenti_MedVet.pdf
- j) Continuous involvement of students in the degree committees and teaching management.
- k) Involvement of students in the research activities for the degree thesis preparation.
- l) High number of candidates participating in the admission test compared to the given position (2018 – 1:9).
- m) Several opportunities of high-level international mobility for students and teachers (Erasmus+ Study and Erasmus+ Traineeship Programmes, International Veterinary Student Association — IVSA).
- n) Good relationships with the national and local public veterinary services (Istituto Zooprofilattico Sperimentale, Abruzzo regional veterinary service).
- o) Wide post-graduate teaching package (four post-graduate schools, a PhD course, several masters and post-graduate courses) (see Standard 10).
- p) The VMDF was validated by ISO 9001:2015 quality standards in 2019.
- q) The VMF is located in the Abruzzo Region, named the Green Region of Europe (200400 ha of protected area (National Parks) — 36% of total surface of the region).
- r) High motivation and enthusiasm of teachers and researchers.
- s) Strategic position easy to be reached by public transportations (railway station just in front of the main entrance of the Faculty).

2) Weaknesses

- a) The compulsory closure of the Molinari building in 2013 forced some research units (Microbiology and Infectious Diseases of Animals, Parasitology, Pathology, Embryology, Animal Food Sciences) to move into the Piano D’Accio building modifying the general management, logistics and area organization, and the biosecurity paths.
- b) Low number of members of the teaching and technical staff.
- c) Shortage of public funding.
- d) Late final ranking list flow of the first year enrolled students by MIUR.
- e) High costs for maintaining the degree programme.
- f) Complex and slow Public Administration procedures.
- g) The location in a region with a low density of people and livestock animal population.

3) Opportunities

- a) The Piano D’Accio new buildings (see Standard 4) will facilitate and implement all the VMF activities.
- b) The established involvement of public and private stakeholders in the evaluation and revision of the current VM Degree Programme.
- c) As “Department of Excellence” the VMF has planned to increase the number of young researchers through various PhD and post-doc fellowships.
- d) As “Department of Excellence” the VMF has planned to improve the equipment for teaching and research purposes.
- e) Teramo municipality is friendly and allows a good quality of life with reasonable costs.
- f) The recently established system for quality assessment will improve the undergraduate “career” progression.

4) Threats

- a) Need to harmonize the ANVUR and EAEVE accreditation systems.
- b) High costs for education degree, including maintenance for the VTH and other Faculty facilities.
- c) Limitations on human resource hiring, due to the shortage of public funds.
- d) Italian university laws hinder the appropriate management of students not aligned to the exam schedule,

- causing the extension of the career of the students.
- e) To date there is no information on the guidelines for the next Research Quality Evaluation (VQR) for 2015-2019.
 - f) Insufficient public research grants and funding for specific topics as companion animals and wildlife.
 - g) Unpredictable number of enrolled students per academic year assigned by MIUR.
 - h) No possibilities to reward the worthiest members of the teaching staff.

List of objectives, and the operating plan with a timeframe and indicators for its implementation

AIMS	TARGETS	ACTIONS	IMPLEMENTATIONS
Teaching*	Improving and supporting the quality, attraction and the efficiency of the DVMP, in accordance with international (EU directives, ESEVT) and national (ANVUR) guidelines	Reviewing of the curriculum in accordance with specific feedbacks by the stakeholders	ongoing every year
		Monitoring the career of the students and implementation of the corrective actions	achieved
		Specific seminars for teachers to improve their teaching skills	ongoing
		Small groups of students attending clinical teaching activities	achieved
		Specific seminars on Day One Competencies on subjects not covered by the curriculum	achieved
		Animal models and dummies acquisition	in progress
	Improving and supporting teaching facilities	VTH teaching activities managed by a specific software (Fenice)	achieved
	Promoting high-standard and international teaching	Promotion of high-quality PhD courses	achieved
		Lifelong continuing education	achieved
		Residency programmes	achieved
Research**	Setting up a Board to manage and improve the research activities	Monitoring the research products	ongoing every year
	Developing and supporting research training for young researchers recruited on the basis of their scientific competencies	Demetra Project – Department of Excellence, MIUR	ongoing
	Improving the main VMF research targets (companion animal, public health, etc.)	Demetra Project – Department of Excellence, MIUR	ongoing
	Improving facilities and equipment for basic and applied research	Demetra Project – Department of Excellence, MIUR	ongoing
	Promoting dissemination of VMF research activities, in order to get national and international funding for research and for international scientific relationships	Meeting participations and fund-raising activities	ongoing
Third mission (technology and knowledge transfer) **	Setting up a Third Mission Board to manage and improve the activities		
	Developing and improving activities with social implications	Pet-therapy activities in secondary schools in cooperation with social associations	ongoing
	Supporting the development of the VTH and its facilities or CTF and its facilities		ongoing
	Developing and improving research result transfer		
	Promoting lifelong education and training for public veterinarians and practitioners	Meeting on specific subjects	ongoing
	Publicizing activities performed at the VMF by organizing activities for the students of primary and secondary schools	Organization of activities for the students of primary and secondary schools	ongoing
	Acting as an active part in job placement for young graduate students	Meeting with work agencies	ongoing
Job Placement workshops		ongoing	

Ongoing: the task is not finished and will continue for some time into the future; In progress: the task is close to be fulfilled.

* The list of the indicators used for evaluation of the teaching objectives is established by ANVUR and yearly discussed in the Annual Monitoring Report (AMR), (Appendix 4). ** The list of the indicators used for evaluation of the Research and Third mission is provided in Appendix 4 (Documento di Facoltà su politiche della qualità della ricerca e terza missione 2019-2021).

1.4 The Establishment must have a policy and associated written procedures for the assurance of the quality and standards of its programs and awards. It must also commit itself explicitly to the development of a culture, which recognizes the importance of quality, and quality assurance, within their Establishment. To achieve this, the Establishment must develop and implement a strategy for the continuous enhancement of quality. The development and implementation of the Establishment’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.

The University of Teramo has got a quality assessment system https://www.unite.it/UniTE/Qualita/Sistema_della_qualita which all the Faculties have to comply with.

As reported in Appendix 4 and Standards 3 (point 3.4) and 8 (points 8.2, 8.3 and 8.4), the Faculty has developed and improved a quality assessment system in which teachers and students cooperate to reach high-quality standards in the field of teaching. The Faculty has built a quality flow chart (Figure 1.2) visible as information in every teaching room and useful for students.

Briefly, the **Educational Quality Assurance Committee** is the main and specific quality assurance Committee for the Internal Quality Assurance System of the DVMP. It performs a periodic and systematic self-evaluation monitoring process of the course, and analyses, evaluates and proposes to the DVMPB all measures required to improve the teaching quality.

QUALITY ASSURANCE FLOW CHART

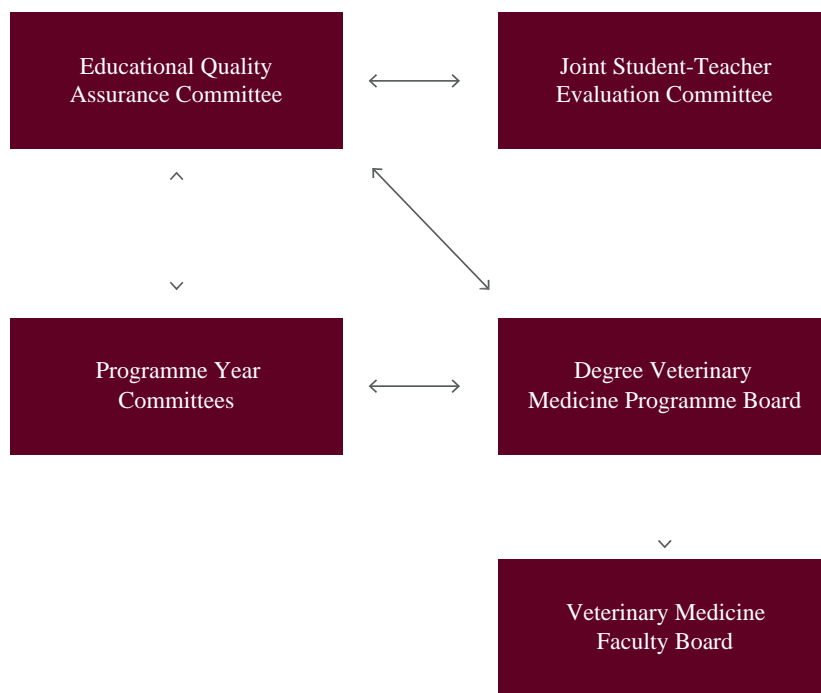


Figure 1.2. Teaching Quality Assurance flow chart of the Faculty of Veterinary Medicine of the University of Teramo.

The **Programme Year Committees** are involved in the processing of the proposals for the improvement of the VM curriculum.

The **Joint Student-Teacher Evaluation Committee** receives suggestions, complaints, indications, opinions and corrective actions presented by academics and students through their representative members. Through its committees and bodies, the VMF acts the control and continuous improvement of quality processes by a typical Plan-Do-Check-Adjust (PDCA) cycle.

The functions of these committees related to the QA process are described in Standard 3 (Point 3.3).

Furthermore, the Faculty, as part of the Italian academic system, in 2017 was visited by a Ministry team to evaluate the quality of the facilities and the teaching organization [ANVUR (ENQA member https://www.anvur.it/wp-content/uploads/2019/07/Letter-ENQA-to-ANVUR_July-2019.pdf) accreditation]. The result of the visit was highly positive <https://www.anvur.it/wp-content/uploads/2018/10/Rapporto-AP-Teramo-2017.pdf> (page 22). The

ANVUR rules are totally compliant with ESG standards, as ANVUR is an ENQA member (see above). The next ANVUR visit is planned five years after the previous one. Finally, as reported above, the VMF in general and DVMP in particular were validated according to the ISO 9001:2015 quality standards. https://www.unite.it/UniTE/La_facolta_di_Medicina_veterinaria_accreditata_per_il_sistema_di_gestione_per_la_qualita_1

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

The VMF of Teramo as a public institution has to show clear information on its teaching and research activities. All the information is easily available for everyone on the UniversItaly Ministry website (<https://www.universitaly.it/index.php>). Furthermore, the University of Teramo yearly organizes an event called "Career Day" where the companies acting as stakeholders for veterinarians meet the students, and participate in a special meeting with the VMFB to discuss the curriculum organization and measures for enhancement of day-one competences and skills improvement https://www.unite.it/UniTE/Career_day_2019.

Furthermore, by consulting the AlmaLaurea database, the stakeholders and general community may evaluate the data relative to the occupational situation of the VMF graduates one, three and five years after the degree (<https://www.almaurea.it/en/universita/indagini/laureati/occupazione>).

Through the Degree Programme Annual Factsheet (DPAF) downloading from the UniversItaly website <https://www.universitaly.it/index.php/scheda/sua/45145>, everyone interested in the Faculty activities and aims, may get information on the profile of the VMF student population. Finally, on the Faculty website it is possible to download all the information on the 2010 EAEVE approval https://www.unite.it/UniTE/Accreditamento_Europeo_Medicina_Veterinaria.

1.6 The Establishment 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 Establishment 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.

The current Strategic Plan (SP) of the VMF, according to the Dean's electoral programme, was presented in June 2019 (2019-2021), at the beginning of his second term. The programme includes several actions planned to improve the Establishment quality and performances in the three main fields of its mission: Teaching, Research and Third Mission, as established by the Strategic Plan and Ethics Code of the University of Teramo. Before it was discussed in the VMFB and then published on the website.

VMF organisation is largely established by national legislation. The UNITE Statute determines the organisation, function and composition of Faculties and teaching boards. All other bodies, boards, committees and services are assessed, revised and approved by the VMFB (Figure 1.1). Changes in policy and procedures (including QA assessment, Figure 1.2) are made through those supporting committees and boards, with the final resolutions resting within the VMFB before, and the AS and BoD after. All the decisions are published on the website of the university (https://www.unite.it/UniTE/Ateneo/Statuto_e_regolamenti).

Finally, as a public institution, the VMF has to prepare the DPAF (see Appendix 4) which may be consulted from everyone interested in the Faculty activities and aims. The DPAF is published on the UniversItaly website <https://www.universitaly.it/index.php/scheda/sua/45145>.

Criticisms and weaknesses in the teaching activities are then analysed in detail by the Programme Year Committees, nominated by the DVMP Director, one for each course year (i.e. a total of 5 sub-Commissions), and reported to the EQAC.

1.7 The Establishment 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.

With reference to the 2010 EAEVE approval, the Faculty was approved with the promise that the major deficiency

related to the inadequate facility for necropsy procedures could be resolved by a new facility. In the Piano D'Accio campus (Appendix 3a) the new pathology room was built, and the deficiency resolved. Unfortunately, after 2013, the "Molinari" building, including the anatomy room, were permanently closed and, as a result, the anatomy and pathology activities were organized in the same facility located in the Piano D'Accio campus. To date both the activities are carried out in different days of the week (i.e. Monday and Tuesday anatomy activities, Wednesday free, Thursday and Friday pathology activities). At the end of each activity the room is cleaned and disinfected properly. However, as reported in the Standard 4 of the SER, the new necropsy service will be ready very soon. Furthermore, the VMF took into consideration the most important advice given by the Commission in 2007 about the improvements to be made on different stages of the training cycle. In the following paragraph the suggestions, the strategies adopted, and the results with the current situation are described.

Objectives & Strategy and Research - 2007 suggestions: The Faculty objectives were clear but heavily weighted in the direction of teaching. Research was very much subsidiary. It was suggested to modify this relationship in order to bring research more into the limelight and closer to equivalence with teaching in terms of research and clinical services funding. **Current situation:** The importance of research has grown considerably in recent years as a result of the new national evaluation and recruitment system. The Faculty in 2017 was evaluated positively and financed by the Ministry specifically for a Project of Excellence deriving from its research results.

Organisation and Finances - 2007 suggestions: The Faculty seems to have a limited influence on university policy. Consideration might be given at University and Federal Government level to increase the contribution of all students to their education. Since the Faculty does not have its own financial department, and uses the general University facilities, it does not have financial autonomy. Serious consideration should be given to increase substantially and progressively the fees. This is likely to reduce the number and therefore the burden of those students not aligned to the exam schedule. **Current situation:** The organization still depends largely on ministerial guidelines. Students taxation has been growing slightly in recent years, remaining however a general initiative of the University following ministerial guidelines. Part of the student's fees (specific contribution for students in the scientific area) is however now being made available for the master's degree programmes to support the training needs. Moreover, student fees increase as the student is not aligned to the exam schedule.

Curriculum; Physical Facilities & Equipment; Animals & Teaching Materials of Animal Origin - 2007 suggestions: *General Aspects:* The curriculum appears to be complete and covers all aspects outlined in the SOP. The balance of theory and practical work meets the SOP ratios, although improvements should be made. It was suggested to increase practical work in the earlier years and not just to concentrate it in the final year. It was strongly recommended by the team, to modify the 2nd year syllabus to relieve some of the excessively heavy burden currently borne by students in that year. Extramural work should also be introduced at a later stage so that students see more cases during the curriculum. The team praised the efforts which have been made to integrate basic subjects with later courses. *Basic Subjects & Sciences:* It was suggested that increasing the number of practical sessions in basic subjects would raise the comprehension level and it was recommended to make further efforts to integrate basic subjects such as anatomy, physiology, epidemiology and infectious diseases, pharmacology and pathology with clinical subjects and cases. *Animal Production/Farm Animal Health:* There is a need to demonstrate to students that herd health and clinical problems on individual animals cannot be separated and there should be more integration between the clinics and the herd health veterinarians. *Clinical Sciences:* There is a definite shortage of clinical veterinarians. Farm animal medicine and surgery, together with the teaching of radiology, need to be improved and the team has made many suggestions to help solve this issue. The introduction of a well-structured surgical exercise course using either isolated organs, cadaver materials or surgical models is strongly recommended. Specialisation, residency programmes, a 24hr emergency service and a targeted continuing education programme for local veterinarians will improve the referred caseload of small animals as well as horses. It is strongly recommended to provide for an area to house advanced imagery equipment in the new hospital. A future magnetic resonance imaging service (and/or CAT-scan) would not only be a valuable contribution to teaching, research and clinical services, it will improve the Faculty's image as an attractive referral centre of excellence. *Food Hygiene & Technology And Veterinary Public Health:* the number of practical training sessions in inspection and control of food of animal origin, i.e. primary products, and the exposure to animal slaughtering must be enhanced. Suggestion has been made to reduce the number of lectures and increase the practical training, particularly in ruminants and swine, in the slaughterhouses. **Current situation:** In 2010-2011, the Curriculum has been completely redesigned in a new study plan that mainly follow the 2007 EAEVE recommendation, easing the second year of the course and increasing and specifying the hours reserved to practical activities in the timetable of each course. A new compulsory practical activity has been introduced for each student to be held at the Veterinary

Teaching Hospital called Clinical Rotation (CR). It provides for the acquisition of 8 CFU (Credito Formativo Universitario = University Course Credit) and consists of a total of 4 weeks of purely practical activity with 12 consecutive hours to be carried out in daily and night shifts (including weekdays and holidays). The organization of the rotations is as follows: 1 introductory week in the first year, 1 week in the second year, 1 in the third year, 1 in the fourth and 1 in the fifth. The daily activity of the CRs is recorded in an appropriate CR Log-book. Each student has also available no. 8 CFU that can be acquired following several “*optional training courses*” or so-called “*Professionalizing Integrated Courses*” (PIC) of exclusively practical nature. The compulsory “practical training” (PPT), corresponding to 30 CFU (600 hours) is organized during the last year with the rotation of small groups of students in the 6 vocational areas. It includes two weeks of staff supervised work and 1 week dedicated to external practical training (EPT) in collaboration with ASL (national and state veterinary health organizations) and external practitioners. In the last study plan, veterinarian experts in herd health management have been included in the compulsory clinical PPT. Shortage of clinical veterinarians still remain a critical point even if the reduction in student number, the new curriculum organisation and the facilities in the teaching hospital have increased the opportunities that students can be taught in acceptably small groups. The Faculty is implementing a strategy to increase the number of assistant veterinarians involved in hospital activity and to involve Specialists in clinical disciplines (ophthalmology, oncology, etc.) which still are insufficient. A specialist in Veterinary Diagnostic Imaging has been hired as an Associate Professor. Surgical exercises using cadaver material have been also introduced. A 24hr emergency service is active as well as an agreement with the Regional health service has been made for the emergency care of injured and ill stray pets found in the territory of the entire Abruzzo region. An MRI service has been recently activated and the new necropsy facilities have allowed to increase the number of necropsies even if both these services should see an increase in their activity. An increase in the practical training sessions in inspection and control of food of animal origin, particularly in ruminants and swine, in the slaughterhouses has been organised during the compulsory PPT.

Teaching Quality & Evaluation - 2007 suggestions: *Teaching Methodology:* Students should be required to write or at least should be given the opportunity to write their thesis in English. The use of English books and literature should be encouraged and required. All disciplines should be encouraged to use the website to supply the students with the relevant teaching materials. Additionally, the need to write everything down during the lectures should be reduced by providing a syllabus so that students can concentrate on the lecture. The use of books or other more sophisticated information systems should be encouraged. The number of students not aligned to the exam schedule should be reduced by modifying the examination system.

Examinations: The final examination of a course should consist of multiple and different parts. For instance, an oral part, in combination with a written test and / or combined with assessment of the student during the practical activities or clinics. This will improve the validity of the examination. Try to implement a system where students are forced to stop in the earlier years, when they fail to pass the essential examinations, e.g. by opening the third year only for students who pass all examinations of the first year with a positive result, or at least strongly discourage students to start the third year when they have not completed yet 1st-year examinations. **Current situation:** Due to the policies in support of the Erasmus+ programmes, more than 50% of graduates within the normal duration of the course acquired at least 12 credits abroad, increasing the international approach to training. A new university IT platform was set up to provide students with the teaching materials needed to deal with each teaching course. The number of students not aligned to the exam schedule, mainly registered in the old university system study plan (47S) has been drastically reduced through a specific project. The examination system is still mostly defined by the Italian State but as a new rule approved in the DVMPB, teachers are required to provide ongoing evaluation tests (mainly written tests) as well as practical (for clinical courses) and oral evaluations. All the assessment methods are specified for each teaching course on the University website. Students who are not aligned to the exam schedule have the possibility to enrol as part-time students in the subsequent year in order to recover the gap with respect to the class they belong to.

Library & Educational Resources - 2007 suggestions: The physical facilities are not custom-made. Nevertheless, the impression has been gained by the team that the best has been made of the circumstances offered. Naturally, the whole question will be solved once the new buildings/Faculty have been completed within the next 2 years.

Current situation: The new buildings of the Faculty have improved the quality and availability of most of the facilities required for a good and safe environment for student training even if a suitable library is not available yet.

Admission & Enrolment - 2007 suggestions: The admission procedure needs to include an aspect of motivation and personality, rather than just the evaluation of largely non-biology related exam results. **Current situation:** Compared to the past, the selection of students today provides a unique national ranking that allows selecting more

skilled and motivated students.

Academic & Support Staff- 2007 suggestions: Technical support staff should be increased in numbers where possible and where not, a system of replacement for persons with unique and/or essential jobs should be established with clear staff assignments and appropriate additional training. **Current situation:** Over the past years Italy has experienced both effects of a dramatic international economic crisis and the implementation of national laws that have reduced government funding to universities. As one of the most expensive degree programme, Veterinary Medicine strongly suffered from this situation. Recruitment was particularly inadequate with low turnover and a low possibility of introducing new teaching support staff. A tendency to improve this topic seems to be underway at present.

Continuing Education and Postgraduate Education - 2007 suggestions: Enhance the patient referral system, increasing patient numbers and improving the hospital's image of an academic centre of excellence. Courses should become more profitable for the Faculty and generate more income. **Current situation:** A lot of work has been done to improve the visibility of the Faculty even if the local cultural context does not allow giving the right attention. The specialization courses offered are still numerous and successful and the Faculty often makes use of the funds deriving from them to support training activities also of the degree course.

Comments on Standard 1

The Italian veterinary education scenario has been markedly changed since the last EAEVE visitation due to major changes in national legislation that has reorganized the University Government bodies and the University system in general. From the last EAEVE visitation, the VMF has made big efforts to comply with the suggestions reported in the visitation report and the ANVUR rules. Furthermore, the presence of 13 DVMPs in Italy promotes competition, regarding development and attraction, with reduced economic resources from the MIUR and Universities. However, the QA systems introduced in past years, on the basis of the EAEVE and ANVUR rules, have undoubtedly contributed to define, more clearly, the Establishment's mission and objectives into a continuous and progressive development plan for the enhancement of the facilities and activities.

Finally, the unpredictable number of enrolled students per academic year assigned by MIUR and the continuous changes of the Italian laws in terms of young staff recruitment, do not allow a definitive plan for investments to improve teaching, research and third mission.

Suggestions for improvement on Standard 1

The VMFB and UNITE should aim to proceed and reinforce the following actions:

- to harmonize the ANVUR and EAEVE accreditation systems;
- to search for grants and funding, in order to support the high costs of the Degree Programme, including maintenance of the VTH and other Faculty facilities;
- to search for grants and funding for specific topics as companion animals and wildlife health and welfare;
- a re-organisation of DVMP curriculum is planned by the DVMPB in 2020. This will improve the institutional image, and better satisfy internal and external stakeholder and user needs;
- to include veterinary hospitals in the Italian Ministry of Health framework, together with human medical hospitals: this would ensure the availability of funds for public health and provide a larger caseload for students. This goal should be promoted together with UNITE and other universities in order to create a critical lobby at government level.



STANDARD 2. FINANCES

2.1 Finances must be demonstrably adequate to sustain the requirements for the Establishment 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).

From an economic and financial point of view, the University of Teramo (UNITE) is a virtuous University, since ISEF, SP and IDEB parameters (calculated by the MIUR) are within the legal limits (Legislative Decree 49/2012) with a trend in net improvement (2013-2017), proving that economic and financial sustainability is fully satisfied. The Economic and Financial Sustainability Index assesses the ratio between operating costs (such as rents and mortgage repayments), the availability of resources, such as the Ordinary Financing Fund and the student contribution, and the expenses for academic and administrative staff charged to the budget (including expenditure for teaching contracts and for assignments to university researchers). The SP index is the indicator of staff costs, while the IDEB is the indicator of indebtedness. On the basis of the ISEF, SP and IDEB parameters, the MIUR allocates an Ordinary Functioning Fund (FFO) to UNITE, which in turn allocates it to the different Faculties according to a three-year strategic financial plan, based on the university statute and on the national law n. 240/2010. This allocation is made by the Academic Senate, which must take into account the requests of each Dean submitted on the basis of the general objectives, as defined by the Veterinary Medicine Faculty Board (VMFB), the Faculty's roles in the management of the degree programmes, the type of degree programmes they manage (i.e., scientific studies or humanities), the type of post-graduate training offered by each Faculty (i.e., University Masters, PhD programmes), the number of staff and students. The main funding distributed by UNITE to the Faculty was called "Laboratory Contribution" until 2017, while today it is called the Faculty's Contribution. Other contributions that the University gives to the Faculties consist of scholarships, such as those for the PhD Programme in "Medical veterinary sciences, public health and animal welfare" (393,122 € for 3 years every 3 years), scholarships in support of teaching activities (66,000 €/year for 3 A.Y. – 2018/2019-2020/2021) and a specific fund of 25,000 € for the activation of mentoring contracts and support for training activities for the academic year 2018/2019, with the possibility of being renewed in the next academic years. Furthermore, Faculty funds include (though in a variable way) the revenue from clinical and diagnostic activities, resources received from private and public institutions, from European and international Institution, contracts and joint work agreements. Each type of Fund is managed differently and is subject to a different deduction by the Faculty and by the University (UNITE):

- i.** the funds related to institutional, national and international research projects, both public and private, are subject to a 5% deduction for Faculty administrative activities (i.e. refresher courses, missions for technical administrative staff, as well as PC purchases and printer rental).
- ii.** contracts and research agreements on behalf of third parties provide for a contribution to the University of 12% of the fee (5% in favour of the University common fund and 7% for the University's balance sheet to cover general expenses) and 5% payable to the Faculty to cover its overheads.
- iii.** the private financing deriving from diagnostic and clinical activities of the VTH undergoes a deduction equal to 20% for the purposes of the common expenses of the VTH itself.

The following table summarizes the types of funds that the Faculty may obtain, the allocation and management mechanisms (see annex of standard 10 for the research part):

TYPE OF FUND	ALLOCATION / MANAGEMENT MECHANISM
UNITE Faculty's Contribution/ Laboratory Contribution	i.e. student registration fees (university fees) collected by the central administration and allocated to the Faculty through internal negotiation processes within the Academic Senate
Additional Public Funds	i.e. European Projects, National Projects, Department of Excellence "Demetra project", Regional Agreements, stipulated by the Faculty but collected by UNITE central administration and allocated to the Faculty after having withheld general expenses.
Revenue from diagnostic/clinical activities and private research contracts	commissioned, managed directly by the Faculty or by the VTH, after having provided UNITE with the respective general expenses

In accordance with the University Statute, the Faculty is a centre of responsibility with autonomous management of its own funds. Each Faculty coordinates tools and resources and guarantees their efficient use, taking into account the autonomy of scientific research and educational activities. However, as a public institution, the Faculty depends mainly on self-financing and financing from the national budget. In this regard, in the years 2008-2012, the University of Teramo invested 15 million euros to build the facility where the Faculty of Veterinary Medicine currently operates. The funds used for the building of such premises were taken from the University profits. Previously, and during the last EAEVE visit, the Faculty was operating in the Cartecchio locations, which was a rented building.

In the coming years (2017-2022), the Faculty is going benefit from further public investments of around 13 million euros that are expected to be used for the extension of the Veterinary Medicine Campus. They derive from the Masterplan project - Structural interventions for the Abruzzo Region - Pact for the South (see annexes). On the land belonging to the located in Chiareto Teaching Farm (CTF), there is the passage of a methane pipeline. In 2019 a compensation was awarded to the Faculty for the use of this land for the construction of such work, quantified as 120,000 €, entirely invested in the structural redevelopment of the CTF and, further 70,000 €, invested in improving safety and welfare in work/education places.

Annual tuition fees: (https://www.unite.it/UniTE/Engine/RAServeFile.php/f/orientamento/Guida_tasse_uniteramo_2019_2020.pdf). University fees are not the same for everyone but shall be graduated according to criteria of fairness, solidarity and progressivity, as well as to each student's economic conditions. In addition, to grant access to capable and deserving students (but in difficult economic conditions), outstanding students pay less. Taxes are paid to University. Taxes are graduated based on the following two main parameters: i.e. last year's ISEE (Indicator of the Equivalent Economic Situation) value and additional benefits (exams, average grade, disability, working student, etc).

Composition of Tuition Fees		
<i>COA - Annual all-inclusive contribution</i>	<i>ADSU- Authority for the Right to Higher Education</i>	<i>Revenue Stamp</i>
It is the variable quota. Outstanding students with the lowest income pay less	It is the share of the Authority for the Right to Higher Education. It is the part of the taxes intended to guarantee the right to education	It is a stamp showing that a government tax has been paid. Currently it amounts to € 16

Students enrolled in the first year pay a COA fee which can range from € 0 (for students in difficult economic conditions, ISEE value <13000 €) to € 2160. Students enrolled in the years following the first, within the second supplementary year, pay a COA fee that varies from € 0 (for students in difficult economic conditions, ISEE value <13000 €, but with an adequate number of CFU/ECTS in their curriculum) to € 2160. Students enrolled in the third supplementary year and beyond, have a surcharge on fees – the COA can vary from € 435 to € 2650. Students pay taxes in 4 instalments. The first instalment is paid by November when students enrol or register in the years following the first. It amounts to € 200 + ADSU + Stamp duties and is the same for all students (except for students

exempted for financial conditions). The remaining 3 instalments each represent 33% of the remaining amount to be paid (2nd instalment by December, 3rd instalment by February, 4th instalment by April). The Teaching and Student Services Area annually proposes the update of the university fees to the Student Council. The Student Council (through their representative in the Academic Senate) may accept or propose changes. Subsequently, the changes are approved by the Academic Senate and then by the Board of Governors (CdA). The Abruzzo Region, through the Authority for the Right to Higher Studies (ADSU), provides exemption / scholarships / financial incentives for selected students, based on their commitment, results and personal income: 19 contributions were awarded to Degree in Veterinary Medicine Programme (DVMP) students in the 2017-2018 academic year, 18 in 2018-2019 and 18 in 2019-2020.

All costs managed by UNITE for the Veterinary Faculty are shown in the following tables (2.1.1a; 2.1.1b; 2.1.2; 2.1.3). Table 2.1.1a shows the costs incurred by UNITE for the Faculty of Veterinary Medicine (in €), while table 2.1.1b shows the data relating to Chiareto.

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

FVM	2019	2018	2017	Mean
Personnel ^{a+b}	5,263,724.41	4,834,461.78	4,703,407.29	4,933,864.5
Personnel: (FP, AP, PR, TR and Support Staff)	4,436,433.62	4,147,616.99	4,086,924.62	4,223,658.41
Personnel ^{a+b} (Teaching support staff)	27,752.96	27,781.96	27,791.78	27,775.57
Personnel ^{a+b} (Research Fellow, Scholarship, PhD ^{**})	799,537.83	659,062.83	588,690.89	682,430.52
Utilities (e.g) ^a	286,977.31	283,851.46	292,743.47	287,857.41
Telephone/Internet Management	20,641.09	20,049.26	25,969.81	22,220.05
water	7,636.22	6,942.02	6,381.91	6,986.72
electricity	198,500.00	196,970.92	199,857.24	198,442.72
gas	60,200.00	59,889.26	60,534.51	60,207.92
Operating Cost ^{a+b}	206,700.8	221,079.79	187,009.22	204,929.93
animals management ^c	53,183.55	53,183.55	53,183.55	53,183.55
cleaning Company ^c	85,553.32	85,553.32	85,553.32	85,553.32
Consumables ^c	67,963.93	82,342.92	48,272.35	66,193.06
Maintenance Cost ^a	69,668.10	69,668.10	69,668.10	69,668.1
Equipment ^c	3,180.46	6,276.29	1,011.38	3,489.37
VTH – Operating Cost ^c	160,855.72	139,382.16	155,189.16	151,809.01
Total	5,991,106.8	5,554,719.58	5,409,028.62	5,651,618.32

^afunded by University; ^bfunded by Faculty; ^cThe last full academic year prior to the Visitation; ^{**}According to the "Regulations for the accreditation, establishment and operation of PhD courses of the University of Teramo", PhD students can carry out supplementary teaching activities within a maximum limit of 40 hours in each academic year. In addition, PhD students in the medical and veterinary area can participate in clinical-assistance activities. They are not paid extra to do it; it is part of their training.

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

CTF	2019	2018	2017	Mean
Utilities				
water	4,200.00	3,140.80	5,248.56	4,196.45
electricity	2,200.00	2,327.61	1,754.89	2,094.17
Maintenance Cost	8,998.73	4,469.81	4,229.42	5,899.32 €
Operating Cost - animals management ^a	87,538.94	95,536.63	84,620.87	89,232.15
Total	102,937.67	105,474.85	95,853.74	101,422.09

^afunded by University; ^bfunded by Faculty; ^cThe last full academic year prior to the Visitation

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

Revenues source	2019	2018	2017	Mean
Public authorities such as the Ministry*	4,436,433.62	4,147,616.99	4,086,924.62	4,223,658.41
Public authorities such as the University**	553,651.87	553,063.18	552,334.08	553,016.38
Tuition fee (standard and/or full fee students)***	-	-	-	-
Faculty contribution****	66,695.00	70,837.00	88,800.00	75,444.00
VTH - Clinical and Diagnostic Services	314,904.42	274,016.42	332,506.00	307,142.28
Research grants				
University Funds	154,173.55	233,428.87	145,772.35	177,791.59
Faculty funds	93,826.04	23,775.97	47,551.94	55,051.3
Post-graduate Education				
PhD Scholarships	576,232.82	440,175.86	495,928.06	504,112.3
Scholarships	76,000.00	108,391.00	56,085.00	80,158.70
Donations	-	-	-	-
Total	6,271,917.32	5,851,305.29	5,805,902.05	5,976,374.89

*Personnel salaries are paid directly by Ministry, ** This item groups all the costs that the University pays directly without giving the budget to the Faculty***University fees are paid to the Athenaeum and are not directly perceived by the Faculty; ****Other sources - Faculty's Contribution/ Laboratory

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

Academic year	Total revenues	Total expenditures	Balance***
AY-3 2017	5,805,902.05	5,504,882.36	+ 301,019.69
AY-2 2018	5,851,305.29	5,660,194.43	+191,110.86
AY-1 2019	6,271,917.32	6,094,044.47	+ 177,872.85

***Total revenues minus total expenditures

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

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

The clinical activity is carried out by seven services (see annex) working within the VTH or in the field (extramural) when necessary. Every single service performs its activity and prepares the invoice for third parties. From the invoiced amount, the following items are deducted: 22% VAT and 2% ENPAV (Welfare Organization for Veterinary Category).

On the taxable amount, or the remaining amount, 12% is deducted in favour of the University (5% in favour of the University common fund and 7% for the University's balance sheet to cover general expenses) and an additional 5% is deducted in favour of the Faculty to cover its overheads. The remaining net is divided as follows: 80% in favour of the service and 20% for common expenses. Eighty % is reinvested in the service itself through the purchase of the material / equipment / facilities necessary for its operation (contracts with external specialists whose specific skills are not present in the service; purchase of material, reimbursements, drugs). Twenty % is dedicated to centralized purchases of material in common use with all services (e.g. medical gases).

Degree of autonomy of the Establishment on the financial process

Seven services have autonomy in the management of their own funds in accordance with the University regulations and statute, as well as the purchase restrictions of the MEPA (Electronic Market for Public Administration). Each service coordinates means and resources, thus guaranteeing their efficient use, full autonomy of scientific research

and teaching activities. These services can take advantage of the profits deriving from the activities provided for third parties (as previously described) and, possibly, of the research funds when research activities have an impact in the educational field. The service of Microbiology, Infectious and Parasitic diseases support the clinical services as diagnostic activity.

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

In 2018 the Faculty of Veterinary Medicine of the University of Teramo was appointed by the MIUR as “Department of Excellence” on the basis of the evaluation of their research quality and scientific and educational planning activities. In order to get the grant, the Faculty presented a research and teaching development project: “Relationships between OneHealth Medicine and animal production as priorities for the eco-sustainable development: the “Demetra project””. It is planned to receive from the MIUR a grant amounting to 6,635,000.00 € (in total) from 2018 to 2022 (to date it has received € 2,654,000.00, equal to €1,327,000.00/year) and it includes new staff enrolment for teaching and research activities, research infrastructure, rewards for staff and new highly-qualified educational and scientific activities.

Thanks to the grant, the Faculty has recruited no. 2 associate professors, no. 2 researchers, no. 2 PhD students with two scholarships/year and no. 10 young researchers and has supported no. 10 research projects presented by the Faculty Staff. Furthermore, the Faculty has widened its programme catalogue with a new two-year Second-Cycle Degree Programme in “Sustainable Livestock Production Science” starting from the A.Y. 2019-2020.

The professors and researchers recruited will carry out their teaching activities also within the Single-Cycle Degree in Veterinary Medicine Programme. Furthermore, with the research funds of the Demetra project, new equipment will be purchased for the research activities of the 10 research projects presented by the Faculty staff and usable for teaching purposes as well – i.e., for training activities and for students’ research activities when writing their final thesis. Finally, the University of Teramo has invested €13mln (Masterplan grant from the Italian Government – Presidency of the Council of Ministers CIPE N.26/2016) to develop the Piano D’Accio Campus, building a new seat both for teaching activities (classrooms, labs, pathology room) and for the research activities of the Embryology, Pathology, Infectious Diseases, Parasitology and Animal Food Inspection Units. The new building will be completed by 2022 (see Appendix 3c). For the next three-year period (2019-2021) no major changes are expected on the funds allocated by UNITE to the Faculty. However, positive results are expected on the Degree in Veterinary Medicine Programme deriving from the investments of both projects: Masterplan and Demetra. More functional spaces, the equipment and the research lines that will be funded by these two projects will surely bring positive effects on students’ education

The administrative, accounting and financial management of UNITE is set by university regulations and national legislation. The Faculty of Veterinary Medicine is in charge of the Degree in Veterinary Medicine Programme. The Faculty is a structure with administrative and accounting autonomy, whose head is the Dean of the Faculty while the administrative manager is the Administrative Secretary. Also, the VTH and the Chiareto teaching farm belong to the Faculty of Veterinary Medicine, therefore fall under the responsibility of the Dean of the Faculty. The decision-making authority of the Faculty is the Veterinary Medicine Faculty Board (VMFB) composed of the administrative secretary, all academic staff, representatives of the technical and administrative staff and student representatives. The VMFB decides the management of the funds assigned by UNITE to the Faculty, approving the allocation of resources, including the need of teaching staff and investments.

The members of the VMFB promote the direct notification of all the decisions taken by the Board itself (expenses, investments, distribution of the budget points to be dedicated to the recruitment of personnel) among the interested parties, including the students.

Comments on Standard 2

Since 2008, the gradual reduction of national education and research budget has been evident and has had a negative impact on the activities of the Faculty, limiting its potential improvement.

The development of research activities is therefore hindered by limited public and private funds, as well as by the large cuts that they undergo at the University and Faculty level to carry out their administrative management. Despite the aforementioned limitations, the Faculty of Veterinary Medicine is still able to provide satisfactory services in terms of both teaching and research. This happens thanks to both the activities of third parties and the specialisation schools and the Master’s degrees activated by the Faculty which allow, for example, to use equipment purchased for educational purposes for other courses, also within the Veterinary Medicine Programme. Indirect confirmation of the attraction by the Single-Cycle Degree in Veterinary Medicine Programme is given by the num-

ber of students who apply to enrol in the DVMP at the University of Teramo, which is always significantly higher than the number of students admitted under the MIUR.

As already described above, in recent years UNITE has allocated a considerable amount of money to build the new Piano D'Accio Campus. Other funds will be invested to expand the facilities thanks to the Masterplan project. Demetra project's fund will be used to provide new equipment for research and teaching. That investment will finance high-level services and research, most probably attracting greater investment from public and private institutions

.Suggestions for improvement on Standard 2

- Improving staff attitude to, curiosity on and knowledge of Degree in Veterinary Medicine programme financial aspects;
- improving the commitment and timing of communication related to the research calls which the Faculty staff can participate in. Probably, it may be necessary to create an ad hoc sub-unit that monitors the institutions that finance research projects (EU, MIPAAFT, etc.) and that selects information for the Faculty in a specific and timely manner;
- improving its visibility through international staff exchanges, or other initiatives, so that its involvement in European and international project networks may increase, given that the University of Teramo suffers some limits due to its small dimensions (as well as other small Universities) in terms of international visibility.



STANDARD 3. CURRICULUM

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.

In accordance with the national rules (mainly Ministerial Decree n.509/1999, Ministerial Decree n.270/2004 and its application with MD 155/2007 and MD 386/2007) and the European Directive 2005/36/EC, the educational aim of the Degree Veterinary Medicine Programme (DVMP) in Teramo is to guarantee a high level of education, founded on a process of cultural and scientific growth of the students and hands-on practical training.

Upon graduation, each student should have gained the useful knowledge and reasoning to deal with most common professional problems; should understand and face problems in new situations; should apply knowledge and competences proposing corrective solutions; should be able to communicate findings and decisions in a clear manner; should possess the methodological and cultural bases necessary for autonomous lifelong learning.

The competences, based on subjects concerning basic and professional sciences and fully compliant with the Day One Competences as listed in Annex 2 of the EA EVE SOP, aim at i) guaranteeing health and welfare of companion and food producing animals and, consequently, of human beings; ii) promoting efficient and sustainable animal production; iii) assuring food quality and safety; iv) ensuring knowledge of national veterinary organization; v) giving knowledge of veterinary laws and regulatory procedures at an international, community and national level; vi) implementing and monitoring veterinary public health plans.

The general strategy for the design, resources and management of the curriculum provides a strictly interconnected path of

- development and implementation of teaching activities, grounded on scientific research, and
- planned phases of design, monitoring, verification and corrections based on the results achieved and suggestions systematically collected.

The development and implementation of teaching activities is carried out by the DVMP Board under the supervision of the DVMP Director.

Design of the curriculum, has been developed, in due time, considering indications and constraints provided by laws regulating Italian University degree programmes and a wide stakeholder consultation.

Successive monitoring and verification processes on the design of the curriculum is systematically put into practice by the Internal Quality Assurance System (IQAS) and mainly by the Educational Quality Assurance Committee (EQAC) and by the DVMP Board, providing annually to implement the suggestions that are collected through different sources (Programme Year Committees, systematic consultation of the Stakeholders and of the Students, analysis carried out by the Joint Students-Teachers Evaluation Committee (JSTEC), the supervision of the University Quality Assurance Committee (UQAC), and the reports from the Annual Monitoring Report (AMR) which compares the main performances of the Degree Programme in Teramo with the others degree programmes in Veterinary Medicine in Italy), identifying the possible additional resources useful for any changes. (see Appendix

4 - Internal Quality Assurance System).

This work results in the periodic reporting of any major changes in the Degree Programme in the official documents required by the National Agency for the Evaluation of Universities and Research Institutes (ANVUR), specifically the Degree Programme Annual Factsheet (DPAF), the Annual Monitoring Report (AMR) and, every 5 years, the Cyclic Review Report.

The present curriculum of the Veterinary Medicine Degree Programme in Teramo started in the Academic Year 2010/2011 following indications and constraints provided by the last law regulating Italian University degree programmes (i.e. the Ministerial Decree n° 270 enacted in 2004 and its application with the MD 155/2007 and MD 386/2007) and taking into consideration the suggestions deriving from the last EAEVE visitation (2007-2010). A relevant change, partially regulating educational activities and autonomy to change the curriculum, was the introduction of a National Quality Assurance System (Italian Law 240 enacted on 30 December 2010 and Legislative Decree 219 enacted on 27 January 2012) which has set the principles of a national system for accreditation and periodical evaluation of Italian Universities under the guidance of the National Agency for the Evaluation of Universities and Research Institutes (ANVUR) - an independent agency affiliated ENQA – which establishes the requirements for accreditation of degree programmes (MD 47 enacted on 30 January 2013).

Therefore, based on national legislation, and according to EU directive 36/2005, the Veterinary Curriculum shall consist of 300 CFU/ECTS (one credit corresponds to 25 hours of students' work, including of lectures/practical activities and individual/self-learning) distributed in 5 years (including compulsory Professional Practical Training -PPT- activities), with a mean workload per year of 60 CFU/ECTS and a maximum number of 30 exams. In addition, national legislation defines the types of Scientific Areas (Settore Scientifico Disciplinare –SSD) that can be included in the Veterinary curriculum, the minimum number of CFU/ECTS for basic (58 CFU) and specific (130 CFU) areas and for the Professional Practical Training (30 CFU/ECTS) and, within the basic or specific areas, the minimum number of CFU/ECTS for different fields of subjects (Degree Programme Annual Factsheet, pages 65-69). Given these constraints, national legislation enables consequently the Establishment (on the basis of academic staff proposals, the permanent Internal Quality Assurance System and the Cyclic Review Report upon completion of on-site visits by the ANVUR Committee of Evaluation Experts - CEV), to define the number of CFU/ECTS to be assigned to the same or different subjects, to fix more specific relevant learning skills, to establish the number of lectures/practical activities or individual/self-learning hours per each CFU/ECTS, to determine elective teaching activities and the organization of the compulsory Professional Practical Training (PPT).

The Internal Quality Assurance System and mainly the Educational Quality Assurance Committee (EQAC) is available to collect permanently, or with planned meetings every 1-2 months, student or teacher reports concerning curricular overlaps, redundancies, omissions and lack of consistency, both directly from the students/teachers in charge in the EQAC or through the Programme 1 to P5 Year Committees.

A second feedback on omissions, lack of consistency of specific subjects, overlaps, lack of integration is reported *anonymously* by each student by completing the compulsory Teaching Course Evaluation Form (TCEF), scheduled at the end of each semester. A third feedback on overlaps, redundancies or lack of interdisciplinarity and/or integration of the curriculum is collected during the Cooperative Learning Day (CLD), organized in agreement with the University Quality Assurance Committee (UQAC) and involving all teachers and students at the beginning of each semester and/or per each year of the Programme, under the supervision of the Programme Year Coordinators. The Cooperative Learning Day (CLD), besides adapting and harmonizing the programme to the educational and research objectives, represents a useful moment to explain teaching programmes, teaching methods, the assessment of the learning and the interactions between the courses.

Further feedback, in particular on any training omissions, derives from the reporting of the stakeholders, both on the occasion of the collection of opinions subsequent to the mandatory periods of External Practical Training (EPT), and on an annual basis on the occasion of the meeting organized during the Career Day or during purposed meetings organized by the Establishment.

Most problems concerning redundancies, omissions, and lack of consistency and/or integration of the curriculum are discussed by the DVMP Director with the teachers involved and the specific Programme Year Coordinator during on-purpose meetings, trying to get a shared review of the programs.

If there are major omissions in the subjects considered, in particular as to the recommendations from the Stakeholders or in the reports deriving from the External Practical Training (EPT), the DVMP Director proposes to the DVMP Board the possible revision of the programmes or their integration through specific training days. Just to mention some examples, seminars on Bioethics, Apiculture, Managements of Aquatic Organisms have been organized in the past few years.

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	313	26	195	15	67	18	766	1400 [@]
Year 2*	455	5	131	63	16	50	555	1275
Year 3*	329	20	146	82	40	58	375	1050
Year 4*	521	2	206	50	102	153	666	1700
Year 5*/**	265	8	283	19	316	434	300	1625
Elective***								200
Thesis [§]								250
Total	1883	61	961	229	541	713	2662	7500 [°]

[@]does not include preparatory handling for clinical rotations (10 hrs, no ECTS); *including 50hrs/year of clinical rotations in each single Year, from the 2nd to the 5th (Column F); **including the PPT; ***Students are required to acquire 8 ECTS as electives chosen among different optional courses/scientific seminars/conferences and symposia. [§]250 hours (bibliographic thesis) up to 350 hours (experimental thesis); [°]Including also Elective and Thesis. 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 (self-study of students); H: total

Table 3.1.2. Curriculum hours taken by each student

Subjects (EAEVE)	A	B	C	D	E	F	G	H
Basic subjects								
Medical physics	35		9				81	125
Chemistry (inorganic and organic sections)	29		15	4			78	126
Animal biology, zoology and cell biology	37		31	1	1		95	165
Feed plant biology and toxic plants	15	2	11	3	8		15	54
Biomedical statistics	17		9				36	62
Specific veterinary subjects								
Basic Sciences								
Anatomy, histology and embryology	123		50	13	77	18	229	510
Physiology	137		49	28			161	375
Biochemistry	76	3	38	6			195	318
General and molecular genetics	30		9	4			61	104
Pharmacology, pharmacy and pharmacotherapy	62	5	20	5			58	150
Pathology	54		8	4	14		70	150
Toxicology	25		8	1	8		34	76
Parasitology	44		18	17		3	55	137
Microbiology	40		8				32	80
Immunology	20		4				21	45
Epidemiology	15		8	3			10	36
Information literacy and data management	23		19	1		48	42	133
Professional ethics and communication	8		17		30	42	8	105
Animal health economics and practice management	18		12	6			39	75
Animal ethology	10	23	15				27	75
Animal welfare	18		9		21		21	69
Animal nutrition	70	18	34	18	25		85	250
Clinical Sciences								
Obstetrics, reproduction and reproductive disorders	82		39	12	8	55	95	291
Diagnostic pathology	79		57	20	32	5	89	282
Medicine	103	1	51	17		55	125	352
Surgery	56	2	33			92	76	259

Anesthesiology	45		18			70	62	195
Clinical practical training in common animal species	35	2	28			76	41	182
Preventive medicine	63		32	11	43	1	67	217
Diagnostic imaging	52	4	37	4		68	56	221
Therapy in common animal species	30	1	28	1		75	44	179
Propaedeutics of common animal species	67		30			76	83	256
Animal Production								
Animal Production, including breeding, husbandry and economics	92		27	9	47		127	302
Herd health management	10		11		35	6	13	75
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	16		26		40		35	117
Control of food, feed and animal by-products	37		18	11	30		42	138
Zoonoses	64		31	14	51	8	53	221
Food hygiene and food microbiology	77		49		46	15	76	263
Food technology	20		13	16	25		31	105
Foreign language (mandatory English)	49		32				94	175
Elective								200
Thesis								250
Total	1883	61	961	229	541	713	2662	7500°

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 (self-study of students); H: total. °Including also Elective and Thesis.

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

Year	Types	List of practical rotations (disciplines/species)	Duration (weeks/h)
1 st	Introd. w	Basic knowledge (VTH) / all species	1 w–10h
2 nd	CR	Intramural Clinics (VTH - CTF) / all species	1 w-7 day shifts–84h
3 rd	CR	Intramural Clinics (VTH - CTF) / all species	1 w- 7 night shifts –84h
4 th	CR	Intramural Clinics (VTH - CTF) and Ambulatory clinics / all species	1 w-4 and 3 day and night shifts–84 h
5 th	CR	Intramural Clinics (VTH - CTF) and Ambulatory clinics / all species	1 w-3 and 4 day and night shifts–84 h
5 th	PPT	Intramural Clinics (VTH) / SA internal medicine	1 w–35h
5 th	PPT	Ambulatory Clinics / LA internal medicine and herd health management	1 w–35h
5 th	PPT	Intramural Clinics (VTH)/ SA and LA surgery	2 w–70h
5 th	PPT	Intramural Clinics (VTH) and Ambulatory Clinics /SA and LA clinical obstetrics and reproduction	2 w–70h
5 th	PPT	Extramural facilities / Food Safety and Quality	2 w–70h
5 th	PPT	Intramural and Extramural facilities / Infectious Diseases and VPH	2 w–70h
5 th	PPT	Extramural facilities /Animal production and Herd Health Management	2 w–70h

Practical rotations (excluding EPT) are organised under 2 main curricular mandatory training periods, i.e. PPT - Professional Practical Training (lasting 420hrs) and CR - Clinical Rotations (lasting 8 ECTS, 336hrs). w: week.

Table 3.1.4. Curriculum hours taken as electives for each student

AY	Type*	Electives	CFU /ECTS	A	B	C	D	E	F	G	H
16/17	DC	Psycho-biology and animal psychology	6	42		60				48	150
	DC	Medical Genetics	6	48						102	150
	DC	Bioethics	6	48		42				60	150
	SS	Training events (multiple) “KRAINO:	1	16						9	25
	SS	Training event: “Practice management”	0.5	8		1				3.5	12.5

	SS	Training day: “The new Veterinary Medicine from teaching to professional work” and Cooperative Day	0.5	8					4.5	12.5
	SS	Unity is strength	0.25	5					1.25	6.25
	SS	Training Event Medical School: Horse rehabilitation	0.5	8	1				3.5	12.5
	SS	Diagnostics imaging in Oncology	0.25	5					1.25	6.25
	SS	Parasitic zoonosis: dog, cat and more	0.25	5					1.25	6.25
	SS	Animal and Human gut microbiome	0.5	8					4.5	12.5
	SS	Aquaculture health and management	0.25	5					1.25	6.25
	SS	Aquarium health and management	0.5	8	1				3.5	12.5
	SS	Vet and protected marine animals: cetaceans and turtles (multiple events)	1	16					9	25
	SS	Natural horsemanship	0.25	5					1.25	6.25
	SS	Placebo effect	0.25	5					1.25	6.25
	SS	Culture of legality	0.25	5					1.25	6.25
	SS	Dog, cat and human being: a domestic partnership	0.25	5					1.25	6.25
	SS	Efficacy, efficiency, time organisation strategies	0.25	5					1.25	6.25
	SS	Emotion and leadership	0.25	5					1.25	6.25
	SS	Management of wild and domestics Felids in confined areas	0.25	5					1.25	6.25
17/18	OT	Medicine, Surgery and Pathology of pet rabbits	4	10	8			32	50	100
	OT	The Veterinarian and Biodiversity: Assisted reproduction strategies for endangered species (wild and domestic)	4	18				32	50	100
	OT	Tomographic imaging diagnostic	4	5	13			32	50	100
	OT	Small animals emergency medicine and intensive care	4	5	13			32	50	100
	OT	Emerging feline parasitoses, the diagnostic therapeutic route from the cat to the lab	4	8	10		32		50	100
	OT	Problem solving in Feline Medicine with a special focus on geriatric cats and management of feline colonies	4	3	15			32	50	100
	OT	Problem solving in Pig Farming	4	3	15			32	50	100
	OT	Qualitative and quantitative improvement of the milk production of ruminants	4	5	13		32		50	100
	SS	Training events (multiple) “KRAINO”	1	16					9	25
	SS	International Forum of “Gran Sasso”	0.25	5					1.25	6.25
	SS	Training event: “Practice management”	0.5	8	1				3.5	12.5
	SS	Training day: “The new Veterinary Medicine from teaching to professional work” and Cooperative Day	0.5	8					4.5	12.5
	SS	Unity is strength	0.25	5					1.25	6.25
	SS	EU call UNITE	0.5	8					4.5	12.5
	SS	Training Event Medical School: Horse rehabilitation	0.5	8	1				3.5	12.5
	SS	Oncology	0.25	5					1.25	6.25
	SS	Neurology	0.25	5					1.25	6.25
	SS	Day of study: Leishmaniosis and Filariasis.	0.25	5					1.25	6.25
	SS	Exotics and nonconventional patients	0.25	5					1.25	6.25
	SS	First aid for exotic animals: when there is no time to waste	0.5	8					4.5	12.5
	SS	Fatty Acid based membrane lipidomics: from chemical biology to molecular diagnostic	0.5	8					4.5	12.5
	SS	Microbiome in dogs and cats (three days’ course for PhD students, students, post doc, teachers and practitioners)	1	16					9	25
	SS	Rep-Eat innovation forum	0.5	8					4.5	12.5
	SS	Dog and forensic disciplines	1	16					9	25
	SS	Scientific workshop: VII Scientific workshop ISMULT	0.25	5					1.25	6.25

	SS	Aquarium health and management	0.5	8	1			3.5	12.5
	SS	Australian Flower Therapy	0.25	5				1.25	6.25
	SS	Dog and criminal investigation	0.25	5				1.25	6.25
	SS	The great white shark	0.25	5				1.25	6.25
	SS	Holidays with Fido	0.25	5				1.25	6.25
	SS	Basic ultrasound of the abdomen	0.25	5				1.25	6.25
	SS	Advanced ultrasound of the abdomen and neck	0.25	5				1.25	6.25
	SS	Imaging and Clinical medicine of skeletal diseases in the growth of small animals	0.25	5				1.25	6.25
18/19	OT	Medicine, Surgery and Pathology of pet rabbits	4	10	8		32	50	100
	OT	The Veterinarian and Biodiversity: Assisted reproduction strategies for endangered species (wild and domestic)	4	18			32	50	100
	OT	Tomographic imaging diagnostic	4	5	13		32	50	100
	OT	Small animals emergency medicine and intensive care	4	5	13		32	50	100
	OT	Emerging feline parasitoses, the diagnostic therapeutic route from the cat to the lab	4	8	10		32	50	100
	OT	Problem solving in Feline Medicine with a special focus on geriatric cats and management of feline colonies	4	3	15		32	50	100
	OT	Problem solving in Pig Farming	4	3	15		32	50	100
	OT	Qualitative and quantitative improvement of the milk production of ruminants	4	5	13		32	50	100
	SS	Training events (multiple) "KRAINO"	1	16				9	25
	SS	Continuing education and training in apiculture	0.25	5				1.25	6.25
	SS	Blue Economy: to be aware to become responsible	0.25	5				1.25	6.25
	SS	Training event: "Practice management"	0.5	8	1			3.5	12.5
	SS	Training day: "The new Veterinary Medicine from teaching to professional work" and Cooperative Day	0.5	8				4.5	12.5
	SS	Imaging and clinical aspects of canine discospondylitis and feline nasal disease	0.25	5				1.25	6.25
	SS	Clinical aspects of bovine surgery and podology	0.25	5				1.25	6.25
	SS	Training Event: Acme products for orthopaedic management of the horse	0.25	5				1.25	6.25
	SS	Annual Convention of SivasZoo: Surgery and management of the bear	0.5	8				4.5	12.5
	SS	Nutrition of the mare in gestation, the weaning of the foal, the food rationing of the rider horse	0.25	5				1.25	6.25
	SS	Neurology	0.5	8				4.5	12.5
	SS	Ruminants endoparasites more relevant than ever	0.25	5				1.25	6.25
	SS	The sound of science: ecological research in acoustic field, implementation and prospects	0.25	5				1.25	6.25
	SS	Aquaculture health and management	0.5	8	1			3.5	12.5
	SS	Workshop on Athina thumida	0.5	8				4.5	12.5
	SS	Animal welfare seminar	0.25	5				1.25	6.25
	SS	Electronic prescription: technical modalities	0.25	5				1.25	6.25
	SS	Radiology of the thorax	0.25	5				1.25	6.25
	SS	Radiology of the abdomen	0.25	5				1.25	6.25
	SS	Top ten surgeries (soft tissue)	0.25	5				1.25	6.25
	SS	Orthopaedic TPLO practical course	0.25	5				1.25	6.25

*Students are obliged to select elective teaching activities for a total of 8 CFU/ECTS from the following list: - SS - Scientific Seminars/ conferences/symposia: each participation corresponds to 0.25 or 0.5 ECTS; - OT - Optional Courses/ Tracks: each participation corresponds to 4 ECTS; - DC - Courses from other degrees: each participation corresponds to the number of credits/hrs planned by the course. 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 (self-study of students); H: total

Table 3.1.5 is not reported because students (beside compulsory teaching activities chosen as electives for a total of 8 CFU/ECTS) can select further optional courses among those listed in Table 3.1.4

Core clinical exercises/practicals/seminars prior to the start of the clinical rotations: since the Academic Year 2018-2019 (until the Academic Year 2017-2018 these activities were planned at the end of the II semester of Year II) at the end of the II semester of the Year I, students begin the approach to clinical practical activities attending a 7-day period focusing on basic theoretical and practical aspects of Clinical Rotations (CR) (“*Introductory Week*”). Theoretical classes describe animal species differences in terms of behavior, restraint, handling, general nursing care management, grooming and feeding. Theoretical seminars encompass guidelines for professional behavior and conduct for students: e.g. dress-code, biosecurity and hygiene procedures, policy on social network use. Practical lectures are carried out in small groups working with the animals and focus on:

- basic knowledge of management, restraint and handling of farm animals and companion animals
- animal grooming, management and caring
- monitoring of health status and basic assessment of major systems
- basic knowledge of medical and surgical instruments
- basic skills on patient preparation for medical and surgical procedures
- route of drug administration
- basic knowledge of biological sample collection (blood, stool and swabs) for lab exams.

These activities are resumed and continued progressively in the first years of Clinical Rotations (CR - starting from the 2nd year).

Moreover, before CR, students are involved in several activities during the practical units planned in each curricular teaching modules. These activities represent an essential complement to introduce students to core CR (planned from II to V year as described below) and particularly to the compulsory Professional Practical Training (PPT) which completes the clinical preparation of the students in the last year.

Core clinical rotations and emergency services and the direct involvement of undergraduate students: the clinical activities of the students are organized mainly during the Clinical Rotations (CR), planned from the II to the V year, and during the Professional Practical Training (PPT) planned in the V year. Particularly:

The CR, (involving 8 curricular credits) mainly in the VTH but also in the Small Faculty Farm (Chiareto), are planned for students of the Years II-V according to a scheme based on a 7-day period for each Year of the course, in order to have: 7 day shifts for Year II students (12 hrs/day, 8 am – 8 pm) - 7 night shifts for Year III students (12 hrs/night, 8 pm – 8 am) - 4 and 3 day and night shifts, respectively, for Year IV students - 3 and 4 day and night shifts, respectively, for Year V students. The rationale is a two-week block with a minimum of 1 student from each Year in each calendar day all year round. Less experienced students (on average, two II and III Year students per day) are always joined with more experienced students (on average, two IV and V Year students per day). The learning model is thus based on a weekly rotation to allow each student to follow-up as much as possible each single clinical case. The block and the model can be flexible according to specific VTH requirements or student needs. For each day or night shift the students refer to veterinarians responsible for the CR in the VTH. All the organization and procedures are supervised by a Committee of three Teachers, 1 internist, 1 surgeon and 1 obstetrician (Clinical Rotations Committee - CRC).

Day shift: the 4 students normally present during the rotations follow and participate actively in different activities, according to the weekly VTH calendar, in which they have to register for the planned procedures. Students are in daily groups minimum of 2 students (II and IV/V year) and follow the different medical teams in the various clinical/diagnostic areas. During the day shift rotations, they are assigned to several practitioners and professors/teachers and acquire skills as follows: accurate history, physical examination, analytical thinking on evidence-based medicine and problem solving with differential diagnosis and diagnostic work up; treatments options, biological samples collection, labelling and packaging; diagnostic imaging (radiography and ultrasound); surgery procedures (e.g. anaesthesia, sutures); principles of obstetrics and gynecology; euthanasia; laboratory procedures (e.g. infectious and parasitic diseases, food analysis and microbiology).

Less experienced students are mainly engaged on an initial approach to the hospitalized animals, including handling and general care of the referred and hospitalized animals. More experienced ones are involved in clinical activities attending general and referred consultation, imaging and surgery services, diagnostic workup and treatments, recording of draft reports, They are also involved as second operators in surgical procedures and as first operators under the supervision of a surgeon in case of small surgical procedures.

Night shift: the students follow and participate in all activities related to the emergency services and hospitalized animals. Students are in nightly groups minimum of 2 students (III and IV/V year) and follow the practitioner responsible for the night activities, or the medical on call teams that eventually take part on urgency.

Every day the students report the caseload and all the clinical activities performed. After any 7-day rotation each student provides the Clinical Rotation Committee with a final report of the cases he/she has followed during the activities. Finally, at the end of the rotations periods (Year V) each student complete the Rotation Logbook describing all the activities performed in the complete rotations period.

The Professional Practical Training (PPT): students during the V year carry out a mandatory practical training (Professional Practical Training - PPT) which is compulsory for the final degree exam and for admission to the State Exam. The activities are organized in order to have several small groups (in particular small numbers for the clinical areas). This internship involves the acquisition of 30 CFU/ECTS (20 hours per ECTS: 600 total hours) and is organized with the rotation of students in the following professional areas: Internal Medicine (100 hrs); Surgery (100 hrs); Obstetrics and Gynaecology (100 hrs); Infectious Diseases (100 hrs); Animal Production (100 hrs); Food Inspection (100 hrs); Pathology and Parasitology and parasitic diseases (organized besides the clinical areas). Specifically, the activities *for each area* included in the internship take place in 3 weeks (in total 18 weeks/student) of which:

- 2 “internal” weeks (35h/week) under the supervision of Staff Teachers, at both internal structures (“*intramural work*”: mainly at the Veterinary Teaching Hospital of the Faculty, in Chiareto Facility and in the laboratories in the relevant professional areas) and external (“*extramural work*”: mainly at dog shelters, small and large ruminants farms, swine farms, slaughterhouses and in premises for the production, processing, distribution/sale or consumption of food of animal origin);
- 1 “external” week (30h/week) under the supervision of practitioners (compulsory External Practical Training EPT) at private or public providers bound by specific agreements to the Establishment.

This organization of the compulsory PPT setting has the following purposes:

- for the student:
 - orientation purposes, which aim to make the “outside world” known and compared through direct contact with companies and population medicine (stables, dog shelters, pig, sheep and cattle farms) or veterinary private structures (clinics, laboratories) and veterinary government services (IZS and ASL) present on the territory;
 - training purposes, which allow to deepen, verify and expand the learning gained from the DVMP.
- for the DVMP and for External providers, check purposes i.e. to verify the coherence between the training courses/objectives envisaged (with particular regard to the ongoing developments in the European labor market for Vets) and the skills acquired and the potential professional profiles which the students aspire to.

At the end of the PPT period, the DVMP Director, and the PPT Committee evaluate:

- a) the PPT logbook, which reports the daily activity, returned by the student;
- b) the evaluation questionnaire (by the student) both for the internship part carried out within the VTH and for the internship part carried out at external providers;
- c) the Student Evaluation Questionnaire (by the company / institution / structure) which aims to evaluate the actual skills acquired by the students compared to those expected.

It is finally possible for the students, without acquiring CFU/ECTS, to carry out further internships at joined external structures, subject to the availability of the external structure/body, a Professor as reference Tutor and an appropriate Training Project. If requested by the students and after evaluation by the teachers in charge of the curricular internship areas, it is possible to carry out internship periods abroad as part of the Erasmus+ Traineeship programme.

Subjects concerning the inspection of food of animal origin are introduced in the core curriculum during the IV year when the students become familiar with the aspects of quality, production processes and the processing of fresh foodstuffs of animal origin. This way, the main goal is to give students the ability to evaluate in compliance with hygiene regulations the conditions of foodstuffs production, identifying possible sources of contamination. Subjects relating to the traceability of foodstuffs are also dealt with. This discipline is taken up again in the V year, at the end of which students must acquire the ability to record and critically evaluate the state of wholesomeness quality and any alterations of fresh and transformed foodstuffs of animal origin. Students must know how to use national and European standards to express judgements on food during production, transformation, sale and administration to the consumers and must also acquire the necessary expertise in monitoring the foodstuff production system.

The contents of such courses are taught practically during the compulsory Professional Practical Training PPT period at the end of the V year. Particularly:

- Training in Food Inspection and Hygiene gives 5 CFU/ECTS per student (100 hours) of practical activities organized over 3 weeks, 2 of which under the Staff supervision and 1 as external work.
- For internal activities, students are normally divided into rotational groups (generally 3 groups of 15-16 people) and the internship lasts from 8:00 to 13:00.
- The first day of the internship, the students are shown the organization of the internship, the food companies and slaughterhouses they will visit. Students are also explained the behaviors they must have during the visits in order not to represent a danger and avoid contamination of the products.

Slaughterhouse practical training: students learn practically how to carry out the ante-mortem and the post-mortem examination, in addition to recognizing the main diseases and infectious diseases of animals that can affect public health due to the consumption of these foods. During the visit to the slaughterhouse students follow with the teaching staff the activity of the Official Veterinarian in charge in the slaughterhouse.

Food companies practical training: Students are given a check list they must complete during the visit to the company. During the visit to the company, students must complete the various items of the check. Students to complete the check list must ask the manager of the company to complete it correctly.

Particularly, students are divided into groups of 4-5 people, every day a group during the visit to the company draws up a check list where the main items regarding the execution of the controls are reported. The companies are chosen on the basis of their productive attitude in order to guarantee students a thorough knowledge of all the main sectors, from meat, fish, dairy products, processed products. Students will have a microbiological knowledge for the various types of food and shall recognize the main hazards applied to each food and each phase of the production process. Activities in food companies include the viewing of the HACCP manual, its discussion of this with students in order to teach a method for writing a manual. Evaluation of the general conditions of the plant, equipment offered, management availability and hygiene training of the operators. Compliance with good processing techniques in each production phase. Vision of the sampling plan for the application of the microbiology principles that students handle. Students are provided with the bases of the quality management system, and notions of voluntary certification.

In order to make the work understandable, both practical and theoretical, students are given modules regularly used by the authority in the official control or audit phase and modules used by food business operators to give evidence of everything that is practically done in a company.

The visit to the fish market involves the recognition of species, and evaluation of the criteria of freshness of fish, in addition to assessing the hygienic conditions with which fish landing is done, and subsequently fish are manipulated.

On the last day of the internship there is a classroom-taught lesson during which each group tells their colleagues what they wrote on the check list.

Students, in addition to describing the company visited, through the check list must express hypotheses of improvement actions if they observed incorrect behaviors from the operators or non-conformity from both a structural and a procedural point of view. The objective of the internship is to train students and give them the appropriate knowledge in order to be able to better carry out their future work in the areas of inspection, certification and control of food of animal origin.

The third week of training (EPT) is mandatory and the student must spend it in an external structure having and agreement with the Faculty for extramural work.

Students, at the end of the EPT, must complete their PPT Logbook and give the reference teacher a complete report of the activities performed.

Selection procedures of the Electives by the students and the degree of freedom in their choice: elective teaching activities of the current curriculum are stipulated by the article 8 of the Degree Programme Teaching Regulation (DPTR) (https://www.unite.it/UniTE/Regolamenti_didattici_a_a_2019-2020_dei_corsi_di_Studio_della_Facolta_di_Medicina_Veterinaria). Among the total 300 CFU/ECTS required by the Veterinary Curriculum in Italy, 8 CFU/ECTS are dedicated to Electives. Students are obliged to select elective teaching activities for a total of 8 CFU/ECTS from the following list:

- i scientific seminars/conferences/symposia. They can be intra-mural (i.e. organized by the Teachers with or w/o student associations) or external. In this latter case the Students apply for an official recognition. Each participation corresponds to 0.25 (half day) or 0.5 (full day) ECTS.

- ii. optional courses/tracks of 4 CFU/ECTS each. These are practical-based short-lasting (4 days) courses with compulsory attendance based on topics that are not covered (or insufficiently addressed) in the Degree Programme, or on specific subjects proposed by student groups. Optional tracks are established every Academic Year since 2017-2018 and are activated if a minimum number of students (variable depending on the course) applies to the track. Students can apply for the optional courses offered for the curricular year in which they are enrolled, or for the previous ones. At the end of the course, students undergo a practical evaluation and, if positive, they acquire the CFU/ECTS.
- iii. all courses offered in other Degree Programmes of our University that are officially approved and consistent with the DVM Programme.
- iv. Erasmus Traineeship. Students who are recipients of an ET grant may be awarded, upon their return from abroad, 2 ECTS for each traineeship month.

Procedures used to ascertain the achievement of each core practical/clinical activity by all students: in order to check the achievement of each core practical/clinical activity and to simplify the official registration of the Day One Competences (as set out in Annex 2 of ESEVT “Uppsala SOP” 2016), a new “Day One Competences” Logbook was adopted and distributed to students in the first 4 years of the course at the beginning of the II semester of the A.Y. 2018-2019, in a day aimed at explaining the importance of this assessment tool to the students, encouraging them to behave proactively in achieving these goals. The Day One Competences Logbook complements the assessment system of all the competences and knowledge acquired during the compulsory ECTS planned in the curriculum (i.e. assessment of Core Subjects as well as Elective ECTS, CR and Professional Practical Training PPT, as specified in Standard 8), certifying the attainment of the 36 Day One Competences and of the 12 essential points concerning underpinning knowledge and understanding. The Day One Competences Logbook must be completely filled out in all its parts to allow students to be admitted to the final degree exam.

Further recording systems of practical and clinical activities are represented by the logbooks that students must complete at the end of the CR (Rotations Logbook) and upon completion of the Professional Practical Training (PPT) (PPT Logbook). The verification of the achievement of the competence is the task of the teacher/practitioner/s to whom that specific competence belongs and who certifies it, for each individual student, by means of a signature in the space provided in the Logbook where the “Day One Competences” are listed or by signing the activities carried out for the other Logbooks (as reported in Standard 8).

3.2 Each study programme provided by the Establishment 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 Establishment 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 Establishment must also describe how it encourages and prepares students for self-learning and lifelong learning.

The Establishment:

- ensures that the study programme meets the objectives: the main educational aim of the DVMP in Teramo is to guarantee a cultural and scientific growth of the students, promoting hands-on practical training and leading to the acquisitions of the Day One Competences. To ensure that each course programme meets these objectives each teacher must complete a Teaching Course Description Form (that refers to the Dublin descriptors) defining the competence levels in terms of knowledge and understanding, applying knowledge and understanding, making judgements, communication and lifelong learning skills the students reach following the achievement of the course examination. More broadly, the Degree programme defines in its DPAF and DPTR the overall Dublin descriptors, i.e. the competence levels reached by students when they graduate, alongside the certification of the acquisition of the day one competences. A final certification of the achieved competences and therefore of the achievement of the objectives derives from the evaluation of the students following the compulsory External Practical Training (EPT) period and from the feedback from the Stakeholders.

Moreover, at least twice a year, the Educational Quality Assurance Committee (EQAC), examines and analyses crucial statistical indicators that contribute to show the success of the Programme in meeting the objectives. The results from interviews carried out by Almalaurea (i.e. Interuniversity Consortium including 75 Universities as

members, supported by the Ministry of University and Research and member of the National Statistics Institute) about the level of satisfaction of graduates and on the proportion of them already with a permanent job within 1, 3 and 5 years after the graduation are among these values. Finally, the annual meeting with private and public stakeholders evaluates the quality of the objective accomplishments for the programme and, once a year, the level of satisfaction of external Providers with which the DVMP has purposed agreements for the EPT (see Section 3.1.8).

- promotes an academic environment conducive to learning: the establishment encourages and support learning ensuring a comfortable and welcoming work and study environment inside the Faculty and the VTH. Given the low number of students and the position of the Faculty, a climate of strong collaboration between teachers and students is established, conducive to learning and to quickly solve any question concerning the development of the training curriculum. Furthermore the Faculty is well integrated into the surrounding area, also by implementing a Stakeholder network which allows to constantly deal with the needs of professional training.

- encourages and prepares students for self-learning and lifelong learning: the Faculty stimulates students self-learning of through the possibility of participating in a continuous series of training events, often aimed at lifelong training of Vets in the area, highlighting the need for continuous training even after graduation. Furthermore, the activation at the Establishment of 4 Specialization Schools for Vets and several postgraduate Masters (see Standard 10) offers students different opportunities of meetings with the “professional life”, addressing the most important topics of continuing education in Veterinary Medicine.

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.

Educational aims of the DVMP in Teramo are that each student should gain, through knowledge, reasoning and hands-on practical training, the competences to ensure the health and welfare of companion and food producing animals; to promote efficient and sustainable animal production; to guarantee food quality and safety; to ensure the knowledge of the national veterinary organization; to give knowledge of veterinary laws and regulatory procedures at an international, community and national level; to implement and monitor veterinary public health plans. These educational aims, and consequent day one competences, represent explicit learning outcomes of individual units of study and are reported in the Teaching Course Description Form of each unit which is annually published on the DVMP website.

To propose a coherent framework and achieve these learning outcomes, the DVMP Board through its Committees and its Quality Assurance System annually reviews its training processes, verifying through i) the students' Teaching Course Evaluation Form, ii) the results officially registered by the AMR and iii) the feedback from the Cooperative Learning Day, the effectiveness of its own path. Any changes that can be carried out are annually implemented in the Degree Programme Annual Factsheet (DPAF) and in the Degree Programme Teaching Regulation (DPTR), documents that are approved by all the teachers of the degree course and are published on the University and national University websites.

Any major change that may arise is included in the Cyclic Review Report of the Degree Programme (every 5 years) and taken into consideration in the possible revision of the course framework. Important changes in the structure of the entire course must be communicated to the Ministry of Education (MIUR) and approved by the National University Committee (CUN) within the month of February of the academic year preceding their establishment.

The ESEVT Day One Competences (as set out in Annex 2 of ESEVT “Uppsala SOP” 2016) represent the main *minimal* goal of the Curriculum in the Faculty of Veterinary Medicine of the University of Teramo. These competences are listed in the specific Logbook given to the students at the end of their first year, in a day reserved to explain to the students the importance of this registration, encouraging them to behave proactively to achieve these goals.

As stated above (please, see point 3.1.8.), each teacher has the task, at the end of the assessment process, to certify the achievement of specific competences for each individual student, by signing in the Logbook where “Day One Competences” are listed and also by signing the activities carried out for the other Logbooks (Rotations and Professional Practical Training logbooks).

The Logbooks complements the assessment system of all the competences and knowledge acquired during the compulsory ECTS planned in the curriculum (i.e. assessment of Core Subjects as well as Elective ECTS, Rotations

and the Professional Practical Training, as specified in Standard 8), certifying the attainment of the 36 Day One Competences and of the 12 essential points concerning underpinning knowledge and understanding. It must be filled out in all its parts and signed to allow students to be admitted to the final degree exam.

The learning outcomes, taking into account the general compulsory objectives set by the Ministry and the EAEVE, including Day One Competences, are decided by the DVMP Board which declares them annually by publishing the programmatic document DPAF and in the DPTR.

The DVMP Board includes all the teaching staff and 15 students, elected as representatives.

Each year, the general learning outcomes are assessed and revised by the internal Quality Assurance System and mainly by the Educational Quality Assurance Committee and by the DVMP Board, providing annually to implement the suggestions that are collected through different sources (Program Year Committees; systematic consultation of the Stakeholders and of the students; analysis carried out by the Joint Students-Teachers Evaluation Committee; supervision of the University Evaluation Unit; and the accounts from the AMR), identifying any necessary change. Particularly:

The **Educational Quality Assurance Committee (EQAC)** is the main and specific quality assurance Committee for the Internal Quality Assurance System of the DVMP. It is composed of 5 teachers (one for each of the course year, including the DVMP Director) and 5 students representatives. The EQAC Committee performs a periodic and systematic self-evaluation monitoring process of the Teaching Courses, and analyses, evaluates and proposes to the DVMP Board all the measures required to improve the teaching quality. In this process, the analysis of student opinions (obtained *via* purposed online questionnaires) and of student career progression has a core role. An important and annually report on student career progression, compared to the other national degree programmes in Veterinary Medicine is represented by the AMR. Criticisms and weak points in the teaching activities are then analysed in detail by the Programme Year Committees, appointed by the DVMP Director, one for each course year (i.e. a total of 5 sub-Commissions), and reported to the EQAC.

These **Program Year Committees** are composed of two teachers (one from the EQAC Committee and one who teaches in the corresponding year) and two students (one from the corresponding year and member of the EQAC Committee and one from the year coming). The DVMP Director and the EQAC Committee decide how to improve weaknesses and, if necessary, propose to the Board how to mediate in the case of important deficiencies. Depending on the modifications decided, they require approval from the DVMP Board and the Academic Senate, or, in the case of major changes (e.g. in the number of ECTS ranges), the approval of the National University Council (CUN) is needed.

The **Joint Students-Teachers Evaluation Committee** is an Establishment Committee composed of the same number of student (n. 3) and teacher (n. 3) representatives. It receives suggestions, complaints, indications, opinions and corrective actions presented by academics and students through their representative members. Also, the Committee has monitoring duties on the teaching quality of the different courses of the Establishment and on teachers activities and services. At the end of each Academic Year the Committee provides a public report, that is also directly discussed with the DVMP Director for proposals and improvements of the degree course, to be finally discussed in the DVMP Board.

The consultations of the stakeholders, scheduled regularly (also as feedback from the EPT providers) and at least once a year also, play an important role. Every year the DVMP Director send a consultation questionnaire to the Stakeholders and the DVMP Board meet the stakeholders in a dedicated day (“Career Day”). The **Career Day** represents the main opportunity for consultation of the stakeholders who are invited to participate in a specific meeting in which the main training objectives of the DVMP are illustrated and where their suggestions are requested to implement the training. Thus, in this meeting, the stakeholders make their proposal and present their ideas to the DVMP Board to improve and update the teaching and education offering of the DVMP.

Then, taking into account any changes, annually each teacher is asked to fill in the Course Description Form in which the learning outcomes of the specific teaching units are reported. The Teaching Course Description Form of each unit is then updated and published on the DVMP website.

If important and major changes are needed, every 5 years, the DVMP Board carries out the Cyclic Review Report, as required by the National Agency for the Evaluation of Universities and Research Institutes (ANVUR).

3.4 The Establishment 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 assess-

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

The veterinary medicine establishments in Italy are under the control of the Ministry of University and Research (MIUR: <http://www.miur.gov.it>). The curriculum of the DVM Programmes complies with both European directives 2005/36 and national rules to assure a satisfactory qualification for the practice of the veterinary profession (MD 509/1999, as amended by MD 270/2004 and MD 16/3/2007). The present curriculum is a single-cycle degree programme (300 ECTS) belonging to Degree Course Class n. LM-42. Legislation establishes a general framework encompassing ranges of minimum-maximum number of ECTS for each subject area. In accordance with national guidelines, the course has a Degree Program Teaching Regulation (https://www.unite.it/UniTE/Regolamenti_didattici_a_a_2019-2020_dei_corsi_di_Studio_della_Facolta_di_Medicina_Veterinaria) that is revised and updated each Academic Year by the DVMP Board.

As described above for learning outcomes, all core teaching activities and possible curriculum variations are evaluated by the Internal Quality Assurance System and mainly by the DVMP Board and its Director, the DVMP Educational Quality Assurance Committee, following the suggestions directly from the students and from the Program Year Committees and, above all, the Joint Students-Teachers Evaluation Committee of the Establishment, in compliance with MIUR directive and guidelines (MD 270/2004), the European Directive 2005/36, and ESEVT SOP. Moreover, the consultations of the Stakeholders scheduled regularly and at least once a year (Career Day) also play an important role.

The current curriculum was established in the Academic Year 2010-2011 and resulted from the changes required by the 2007 and 2010 EAEVE reports, national inputs and requirements, and needs and demands from International and National markets. In 2017 the course was evaluated and fully accredited by the National Agency of the Evaluation of Universities and Research Institutes (ANVUR). This success is also due to the various implementing interventions carried out in the past Academic Years. Additional teaching activities, following stakeholders and students suggestions, have been added to improve the teaching quality and efficiency of the course. For example, since the Academic Year 2018-2019 new competencies, i.e. Pathology and Parasitology, have been added in the PPT to broaden the practical knowledge of the students. Also, this is particularly true for Electives, in terms of both optional courses/tracks and scientific events and seminars that are annually updated.

This process is continuous and will proceed in the near future, with a new revision planned for the 2020, to accommodate all most recent evaluations and those the DVMP will receive from the EAEVE during the next experts visitation.

3.5 External Practical Training (EPT) is compulsory training activities organised outside the Establishment, 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.

The PPT (30 ECTS) includes purposed and compulsory EPT activities. The curricular EPT consists of 1 external week for each of the main 6 PPT traineeship areas: “Internal Medicine, Small and large animals surgery, Small and large animals clinical obstetrics and reproduction, Food Safety and Quality, Infectious Diseases and VPH, Animal production and Herd Health Management”, for a total of 6 weeks (30 hrs/week) per each student.

The EPT weeks are spent in Veterinary Practices, Farms, Slaughterhouses, Public Institutions and veterinary government services (e.g. Istituto Zooprofilattico, ASL) with which the Degree Programme has a purposed agreement. The EPT activities are regulated by specific rules that are identified by the PPT Committee, internal to the DVMPB. The PPT Committee is selected by the DVMP Director, and composed of 8 teachers, 6 of whom being in charge of each area involved in the EPT.

The EPT, placed at the end of the internal PPT period, complement the academic training as an important opportunity for each student to verify “in the field” and outside the Faculty their knowledge and skills, comparing himself/hersel with veterinarians, professionals and generally with stakeholders in the different areas of the future work.

Based on the above criteria, to date, more than 150 providers have an agreement for the EPT (https://www.unite.it/UniTE/Engine/RAServeFile.php/f/news/scheda_di_riepilogo_convenzioni_5_7_19_-_Per_studenti_MedVet.pdf). After each EPT round, the providers fill out a questionnaire to evaluate the level of competencies, training, knowledge, interest, and commitment of the students they have supervised. At the same time the students fill out a questionnaire to evaluate the quality of the provider and the usefulness of their EPT. All these questionnaires are yearly evaluated by the PPT Committee with the aim of deciding if a given provider is confirmed for the EPT of the next Academic Year and in order to assess the learning outcomes of the students.

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

Fields of practice	duration (weeks / hrs)	Year
EPT Internal Medicine	1 week / 30 hrs	5 th
EPT Small and large animals surgery	1 week / 30 hrs	5 th
EPT Small and large animals clinical obstetrics and reproduction	1 week / 30 hrs	5 th
EPT Food Safety and Quality	1 week / 30 hrs	5 th
EPT Infectious Diseases and VPH	1 week / 30 hrs	5 th
EPT Animal production and Herd Health Management	1 week / 30 hrs	5 th

3.6 The EPT providers must have an agreement with the Establishment 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 Establishment 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.

Among other duties the PPT Committee verifies if quality is enough to guarantee a correct learning process with the External Providers. In particular, the PPT Committee defines, in accordance with the DVMP Director, the selection criteria for EPT providers, farms, institutions, practices and facilities. Veterinary Practices providers for EPT must meet the following minimum requirements: 24-hrs availability and services; Minimum number of 3 veterinarians with integrated specialties; Animal housing; Conventional radiographic and echocardiographic equipment; Internal laboratory analysis; Gas anaesthetic equipment and sufficient clinical (internal medicine, surgery and gynaecologic) caseload. Agreements with farms, slaughterhouses and veterinary public institutions are specifically evaluated at the time of approval or renewal, carried out in the DVMP Board under the supervision of the PPT Committee. Agreements (see Appendix 8) not only include the respective roles and duties of the people involved but they also require the EPT provider to complete a written and standardized assessment of the students who carry out the internship period at their facility; in the same way, students are required to complete an evaluation sheet of the structure that hosted them. Both evaluation forms are systematically collected and analysed by the EQAC and the results communicated to the DVMP Board for the appropriate measures.

The PPT Committee supervises all aspects related to the Professional Practical Training, including the EPT activities. The responsible persons are: Internal Medicine (and PPT Committee Responsible): Alessia Luciani - Surgery: Roberto Tamburro - Obstetrics and Gynaecology: Domenico Robbe - Food Inspection: Domenico Paludi - Animal Production: Melania Giammarco - Infectious Diseases: Barbara Di Martino - Parasitic Diseases: Angela Di Cesare and Pathology: Mariarita Romanucci / Giuseppe Marruchella.

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

For each mandatory EPT area, students are free to choose the External Provider to attend among those who have signed an agreement with the Faculty (https://www.unite.it/UniTE/Engine/RAServeFile.php/f/news/scheda_di_riepilogo_convenzioni_5_7_19_-_Per_studenti_MedVet.pdf). At least 1 week before the beginning of the EPT period, each student must complete a Training Project (following a form available on the Establishment website) which must be authorized by the External Provider and delivered to the Faculty Secretary (Quality and Teaching Support Service). The EPT in Vet Practices involves the careful and accurate compilation of preformed medical

records (EPT worksheets, form available on the website) which must be signed by the student and countersigned by a referring veterinarian of the facility. Moreover, at the end of the EPT activities in the 6 different areas, each student must fill out an attendance and activity table, which is countersigned by the person in charge of the EPT facility, and must complete his “Professional Practical Training logbook” including EPT periods. Finally, at the end of each EPT period, the relevant assessment questionnaires (evaluation by the student on the external facility and evaluation of the student by the external facilities) must be completed as reported before (point 3.6.1). Each student, directly and personally, or indirectly and anonymously through the student representative of the 5th year, can report to the person responsible for the specific PPT area or to the PPT Committee Coordinator, any difficulties or problems encountered during the External Practical Training. These situations are then reported to the DVMP Director to solve them or, if necessary, to terminate the agreement.

Comments on Standard 3

The changes that the Curriculum in veterinary medicine has undergone, with the 2010 revision that took into account the EAEVE suggestions and the new rules established by the MIUR (Degree Course Class no. LM-42), led to several developments.

Compared to the previous Curriculum (Degree Course Class no. 47S), both the evaluation of the opinion of the Stakeholders, to be carried out ex ante, and the permanent evaluation of the results of the training provided, to be carried out ex post, has been placed centrally in the new project.

This approach has involved a different and more mature attention to teaching, with teachers made more responsible for the training of skills and not only evaluating the results. As a consequence, a greater efficiency of training and a significant reduction in graduation times has been reached.

Moreover, the introduction of the self-assessment quality system required by ANVUR, and the consequent accreditation, achieved in 2017, led the VMDP to put in place a series of verification processes that allow the permanent monitoring of training, also giving the possibility to compare the results achieved in Teramo with the other national degree in veterinary medicine (in the AMR).

If the effects of this system led to positive consequences on the verification of the training process, it certainly remains to be improved for the verification of the training results and competences acquired by the students, verification that, by now, is carried out by the teachers at the end of the training courses.

In order to develop more hands-on competences, the VMDP has carried out an important work by introducing, alongside the CR and the PPT (including EPT), electives compulsory courses, purely practicals, that are able to confirm the “savoir faire” of the students. Moreover, the reduced number of students enrolled each year allows to teach practical skills in small groups.

The important workload however required to the students, especially in the 4th year of the course, as reported to the EQAC, requires a revision of the distribution of courses over the years, in order to avoid the risk of an increase in graduation times.

Furthermore, the closure of the Molinari Building structure and the consequent complete transfer of the Faculty to the Piano D’Accio campus has certainly made teaching facilities less available, representing an important trouble, with the necessity to identify solutions to maintain high quality teaching.

Finally, specialist teaching still remains to be implemented, although the contribution of Specialists involved in clinical disciplines has increased significantly in recent years.

Suggestions for improvement on Standard 3

- As stated by the Program Year Committees and reported to the Educational Quality Assurance Committee (EQAC) and to the DVMP Board, there is the necessity to proceed for the next academic year to a better distribution of the different courses among the years, allowing to reduce the excessive workload in the 4th year, excess which seems to favor a certain delay in completing the studies on time.
- Furthermore, a revision of the Curriculum, trying to get a better distribution of teaching credits among the different subjects, seems also necessary and has been programmed by the DVMP Director for academic year 2020/2021, allowing to include EAEVE visiting experts suggestions.
- There is the necessity to improve the assurance quality system evaluating not only the teaching process but also the teaching results and the competences effectively acquired. For this purpose, the ANVUR is developing with DVMP of the University of Teramo a pilot project useful for assessing and certifying skills. This project should be activated experimentally from the next academic year.
- The implementation of the facilities already planned to compensate the closure of the Molinari Building will give the establishment a complete campus allowing to implement practical and specialist training.



STANDARD 4. FACILITIES AND EQUIPMENT

4.1 All aspects of the physical facilities must provide an environment conducive to learning, including internet access. The veterinary Establishment 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 Faculty of Veterinary Medicine is located in Piano D'Accio – Teramo, the facilities are distributed between the main Campus of Piano D'Accio (Appendices 3a, 3b and 3c), the Faculty teaching farm placed in Chiareto (about 8 Km far from the main campus) (Appendix 3d) and the Campus Coste S. Agostino – Colleparco (Appendix 3e) (about 6 Km far from the Faculty) where some laboratories are based. Facilities are available with the aim to offer adequate conditions for quality education, training and research, and to provide services in different fields of Veterinary Sciences. Most activities are carried out in the main campus of Piano D'Accio, while animal training activities are performed in the farm of Chiareto. In Coste S. Agostino – Colleparco laboratories for practical work are present. The present arrangement has been necessary subsequently to the compulsory closure of the “Molinari Venue”. The Campus of Piano D'Accio is close to the highway to Rome and is well connected by public transportation with Teramo town center. Indeed, the railway station is located just in front of the Faculty of Veterinary Medicine (FVM), and allows students to reach the town center in five minutes.

The main Campus is organized into a teaching area, with lecture rooms, study spaces, laboratories for practical work, a library, a cafeteria and a canteen, academic and support staff and administration offices and the Veterinary Teaching Hospital (VTH). The VTH is dedicated to both companion and large animals and consists of reception, emergency service, consultation rooms, surgeries, clinical and research laboratories and rooms for staff and students. Distances for slaughterhouses, food and feed stuff processing units, livestock farms for reproduction and animal production extramural classes and kennels for extramural activities are provided in item 4.3 (Tables 4.3.5-4.3.8). Even though current facilities and the equipment acknowledge that the VMF of Teramo and the VTH allow adequate conditions for quality education training and research, and to provide services in different fields of Veterinary Sciences, efforts have been made to achieve funds (National, Regional and University) to improve facilities. The imminent construction of a new building adjacent to the existing one, of about 6.000 m², which will host a new necroscopy room, 10 new teaching classrooms (5 for Veterinary Medicine, 3 for the Degree programme in Animal Welfare and Protection and 2 for the Master Degree programme in Sustainable Livestock Production Science), 2 classrooms for laboratories and practical exercises, the Lecture Hall (*Aula Magna*) with 250 seats, a new library, laboratories for the research units of “Pathological Anatomy”, “Embryology/Anatomy”, “Microbiology”, “Infectious Diseases”, “Parasitology”, “Inspection of Food of Animal Origin”, stables for cattle with the new laboratories of Animal reproduction, and the Services of Pet Therapy, and Veterinary Rehabilitation (Appendix 3c). This project (Masterplan) has been approved, completely funded, will be implemented in 2020 and completed by 2022. The University technical office is dealing with the maintenance of the already existing structural part. The Establishment ensures that all physical facilities comply with all relevant legislation concerning safety and security.

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, selflearning, 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.

The number of students enrolled in the Veterinary Medicine Faculty for each Italian Faculty/Department of Veterinary Medicine is established yearly by the Ministry of Education, University and Research. The FVM of Teramo enrolled 45 students both in 2016/2017 and 2017/2018 and 51 students in 2018/2019.

Premises of the FVM are adequate for the number of students enrolled and are listed in Tables 4.2.1 (Lecturing), 4.2.2 (Group work), 4.2.3 (Practical work and skill labs), 4.2.4 (Diagnostic and research laboratories used for practical work), 4.2.5 (Study and self-learning, catering, locker rooms, accommodation for on-call students and leisure). Total teaching area is 1.391,53 m² (Appendices 3.a and 3.b).

The classrooms for taught lessons are in the main venue of Piano D'Accio and feature equipment suitable for lectures (Table 4.2.1), and which satisfy the number of students of the Faculty of Veterinary Medicine of Teramo for the five-year degree programme. In the main venue of Piano D'Accio there are some classrooms used for group activities or for meetings between students and/or teachers and some laboratories. The anatomy/necroscopy room as well as other laboratories for practical activities are in the ground floor of the VTH in Piano D'Accio. Other practical activities are carried out in Coste S. Agostino – Colleparco.

Table 4.2.1. Lecturing (Campus of Piano D'Accio)

PREMISES	ROOM	EQUIPMENT
Thesis hall	0801078	Mobile rack for audio/video transmission, desktop computer with Office package, beamer, overhead projector on request, blackout curtains and air conditioning system
n. 4 Classrooms	0801019 0801020 0801057 0801058	Mobile rack for audio/video transmission, desktop computer with Office package, beamer, overhead projector on request, blackout curtains and air conditioning system.

Table 4.2.2. Group work (Campus of Piano D'Accio)

PREMISES	ROOM	EQUIPMENT
Computer classroom	0801055	17 desktop computer with Office package, beamer, overhead projector on request, blackout curtains and air conditioning system.
Classroom 5	0801056	Mobile rack for audio/video transmission, desktop computer with Office package, beamer, overhead projector on request, blackout curtains and air conditioning system.
Classroom 3	0801021	Mobile rack for audio/video transmission, desktop computer with Office package, beamer, overhead projector on request, blackout curtains and air conditioning system.
PhD Classrooms	090T008; 090T009; 090T013	N. 3 classrooms equipped with desktop computer with Office package, beamer, overhead projector on request, blackout curtains and air conditioning system.

Table 4.2.3. Practical work and skill labs (Campus of Piano D'Accio and Coste S. Agostino – Colleparco).

PREMISES	ROOM	EQUIPMENT
Anatomic and necroscopic room	090T118	The room is equipped with winch and ceiling sledges for large animal autopsy, 6 necroscopic tables, 1 chemical hood, 1 microtome, 3 freezers, and a preparation room of 20 m ² connected to a fridge of 16 m ² and a 10 m ² -20°C freezer. The room serves also for anatomy teaching and surgery training on cadaver
Motti laboratory*	101003	6 hoods, 1 mastercycler PCR, 2 spectrophotometer, 1 UV transilluminator, 4 magnetic stirrers, 2 centrifuges, 12 work tables and 74 chairs for students
Barone laboratory*	101004	30 optical microscope, 2 inverted microscope, 1 chemical hood, 2 hysto-embedders, 1 optical microscope connected to a projector, 10 work tables and 48 chairs for students

*Located in Campus Coste S. Agostino – Colleparco

Table 4.2.4. Diagnostic and Research laboratories used for practical work

PREMISES	ROOM	EQUIPMENT
CAMPUS OF PIANO D'ACCIO - VTH		
Reproduction	090T046	1 Computer Assisted Sperm Analyzer, 1 CO2 incubator, 1 epifluorescence microscope, 1 flow cytometer cell sorter, 1 portable rigid endoscope, 1 portable ultrasound machine, 1 stereomicroscope, 1 analytical balance, 1 filler-sealer machine for straws, 1 steel water bath, 1 natural air ventilation oven, 1 fridge-freezer.
Hematology and Clinical Cytology and Blood Bank	090T029	1 automatic slide stainer – cytocentrifuge, 1 archive for microscope slides, 1 biological hood, 1 shaker-scale for blood bags collection, 1 refrigerate centrifuge for blood bags, 1 manual plasma extractor, 1 thermal sealer for tubings, 1 blood tube stripper, 1 fridge for blood bags, 1 refractometer, 1 optical microscope with digital camera and multiview station, 1 desktop PC, 1 freezer –25°C, no. 1 minicentrifuge, no. 2 thermocycle, no. 1 laminar flow hood, n. 1 bench-top hood.
Clinical Analysis	090T028	1 biological hood, 1 biochemical analyzer, 1 refrigerate centrifuge, 1 thermostat, 1 freezer –20°C, 1 fridge, 2 safety box, 1 optical microscope with digital camera, 1 refractometer, 1 desktop PC.
Cytology and Histopathology	090T030	2 freezers, 2 optical microscopes, 2 bench balances, 2 stirring hotplates, 3 pHmeters, 1 vortex, 1 minicentrifuge, 1 tissue processor, 1 safety closet, 2 chemical fume hoods, 1 microtome + 1 water bath (thermostated), 1 thermostatic water bath (thermostated), 1 oven (thermostated), 1 microwave oven, 1 embedding center.
Infectious disease Molecular biology and diagnostics	090T042	1 fridge, 1 freezer, 1 microwave oven, 1 thermostatic water bath, 1 analytical balance, 1 magnetic stirrers with hot plate, 1 bioPhotometer, 2 pieces of electrophoresis equipment, 3 electrophoresis chambers, 1 pH meter, 1 vortex, 1 mini centrifuge, 3 thermocyclers, 1 thermoblock, 1 Real time PCR, 1 laptop PC (real time pcr), 1 UV transilluminator, 1 autoclave.
Virology and Cell cultures	090T115	2 fridges, 2 freezers, 1 microwave oven, 2 thermostatic water bath, 2 balances, 1 icemaker, 1 water purification system, 1 electrophoresis equipment, UV transilluminator, 2 thermostatic Incubators, 1 CO2 incubator, laboratory oven, 1 freezer thermostatic incubator, 1 vortex, 2 mini centrifuges, 1 tabletop centrifuge, 2 PCR thermocyclers, 1 realtime PCR thermocycler, 2 laminar flow cabinets, 1 ultracentrifuge, 2 laboratory shakers, 1 lab homogenizer, 1 laboratory autoclave, 1 magnetic stirrer, 2 orbital shakers, 2 inverted light microscopes, 1 laboratory glass washer.
Bacteriology Louis Pasteur	090T060	1 laminar flow cabinet (BSC class 2), 2 thermostatic Incubators, 1 fluorescence optical microscope, 1 plate multi-mode reader (luminescence, absorbance, fluorescence), 1 photometer, 1 electrophoresis equipment, 1 benchtop centrifuge, 1 refrigerated floor centrifuge, 2 fridges, 1 freezer, 1 thermostatic water bath, 1 balance, 1 vortex, 1 laboratory shaker, 1 lab homogenizer, 1 magnetic stirrer, 1 orbital shaker.
Food inspection	090T049	1 vidas, 3 electrophoresis chambers, 2 real time PCR, 1 elisa immunoassay tecan, 1 spectrophotometer, 1 refrigerated table centrifuge, 1 refrigerated table centrifuge, 1 mini centrifuge, 1 ultrasound bath, 1 pH meter, 2 vortex, 1 hot hair oven for laboratory, 2 thermostatic Incubators, 1 vacuum machine, 2 counts colonies, 1 bioluminometer system, water purification system, 1 autoclave, 1 fridge- freezer, 2 balances, 1 optical microscopy, 1 microwave, magnetic stirrers with hot plate, laminar flow hood, electrophoresis equipment, stomacher, table hood for molecular biology.
CAMPUS OF PIANO D'ACCIO - VMF		
Parasitology 1	0802015	2 fridges, 1 microwave, 1 benchtop centrifuge, 1 analytical balance, 1 magnetic stirrer, 1 electrophoresis chamber, 1 stereomicroscope, 2 optical microscopes, 4 Baermann apparatus, 1 UV Transilluminator, 1 PC and camera picture image system.
Farmacology and toxicology		
Chromatography*	080T072	1 incubator, 1 laboratory fume extraction, 1 stereo microscope, 1 reversed phase microscope, 1 pro Ultrapure Water System, 1 magnetic hot plate stirrers, 1 GC-MS QP 5000, 1 heating bath, 1 analytical balance, 1 laboratory chemical reagent Storage safety cabinet.
Sample Preparation*	080T069	2 chemical fume hoods, 1 refrigerated centrifuge, 1 technical balance, 1 PBI autoclave, 1 multiparameter photometer, 1 edge multiparameter Ph-meter, 1 tablet Ph-meter, 1 magnetic hot plate stirrers, 1 minicentrifuge minispin, 1 incubator Hera cell 150, 1 orbital shaker ks 130, 2 vortex ms2, 1 ASE dionex, 1 refrigerator, 1 deep freezer, 2 laboratory chemical reagent Storage safety cabinets, 2 artemia hatching systems.
Animal production and nutrition		

Mycotoxins and hplc	080T060/ 080T061	1 glassware washer, 2 Heating plates, 1 Vortex mixer, 1 homogenizer UltraTurrax, 1 evaporator under nitrogen flow – 1, bench-top centrifuge, 1 horizontal shaking electroagitator, 1 HPLC Alliance separation module, 1 refractive index detector, 1 fluorescence detector, 1 photodiode detector, 1 temperature control module, 1 post-column reaction module, 2 reagent manager pumps for dispensing reagents for post-column reaction, 1 PC with HPLC system management software WATERS All-round printer, 1 trans-sidelight, 1 microplate reader with printer, 1 analytical balance, 1 technical balance, 1 fridge-freezer, 1 phone, 1 chemical suction hood, 2 PCs, 1 printer.
Chemical centesimal analysis	080T055	2 Bench-top centrifuges, 1 horizontal shaking electric mixer KS 125 Basic, 1 vacuum system Home, 1 vortex mixer, 1 air compressor, 3 chemical suction hoods, 1 electric muffle furnace (under hood), 1 rotavapor - bain-marie for rotavapor, 1 mineralizer (under hood), 1 scrubber, 1 fat extractor with control unit, 1 deionized water producer, 2 glassware (stove - washer), 1 forced ventilation stove for sample drying, 1 thermostatic water bath, 1 technical balance, 1 microwave oven for sample mineralization, 1 polarimeter , 1 pH meter, 1 semi-automatic distiller, 1 fat hydrolysis system, 1 bain-marie thermostated under stirring, 1 digester, 4 fiber digestion systems (hot unit 6 places, cold 6 places, 2 more with different places), 1 dietary fiber system - automatic distiller, 3 homogenizers, 1 homogenizer UltraTurrax, 2 double heating plates, 3 magnetic stirrer with hot plate, 1 ultrasonic bath, - Freezer, Fridge, Fridge-freezer, 3 safety cabinets.
Gas chromatography and atomic absorption	080T063	1 Spectrophotometer UV-VIS, 1 Varian Cary 1E atomic absorption spectrophotometer, 1 Perkin Elmer Analyst 300, 1 gas chromatograph purchasing.
Instrumentation Digestibility	080T065	1 Daisy II incubator, 1 Ankom Technology, 1 Ankom 220 fiber analyzer, 1 natural ventilation stove, ISCO, 1 stuart thermostatic water bath, 1 chemical suction hood, 1 vortex, 2 minicentrifuges.
CHIARETO TEACHING FARM		
Semenology	140T09	1 centurion frozen centrifuge, 1 digital thermostatic bath, 1 microscopy Olympus CH40, 1 thermostatic table, 1 microscopy + TV, 2 stereomicroscopy, 2 freezer control for embryo refrigeration, 1 plan + cofano for semen refrigeration, 1 open freezer for semen material, artificial vaginas, 1 dynamin hood
Sterilization	140T08	1 Fedegari sterilizer, 1 Hydra Electronic sterilizer, 1 Biozomat for ozone production, 1 UV sterilizer, Ultrasound machine for ovum pick-up, 1 surgical aspiration
CAMPUS AT COSTE S. AGOSTINO – COLLEPARCO		
Physiology		
Cell Cultures	104057	1 incubator for Cell Culture, 1 sterile hood, 1 pipette puller, 1 thermostatic bath, 1 inverted microscope, 1 microforge
Molecular Biology	104058	1 Real Time PCR, 1 chemical hood, 2 thermal cyclers, 1 centrifuge, 1 freezer -20
Sample Preparation	104068	1 electrophoretic apparatus, 1 oven, 1 termoblock, 1 fridge
Embryology	104067	2 incubators for embryos culture, 2 micromanipulators, 1 sterile hood, 1 thermostatic bath, 1 centrifuge, 1 fridge
Biochemistry		
Molecular Biology	104032	1 capillary thermostat
Mass Spectrophotometry	10403150	3 HPLCs
Functional Biochemistry	104033	1 fluorescence and absorbance plate reader
Cell Coltures	104050	14 stereo microscopes
Structural Biochemistry	104044	1 refrigerated centrifuge, 1 benchtop centrifuge, 1 plate reader (Enspire), 2 spectrophotometers, 1 benchtop centrifuge, 1 technical balance, 2 pieces of electrophoresis equipment, 1 dynamic hood, 2 pH meters, 1 water distiller, 1 fridge
Histology, Biomolecular Laboratories		
Histology	104059	1 cryostat, 1 microwave oven, 1 Nikon stereo microscope, 1 microm microtome, 1 Heto bath, 1 Leica microtome, 1 Vacutherm oven, 1 optical microscope, 1 Heraeus incubator, 1 Contiental oven, 1 Paraplast oven, 1 chemical hood
Immunohistochemistry	104061	1 Akima magnetic stirrer, 1 thermostatic bath, 1 rotamix, 1 centrifuge, 1 analytical balance, 1 tilting agitator, 1 stereo microscope, 2 ovens, 1 sonicator, 1 distiller, 1 bi-distiller, 1 chemical hood

Molecular Biology	104131	1 thermostatic bath, 1 steam bath, 1 rotomix, 1 inverted microscope, 1 biometric thermometer, 1 gel Imager, 1 Real time PCR, 1 desktop PC, 1 centrifuge, 1 ThermoBrite (Hybridizer fish), 1 Bio Rad power pack, 1 vortex, 1 nanoDrop, 1 chemical hood
Imaging	104047	1 confocal laser microscopy, 1 fluorescence microscopy, 1 optical microscopy

* Laboratories used only for research activities.

Premises for study and self-learning, library, catering, locker rooms, accommodation for on-call students, leisure, are located in the teaching area and VTH (Table 4.2.5). The total area is 1.519,09 m² wide. The Faculty has free Wi-Fi. Therefore, students have access to all electronic resources through UniTe Wi-Fi or *via* EDUROAM (Education Roaming) wireless network.

Table 4.2.5. Study and self-learning, catering, locker rooms, accommodation for on-call students and leisure, sanitation.

TYPE	ROOM	DESCRIPTION
Catering*	080T035/080T034	Students' Union Cafeteria/Canteen
Locker room	090T031	n. 2 lockers (1 for male and 1 for female students and Staff).
Dormitories for on-call students	090T055	For male students
	090T057	For female students
Dormitory for on-call vets	090T012	
Study and self-learning**	801022	15 tables and seats/ Library
Sanitation	Toilet and washing facilities are present in all the building	
Leisure	<p>The DVMP provides outdoor spaces equipped with benches and tables.</p> <p>The University provides additional accessible recreational and leisure spaces and activities:</p> <ul style="list-style-type: none"> - University Sporting Center (CUS) (https://www.unite.it/UniTE/CUS_-_Centro_Universitario_Sportivo). CUS Teramo participates in numerous interfaculty competitions, both in individual and team sports. The CUS Teramo secretary office is located in the Campus of Coste Sant'Agostino. - University Theater Center (CUT) (https://www.unite.it/UniTE/Servizi/CUT). It offers courses in diction, acting, public speaking to all students of Unite. - Centre for modern languages (https://www.unite.it/English/The_Centre_for_Modern_Languages) The University of Teramo Centre for Modern Languages offers courses of Foreign Languages in order to improve the skills of international and exchange students. Such courses are free. - Cultural and sport activities are provided by the Authority for the Right to Higher Education (ADSU) (https://www.adsuteramo.it/) 	

*Cafeteria is present both at Colleparco Campus and Piano D'Accio Campus, a Canteen is present in Piano D'Accio. ADSU guarantees a special price for students' meals. Food and drinks are also permanently available through automatic food and beverage vending machine. * About 50 seats for studying and self-learning are distributed across the Faculty.

The staff offices and research laboratories are distributed among the VTH, the VMF, Colleparco Campus and CTF. Staff offices consist of about 1,000 m², among teachers, administration, and technicians. Laboratories used both for research and training are listed in Table 4.2.4.

4.3 The livestock facilities, animal housing, core clinical teaching facilities and equipment used by the Establishment 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 total area for animal housing is 13,344.57 m² wide. Healthy horses, ruminants and pigs are housed in the CTF and part in the main Campus of Piano D'Accio (Table 4.3.1). In the CTF four uncovered paddocks for the herd are available; stables, a cowshed and a sheepfold permanently occupied by normal animals, mainly horses, cattle and sheep that are kept for the practical teaching of veterinary semiotics, animal husbandry, feeding routine, herd hygiene and handling livestock. Premises in the CTF allow safe hands-on training for students, promote best husbandry, welfare and management practices.

Table 4.3.1. Premises for housing healthy animals (Farm of Chiareto and Campus of Piano D’Accio).

PREMISE	SPECIES	ANIMAL/BOXES	AREA, M ²
Redondel: Uncovered riding arena	Horses	1	1.980
Uncovered paddock	Equine/cattle	2	300
Uncovered paddock	Cattle, horses	1	2400
Uncovered paddock	Cattle, horses	1	3500
“Scuderia Gran Sasso”	Horses (Stallions)	6	108
“Scuderia Maiella”	Horses (Mares)	14	171.5
Stalls	Horses	9	78.3
Individual box with paddock	Horses	3	750
Individual box with paddock	Horses	4	280
Individual box with paddock	Horses	2	300
Individual box with external paddock “Ovile Roseto”	Pigs, donkeys	4	36+48
Individual box with external paddock “Fonte Vetica”	Bulls	4	36+48
Individual box “Ovile Roseto”	Cows	8	67,20
Covered boxes and open space divisible in two or parts stalls	Sheep, goats	3	144
Individual box with external paddock/Kennel	Dogs	20 5	45+120 20+30
Service house for kennel		1	50
Dunghill		1	96
Barn		1	138.37
External paddocks*	Equine	4	2180

*Located in the Campus of Piano D’Accio

The premises for housing hospitalised (Table 4.3.2) and isolated (Table 4.3.3) animals are located in the Piano D’Accio Campus. Hospitalized companion and large animals are in separate areas. The following rooms in the hospitalization area are provided for companion animals: hospitalization for cats, divided into surgery and medical room; hospitalization for dogs, with the same division and the ICU divided for cats and dogs. This room includes a special area dedicated to neonatology.

For large animals there is a stable with 14 individual boxes of variable size, just outside the VHT; two boxes for critical care horses are within the VHT. Premises housing isolated animals are also present (Table 4.3.3). These areas are completely separated for both access and ventilation from the rest of hospital. For companion animals an infectious area includes a visiting room, a quarantine area, an isolation area, and a hospitalization. For horses two external boxes are present. The structural layout has been designed for personnel, animal and biological material flows in compliance with biosecurity, hygiene and health regulations.

Table 4.3.2. Premises for housing hospitalized animals.

PREMISE	ROOM	SPECIES	DESCRIPTION
Hospitalization for cats	090T050	Cats	The room is divided into two different and separate areas, one for patients hospitalized for surgical pathologies and one for medical pathologies. Both areas are fully equipped with basic equipment (e.g. table, cabinet for drugs and/or materials for first treatment or diagnostic samples, veterinary examination tables, syringe and infusion pump).
Hospitalization for dogs	090T051	Dogs	The room is divided into two different and separate areas, one for patients hospitalized for surgical pathologies and one for medical pathologies. Both areas are fully equipped with basic equipment (e.g. table, cabinet for drugs and/or materials for first treatment or diagnostic samples, veterinary examination tables, syringe and infusion pump).
ICU and neonatal room	090T057	Cats/Dogs	Fully equipped with basic equipment and to perform emergency life-saving operations including ventilator treatment.

ICU large animals	090T052	Horses	Two separated boxes are present. Fully equipped with basic equipment and to perform emergency life-saving operations (e.g. electronic infusional syringe pump and 1 tackel).
Horse stall	LA shelter	Horses	No. 14 boxes
Horse nursery	LA shelter	Horses	No. 2 boxes
Stall	LA shelter	Cow	No. 1

Table 4.3.3. Premises housing isolated animals.

PREMISE	ROOM	SPECIES	DESCRIPTION
Quarantine	090T041	Cats/Dogs	First hospitalization of potentially infected animals. Divided by a wall in cat and dog areas. Fully equipped with basic equipment. Stainless steel and disposable material are present.
Isolation area	090T037	Cats/Dogs	Hospitalization of suspected infected animals. Divided by a wall in cat and dog areas. Fully equipped with basic equipment. Stainless steel and disposable material are present.
Infectious disease room dogs/cats	090T040	Cats/Dogs	Hospitalization of confirmed infected animals. Divided by a wall in cat and dog areas. Fully equipped with basic equipment. Stainless steel and disposable material are present.
Infectious disease room horses	2 external boxes	Horses	Stainless steel and disposable material are present.

In the Campus of Piano D'Accio an enclosure for zebrafish is also present (Authorization number 02/2016 – UT, March 11, 2016, D.lgs 26/2014). The research activities on zebrafish aim to evaluate the toxic effect of different substances on the health and welfare of these animals. The students have access to the enclosure during the planned practical courses of toxicology and pharmacology and/or for the preparation of the graduation thesis.

Clinical activities and diagnostic services of the VTH are dedicated to both companion and large animals. Registration of clinical cases of all species are performed in a single reception while VTH clinical activities are divided into three functionally areas: Companion animals VTH, Large animals VTH and Diagnostic services.

The complete list of laboratories and related equipment is provided in Table 4.2.2. Activities for anatomical training and necroscopy are carried out in the same anatomy/pathology room but scheduled in different days and after thorough cleaning and disinfection. Equipment for diagnostics imaging and surgery procedures are listed in Table 4.3.4. The area of the VTH dedicated to companion animals include a consultation area where 4 examination rooms are present. Specifically, 2 of them are divided into two visiting rooms for dogs and cats respectively, the third room is intended for small animal obstetrics and reproduction. Within the waiting room an emergency examination room is also present. A further visiting room for companion animals is located in the infectious area.

The clinical consultation rooms contain the basic equipment that allows the clinician to visit the animal and localize or treat the actual pathological condition, such as stethoscope, otoscope, hammer for reflex testing, tubes for urine or blood samples, medications, etc..In the small animal hospital, there are areas for the preparation of the patient and three surgical theaters used one for clean surgeries (neurosurgery/orthopedics), two for clean/contaminated surgeries. There is also a room dedicated to endoscopic examination and an area for instrument sterilization. Small animal surgery has equipment for soft tissues and neurologic/orthopedic procedures; minimally invasive surgery instrumentation and videoendoscopes of different sizes are available. Patient preparation spaces and surgical theatres have sockets to connect oxygen, for aspiration and for under pressure air. A physiotherapy area within underwater treadmill is also available. Physiotherapy area for small animals is equipped with an underwater Treadmill (UWTM: tank + tank filling machine and water heater), carpets (foam carpets, proprioceptive carpets), proprioceptive boards, various sizes of physiorolls and physioballs.

The large animal hospital (mainly equine) includes two anaesthesia induction/awakening boxes, two surgical theaters, one for contaminated procedures and the other for clean procedures, as well as two clinical consultation rooms one of which acts also as an endoscopy/standing surgery room. The visiting rooms contain the necessary equipment for control, visiting, and the main diagnostic and therapeutic procedures. The radiology is equipped with a standard device with image detection given by an indirect digital radiology. The endoscopy and ultrasound facilities include two videoendoscopes of 140 and 220 cm, and two ultrasound machines equipped with linear and convex probes. The two available ultrasound scanners are portable so they can be moved if necessary. Large

animal surgery has instrumentation for soft tissues and orthopedic surgery including arthroscopy and laparoscopy. Surgical rooms are provided with all necessary for surgical procedures including fluid aspiration system and air pressurized sockets for pneumatic instrumentation. Consultation-rooms, inductional and recovery boxes, patient preparation areas and surgical theatres have all sockets to connect oxygen.

Diagnostic imaging is split in the small and large animal parts. In the small animal hospital, there is an ultrasound room, a radiology room, console and image reading room, and a magnetic resonance imaging (MRI) room and an endoscopy room. Radiology is provided with a radiological unit with annexed fluoroscopy, and the images are produced through a direct digital radiological device and if necessary also has an indirect digital radiological device. Rooms have socket to connect oxygen. The diagnostic imaging has two ultrasound scanners, with probes and softwares for B.mode studies, M-mode studies, contrast studies, sonoelastography (strain and shear wave) and Doppler.

In the large animal hospital, there is a radiology room, and an ultrasound/endoscopy facility within one of the consultation rooms. The MRI unit is equipped to serve both small and large animals.

In the RM room there is a 0.25 T unit, with coils for the study of small and large animals and a machine for gaseous anesthesia. Room has socket to connect oxygen.

Table 4.3.4. Equipments for diagnostics imaging and surgery procedures

PREMISE	ROOM	EQUIPMENT
DIAGNOSTICS IMAGING		
Ultrasound room SA	090T061	2 Ultrasound machines, 3 Electrocardiographs, 1 Ultrasound imaging examination electric table, 8 Ultrasound probes, 1 Veterinary ultrasound cardiac table, 1 Holter ECG, 1 pc, 1 oxygen dispenser panel, 1 waste anesthesia gas disposal interface, 1 Veterinary ultrasound positioner
Radiology room SA	090T062	1 X-ray machine, 1 X-ray remotely controlled table, 8 X-ray positioner sand-bags, 5 Veterinary x-ray positioners, 6 Radiolucent positioning sponges, 1 Serving trolley, 1 Fluoroscopic monitor, 3 Lead apron x-ray protections, 4 Lead gloves, 1 waste anesthesia gas disposal interface, 1 oxygen dispenser panel, 3 Thyroid shell x-ray protections
Radiology room LA	090T109	1 X-ray machine, 1 X-ray digitizer, 1 X-ray machine control console, 5 X-ray cassettes, 3 Lead apron x-ray protections, 4 Lead gloves, 1 oxygen dispenser panel, 1 waste anesthesia gas disposal interface, 3 Thyroid shell x-ray protections,
Radiology reading room	090T063	1 X-ray digitizer, 1 X-ray machine control console, 4 Desktop computers, 1 X-ray wireless cassette, 6 X-ray cassettes, 1 X-ray film viewer, 1 Monitor, 1 DVD reader, 1 VHS reader, 1 Printer, 1 Fluoroscopic monitor, 5 Lead glasses, 2 X-ray film printers
MRI room	090T107	1 MRI scanner, 1 Faraday cage, 1 pc, 1 infusion pump, 1 Anesthetic machine, 3 Positioner sand-bags, 7 Coils, 2 Phantoms, 28 Positionerx, 1 oxygen dispenser panel, 1 Non-magnetic stretcher, 1 waste anesthesia gas disposal interface
Endoscopy room SA	090T024	1 endoscope of different sizes, 1 video-endoscope, 1 endoscopic washing machine
Endoscopy and Ultrasound room LA	090T108	1 stock, 1 oxygen dispenser panel
SMALL ANIMAL SURGERY		
Prep/Induction room	090T072	2 oxygen dispenser panels, 1 anesthetic machine, 2 waste anesthesia gas disposal interfaces, 1 vacuum cleaner, 1 veterinary examination table
Recovery room	090T080	1 anaesthetic machine, 2 pasteur ovens, 2 endoscopes
Recovery room	090T084	1 waste anesthesia gas disposal interface, 1 oxygen dispenser panel
Surgeons preparation room theatre n.1	090T076	1 surgical sink
Surgeons preparation room theatre n.2-3	090T078	1 surgical sink
Surgical Theatre n.1 ("Orthopedic")	090T075	1 surgical table, 1 diaphanoscope, 1 infusion pump, 1 anaesthetic machine, 1 waste anesthesia gas disposal interface, 1 scyalitic light, 1 oxygen dispenser panel, 1 surgical table, 1 serving hatch

Surgical Theatre n.2 (“Soft tissues”)	090T077	1 surgical table, 1 scyalitic light, 1 elettrovessels device, 1 suction device, 1 anaesthetic machine, 1 waste anesthesia gas disposal interface, 1 oxygen dispenser panel, 1 anaesthetic monitor, 2 infusion pumps, 2 serving hatches
Surgical Theatre n.3 (“Soft tissues 2”)	090T079	2 surgical tables, 1 serving hatch, 1 scyalitic portable light, 1 waste anesthesia gas disposal interface, 1 oxygen dispenser panel, 1 anaesthetic machine, 1 anaesthetic monitor, 1 monitor, 1 video recorder, 1 endoscopic aspirator, 1 cold light source, 1 waste anesthesia gas disposal interface
SA instrument washing room	090T089; 090T088	instrument washing
Autoclaves room	090T085	2 autoclaves
Sterile packaging (LA/SA)	090T086	1 surgical heat sealer
SA Surgery warehouse	090T082	Sterile instrument warehouse
SA Rehabilitation	090T032	Underwater Treadmill (UWTM: tank + tank filling machine and water heater), carpets (foam carpets, proprioceptive carpets), proprioceptive boards, various sizes of physirolls and physioballs.
LARGE ANIMAL SURGERY		
Preparation room	090T100	1 waste anesthesia gas disposal interface, 1 oxygen dispenser panel, 1 incubator for solutions, 2 operating table chargers, 1 operating table’s mattress inflator, 1 fully automatic battery charger, 1 vacuum cleaner
Preparation room	090T104	1 waste anesthesia gas disposal interface, 1 oxygen dispenser panel
Induction room	090T098	1 tackel, 1 oxygen dispenser panel, padded walls
Induction room	090T106	1 tackel, 1 oxygen dispenser panel, padded walls
Surgeons preparation room	090T102	1 surgical sink
Surgical Theatre (“orthopedic”)	090T103	1 fixed scalytic lamp, 1 operating table, 2 waste anesthesia gas disposal interfaces, 2 oxygen dispenser panels, 1 serving hatch, 1 diaphanoscope
Surgical Theatre (“soft tissues”)	090T101	2 anaesthetic machines, 1 electrocautery, 2 anaesthetic monitors, 1 mobile scalytic lamp, 2 operating tables, 1 mechanical ventilator, 1 diaphanoscope, 3 electronic infusional siring pumps, 2 oxygen dispenser panels, 2 waste anesthesia gas disposal interfaces, 1 serving hatch, 1 fixed scalytic lamp
LA Surgery Storage Area	090T105	1 glucometer, 2 emogasanalyzers, 2 ultrasound machines, 1 laser, 1 manometer, 2 oscillating saws, 1 videocamera, 4 monitors, 1 electrocautery, 1 refrigerator, 1 ligasure, 1 endoscopy pump, 1 endoscopic aspirator, 1 video recorder, 2 DVD player, 5 image processors, 2 arthroscopy pumps, 5 endoflators, 1 Ligasure pedal, 7 cold light sources, 1 endoscopic photo printer, 1 ecographic photo printer, 1 endoscope, 2 gastroscopes, 1 fibroscope, 1 phototherapy machine, 1 monitor pc, 1 perfusion tourniquet, 1 portable X-ray machine
LA Instruments washing room	090T091	1 instruments washing
Collection Room for surgical instruments	090T091	2 serving hatches, 1 washing machine
Hallway to surgery room	090T099	1 anaesthetic recovery helmet

The intramural activity of food inspection is carried out in the laboratory and when appropriate in the anatomical room of the Faculty. Students are separated into small groups (maximum of 5) and carry out the practical activity autonomously under the supervision of the teacher. The extramural work is carried out in different premises in order to guarantee thorough knowledge, both about slaughterhouses and foodstuff processes. The activities involve all students with educational visits to the affiliated structures listed in tables 4.3.5 and 4.3.6, under the supervision of internal staff. Inside the facilities there is also the Official Veterinarian of the National Health Service. Students are divided into groups to carry out an inspection check using the AUDIT tool (activities are described in standard 3).

Table 4.3.5. Slaughterhouses

PREMISES	DESCRIPTION	ADDRESS	DISTANCE
Mattatoio comunale Ascoli Piceno	Slaughterhouse for domestic ungulates	Strada di Castagneti 65 63100 AP	km 34.9
Amadori area produttiva	Slaughterhouse for poultry, cutting plant, establishment for the production of mechanically separated meats, meat preparations and storage.	Strada provinciale 22a 64023 Mosciano S. Angelo (TE)	km 17.4

Table 4.3.6. Food and feed processing premises

PREMISES	DESCRIPTION	ADDRESS	DISTANCE
Adriatica Salumi	Establishment for the production of fermented meat products	Via Pascal 16. Sant'Egidio alla Vibrata (TE) 64016	km 22
Bontà dei Colli	Cattle farm, production and sale of biological meat, km 0 production chain	Via Colle Cervinara 7 Maltignano (AP) 63085	km 32
Caseificio Sabelli	Establishment for the production of dairy products and export in United States, South Korea and UAE	Zona industriale Basso Marino Via del Pagliaio (AP) 63100	km 32
Filiaggi	Cutting plant for domestic ungulates meats, establishment for the production of minced meat and meat preparations and their packaging, storage and sale	Via IV Novembre n. 5 Pagliare di Spinetoli (AP) 63078	km 34
La Vergara	Establishment for the production of dairy products; km 0 production chain	Contrada tose 33 castel di lama (AP) 63082	km 33
Centro Carne	Establishment for the production of meats	Via C. Colombo 1 S. Omero (TE) 64027	km 20
L'Ascolana	Establishment for the production of "olive ascolane", a typical meat product	Zona industriale Campolungo/Villa S. Antonio (AP) 63100	km 30
Monti S.P.A.	Establishment for the production of processed fishery products (stockfish and codfish)	Via Gabbiano 18 64013 Ravigliano Corropoli (TE)	km 35
CIMAR SRL	Dispatch centre for bivalve molluscs	Lungomare Spalato 1764021 Giulianova (TE)	km 22
Ariston SRL	Feedstuff company	Contrada Salara 34, 64030 Basciano (TE)	km 16

Table 4.3.7. Livestock farms for reproduction and animal production extramural classes

PREMISES	DESCRIPTION	ADDRESS	DISTANCE
Martin	Dairy farm with about 200 cows	C.da Cona Faiete - Rocca S.Maria (TE)	25 km
Colle Barone	Pig farming with 900 sows	C/da Colle del Barone, 66, 66043 Casoli CH	77 km
Sebastiani	Dairy farm with about 80 cows	L'Aquila	49 km
F.lli Roscioli	Dairy farm with about 100 cows	SS di Bellante	10 km

Table 4.3.8. Sanitary and recovery kennel for extramural activities on stray dogs

PREMISES	DESCRIPTION	ADDRESS	DISTANCE
Asilo albergo per cani Albani Maria	Shelter (maximum 700 dogs)	Contrada Colle Di Giorgio 25, 64020, località Castelbasso (TE)	km 16
Sanitary public kennel	Kennel (maximum 50 dogs)	Strada provincial 25, 64020, località Castellalto (TE)	km 16

4.4 Core clinical teaching facilities must be provided in a veterinary teaching hospital (VTH) with 24/7 emergency services at least for companion animals and equines. Within the VTH, the Establishment 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 Establishment 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 ORGANIZATION: the VTH offers a 24-hours, 365 day a year service. The team includes veterinarians from the academic staff, veterinarians recruited as external collaborators, post-graduate students, technical staff and undergraduate students. The VTH offers services of General Consultations, Referral (specialized) consultations, ICU and Hospitalization.

General consultation particularly for emergency, hospitalization and ICU are provided 24-hours, 365 days a year. Patients admitted to the General Consultation service are evaluated clinically, and potential emergency or intensive care cases are referred to the Hospitalization or ICU.

First opinion cases may be discharged, hospitalized or, when necessary, referred for specialized consultation. For this purpose, three academic staff members (one for internal medicine, one for surgery and one for reproduction) are available for consultation or emergency during weekdays from 9 a.m. to 5 p.m., and with other contract collaborators on-call during night-time shifts and weekends or holydays.

Referral (specialized) consultations are offered from Monday to Friday 9.00 a.m. to 5.00 p.m. upon appointment in the following areas: gastroenterology, respiratory diseases, dermatology, cardiology, nephrology and urology, endocrinology, infectious diseases, ophthalmology, nutrition, oncology, neurology, soft tissue surgery, oncologic surgery, orthopedics, obstetrics, gynecology, andrology, neonatology and exotic medicine and surgery, equine medicine and surgery and equine reproduction. Referral consultations include cases referred by private practitioners, and cases referred by the General Consultations internal service. Moreover, the VTH, thanks to 24-hour service, is a reference center for the first aid of stray companion animals coming from the Public Health Service. Hospitalization is organized in separate facilities for large animals and companion animals. Moreover, a room is dedicated to pregnant dogs and cats for peripartum assistance.

Patients with infectious diseases (or suspected) are immediately admitted to the dedicated consultation room according to biosecurity rules.

The ICU is organized in dedicated first consultation rooms equipped with anesthetic machines and first emergency devices, to allow oxygen support and monitoring. X-ray or ultrasound examination, blood gas and blood analysis services are available 24-hours 365 days a year, while surgeons are available on-duty or on-call as reported above. The most common clinical and main emergency procedures, drug dosages and treatment protocols are available in folders, as well as chart flows in one consultation room (near the companion animal general consultation rooms) and in the ICU facilities. Protocols are accessible to all clinicians and students.

Moreover, to promote the students' work in groups, all patient's documentation is available on the hospital computers. Case study, discussion and interpretation of clinical data, among students and with the clinical staff are the main purpose of the VTH activities.

VTH MANAGEMENT: the VTH has its own regulations for functional management activities. VTH management is supported by the VTH Technical Coordination Body, composed by the Veterinary Hospital Director and a Coordinator for each service. Specifically, these are: Veterinary Emergency, Small Animals Internal Medicine, Equine Medicine and Surgery, Diagnostic Imaging and Small Animals Surgery, Small Animals Internal Medicine, Small Animals Theriogenology, Large Animals Theriogenology, Veterinary Pathology and Microbiology, Infectious and Parasitic diseases services (Appendix 6). VTH regulations define internal guidelines for all VTH activities, including work organization, human resources, evaluation of expenses, provided services, protocols and regulations concerning animal admission and hospitalization. Regarding personnel recruitment, selection criteria for clinical collaborators enrolment are specifically identified.

Potential owners/farmer complaints are discussed and managed by the VTH Director and by the service Coordinators and after an internal discussion, solutions are identified and communicated to the VTH staff.

AMBULATORY CLINICS (Mobile clinics): extra-mural clinical activities are carried out by the Ambulatory Clinics. In these activities both the VTH staff and external collaborators are enrolled. Activities (from 8.30 a.m. to

5.00 p.m.) are scheduled upon appointment, and concern mainly clinical cases of horses and cattle on-farm. Students can participate in each programmed visit. The Ambulatory Clinics is part of the 5th year student PPT, but it is also included in the core clinical course practical activities during the 9th semester (see Standard 3). Ambulatory Clinics subjects include: on-farm approach to clinical examination in livestock, population medicine, on-field approach to gynecological examination, gynecologic and obstetrical diseases in livestock and horses, podology, basic surgical procedures, sports medicine in horses.

Clinical activities of the VTH are held always in presence and with the cooperation of undergraduate students. Small groups of students are constantly present in the VTH, within the activities of the Practical Professional Training (PPT), Clinical Rotations (CR) and the Intern Students (IS) (see below for the specific organization). Each morning PPT and CR undergraduate students participate in the clinical rounds with case discussion, and daily activity planning. Students take active part in clinical monitoring of hospitalized patients, therapy administration, and diagnostic and therapeutic procedure under guidance of the staff responsible for the case. If ambulatory clinic activity is scheduled, one to three students come along with the vet in charge of the activity, in order to be trained.

The Establishment meets the national Practice Standards (Resolution no. 750 of 30 July 2007, BUR no. 52 of 19/09/07 from the Abruzzo Regional Board, on the guidelines for the “Minimum structural, technological and organizational requirements required for the provision of veterinary services by public and private structures”).

4.5 The Establishment 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.

Most of clinical equipment are used by students since VTH and Ambulatory Clinics are fully integrated into the Faculty of Veterinary Medicine’s teaching-learning model.

The students have access to all relevant facilities during the core curricular courses, PPT, CR, and for the preparation of the final degree thesis.

The Organization of Students attending the VTH is described below.

Students attending the VTH are classified into three main different groups (as described below) other than those attending core curricular courses: CR students, PPT students and IS.

CR students include 2nd to 5th year students divided into groups scheduled for seven days a year organized in day and night shift: 2nd year students: 7 consecutive day shifts, 3rd year students: 7 consecutive night shifts, 4th year students: 4 consecutive day shifts followed by 3 consecutive night shifts, 5th year students: 3 consecutive day shifts followed 4 consecutive night shifts.

Each group includes four to five students with different level of experience, at least one student from the 2nd to the 5th year. CR students are mainly engaged in the Hospitalization Unit in order to achieve an initial approach to the companion animals including handling and general care of hospitalized patients. Each student’s activity is supervised by the VTH Staff.

In addition, CR students are involved in clinical activity attending general and referred consultation, imaging and surgery service under the supervision of one or more senior clinicians and according to the experience and knowledge achieved during traineeship over the previous years.

PPT students are directly trained in the management of hospitalized and referred patients, including clinical assessment and recording of draft report in the database (FENICE). One or two PPT students are in charge of a single clinical together with a senior clinician and they have to directly follow each step of the clinical diagnostic workup and treatments. They are involved as second operators during the surgical procedures and as first operators under the supervision of the senior surgeon in case of small surgical procedures. Discussion of clinical cases is constantly promoted by the senior clinician supervisor.

Students are involved in the referral services clinical activity from Monday to Friday from 9 am to 5 pm and in night shifts in order to take care of the hospitalized patients.

IS are those who have voluntarily decided to be involved in a Service according to their personal preferences. IS activity is scheduled as agreed by their Supervisor.

Since December 2019 all Students (PPT, CR, IS) involved in the VTH have been scheduled in the daily clinical rounds (from Monday to Friday): 8.15 - 9.00 Small Animal round/9.00 - 9.30 Large Animal round.

In addition, the clinical activities are daily reported in a whiteboard placed in the standing area of the VTH. The aim of the clinicians is to schedule most of the activities during the training of the CR and PPT students.

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.

Premises for infectious companion, equine and farm animals are in a well-defined separate area. Specific and isolated rooms are available for small animal patients within the VTH.

All rooms operate autonomously under forced airflow, through HEPA filters and with close circuit surveillance. All materials are collected in containers for biologically infected/dangerous materials, both for liquids (watertight) and for dry materials that are disposed of by a company authorized to transport infected waste.

Floor washing fluids and cages, slips into a manhole that has a tray with a filter and to which sodium hypochlorite are added, in accordance with Italian legislation.

For large animals there are 2 boxes outside the VHT, and far from hospitalized horses/donkeys/cows with the aim of housing only infected animals (Table 4.3.3).

The structural layout has been designed for personnel, animal and biological material flows in compliance with biosecurity, hygiene and health regulations. All the biosafety standards respected by the staff are detailed in the “Biosafety manual/Manual of Biosafety) (Appendix 7).

4.7 The Establishment 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.

Field veterinary medicine and Herd Health Management are taught both during the curricular courses and the Professional Practical Training (including EPT), specifically in the areas of Obstetrics, Reproduction and Reproductive Disorders (the most requested competence in the surrounding farms), Internal Medicine and Animal Production. Particularly, the main field veterinary concepts and herd health implications related to obstetrics are taught basically in the Chiareto facility which includes a public equine riding station with seminal material delivery and seminal material packaging center (Artificial Insemination Centre); two rooms equipped with obstetric gynecological labor for cattle and horses as well as two birth boxes equipped with video surveillance devices, which allow students to have easy birth assistance and in respect of equine and donkey mares as well as cows; a building with a lecture room, a room for tutorial or practical work, laboratories and offices.

Thereafter, for obstetrical purposes but also for general approach to herd health management, students are brought in farms agreed for teaching and research purposes (students are always driven and guided by the teacher). Visits to industrial pig farms, dairy cow farms, cattle farms and sheep farms are routinely organized by the teaching staff in animal production and in internal medicine. Moreover, the Faculty, to perform this activity at joined farms, has a mobile clinic (Toyota pick-up) equipped for field interventions such as resolutions of uterine/vaginal prolapses, resolution of dystocias and caesareans, interventions related to bovine hypofertility, pregnancy diagnosis, artificial insemination and simple surgical procedures (See standard 5, at point 5.2). This way, students are initially involved in the approach to the communication with farm owners and the employees and subsequently, always under the guidance of teachers, are involved in consulting the farms’ reproductive and production performance records. The commitment is to stimulate the critical sense and interpretation of the data in the printouts. Entering the barn involves observing the structures, groups and equipment and then paying attention to individual animals.

For ambulatory clinics there is a car (Toyota pick-up) which can carry 4 people and is equipped as a mobile clinic unit. Students can be transported with this car, driven by the vet in charge of the activity. The back of the pick-up is stuffed with all the material that can be needed in the farm visited for the activities planned beforehand, and for possible emergencies.

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

The students can be transported with the Hilux Toyota pick-up also used for ambulatory clinic, which can carry a total of 4 people. In addition, for external training, students are transported by buses, provided by a certified company for people transportation. For live animals’ and cadavers’ transportation, the service is provided by certified companies for transportation of live animals and cadavers. As an alternative, a licensed technician or internal staff can use a dedicated car (Citroen C15D) to carry cadavers and organs to the Establishment.

Vehicles are maintained and operated to ensure the safety of students and staff and to prevent the spread of infectious agents.

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 Establishment must demonstrate a clear commitment for the delivery of biosafety and biosecurity, e.g. by a specific committee structure. The Establishment 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.

Procedures for clinical activities are implemented by the Services Committee together with the Director of the Curriculum in order to improve teaching activities. Enhancements and implementations are communicated to staff and students in regular meetings of the management bodies (Programme year committees, EQAC, DVMPB), through e-mails and to stakeholders (annual meetings), and on the webpage.

For biosecurity procedures and good practices, a specific Committee is available. All staff and students comply with the biosecurity Manual that includes the Standard Operating Procedures for Biosecurity assurance and maintenance in the VTH services (Appendix 7).

Starting from the 2nd year of the VM DP, students follow the mandatory training course regarding Safety and Health in the Workplace (https://www.unite.it/UniTE/Sicurezza_in_laboratorio_Medicina_Veterinaria) prior to the attendance of the VTH. The main topics of this course are Chemical, Electrical and Microbiologic Hazards in the workplace, Good Laboratory Practice and Waste Management particularly as regards medical hazardous waste. Moreover, a radioprotection course for medical or technical personnel working in the radiology room is carried out for newcomers and, at the request of the physicist responsible for radioprotection, also for the personnel who have already taken the course previously.

Changes in facilities and procedures are considered and approved by the Faculty Board or the competent collegiate bodies. Requests are made to and justified by the Faculty Board and Dean's office. Subsequently, offers are requested by the administrative offices of the Faculty to the relevant domestic or foreign suppliers, and the items are purchased at the best price (MEPA), in accordance with national regulations.

Comments on standard 4

Buildings and equipment are adequate for the activities carried out within them in terms of space, biosecurity, heating, lighting, ventilation and cleanliness. Health and safety standards are conscientiously observed, as the requirements of good laboratory practice which are led by technical staff.

While equipment has been significantly enhanced, the VTH needs some improvements regarding advanced diagnostic imaging, such as CT.

At present, only a common anatomical and necropsy room is present in the Faculty as a single facility serving for anatomy, pathology, avian pathology and food inspection. Different activities (e.g. for anatomical training and necropsy) are scheduled in different days and after thorough cleaning and disinfection.

Slaughter facilities are not present. The management, depreciation and maintenance costs of such structure are high and the public administration does not always set aside the funds necessary to cover such costs.

Suggestions for improvement on standard 4

In the new building (about 6.000 m²) there will be a new necropsy service, 10 new teaching classrooms (5 for Veterinary Medicine, 3 for Animal Welfare and Protection First-Cycle Degree Programme to train animal welfare technicians and 2 for Sustainable Livestock Production Science Second-Cycle Degree Programme), 2 classrooms for exercises and practical training, the Lecture Hall (*Aula Magna*) with 250 seats, a library, the laboratories for the research units in "Pathological Anatomy", "Embryology/Anatomy", "Infectious Diseases", "Parasitology", "Inspection of Food of Animal Origin", stables for cattle with the associated laboratories for Animal Reproduction, the Services of Pet Therapy and of Veterinary Rehabilitation.

These spaces will be built with the aim to improve the quality of clinical and teaching activities for the students and the personnel of the Veterinary School. Moreover, it will be of strong support to improve and strengthen the relationship with the territory, offering more services to the public and veterinarians in the Region.

A further improvement of the VTH would be the setting up of visiting and hospitalisation facilities reserved for exotic animal.



STANDARD 5. ANIMAL RESOURCES AND TEACHING MATERIAL OF ANIMAL ORIGIN

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.

Based on the official curriculum one of the main goals of the Degree in Veterinary Medicine Programme (DVMP) is to provide each student with an adequate number and variety of cadavers and material of animal origin for practical anatomical training (Table 5.1.1); healthy (Table 5.1.2) and diseased animals (Tables 5.1.3-5.3.5); cadavers used in necropsy (Table 5.1.6), to guarantee the practical and safe hands-on training and the achievement of Day One Competences. The global strategy is to ensure that animals and material of animal origin, including cadavers and organs, are available for teaching in both preclinical and clinical settings and that all patients and materials are used both for teaching and for research purposes.

To provide an adequate number of animals for clinical training, specialties of the Veterinary Teaching Hospital (VTH) have been increased. The primary expertise of clinical activities performed at the VTH concerns companion animals, including horses. To date, the number of intra-mural cases is adequate to warrant a core practical activity for these species. The implementation of VTH services and the acquisition of new professional competences, the updated instrumentations (e.g. MRI scan, ultrasound machines) along with the new and modern facilities guarantee the adequate caseload.

Extramural activities ensure practical training in food-producing species, including ruminant and swine, contributing to a favorable balance among species for use in core clinical training.

A significant number of agreements with external facilities (i.e. external farms, external slaughterhouses, external vet clinics, public and private kennels, local health authorities' facilities) has been currently achieved for both extramural and external activities. Specifically, agreements with public authorities have been increased in the last few years in order to strengthen the link between the Faculty, the institutions and the territory and to provide an additional number of clinical cases and cadavers. Among them, the agreement with the Abruzzo region, that allow the VTH to be the reference centre for the first aid of abandoned companion animals, and the agreement with military corps (i.e. the "Carabinieri" and "Guardia di Finanza" corps) for "police" dogs, and equine medicine and reproduction are of strategic importance. Considering that among the Italian regions, Abruzzo is the one with the largest number of parks and protected areas with three National Parks, a Regional Park and over thirty Nature Reserves, it is possible that autochthonous wildlife is referred by the local health authorities (ASL) to the VTH. In that case, students have the opportunity to perform practical activity on wild animals.

Academic staff involves small groups of students in different clinical procedures carried out both in the VTH and extramurally. All the clinical activities performed extramurally follow the same standards applied in the Establishment.

An External Practical Training (EPT) is also expected. The EPT is carried out in veterinary structures affiliated with the Establishment. The selection of these structures is performed following a thorough assessment by the internal

staff and students who are members of the Educational Quality Assurance Committee (EQAC) and DVMP Board (DVMPB), on a review of their activities, services, facilities and equipment. The lists of the external structures can be consulted on the Faculty website (https://www.unite.it/UniTE/Tirocini_curricolari_Medicina_veterinaria). In order to improve the practical activities and follow the 3R principles, anatomical plastic models dissectible into parts showing anterior, posterior and inferior views are available. Specifically, bovine and swine models showing the inner organs; genital organs of cows, horse teeth and limbs, bovine urogenital systems, canine hearts, bovine mammary glands, ears and eyes are currently available. Cat and dog models are currently available as well to simulate intravenous access.

Students receive the core clinical training during:

- Pre-clinical and clinical training included in the curriculum during the core course practical activities (See Standard 3, Table 3.1.2).
- Clinical Rotation (CR): a compulsory practical activity introduced in the curriculum since 2010. The CR is carried out in the VTH. The CR in the 1st year is focused on practical approach to animal handling and restraint, in the 2nd year it focuses on pre-clinical skills and the 3rd, 4th and 5th years are devoted to clinical practical skills.
- Compulsory Professional Practical Training (PPT): the PPT is organized during the 5th year with the rotation of small groups of students (maximum 8 students/group for the Clinical Training) in 8 vocational areas (i.e. Internal medicine, Surgery, Reproduction, Infectious diseases, Animal production and Food Safety and Quality, Parasitology and Pathology). The PPT is devoted to clinical practical skills and includes also purposeful and compulsory EPT activities. The EPT, placed at the end of the internal PPT period, is a further opportunity for students to verify outside the Faculty their knowledge and skills, facing veterinarians, professionals and generally stakeholders in the different areas of their future work. The organization of CR and PPT is described in details on Standards 3 and 4.
- Interns Students (IS) activity: students have the opportunity to be involved in a Service according to their personal preferences on a voluntary basis. IS practical work is scheduled by arrangement with their Supervisor (More details on the organization of IS activities are provided in Standard 4).

All student clinical activities at the VTH are persistently monitored and supervised by at least one person of the internal staff. CR and PPT students are involved in VTH activities attending general, referred and specialized consultations, hospitalisation, imaging and surgery services according to the experience and knowledge achieved during the previous year's traineeship. All students are also involved in emergency consultations including night and weekend shifts. During CR e PPT students are trained to use a problem-oriented diagnostic approach (POA) (as taught during some core courses) in order to learn communication with owners and referring veterinarians, how to approach the main problems, how to make a list of differential diagnosis, how to investigate the single diseases, the special needs of hospitalised patients, and organizational matters in a clinical setting, making right comparison with private practitioners. A correct balance between species, clinical disciplines, first opinion and referral cases, acute and chronic cases, consultations and hospitalisations along with the organization in small groups of students attending the clinical activities, ensure that each student receives the relevant core clinical training before graduation.

For dogs, cats, horses and exotic pets an increasing trend of intramural clinical episodes from the AYs 2016-2017, 2017-2018 to 2018-2019 has been recorded. This increasing caseload can be mainly ascribed to the implementation of VTH services and the acquisition of new professional competences. The VTH guarantees also the balance between clinical disciplines due to activity of clinical and diagnostic services (Appendix 6) and the mutual cooperation between different services with an intense internal referral activity. The 24h/7days emergency service is pivotal in treating acute diseases, including orthopedic and thoracic trauma, gastrointestinal and obstetric emergencies, neonatal diseases, poisoning and acute infectious diseases. Referral cases account for 60% of the total and are most often referred to the following areas: Small animal internal medicine, Diagnostic imaging, Small animal Surgery, Equine medicine and Surgery, Obstetrics and Reproduction, Veterinary Pathology. Acute cases account for about 30% and are mainly related to the 24h/7days emergency service while chronic cases for about 70% of the total. Consultations (one-day clinic) account for 85% and hospitalisation for 15% of the total intramural caseload. In addition to intramural clinical activities, students actively participate in the Establishment Diagnostic services work, being involved in performing and interpreting analysis during the core course practical activities, CR, PPT and their activity as IS and for the experimental degree thesis.

The activities of diagnostic services are adequate to warrant suitable training to each student. For instance, more than 700 canine samples have been molecularly examined in the AYs 2016/2017-2018/2019 for the diagnosis of Parvovirus infection by the Infectious Disease Diagnostic unit of the Microbiology, Infectious and Parasitic diseases Service. Furthermore, 776 samples (AYs 2016/2017-2018/2019) have been processed for bacteriology analysis, including antibiograms. Classical Parasitological examinations (including but not limited to classical copro-microscopic floatation, Baermann method, McMaster technique, Blood smears, Knott test) have been performed on samples from 879, 1419 and 1177 animals (dogs, cats, equine, small ruminants and exotic pets) in the AYs 2016/2017, 2017/2018 and 2018/2019 respectively, with a total number of 1734, 3375 and 2221 laboratory examinations performed in the same timeframes. *Cyto-histopathology* examinations are routinely performed by the Veterinary Pathology Service of the VTH (i.e. 195, 214 and 168 in the AYs 2016/2017, 2017/2018 and 2018/2019 respectively).

Dry and alcohol-fixed preparations of different animal species parasites are also available for students at the Parasitology Unit. Histological preparations, representing tissues' main lesions, pertaining to the Veterinary Pathology Service are also present. Equine and canine limbs are provided for surgical exercises while genital apparatus of small and large ruminants, horses and pigs are used for Obstetrics training.

Extramural practical training in food-producing species, including ruminant and swine, contributes to a favourable balance among species for use in PPT. To guarantee an adequate number of consultations for these species, agreements with external facilities are pivotal. Hospitalisation for these species at the VTH is limited, considering that, as for animal husbandry, Abruzzo is a non-specialized region, since it is more devoted to vegetable productions (vegetables and olive oil).

Activities on population medicine are mainly focused on poultry, pigs, small and large ruminants and cattle. The number of visits in herd/flock/units for training in Animal Production and Herd Health Management and of visits in slaughterhouses and related premises for training in FSQ (i.e., Food Safety and Quality) are reported in Tables 5.1.7 and 5.1.8 respectively.

In accordance with national regulations, the VTH adopts the following procedures to ensure the welfare of animals used in educational and research activities:

- All the activities carried out at the VTH on privately owned animals are performed only after the application of the signed informed consent by owners (EU 679/2016). This document allows the academic staff and researchers to use data for educational and research purposes as well.
- For clinical activities, all staff working at the VTH comply with the European Code for the Right Veterinary Practice, which include information and rules on animal welfare (FNOVI, January 29, 2005). Moreover, all Italian Veterinarians must respect a Code of Practice disciplining also animal welfare (FNOVI, November 15, 2019; <https://www.fnovi.it/fnovi/codice-deontologico>).
- Experimental trials including animals, must be also conducted in compliance with current *Italian laws and EU regulations* on the Protection of Animals used for Scientific Purposes (i.e. Italian law DL 2014, n. 26, European Directive 2010/63/UE).
- Study protocols that involve the use of animals for clinical and experimental purposes can be preliminary evaluated by an interdisciplinary independent organisation for ethical and scientific evaluation named "Inter-university Ethics Committee for Animal Experimentation" (CEISA) (<https://en.unich.it/research/animal-testing/ceisa>). It is composed of experienced members appointed by the three universities of the Abruzzo Region (two of them from the Faculty of Veterinary Medicine of Teramo) and by the "Istituto Sperimentale Zooprofilattico Abruzzo e Molise G. Caporale" (IZSAM) of Teramo. The primary task of CEISA is to provide ethical and scientific counselling. CEISA can also offer counselling to other external organizations that apply for ethical and scientific evaluations.

For the anatomy training, material is mainly provided by external parties (ASL, i.e., local health authorities facilities). For the core course of anatomy, bones and animal skeletons are accessible and used by students for osteology training. Dogs, small ruminants and poultry cadavers delivered upon agreements with public and private kennels, veterinary premises and clinics as well as farms are also used.

For the veterinary pathology training, organs and cadavers of pets, food-producing animals, equines, pigs and additional species are obtained from slaughterhouses, the VTH Services, private practitioners, public and private kennels. In addition, cadavers sent for diagnostic necropsy purposes are examined with students during the compulsory PPT as well as the core practical hours of the Veterinary Pathology courses.

When a prompt diagnosis is needed, cadavers are refrigerated (0-4°C) and processed as soon as possible, while other cadavers and tissues are preserved frozen at -18°C until examination.

Tissues, organs and dead animals are stored and destroyed according to the national legislation. Specifically, cadavers and organs are stored in a cold room at -18°C until use. Specialized contract companies funded by the University provide the disposal of the material of animal origin, every 15 days or upon request.

The operative strategies to ensure a sufficient patient caseload for teaching are monitored by the VTH CR Committee (CRC), the PPT Committee (PPTC) and the EQAC. The VTH has its own regulations for functional management activities. VTH management is supported by the VTH Board, composed of the Hospital Director and the Coordinators of the VTH Services. The VTH Board sets out internal guidelines for all VTH activities, including the use of animals for teaching purposes. Clinical services are managed by the VTH Director and by the Services Coordinators.

The main strategies concerning VTH activities are communicated and discussed during the DVMPB where staff and student representatives are present; the assessment and revision of all teaching processes, including practical teaching and training, are performed by the PPT and CR Committees and the EQAC; implementation strategies are proposed to be approved by the Veterinary Medicine Faculty Board (VMFB).

An annual meeting with stakeholders is held (Career Day) at the University of Teramo, by the DVMPB, where stakeholders (e.g. FNOVI, ANMVI, VET CC, ENPAV, ASL, Professional Order of Veterinarians of Teramo) are invited, and a presentation of the teaching strategies is given. Suggestions for improvement are welcomed.

5.2 In addition to the training provided in the Establishment, 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 Establishment.

The Chiareto Teaching Farm (CTF) (Appendix 3d) is located in a division of the Municipality of Bellante and comprises a building with a lecture room, a room for tutorial or practical work, laboratories and offices of the Large Animals Theriogenology Service, including an Artificial Insemination Centre. The teaching farm splits into stables, a cowshed, a sheepfold and a pigsty, where healthy animals are farmed. Animals, mainly equids but also cattle and sheep, are kept for the practical teaching of veterinary semiology, animal husbandry and feeding, obstetrics and gynaecology activities and herd hygiene and livestock general handling.

Herd health and industrial management of farm animals are also taught in farms intended for teaching and research purposes. Visits to industrial pig farms and dairy cow farms are routinely organized by the teaching staff.

Students are driven to the external farms by the Hilux Toyota pick up also used for ambulatory clinic, which can carry a total of 4 people, or by buses, provided by a certified company for people transportation; in these farms always under a teacher's guidance, students are involved in consulting the reproductive and production performance records. The aim at this stage is to stimulate the critical sense and the interpretation of the data in the printouts. Entering the barn involves observing the structures, groups and equipment and then paying attention to the animals. Particularly, a big piggery of breeding sows (about 950) and a growing-finishing unit are available to teach several aspects of management, involving the students during specific days of the PPT in routine activities (pig mating, farrowing assistance, piglet management, piglet castration and tail docking, etc.). In the same way, in a cowshed agreed with the establishment, students are involved in routine activities with dairy cows, participating in several aspects of feeding (total mixed ration management) and milking.

During the extramural week of the PPT in Internal Medicine, groups of maximum 4 students, are involved in routine activities with dairy cows, swine, sheep and goats. They are involved in common emergencies of cattle, requiring medical treatment such as puerperal hypocalcemia, chetosis, abomasal dislocation; in infectious diseases clinical diagnosis (neonatal sepsis, neonatal diarrhea, respiratory diseases, mastitis, diarrhea and neonatal septicaemia); management of reproductive emergencies or diseases (dystocia and other problems related to a bad presentation, retained placenta but also in metritis, endometritis). The students are involved in blood sampling, drug administration, antiparasitic treatments (mainly sheep and goats), and they are also involved in basic surgical procedures (dehorning, piglet castration, umbilical hernias, trimming of foot in cattle).

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.

During the core course practical activities, CR and PPT, students actively participate in patient management being

involved in nursing procedures, such as physical examination, accurate monitoring, recording and recognition of abnormal vital signs, administration of fluid therapy, feeding, administration of medications, checking up, cleaning and sterilization of medical and surgical equipments, changing bandages and applying medications. All these activities are carried out intra-murally and extra-murally (e.g. in public kennels, feline colonies, herd and horse stables). Students are also trained to collect, store and transport samples to the laboratory where they are involved in performing diagnostic tests.

Before starting the CR activities, a week course is mandatory for each student (1 day of lectures and 4 days of practical activity). This course focuses on the procedures to be applied in the VTH in order to guarantee all basic biosecurity rules, ethical behaviour and VTH regulations. The practical activities mainly focus on animal handling, approaches to different animal species (dogs/cats/horses/livestock), restraint and management. During these activities the group numerosness is maximum of 10-12 students/group. The 2nd year CR is intended to provide pre-clinical skills to the students, while from 3rd to 5th years CR and PPT the academic staff involves the students in clinical procedures.

For the CR from 2nd to 5th year, the groups numerosness is reduced to 4 students/group (https://www.unite.it/UniTE/Linee_Guida_Rotazioni_Ospedaliere).

The group numerosness for compulsory internal and external practical clinical training is maximum of 8 students/group for Internal Medicine, Surgery, Reproduction, Parasitology and Pathology teaching areas.

The organization of the work in small groups is intended to guarantee an adequate number of patients examined/treated by each student but also to improve student soft skills such as mental attitude, self-confidence, teamwork and time management and to guarantee the welfare of the patients. Exchange among student and supervisor is also promoted.

Specific clinic activities carried out by students at the VTH include (but are not limited to): obtaining an accurate and relevant recent and remote history of animal/s, and its/their environment; handling and restraining patients safely and with respect of the animals; evaluating body condition score and welfare status; applying biosecurity rules; performing a complete physical examination; communicating with owners; communicating clearly and collaborating with referral and diagnostic services; collecting samples; selecting appropriate diagnostic tests, interpreting and understanding the limitations of the test results; assisting in diagnostic and therapeutic procedures (e.g. radiology, drug administration); performing diagnostic procedures (e.g. blood, urine and faecal sampling, copro-microscopic examinations, fine needle aspiration cytology); recognizing when euthanasia is appropriate and assisting in practicing it with respect of the animals and the owners; participating in surgery preparation, anesthesia, recovery of anesthetised patients; performing basic surgery; performing basic reproductive procedures; performing rectal palpations in large animals; performing necropsies; using electronic patient record system and writing medical reports.

All activities carried out during the CR and PPT are recorded by each student on the CR, PPT and Day One Competencies logbooks. During CR and PPT as well as during the core practical activities in clinical courses, the students are active participants in the clinical workup of patients, using a Problem Oriented Approach (POA) and in entering medical records in the electronic patient record system named FENICE. Information on how to fill clinical files for each single patient that they will follow are supplied to the students under the supervision of the CRC. The information entered into FENICE by the students are verified and, if necessary, corrected by the VTH veterinary Staff. Students are expected to discuss about the clinical management, clinical examinations, differential diagnosis, diagnostic procedures, treatment and prognosis of the cases examined.

Since December 2019, a daily clinical round (Monday to Friday) with the students and the clinical staff of the VTH has been formally scheduled in the morning at the beginning of the clinical activities. During this activity, the supervising academic staff members expose the history of the patients and discuss with students the diagnostic and therapeutic options. A discussion of the clinical cases is also constantly promoted by the senior clinicians. Scientific papers and books for studying case management are available for students. During the clinical education (core clinical courses, PPT and CR) the students work on cases and discuss them with the teachers, prepare oral presentations/written reports/electronic records of clinical cases including identification of the main problem, differential diagnosis, diagnostic strategy, interpretation of the diagnostic results, pathogenesis of the disease identified, its prophylaxis and treatment. Furthermore during some clinical practical activities they are divided in small groups working together to solve clinical cases, and they are strongly stimulated to consult specific textbooks and reference journal articles under the supervision of the teacher which motivates them in critical thinking. Weekly a “book reading” meeting is expected for IS, and open to all students interested in participating. Updated and selected scientific texts on clinical major topics are provided to students and discussed with the VTH clinical staff.

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 Establishment.

The VTH is equipped with an electronic record system software, named FENICE. The electronic system provides a medical area, a teaching area and an administrative area. FENICE is available on different PC located in the VTH and it is dedicated to academic and administrative staff, as well as students. In order to guarantee the privacy of the owners, the system is accessible by the staff and the students using a personal username and password. Sensitive data of the owners cannot be viewed by the students. The medical area allows to register data referred to every clinical case and to record clinical history, clinical examinations data, diagnostic procedures and treatments received in different folders. The teaching area is accessible to students who may insert data, consult medical records and clinical cases, study and deepen any clinical case of interest. All students are actively trained to the use of the system at the beginning of the training activities by the components of the CCR. Finally, all data can be retrieved and analysed also for research purposes. All the activities carried out during the EPT are recorded on specific paper records.

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

	2018-2019*	2017-2018	2016-2017
Cattle	-	-	-
Small ruminants	2	2	2
Pigs	-	-	-
Companion animals	10	10	8
Equine (limbs)	20	20	20
Poultry & rabbits	45 (Poultry)	45 (Poultry)	45 (Poultry)
Aquatic animals/Exotic pets	-	-	-
OTHERS: ORGANS/APPARATUS			
Female Genital Apparatus			
Horses	10	11	8
Bovine	12	10	10
Ovine	10	10	14
Pig	8	10	10
Gravid uterus			
Horses	2	1	1
Bovine	1	3	1
Ovine	3	1	2
Pig	3	1	1
Placenta			
Horses	2	1	1
Bovine	2	2	1
Ovine	3	1	2
Pig	1	1	1

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

	2018-2019*	2017-2018	2016-2017
Cattle	16	16	16
Small ruminants	14	14	14
Pigs	3	3	3
Companion animals	42	30	28

Equine	33	31	27
Poultry & rabbits/ Exotic pets/ Others	-	-	-

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

	2018-2019*	2017-2018	2016-2017
Cattle	23	-	6
Small ruminants	24	-	-
Pigs	4	1	-
Companion animals	2191	1858	1877
Equine	238	190	147
Poultry & rabbits	79 (rabbits)	10 (rabbits)	3 (rabbits)
Exotic pets	25	3	8
Others (roe deer, seagulls, foxes, badgers, geese)	11	5	2

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

	2018-2019*	2017-2018	2016-2017
Cattle	447	529	321
Small ruminants	89	119	11
Pigs	20	8	21
Companion animals	764	700	650
Equine	93	17	-
Poultry & rabbits	-	-	-
Exotic pets	-	-	-
Others (specify)	-	-	-

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

	2018-2019	2017-2018	2016-2017
Cattle	95	100	98
Small ruminants	90	95	100
Pigs	100	100	100
Companion animals	30	30	30
Equine	20	20	20
Poultry & rabbits	20	20	20
Exotic pets	30	10	10
Others (specify)			

Table 5.1.6. Cadavers used in necropsy

SPECIES	2018-2019*	2017-2018	2016-2017
CADAVERS			
Cattle	5	5	3
Small ruminants	17	11	12
Pigs	75	80	80
Companion animals	111	52	46
Equine	6	9	1
Poultry & rabbits	189	126	131

Aquatic animals (fish)	-		6
Exotic pets (rodents, reptiles, birds)	8	8	3
Others (wild and zoo animals: boars; foxes; otters; roe deer; fallow deer; antelope; zebra; giraffes; kangaroos; wild birds and reptiles)	20	4	16
Materials of animal origin			
<i>Livers</i>			
Cattle	15	14	10
Pigs	80	75	70
Small Ruminants	50	47	40
<i>Kidney</i>			
Cattle	8	8	6
Pigs	55	57	50
Small Ruminants	20	20	20
<i>Spleen</i>			
Cattle	7	6	6
Pigs	80	75	70
Small Ruminants	30	35	30
<i>Lungs</i>			
Cattle	10	11	10
Pigs	80	75	70
Small Ruminants	50	40	40
<i>Heart</i>			
Cattle	10	11	10
Pigs	80	64	65
Small Ruminants	50	40	40
<i>Bladder</i>			
Cattle	3		
<i>Stomach</i>			
Pigs	30	30	30
<i>Intestine</i>			
Pigs		1	
<i>Genital apparatus</i>			
Small Ruminants		2	

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

	2018-2019*	2017-2018	2016-2017
Cattle	18	18	18
Small ruminants	4	4	4
Pigs	15	15	15
Poultry	7	7	7
Rabbits	0	0	0
Aquatic animals	0	0	0
Others (specify)			

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

SLAUGHTERHOUSES	2018-2019*	2017-2018	2016-2017
Ruminants	4	4	4

Pigs	4	4	4
Poultry	1	1	1
Related premises	7	7	7
Others (specify)	-	-	-

* The last full academic year prior to the Visitation; ** Each patient has to be officially recorded and individually examined/treated by at least 1 student under the supervision of a member of the VTH staff. Each living animal affected by one specific clinical episode is counted as a single patient.; *** Data refer to an estimate of the percentage of first opinion patients of each clinical service

Comments on Standard 5

In the last three Academic Years, the number of animals and materials of animal origin for students preclinical and clinical training, shows a general growing trend. Nevertheless, a further increase in intramural and extramural activities is warranted. Regarding the VTH activities, the main limitation to a further increase of the caseload can be ascribed to a limited clinical and support staff enrolment and to the economic crisis currently affecting the country. This latter point is of pivotal importance as owners are more prone to refer to private vets for a general consultation in order to limit the cost of veterinary care. In this geographical area, veterinary clinical services provided by private practitioners are indeed less specialized and therefore less expensive. Moreover, in order to guarantee a worthy deontological exchange with private practitioners, in agreement with the Professional Order of the Veterinarians of Teramo, the activities of the VTH are mainly focused on 24h/7days emergency service and on second opinion consultations.

In the AY 2015/2016 the electronic record system FENICE was adopted, and it took lots of time and high expenses to set the system by preparing all the folders (divided by the specific area of consultation), and training the administrative staff and the clinical staff to its use. Over time the System required several implementation and many further modifications in order to adapt to the clinician requirements. Because of the non-optimal performance of the electronic record system software FENICE, some patient records have still to be documented by the staff on paper records or excel databases (mainly for EPCT). Although the system has the advantage to provide a teaching area, changes are still needed to improve the electronic archive. For instance, the system settings currently allow to record data only for individual patients. Therefore recording external activities carried out on herds and flocks is difficult and time consuming, and for this reason the records are still collected on paper records.

Concerning food-producing species, it should be taken into account that Abruzzo is a non-specialized region. Specifically, less than 5% of the Italian livestock population is raised in Abruzzo: 61,208.00 cattle of which 13,025.00 dairy cows corresponding to 1.15% of the Italian cattle heritage; 81,053.00 pigs corresponding to 0.9% of the national heritage; 3.53% of poultry (5,824,000.00 broilers and 163,000.00 laying hens) and 2,76% of sheep and goats (198,684.00 sheep and 13,513.00 goats). Hospitalisation and consultations at VTH of food producing species is therefore limited. For this reason since many years the establishment has established the EPT that has been intensified and strengthened to compensate the low VTH food producing species case load.

Regarding the availability of materials for dissection, it should be considered that there is an increasing difficulty to find cadavers to be used as learning material, both for companion animals, including horses (because of the reluctance of the owners to provide their pet's cadavers), and food producing species. Efforts should be made to empower owners to provide availability of cadavers for teaching purposes and learning opportunities on dead animals.

With regards to the matter of the exotic animals case load, the Establishment (VTH) has enrolled within its temporary teaching staff, a diplomate in the European College of Zoo Medicine - ECZM (Small Mammal) and (Herpetology) and 4 private practitioners specialized in clinics of non conventional animals. Specific facilities (visiting room and hospitalisation) for exotic animals are currently not available within the VTH, therefore visits on these animals are scheduled by specific appointments with the clinicians within the presently available spaces.

Suggestions for improvement on Standard 5

To provide adequate animal resources and teaching materials of animal origin, regular and active clinical services activity in the VTH, including 24/7 Emergency Service and consultations, are pivotal.

In the next year new strategies of implementation will be undertaken, such as:

- a constant monitoring of the caseload of the VTH services and for PPT and CR, by the CRC, EQAC, DVMPB and VMFB;
- development and distribution, collection and evaluation of customer satisfaction assessment questionnaires;
- promotion of exchange and collaboration between the VTH and private Practitioners in order to increase

consultations and caseload. Highly specialized issues relevant for practitioners will be identified in agreement with the Teramo Veterinary Practitioners Association. These issues will be deepened through training events, study days, meetings and conferences to be held at the VMF of UNITE, with the aim to consolidate a leading role as a reference centre for the Abruzzo Region and the surrounding areas, and to implement a cooperation network between the VTH and Veterinary Practitioners;

- acquisition in 2020 of further models for clinical trials in order to foster clinical ability of students and to promote the 3R principle;
- implementation of the electronic record system software FENICE, with the support of internal/external experts, improving its features allowing to record data of multiple individuals simultaneously and retrieve data concerning teaching, and learning skills of students.
- setting up of visiting and hospitalisation facilities reserved for exotic animal, as soon as several rooms in the VTH will be available after the edification of the new buildings for the FVM in Piano D'Accio (Masterplan).



STANDARD 6. LEARNING RESOURCES

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

The general strategy of the Faculty of Veterinary Medicine (VMF) on learning resources aims to support veterinary and continuing education, research and services.

Learning resources, including library services, electronic resources, online catalogues and databases, and the e-learning platform, are aimed at optimizing study and research and making it as in-depth as possible. The main task of the VMF is to constantly upgrade resources to improve the learning experience, to fully utilise new technologies, and to support student's self-directed learning, as well as academic research. Learning resources are mainly provided in the Italian language, which is the main language of the study program, although they are also available in the English language as necessary. Timely access to learning resources is available to both students and staff. In this respect, the library staff of the Faculty, as well as the e-learning platform team and the Information and Communication Technology (ICT) Area of UNITE, are constantly on hand to optimise development by the staff and use by the students of instructional materials. Procedures for bibliographical searches and for access to databases and learning resources are taught to new undergraduate students during their first months of studies at the Degree in Veterinary Medicine Programme (DVMP). In this respect, the VMF organizes a Welcome Day for all students enrolled in their first academic year of the study programme. The Welcome Day is characterized by a series of sessions aimed at introducing the students to the access and use of learning resources (procedures for bibliographical search and document delivery, access to electronic resources, access and use of the e-learning platform and the UNITE mobile app, etc). On completion of these sessions, the students are able to use the resources of the library, as well as the e-learning platform. Training courses for the Faculty staff, concerning the proper access and use of the e-learning platform were also organized during its first year of establishment. Since then, updating courses for the staff are planned on an annual basis as necessary; in addition, an info point managed by the academic e-learning platform team is constantly available for staff and students, in order to provide information and solve potential problems regarding the access and use of the e-learning platform.

A one-day long, intense course (entitled "How to write a degree thesis"), including practice exercise, is also organized on an annual basis. This course is open to all the students of the VMF.

The Joint Students-Teachers Evaluation Committee (JSTEC) of the Faculty has the objective of assessing, revising and proposing improvements on available learning resources. At the end of each academic year, the Committee prepares a report on the state of teaching, didactic and tutoring services, as well as learning resources provided by the Faculty, along with useful indications for their improvement. This report is discussed with the Degree in Veterinary Medicine Programme Director (DVMPD) and the Educational Quality Assurance Committee (EQAC), which evaluates the possible critical issues and the suggested improvements. If necessary, the report is further discussed with the Programme Year Committees of each academic year of the DVMP in order to apply appropriate solutions.

Academic staff and students can also ask the Faculty to acquire new learning resources (e.g. books, periodicals, etc.) in order to improve the didactic resources.

New learning resources and implementations are communicated on the Faculty webpage of the main UniTE website (https://www.unite.it/UniTE/Medicina_veterinaria).

6.2 Staff and students must have full access on site to an academic library, which is administered by a qualified librarian, an Information Technology (IT) unit, which is managed by an IT expert, an e-learning platform, and the relevant human and physical resources necessary for development by the staff and use by the students of instructional materials. The relevant electronic information, database and other intranet resources must be easily available for students and staff both in the Establishment's core facilities via wireless connection (Wi-Fi) and from outside the Establishment through a hosted secured connection, e.g. Virtual Private Network (VPN).

Main library of the Faculty of Veterinary Medicine

The main library of the VMF has the mission of supporting the veterinary education, didactic activities and research performed by the Faculty and satisfying the information needs of its institutional users. Library staff also provides continuing support to students regarding bibliographic searches.

- **Library staff:** the library staff is composed of three employees (3 FTE), including the Director Manager. The library also benefits from several students hired each year as part-time workers (150 hours per student) to support the staff with assisting users during the library opening hours.

- **Opening hours and days:** opening hours and days of the main library (including the digital customer service) are listed in the following timetable: Monday, Wednesday, Friday: 9:00-13:00 - Tuesday, Thursday: 9:00-13:00 / 14:30-17:00 - Saturday, Sunday: closed. The library is also closed during the central weeks of August and during the national and religious holidays listed in the academic calendar.

- **Annual budget:** from a managerial point of view, the library does not manage its expenses in an autonomous way and consequently does not have its own specific budget. In fact, the University provides for the technical and instrumental equipment, as well as for the annual/multi-year renewal (e.g. € 192.443,00 for the year 2020) of subscriptions to several bibliographic electronic resources, including Elsevier Science Direct, Cell Press, Scopus, and Web of Science.

The other purchases are directly carried out by the FVM.

The acquisition of new resources (e.g. books) is handled by the Administrative Secretary of the Faculty. As a rule, on a yearly basis, upon specific requests by the academic staff and/or students, the Faculty may devote a part of its annual budget to the purchase of books and periodicals or other electronic media for didactic purposes.

- **Library Facilities and Equipment:** the library is located at the ground floor of the FVM building (see Appendix 3b), and is composed of a front-office, an archive room for storing books, and an administration office (about 70m²). Adjacent to the main library, a space for autonomous learning and study is present (about 25 seats). In addition, on the first floor of the FVM building, there is a study room (16m²) with 15 seats and electrical connections for portable PCs. The Faculty's computer room is also available for students when it is not booked for teaching purposes, being equipped with 17 public computer stations connected to the internet and electrical connections for portable PCs. A wireless network also covers the VMF building, as well as the Veterinary Teaching Hospital (VTH), and all internal users with University credentials, including students, can connect for free via the UniTe Wi-Fi network. Furthermore, the University of Teramo has activated the myPrint service, which allows students to print, photocopy or scan documents directly at the workstations located in the entrance hall of the Faculty building. Through the myPrint platform - <https://myprint.unite.it> - it is also possible to print from portable PCs or smartphones.

- **Library website and software for bibliographical search:** the library has a complete and regularly updated website available to all users on the general website of the University of Teramo (<https://www.unite.it/UniTE/Servizi/Biblioteche>). Through the website, users are provided with all the information about the library (opening hours, library regulation, etc.) and all the information needed to access the services offered (book loan, document delivery, electronic resources, scientific databases, etc.). On this website, it is also possible to carry out research regarding the bibliographic heritage currently listed into the University Computerized Catalogue (OPAC Polo SBN Teramo-Pescara), as well as to perform research on the Italian Periodicals (ACNP) Catalogue, and to consult electronic resources on other website of bibliographic interest (scientific databases, Directory of Open Access Journals (DOAJ), etc.). As such, all the bibliographic details are available "on-line" for consultation to all users

both in and from outside the Faculty.

• **Library services:** the library offers a wide array of services including:

- general and bibliographic information
- consultation of bibliographic materials (books and specialised journals)
- self-service photocopying of the available materials (whenever permitted by law)
- loans of books and monographs (except for encyclopedias, dictionaries and dissertations)
- interlibrary loan (locating and requesting a loan of books unavailable in the Faculty library)
- document delivery (locating and obtaining bibliographic material not locally available)
- access to on-line databases and to all the electronic resources available at UNITE.

Consultation and loans are available for: teachers; researchers; undergraduates; faculty students; university student; external users. The Interlibrary Loan and Document Delivery Services make it possible to circulate scientific documents between libraries, in order to allow the Faculty staff and students to access bibliographic sources not locally available. For these services, the Library utilizes the software NILDE (Network Inter Library Document Exchange). NILDE allows libraries to send, receive and deal with requests of Document Delivery free of charge, with the advantage of immediately registering all transactions, thus representing a working tool that is used every day by a large network of university libraries, research institutions, public and local agencies. On request, the Library staff provides individual courses for Faculty students, especially during preparation of degree thesis, concerning the proper use of the NILDE software and Document Delivery Services.

Subsidiary libraries: as all other UNITE students, Veterinary students also access the Library of the UNITE Campus (located in Coste Sant'Agostino, Teramo), with the following opening hours and days: from Monday to Friday: 9:00-19:00 - Saturday-Sunday: closed. This library is a wide space (a "silent room" with 256 reading seats, 4 public terminals, and photocopy service) to study outside of students' scheduled timetable.

Information Technology facilities and e-learning platform: the Information and Communication Technology (ICT) Area of UNITE has the main functions of coordination, planning, administration, management and control of the University's information system and telematic services, as well as of communication and multimedia infrastructures with the relative hardware and software equipment. It is also responsible for the telematic network that connects the University's scientific, educational and service structures.

The ICT area deals with managing the contents of the University website (<https://www.unite.it>), including online services to students, ensuring their editorial style, webmastering and guaranteeing support in web content design in synergy with the University's structures. It also provides assistance and training services to website users (teachers / technical administrative staff). As well, the ICT area manages the UNITE wireless network, which is present in all teaching and study rooms, in the recreational areas and in the meeting rooms. In this respect, Unite Wi-Fi network covers both the VMF building and the VTH, as well as the UNITE Campus located in Coste Sant'Agostino. All internal users with University credentials, including students, can connect for free via the Unite Wi-Fi network. The ICT area also manages the UNITE Google Apps and its Learning Center (<http://googleapps.unite.it>), characterized by a series of innovative services aimed at improving the University's educational activity. All UNITE students are able to access the Google Apps, including a personal Google email inbox - Gmail, with no storage limits and usable from any mobile device both on and off the UNITE campus. An official application of the University of Teramo, called UNITE Mobile App, can also be downloaded for free for smartphones and tablets. The App provides students with information regarding the University's educational offer, news, timely updates and notifications about scientific events. In addition, the UNITE Mobile App allows easy access to the instructional materials available on the UNITE e-learning platform, as well as interactions between students and teachers, and career monitoring.

The University of Teramo uses the UNITE e-learning platform (<https://elearning.unite.it>) to support teaching activities. Faculty staff and students have access to this virtual learning environment that houses instructional materials, including lecture notes and slides, enabling students to participate in online self-assessment tests and directed learning sessions, as well as to communicate with classmates and teachers (e.g. through forum discussions). The E-learning platform staff provides support in loading study materials provided by teachers of the individual courses and cooperates with dedicated web designers and the ICT area in the design of audio-video equipment which enrich the platform. Accessibility for staff and students to e-learning resources, as well as exchanges between students and teachers, through the UNITE e-learning platform, is possible from anywhere and at any time. In February 2020, a new digital popular library named "Abruzzo Digital Library – MLOL, Media Library on-line"

have been implemented by the Abruzzo region (<https://abruzzo.medialibrary.it/media/ricerca.aspx>). All students and staff of UNITE can use this new digital library for free. About 150 million multimedia contents, including 25 thousand ebooks, 7 thousand newspapers and magazines (Italian and foreign), audiovisuals and documents are available by stream or download.

6.3 The Establishment 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.

Currently, the heritage stored inside the Faculty library consists of about 1500 books, mainly didactically oriented and available in several copies. International periodicals with running subscriptions financed by the Faculty are also available. The users from the online network of the VMF (as well as from the entire University of Teramo) can also access the “full text” version titles published by Elsevier (a total of 18835 text requests have been made in year 2019). Animal models (listed in standard 5) are used by Academic staff during the core courses and are available for students if requested.

Comments on Standard 6

Learning resources of the VMF, including library services, electronic resources, online catalogues and databases, and the e-learning platform, are aimed at making study and research as optimized and in-depth as possible. The main task of the Faculty is to constantly upgrade resources to improve student’s learning experience, to fully utilize new technologies, and to support self-directed learning, as well as academic research.

The new building of the Faculty, that is planned to be built in the next future (Masterplan), will also include new and more extensive main library and study rooms (see Appendix 3d), that will allow a considerable increase in the number of seats and PC stations available for Faculty students.

Suggestions for improvement on Standard 6

- Continuously update/upgrade learning resources and evaluate the need to increase the number of courses (e.g. on an annual basis) targeting students on learning resource use
- Consider the need to increase the main library’s opening hours, as well as the number of textbook copies, on the basis of students’ requests
- Constantly promote the use of e-learning resources and continuously improve the contents of the e-learning platform (e.g. increase the number of explanatory videos; create collections of images)
- Increase the number/range of veterinary simulators/training models, particularly as far as veterinary clinical/surgery skills are concerned.



STANDARD 7. STUDENT ADMISSION, PROGRESSION AND WELFARE

7.1 The Establishment 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 Establishment must provide accurate and complete information regarding all aspects of the educational programme in all advertisings for prospective national and international students. Formal cooperations with other Establishments must also be clearly advertised.

The information to prospective students concerning the Degree Programme in Veterinary Medicine follows the general objectives of guidance in the University of Teramo. The specific objective of guidance is to act as a lever to reduce academic dropout, limit the interruption or extension of the university path, and contain the phenomenon of unemployment (it aims to “help people to identify and build fully satisfactory training and professional paths”). Guidance activities are managed by the Faculty and coordinated by the University, according to the guidelines of the University Guidance Committee, chaired by the Rector’s Delegate for Guidance for Incoming students.

The Guidance Committee of the Faculty of Veterinary Medicine carries out, as described below, its activity for the different Degree Programmes taught in the Faculty:

- management of the Faculty Guidance FaceBook (FB) page.
- ongoing information to students and their families on the educational offer proposed by the Faculty, by phone, email and by appointment on site.
- at the beginning of each academic year, usually in October, the guidance activity starts bringing information, concerning the educational programmes, learning outcomes, admission procedures and requirements, directly to interested High Schools and at the Students’ Fairs.
- each year, from January to June, six “*Open Houses*” are organized for prospective students and their families, during which it is possible to visit the Faculty of Veterinary Medicine and the Veterinary Teaching Hospital, as well as meet teachers and students to receive more information on the degree courses (https://www.unite.it/unite/orientamento_medicina_veterinaria/arrivano_gli_open_house_della_facolta_di_medicina_veterinaria_1).
- generally at the beginning of the year the University organizes an “*Open Day*”, attended by prospective students from various High Schools of Central Italy. The responsible of the Guidance Committee for the Faculty of Veterinary Medicine delivers complete information regarding all aspects of the educational programme using all advertising tools for prospective students.
- then, before summer holidays, a “*Summer School*” specifically addressed to students of the fourth and last year of High Schools takes place aimed at fostering a conscious academic inclusion into the Degree Programmes through training support courses inspired by a theoretical-practical model. The project organizes interventions showing the activities they would carry out as university students; provides advice on study

plans and on the educational offer; provides the necessary tools to facilitate the entry into a new study environment.

- Finally, each year at the end of August the Faculty organizes “pre-courses”, lasting 6 days (8 hours / day) preparatory for the entrance exam (scheduled by the Ministry at the beginning of September). They consist of 14 hours of Biology, 14 hours of Chemistry, 12 hours of Logical Reasoning and 8 hours of Physics and Mathematics.

Further useful support for the various activities carried out by the Guidance for incoming students are the Student Guide and the webpages dedicated to guidance initiatives on the University and Faculty website.

- a) The Student Guide, published annually by the University, contains information on educational objectives, professional profiles, requirements for access to degree programmes, the course structure diagrams relating to the entire programme catalogue of the University of Teramo.
- b) The Guide to fees and contributions, published annually online by the University, contains information on the main administrative deadlines (matriculations / enrolment, degree application, fee amounts and deadlines due with any exemptions/benefits, steps to follow / interruptions / transfers).
- c) The University and Faculty website are constantly updated to offer students, schools and anyone interested complete and exhaustive information on promoted activities, events and enrolment procedures.
- d) The Guidance FaceBook Page of the Faculty of Veterinary Medicine offers daily and useful information for those who are planning to choose one of the Degree Courses offered by the Faculty.
- e) The teaching programmes are constantly updated and available at https://www.unite.it/UniTE/Insegnamenti_42?VRIC_AA=2019&VRIC_Facolta=3&VRIC_cds=U-10.

The same essential information concerning “studying at the University of Teramo” are available to foreign students through the English website (https://www.unite.it/English/Faculty_of_Veterinary_Medicine/Programme_catalogue_2019_2020/Veterinary_Medicine) (including a guide for international students, information on the International Welcome Office, the Italian University system, enrolment procedures for EU students or holders of a residence permit in Italy, enrolment procedure for non-EU students, Erasmus incoming students, tuition fees, scholarships and financial support, health services in Italy, job placement service and further services). Specific information concerning the Veterinary Medicine Degree Programmes is also available in English on the specific page of the English website.

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

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

TYPE OF STUDENTS	AA 2018/2019	2017/2018	2016/2017	MEAN
Standard students	51	45	45	47
Full fee students*				
Total	51	45	45	47

* the distinction between Standard and Full Fee students is not applicable

Table 7.2.2. Number of veterinary undergraduate students registered at the Establishment*

YEAR OF PROGRAMME	AY 2018/2019	AY 2017/2018	AY 2016/2017	MEAN
First year**	56	49	45	50
Second year	49	60	56	55
Third year	59	48	69	59
Fourth year	48	75	74	66
Fifth year	111	101	98	103
Students not aligned to the exam schedule (called <i>off-course students</i>)	68	55	44	56
Total	391	388	386	388

*Students number in the different years include: • On-course Students: students who are carrying out their university programme regularly.; • Part-time Students: Students who for specific reasons have decided to carry out the study year in two years; ** 1st year may include students admitted in excess after legal appeal to the Ministry

Table 7.2.3. Number of veterinary students graduating annually*

TYPE OF STUDENTS	AY 2018/2019	AY 2017/2018	AY 2016/2017	MEAN
Standard students**	44	37	41	41
Full fee students	-	-	-	-
Total	44	37	41	41

* Numbers reported refer to students graduating until + 1st year, who still attend the Faculty; ** the distinction between Standard and Full Fee students is not applicable

Table 7.2.4. Average duration of veterinary studies

Duration	% of students who graduated in AY2018/2019
+ 0	54,84%
+ 1 year	29,03%
+ 2 years	3,23%
+ 3 years of more	12,90%

Table 7.2.5. Number of postgraduate students registered at the Establishment

PROGRAMMES	AY 2018/2019	AY 2017/2018	AY 2016/2017	MEAN
Interns	-	-	-	-
Residents	-	-	-	-
PhD students	26	26	25	26
Postdoctoral fellowships	30	32	28	30
National specialization school students	116	119	102	112
Postgraduate master students	51	-	53	35

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

Admission procedures for standard students:

- selection criteria: in Italy a national “limited enrolment” or “restricted access” (*numerus clausus*) is set for the admission to the Degree Programme in Veterinary Medicine. Total student number and their distribution in the different Faculties is annually determined by the Ministry of Education, University and Research (MIUR). Selection is made by an *admission test* regulated and organised at a national level, taking place on the same day and time with the same questions in all Italian universities. The test is made up of 60 multiple choice questions to be answered in 100 minutes. Students achieving a minimum score of 20 points are listed in one national ranking list and assigned to a Veterinary Medicine Degree Programme on the basis of: i) the score obtained; ii) the number of available places at each university; iii) student geographical preferences (students must indicate 3 universities in order of preference).
- policy for students with physical or learning disabilities: students with physical or learning disabilities are ensured special admission test rules (e.g. tutor assistance, additional time, etc.) which can be submitted at the moment of admission request as specified in the Guide to Admission Test (page 7 to 10) available at the following link (https://www.unite.it/UniTE/Engine/RAServeFile.php/f/Veterinaria/guida_test_ammissione_veterinaria.pdf).
- composition of the selection committee: a supervisory commission for the admission test, only with surveil-

lance and monitoring tasks, is annually designed by the Faculty to manage the test administration. Conversely, all the selection process is managed exclusively at the MIUR level.

- appeal process: students excluded from the national ranking list can appeal to the Regional Administrative Court (TAR) against MIUR selection criteria.
- publicity of the criteria and transparency of the procedures: far in advance of the admission test date, all the admission procedures and criteria are made public on the University and MIUR websites (the last test information is available at the following link: https://www.unite.it/UniTE/Test_ingresso_Medicina_veterinaria_2019).

Procedures for full fee students: Not applicable.

Each year, the Veterinary Medicine Degree Program (VMDP), through its Board and Director, must submit to the Ministry of University (MIUR) its proposal both for the activation and for the number of students to admit, depending on the facilities and on the minimum criteria of staff availability (so-called “Reference Teachers”). Moreover, the VMDP must fulfil all information concerning buildings and available equipment in the Degree Programme Annual Factsheet. The number requested for the AY 2016/2017, 2017/2018 and 2018/2019 was respectively of 85, 70 and 65. The final decision on the number of students admitted is however only officially taken by the MIUR.

For the next 3 academic years, based on Reference Teachers available, facilities and equipment improvements, the VMDP will continue to propose a number of students to be enrolled similar to the number requested in the last 3 years, even if the final decision will be dependent on ministerial criteria and national distribution balance.

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.

The University of Teramo intends to guarantee students with disabilities the best conditions for facing university studies. The University adopts a series of measures aimed at promoting student participation in university life, removing the causes that may limit it, and providing specific interventions. Every year the University of Teramo publishes a notice on the University website aimed at recognizing the needs of disabled students, in order to activate the assistance services and support measures provided for by the current University Regulations. Students enrolled in the University of Teramo can take advantage of disability services (assistance services and support measures), as described at the website <http://www.unite.it/UniTE/Engine/RAServePG.php/P/25541UTE0308>). Particularly, concerning the VMDP, a reference teacher is appointed and participate in the University Committee for the Integration of Disabled Students, a Committee appointed by the Rector with the task of identifying potential needs and making proposals on initiatives to be activated on the basis of data relating to students with disabilities enrolled in the University for each academic year, preparing the plan for the use of ministerial funding (law 17/1999) and any other funds and develop specific projects, maintaining the teaching standards and the achievement of the competences planned by the VMDP.

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 Establishment 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 Establishment 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.

Progression criteria and procedures for all students: each year the VMDP Board discusses and approves the Degree Programme Annual Factsheet and the Degree Programme Teaching Regulation which are then available to students and published on institutional websites (<https://www.universitaly.it/index.php/scheda/sua/45145>; https://www.unite.it/UniTE/Regolamenti_didattici_a_a_2019-2020_dei_corsi_di_Studio_della_Facolta_di_Medicina_Veterinaria). Both documents define the rules the students enrolled in the specific academic year will have to follow during their curricular 5 -year degree programme. These rules include all the information concerning the main educational aims, the training path, the competences to achieve and a detailed description of the curriculum,

including Clinical Rotations (CR), Professional Practical Training (PPT) and External Practical Training (EPT), Final Thesis. Information concerning the Quality System monitoring teaching activities and students support are also available in the same documents.

Remediation and support for students who do not perform adequately: as in all the Public University Degree Courses in Italy, the progression criteria along the years do not allow to exclude students not completing the exams programmed in the year they follow. However, the VM DP monitors overall student progression and performance by regularly evaluating student graduation numbers each year, graduation timeframes and CFU/ECTS obtained each year. These data are registered in the Annual Monitoring Report annually. If students are not performing adequately (i.e. students do not earn a correct number of CFU/ECTS per year or concerning a specific exam) general information is made available to the Degree Programme Director and to the Educational Quality Assurance Committee (EQAC) in order to provide general remediation. Then, a possible analysis of specific individual difficulties (information collected through the individual tutor or directly by the Degree Programme Director) allows to provide appropriate individual support if necessary. For students far to be aligned to the exam schedule, there is the possibility to register as “*part-time students*” in the subsequent years, allowing them to be aligned to the exam schedule, acquire the credits planned and to gain sufficient knowledge before going on with the subsequent course units and exams.

Publicity to students and transparency of these criteria/procedures: all information concerning progression criteria, support for students who do not perform adequately, assurance quality system is public and published on institutional websites.

Each year the Annual Monitoring Report (Appendix 4), an official report developed by ANVUR and by the University Quality Assurance System, makes available the main performances of the students (number of students enrolled, CFU/ECTS acquisition, students aligned to the exam schedule, students not aligned to the exam schedule, students graduating regularly in time, data relating to the employability of graduates etc.), including rate of attrition. In this Report, the same indicators are also provided for Veterinary Medicine Degree Programmes in the surrounding geographical area and for all the national degree programmes, allowing the VM DP Board to compare local achievements to those of other Degree Programmes.

Attrition from the DVMP in Teramo are normally low (11,1% in AY 2018/2019) and the main causes, generally attributable to the delay for few students in the acquisition of credits, at the moment have to be ascribed to some difficulties related to some course units or modules whose exams are hard to be passed on scheduled time.

As reported above, the admission number, procedures and criteria of the Veterinary Medicine Degree Programmes in Italy are determined by the Ministry of Education, University and Research (MIUR). All the procedures, communication to students, stakeholders and staff are made available each year both by the Ministry and by the University far in advance of the admission test date on the University and MIUR websites (the latest test information is available at the following link: https://www.unite.it/UniTE/Test_ingresso_Medicina_veterinaria_2019).

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

As in all public Universities in Italy, there is no limitation to the enrolment on supplementary years (students not aligned to the exam schedule so called off-course students) or to re-sitting for exams and students can postpone graduation without time limit. However, to foster a responsible behaviour in students for career progression, the University of Teramo has adopted a dissuasion procedure to re-enrol by increasing significantly the tuition fees after the 2nd supplementary year. This information is available online to all students in the Guide to fees and contributions.

7.7 Provisions must be made by the Establishment 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).

Students enrolled in the VMDP in Teramo University can access to

a) Enrolment, teaching administration: a central Teaching Division and Student Services Office for the enrolment and all administrative procedures dealing with students' teaching activities is accessible via internet (<https://segreteriaonline.unite.it/Home.do>) and also on site in the VMDP campus. Students can also write to the "Service for Quality and Teaching Support" (presidenzavet@unite.it) or to the Teaching Division Responsible in charge at the Faculty of Veterinary Medicine (didatticavet@unite.it).

b) Mentoring and tutoring, career advice, listening and counselling: the guidance and tutoring service offers information, support and assistance, diversified according to the various needs, to all students enrolled in the Degree Programme. The teachers of the Degree Programme carry out tutoring activities for the students assigned to them. In fact, when enrolling, each student is randomly assigned to an individual tutor-teacher, who has the task, when requested by the students, to follow and take care of their career from the time of enrolment until the achievement of the degree. The student lists and the tutors are posted on the bulletin board at the beginning of the A.Y. and updated until enrolment ends.

More specifically, the tutor-teacher: - offers advice to students, through individual and / or group interviews, for the preparation of exams and for problems with university career, methods of study to take exams and do practical exercises; - provides additional explanations and clarifications on the topics covered by the lessons; - give information concerning the publication of informative material concerning teaching activities; - give advice in the choice of the subject area for the preparation of the degree thesis. Students can request the Degree Programme Director to be assigned to a different tutor-teacher, if necessary.

Furthermore, for each year of the Degree Programme, two teachers who are members of the five Per-Year Commissions, also have the task of monitoring the study progress of those enrolled in the reference year, highlight any critical issues of the various course units by submitting them to the Educational Quality Assurance Committee and support a "per-year tutoring".

c) Assistance in case of illness, impairment and disability: concerning ill students, a free of charge Medical Service, activated in the University Campus thanks to the collaboration with the ASL of Teramo, is available to students of the University of Teramo. The service is available to students - also by appointment - every Tuesday and Thursday from 11.00 to 13.00. Students who wish can also book free medical services through the appropriate web page or the UNITE Mobile App. The University of Teramo, as stated above, guarantee students with disabilities the best conditions for facing university studies. Every year the University of Teramo publishes a notice on the University website aimed at recognizing the needs of disabled students, in order to activate the assistance services and support measures provided for by the current University Regulations.

Students enrolled at the University of Teramo can take advantage of disability services (assistance services and support measures), as described at the website (<http://www.unite.it/UniTE/Engine/RAServePG.php/P/25541UTE0308>). Particularly, concerning the VMDP, a reference teacher is appointed and participate in the University Committee for the Integration of Disabled Students, a Committee appointed by the Rector with the task of identifying potential needs and making proposals on initiatives to be activated on the basis of data relating to students with disabilities enrolled in the University for each academic year, preparing the plan for the use of ministerial funding (law 17/1999) and any other funds and develop specific projects, maintaining the teaching standards and the achievement of the competences planned by the VMDP.

d) Clubs and organisations: the VMDP provides outdoor spaces equipped with benches and tables.

The University provides additional accessible recreational and leisure spaces and activities:

- University Sporting Centre (CUS) (https://www.unite.it/UniTE/CUS_-_Centro_Universitario_Sportivo). CUS Teramo participates in numerous interfaculty competitions, both in individual and team sports. The CUS Teramo office is located in the Campus "Aurelio Saliceti".
- University Theatre Centre (CUT) (<https://www.unite.it/UniTE/Servizi/CUT>). It offers courses in diction, acting, public speaking to all students of Unite.
- Centre for modern languages (https://www.unite.it/English/The_Centre_for_Modern_Languages)
- The University of Teramo Centre for Modern Languages offers courses of Foreign Language in order to improve the skills of international and exchange students. Such courses are free.
- Cultural and sport activities are provided by the Authority for the Right to Higher Education (ADSU) (<https://www.adsuteramo.it/>)

Problems concerning student grievances (e.g. interpersonal conflict or harassment) are to be reported to the personal tutor who is assigned to each student at the time of enrolment. The tutor, depending notifies the DVMP Director of the situation. If there is a presumption of violation of the “Code of Ethics” (https://www.unite.it/UniTE/Ateneo/Statuto_e_regolamenti/Codice_etico), the situation is reported to the Faculty Dean and the procedures follow as set out in art. 20 of the Code of Ethics (activation of the Rector and the Academic Senate, establishment of a guarantee Commission and carrying out the necessary investigations to solve the problem).

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

There are several mechanisms that allow students to express their needs, comments or suggestions to the Establishment. In particular, they may resort to:

- direct contact with the VMDP Director
- direct contact with the tutor-teacher
- through their representatives in the Per-year Committees
- through their representatives on the EQAC
- through their representatives in the VMDP Board
- through an anonymous communication system directed to the VMDP Director

Comments on Standard 7

The admission procedures are regulated at ministerial level and do not take into consideration, in the admission test, the real motivation of the students. This point has been underlined several times by the Board of Deans of the Italian Faculties in Veterinary Medicine, so as to induce the ministry to adopt more effective selection criteria, but without success at present.

It is also necessary to underline the systematic delay, for the ministerial procedure, in closing of the admission rankings, with a good number of students starting to attend classes only at the beginning of the second semester of the first year.

The subsequent monitoring of students’ careers is carried out with a very careful system. However, it is not possible to remove or block students who are late with exams: this implies the systematic presence of students called “off-course”.

The DVMP has done a lot of work to try to minimize the presence of late students, particularly of the previous curriculum (47S), both through the tutoring system and by setting up recovery courses and “reserved” courses where necessary, aiming to reduce the problem, while ensuring high training standards. This action, called the “off-course student agreement” has improved significantly the performance of the previous curriculum off-course students. At the moment it does not seem necessary to activate such a solution with the new curriculum (LM42). Given that students from the second year “off course” do not attend classes and practical activities, they have not been considered in the calculation of the ESEVT indicators.

Suggestions for improvement on Standard 7

The presence of off-course students in the new curriculum (LM42) appears limited at the moment. However, student carriers are closely monitored in order to avoid the presence of a larger number of students late with the exams, that represent a symptom of ineffective educational system.

The revision of the current curriculum, scheduled for the end of 2020, will verify the possibility of stopping for students who are late with the training course.

The DVMP places the utmost consideration on the detection of the difficulties reported both by individual students and by their representatives in the committees in which they take place.



STANDARD 8. STUDENT ASSESSMENT

8.1 The Establishment must ensure that there is a clearly identified structure within the Establishment 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 order to successfully graduate and receive the title of Doctor of Veterinary Medicine (DVM), students must complete all credits (Italian CFU) for basic teaching/learning activities (i.e., core subjects), as well as a fixed number of elective credits, out-of-hours shifts (i.e., rotations) in the Veterinary Teaching Hospital (VTH) and a curricular internship. Before graduating, students must complete their Log-Books of CR, PPT and Day One Competencies, along with reports of the clinical records. The final step is to draw up and defend a research or review type degree thesis, the dissertation taking place before a board of academic staff.

The final degree mark is made up of the student's average grades multiplied by 110, and divided by 30. A maximum of 11 extra points is rewarded for a research dissertation, while a maximum of 7 extra points is given for a review type dissertation. Other points may be awarded for international activities, e.g. if a student has spent a period abroad thanks to the Erasmus+ Studio and/or Erasmus+ Traineeship mobility programme, or if the experimental activities have been performed abroad in collaboration with a foreign Institution. The highest degree mark is 110 *cum laude* (i.e., with honours). The regulations for the DVM graduation is published at the following link of the Faculty website.

(<https://www.unite.it/UniTE/Engine/RAServePG.php/P/474151UTE0104/M/20011UTE0104>).

Students sit for exams in all core subjects, being given a final grade upon the successful completion of each course. Exams can include written, oral and practical tests, or a combination of all the above. Each single teacher page on the Website (https://www.unite.it/UniTE/Ricerca_insegnamenti) reports the Teaching Course Description Form (TCDF) that includes in details study programmes, learning objectives, evaluation criteria and procedures as well as recommended reading.

All examination sessions are held on a monthly basis (11 sessions per year) to encourage student progression. The examination calendar is published on the Faculty website (https://www.unite.it/UniTE/Esami_Medicina_veterinaria), and regularly updated with new dates. In addition, the institution encourages teaching staff to adopt flexibility of exam dates to further facilitate progression. Any change in exam dates (dates can be only postponed) by the teacher must be motivated, promptly communicated to students via official communication channels or published in the website news.

Most courses are composed of multiple modules and the final grade is made up of the average of the grades of each module (weighted by credits).

Students can register for specific exams through their individual portals on the Faculty website (<https://segreteriaonline.unite.it/Home.do>), where they can also see the results and follow their progression through their degree programme on their personal student home page.

Courses/modules may include midterm examinations, mostly in the written or multiple-choice-question format, and a final oral/practical examination. The regulations for the midterm examinations are published on the website: https://www.unite.it/UniTE/Linee_guida_verifiche_intermedie. Some courses also include a short oral presentation by the student before their peers, or a short essay, to be submitted to the teacher. Grades are given at the end of the final examination.

Since class attendance is compulsory, to be allowed to sit for the final examination, students must attend at least 70% of theoretical and practical credits/hours per course.

Students must also complete any preparatory courses (prerequisites), successfully passing their final exam. The description of each single module/course on the website enlists potential preparatory courses for that course. In accordance with the Italian law, there are no limits to the number of times students may sit for an exam.

The primary assessment of **theoretical knowledge** is carried out during the written and/or oral part of exams throughout all 5 years of this degree programme. The format of each written exam is set by individual teachers, and may include multiple choice questions, short answers, brief essays, true/false questions and open questions containing requested keywords to limit subjectivity in the student evaluation. Oral exams consist of an extensive discussion between the student and teacher regarding the subject matter, where theoretical knowledge and critical and associative abilities of the students are tested. Such examinations typically last between 20-45 minutes and enable the teacher to evaluate the overall preparation of the student: content knowledge, approach, handling and methods applicable to a practical test, communication skills and adequate scientific terminology.

Supervised group work is also applied in some courses, as well as homework, which each student must complete on his/her own.

Pre-clinical practical skills are gained and monitored during the 1st, 2nd and 3rd years of the degree programme. Preclinical practical skills are assessed by practical activities performed during the first 3 yrs of the programme, by written reports, supervised work and are recorded and signed in the log book by the supervised teacher or assessed during the final exam or practical exam. A practical approach to animal handling, restraint and management is taught during mandatory rotations, in the first year of study. In particular, first year students attend a weeklong course aiming at teaching the handling of all relevant species (i.e., dogs/cats/horses/livestock). In each subsequent year, students have a mandatory week of rotations in the VTH, with the second year focusing on pre-clinical skills. All activities taking place in this period under the supervision of the academic staff, are then registered in each student's rotation Log-book, and in the case of day one competences, they are also registered in the student's logbook. Before starting and undertaking the activities in the VTH, all the students must follow a one-day course on the necessary procedures on how to fill in clinical records for each single patient they will follow. Then, during their clinical experience, they fill in personally the clinical records and the VTH staff supervise and correct the clinical records made by the students.

Also, in the first and second year students follow a mandatory course on biosafety and job security, after that they receive an official certificate of attendance for such course. By the Academic Year 2019-2020 the successful attendance of this Course provides additional credits to the students.

Clinical practical skills are taught and monitored during the 3rd, 4th and 5th years of study. Such skills are assessed during the practical part of each course. This can be in the form of a practice clinical examination with a healthy or diseased animal or using images or other material as deemed necessary by the teaching staff.

In addition, students participate in mandatory rotations in all years of study, with the 3rd, 4th and 5th years focusing on clinical practical skills. As for the pre-clinical practical skills, all activities carried out in this framework are recorded in the rotation Log-book and daily assessed by teaching staff. Regarding the clinical practical skills taught during the practical portion of courses, they are assessed during the final oral/practical exam.

Fifth-year students must complete a mandatory internship, divided into the following areas: internal medicine, surgery, reproduction, infectious diseases, food inspection and hygiene, animal-based production, parasitic diseases and pathological anatomy. The student must complete 2 weeks of internal training and 1 week of external training each of the first enlisted six areas, for a total of 18 overall weeks of practical training. The remaining two areas are integrated in the framework of the other relevant areas when necessary, in accordance with the need of the areas and the VTH activities. The external internship is carried out in veterinary facilities and Institutions affiliated with our establishment, these organizations being consultable by students on the Faculty website (https://www.unite.it/UniTE/Tirocini_curricolari_Medicina_veterinaria). The selection of these facilities is carried out by teaching staff and students, with the supervision of the Educational Quality Assurance Committee (EQAC) and the Veterinary Medicine Faculty Board (VMFB), being based on a review of the activities, services, facilities and equipment

available in these premises and using an ad hoc evaluation form. During the external 1 week mandatory internship, there are two evaluation forms – i.e. in the first one the veterinarian responsible for EPT (External Practical Training) evaluates the student while in the second one the student evaluates the EPT (https://www.unite.it/UniTE/Corsi_di_laurea_Medicina_veterinaria/Tirocini_curricolari_Medicina_veterinaria). Both forms are then evaluated by the EQAC and the Degree in Veterinary Medicine Programme Board (DVMPB), to monitor the quality of the facilities and the Institutions that are affiliated as well as the background and know-how of the students.

The assessment of the clinical practical skills acquired by the students during the mandatory PPT is carried out directly by the academic staff and all the main clinical activities are recorded on the purposed Log-books at the end of the each period of the PPT (https://www.unite.it/UniTE/Corsi_di_laurea_Medicina_veterinaria/Tirocini_curricolari_Medicina_veterinaria).

Soft skills as communication skills are assessed at oral exams, as these take place in the form of a discussion between the examination committee (or board) and the student, evaluating the oral communication skills of the students, in addition to their knowledge of the subject.

In order to foster public speaking skills, some specific courses require an oral presentation of a number of slides on an assigned topic as a percentage of the final grade. This is usually performed by small groups of 2-3 students, thus also promoting teamwork, dealing with criticism and self-confidence.

In addition, some courses include activities, such as the use of role plays as a teaching tool, the resolution of clinical cases, to be carried out by groups of students brainstorming with each other, thus promoting communication, teamwork and cooperation skills. During hospital rotations, and the curricular mandatory internship, soft skills such as communication skills, mental attitude, self-confidence, teamwork and time management are fostered and verified. Such skills, however, are not directly examined in a formal setting.

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

The assessment criteria/procedures and the objectives of every single course are checked by the EQAC. All University degree programmes have a EQAC (<https://www.unite.it/UniTE/Engine/RAServePG.php/P/369931UTE0457#A8>) that is available on the Faculty web site. The EQAC of the DVMP is coordinated by the President and has the duties to analyse, plan and implement initiatives and improve and optimize the teaching system of the Programme, in agreement with what is defined by the University's governing bodies with reference to the policies and interventions. The EQAC carries out a periodic and programmed self-assessment process with the aim of monitoring training activities, verifying the adequacy of the learning objectives that the Programme has fixed, the correspondence between the objectives and the results achieved by the students. Also, the EQAC evaluates the efficacy of how the DVMP is managed, in order to adopt all the appropriate concrete improvement and correction measures, together with the times, methods and responsible in charge for their implementation. Every year, students are requested to fill out and submit a questionnaire evaluating each course (student opinion questionnaire) (Appendix 4). These questionnaires ask the student to evaluate each single teaching course, the teacher and whether the examination methods have been clearly defined. Specifically, the question "Was the exam criteria/procedure provided clearly and appropriately at the beginning of any given course?" is asked. A large number of students complete the questionnaire, generally demonstrating an appropriate sense of responsibility, thanks, to a great extent, to frequent meetings between students and teaching staff regarding "student opinions" and the quality of courses. These data/opinions are evaluated by the EQAC and the Programme Year Committees (P1-P5 Year Committees).

All the teachers at the beginning of each course explain in details study programmes, learning objectives, evaluation criteria and procedures as well as recommended reading. The study programme of each course/module is published on the Faculty Website in both Italian and English (https://www.unite.it/English/Veterinary_Medicine_2019_2020), for the majority of the teaching courses the Syllabus is also available online. The TCDF (i.e., Factsheets on Individual Subjects) state the aims of the course, the topics covered in the programme, recommended study materials (textbooks, lecture notes etc.). They also clearly state the exam methods, including possible mid-term/written/oral/practical components. In addition, the first hour of each course is usually dedicated to a lesson planning introduction where teachers explain the examination method and assessment procedures. Practical tests are open and are certified by a board composed of at least two expert members in the subject in order to ensure

the maximum transparency during the assessment process. Every year the DVMPB determines the examination commissions, to be then published on the website.

As in all the University System of Italy, grades are expressed in numbers given on a scale of 30, with 18 being considered a passing grade (minimum approval grade), and 30 *cum laude* (i.e., with honours) the highest attainable grade for each course. Similarly, the final degree mark goes from 66 to 110 *cum laude*. For written exams individual students are notified of exam grades by a provisional list published on the Faculty website and by a notice posted in the Faculty notice boards. Grades for oral and practical tests are given at the end of the examination, again, with both the student and teacher signing a form to accept the evaluation and grade. In case of multiple assessment methods, the final grade corresponds to a weighted mean value.

Students are allowed to refuse the grade proposed by the teacher, as there is no limit to the number of times a student can sit for each examination.

Some examinations may only be taken after the successful completion of preparatory exams (prerequisites). In case of failure the examining board invites the student to review his/her knowledge and give their availability for learning support. The student can sit for the same exam in the next exam session (usually the following month). Aside from this requirement, there are no barrier assessments in place preventing students from career progression from one year to the next. Students' careers are monitored on a regular basis by the EQAC.

Post-assessment feedback is available for both oral and practical exams. In case of failure or learning deficiencies each teacher usually explains the problems in the learning programme and suggests necessary improvement.

All members of teaching staff have office hours (published online and readily available in the personal webpage of the Faculty website) where students may request post-assessment feedback in the case of failure and guidance for improvement, as well as reviewing written examinations that have been considered negative. No systematic procedures are established for post-assessment feedback to students after summative examinations.

Furthermore, as the Degree in Veterinary Medicine Programme has a relatively small number of students, most teachers are very flexible, encouraging students to seek guidance and feedback even outside of formal office hours.

In addition, students may require guidance directly to individual tutors who are the teachers of the degree course assigned to each first-year student. Each tutor shall follow his/her own students throughout the entire course providing them with support and guidance. Students may contact individual tutors in case of doubts regarding study methods, advice on specific skills, suggestions on how to improve university career, and advice on how to prepare their dissertations. Furthermore, individual tutors provide students with information and suggestions regarding university career arrangements and progression, or information on study and work abroad programmes. Given that in the past few years the students have underestimated the importance of the individual tutor, since the Academic Year 2019-2020 the Coordinator of the DVMP has organized purposed meeting with each single class of the degree programme. For additional support, students may take advantage of each single P1-P5 Year Committee, and year student representatives, who refer to the Quality Assurance Committee. Many teachers are available for tutoring in cases of students with particular difficulties/special needs.

As previously stated, students who are unsatisfied with assessment outcomes are not obliged to accept the grade proposed by the teacher, being allowed to sit for the same examination an unlimited number of times. This possibility to take an exam several times as well as teacher availability make appeal procedures as a mean to solve judgement disagreements unremarkable. In any case a student who wants to report inconsistency with exam criteria/procedures and board assessment may bring complaints to their elected student representatives who are present in all committees/boards and in each single year class. Such reports are discussed and dealt with the EQAC, the Joint Student-Teacher Committee, the DVMPB and the VMFB (Appendix 4).

8.3 The Establishment 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.

Guidelines for the overall assessment strategy (exam procedures, committee structures, number of examination sessions, as well as flexibility) are decided/assessed and revised by the DVMPB and the VMFB (depending on the boards, they consist of teaching staff, technical/administrative representatives and elected student representatives). Guidance to DVMP and VMFB relies on University Guidelines, and meets outcomes coming from the EQAC

and the Joint Student-Teacher Evaluation Committee (JSTEC) (both made up of an equal number of teachers and student representatives). All the decisions taken by the Boards are communicated through the minutes of board meetings which are available in the Secretary Office. Assessment criteria/procedures are provided by teachers according to specific subjects, published on the Faculty website and presented to the students usually during the first hour of lectures. All implementing, assessing and revising actions are addressed by students or teachers to the DVMPB and then reported to the VMFB for their final approval.

All the objectives and examination procedures for each module/course are reported in an individual description that is published on the Faculty website. This is the TCDF published on the website in the individual teacher page. Moreover, teacher webpages can report the course syllabus, i.e., a guide to the study programme of the course and what students are expected to learn. It includes course aims, the content of the course and the Dublin Descriptors. The TCDF specifies to students everything they need to know about how a course (i.e., course policies, rules and regulations, required texts, a schedule of assignments, classes, topics and content of the course) will be run and what are the expected outcomes.

The aim of these forms is to provide a fair and straightforward understanding between teachers and students relating to the course, expectations of material to be learnt and aims to be achieved, along with a time-plan and a roadmap (e.g. weekly or monthly) of course organization and contents. The content aims to clarify the students on grading policy, materials required and/or recommended (e.g. textbooks, assigned reading books, bibliography, lecture notes, articles).

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

The achievement of learning outcomes is assessed for each subject during the written, oral/practical examination, with teachers asking questions aimed at assessing the level of understanding and application of the coursework of each student. This takes place throughout all years of study and in all subjects. During rotations and the mandatory internship, students are required to participate in all visits/activities (“hands-on”) and are expected to write case reports which are checked by teaching staff. This allows the evaluation of the knowledge and skills actually transferred to students and helps teachers remediate in cases of students who did not show full understanding and application of the subject matter.

Students are strongly encouraged and invited to actively participate in the learning environment in all stages of the DVMP. During the theoretical leg of many courses, in order to give the opportunity to make decisions about what they have learnt and how they may use knowledge, students are expected to interact with the teacher answering questions and participating in discussions and debates during lessons both between peers and with teachers. In addition, some courses include problem-solving or case-based problem-solving exercises, as well as doing homework or in-class exercises to further encourage student participation. Teachers are strongly recommended to receive frequent feedback from the class in order to obtain their interest and attention and understand the level of comprehension of attending students. Collaborative group work is used in many courses as well both in the class section and in laboratory and clinical practical activity.

The practical leg of courses is usually organised in small groups of students, facilitating the direct participation of all students in the planned activities.

Thesis preparation and defence offers further opportunity for active student participation. In this framework, each student takes part in the experimental design, search and study of the bibliography, field work (both in the laboratory and in clinic), analysis, drawing up and defence of a thesis about a subject matter of their choice, under the careful supervision of a teacher. Most theses are research, or experimental theses (59%).

Students can also choose to participate in a voluntary “internship”, taking part in rounds within their field of choice, and gaining extra hands-on experience in the subject which most interests them.

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.

In order to graduate, students must show their ability in all *ESEVT* Day One Competences. These are recorded in the student's LogBook each time a competence is acquired. The responsibility for teaching and monitoring each competence is assigned to one specific teacher and is registered in the logbook upon the completion of the skill by the student and its evaluation by the teacher. Teacher's evaluation and thus the achievement of a given skill can take place during practical lessons, examinations, rotations or during the mandatory internship and is pre-defined for each specific *ESEVT* Day One Competence.

Each single teacher has an individual and purposed way to evaluate the competences acquired by students, *via* midterm examinations, practical tests, oral examinations and in most cases, they have an integrated and summative approach.

Each teacher establishes the most appropriate way to evaluate the competences acquired by the students, according to the course objectives and aims, along with pre-clinical and clinical skills e one-day competences during rotating activities in the VTH (from the second to the fifth year) and during the practical training activities (PPT/EPT) of the fifth year. Students acquire clinical skills during practical courses, homework, practical seminars, rotations and practical internal and external internships. All one-day competences are certified in the personal log-book. Furthermore, all students that participate in the VTH rotation have a personal and purposed CR log-book where they daily record their activities that are checked, evaluated and approved by the VTH veterinary staff. At the end of the rotation period, students present this Log-book with a final report to the President of the DVMP, who evaluates and approves their acquired skills. At the same time, all the activities carried out during PPT and EPT are reported in a purposed Log-book PPT log-book that is certified and approved by the responsible in charge of each single area.

Comments on Standard 8

Further work is still necessary to ensure fair and rigorous student assessment methods. Over the last recent years significant attempts have been made to regulate and harmonise (standardise) the exam system. Additional checks and balances should be put into place to ensure fairness and accuracy. An ongoing process, meant to harmonize the examination system over the many disciplines, aims to improve student assessment.

Suggestions for improvement on Standard 8

- The examination methods should be further standardised with more specific and detailed guidelines provided for written, oral and practical examinations. This would ensure a more homogeneous strategy to evaluate individual courses/modules, developed to meet international standards.
- More training opportunities should be provided to teachers. This would permit them to shape written exams and practical assessment and to improve their knowledge regarding modern, state-of-the art structure of coursework and examinations. It would allow them to select the most suitable methods to provide students with the knowledge and competences necessary for modern veterinarians, correctly assessing learning outcomes.
- More specific and direct student appeal standard operating procedures (SOPs) need to be assembled and should be made available to students and adopted by the committees and VMFB.. This would further encourage accountability among teaching staff and satisfy student needs and welfare.
- A recent change in the software (ESSE3) used to register and archive student careers would allow, in a short and mid- term to analyse and evaluate possible problems and hindrances or delay in acquiring credits.
- In agreement with ANVUR, the Single-Cycle DVMP of the University of Teramo will explore with a pilot project whether the current examination methodologies are able to evaluate the competences acquired by students. This pilot project will assure to improve the methods currently used and, if necessary, introduce new methodologies like for instance OSCE (Objective Structured Clinical Examinations) e CSL (Clinical Skill Labs).



STANDARD 9. ACADEMIC AND SUPPORT STAFF

9.1 The Establishment 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 global strategy follows the prescriptions of the National Regulations which establish for each degree course a minimum number of reference teachers, calculated on the number of students enrolled, in order to ensure that all the competences of the degree course are achieved. The University assigns the necessary resources to the Faculty to pursue the teaching objectives thus determined.

Every year, the Degree in Veterinary Medicine Programme Board (DVMPB) first and the Veterinary Medicine Faculty Board (VMFB) then, evaluates, modifies and approves the Teaching Schedule (TS) in order to ensure that the veterinary curriculum comply with the skills required to professional figures, in agreement with National and EU regulations.

Teaching courses are assigned by the Faculty to the teaching staff based on their training and their Ministry accredited SSD (Scientific Area). The Teaching staff can be composed of permanent academic staff (Professors and Researchers) and temporary staff (support teaching staff). If necessary, to improve the quality of teaching, some courses can be outsourced. The recruitment of external temporary staff takes place through a public competition. All academic staff are appropriately qualified and prepared in order to comply with biosecurity and QA procedures. A course on biosecurity is followed by all academic staff and students, and the biosecurity manual is available to all staff and students.

All academic staff follow the guidelines for quality procedures, and this allowed the Faculty to gain the accreditation ISO 9001:2015 in December 2019.

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 Establishment'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 OF CONTRACT	2018/2019	2017/2018	2016/2017	MEAN
Permanent (FP, AP, PR) (FTE)	40.77	40.32	38.35	39.81
Temporary:				
Interns (FTE)	-	-	-	-

Residents (FTE)	-	-	-	-
PhD students (FTE)	-	-	-	-
Practitioners (FTE)	5.8	3.6	4	4.5
Others (specify) (FTE) Scholarships for teaching support	3.5	4.3	-	2.6
Total (FTE)	50.07	48.23	42.36	46.89

* The last full academic year prior the Visitation; ** All staff included in this table must have received a training to teach and to assess undergraduate students. Practitioners involved with EPT are not included in this table; ***PhD students haven't teaching responsibilities. They are training to teach because their occasionally teaching activities are carried out under the supervision of the teaching staff.

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

TYPE OF CONTRACT	2018/2019	2017/2018	2016/2017	MEAN
Permanent (FTE)	86%	83%	85%	83%
Temporary (FTE)				
practitioners	92.3%	73.3%	70.6%	78.7%
Scholarships for teaching support	83%	83%	100%	88.6%

Table 9.2.3. Support staff of the veterinary programme

TYPE OF CONTRACT	2018/2019	2017/2018	2016/2017	MEAN
Permanent *(FTE)	34.75	34.75	34.75	34.75
Temporary (FTE)	-	-	-	-
Total (FTE)	34.75	34.75	34.75	34.75

* This category includes staff who are dedicated to administrative tasks related to students, and to care of facilities, equipment or animals in the Establishment

Table 9.2.4. Research staff of the Establishment

TYPE OF CONTRACT	2018/2019	2017/2018	2016/2017	MEAN
Permanent (FTE) *	40.77	40.32	38.35	39.81
Temporary (FTE) RTD-B	2	2	2	2
Temporary (FTE) Post doc Fellowships	5.33	5.25	1	3.86
Temporary (FTE) Scholarships for research	1.67	5.42	1.42	2.84
Total (FTE)	9	12.67	4.42	8.7

* All the permanent academic staff (FP, AP, PR) (Table 9.2.1) has the duty to contribute to the Establishment research activities. The FP and AP are also obliged to do both lessons and research, the PR have the obligation to do research and only voluntarily can do lessons.

The national recruitment system provides that academic staff are properly qualified and prepared for their roles. According to the national legislation in force until 2010, the recruitment of professors was done through a competitive exam which included a teaching assessment, that is, the preparation of a lesson to be taken before commission. This procedure had been implemented to guarantee the teaching staff qualification.

After 2010, a new national legislation came into force. The candidate professors must obtain a national scientific qualification, according to their SSD, in order to participate in the public competitions, proclaimed by the Universities and then eventually become associate or full professors, and be enrolled in the teaching staff.

Temporary external personnel are recruited through a local selection chaired by the VMFB who evaluates the candidates' curricula. A new procedure has been implemented by the Faculty in order to guarantee its suitability for the role of teacher. Through an online platform implemented and managed by the *Interuniversity Service Center for educational innovation - established by the Universities of Salento, Bari and Foggia*, the candidate must demonstrate that he/she has the knowledge necessary to carry out teaching activities (including knowledge of biosecurity and QA procedures).

According to national legislation, the recruitment of personnel takes place through a public call where the profile of the candidate is defined in terms of teaching and research needs required by the Faculty.

The Italian law (art. 6 paragraph 10 of Law no 240 / 2010) and the University regulation (DR 310/2014) provide for an exclusive commitment to institutional and teaching activities. However, the teachers, after obtaining permission from the University, can carry out external consultancy activities for a fee, if the time commitment and the economic remuneration are deemed compatible with the academic activity.

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

The University gives the Staff the opportunity to develop and extend their teaching and assessment knowledge, and encourages to improve their skills. Periodically, the University organizes courses to improve teaching quality of teaching and promote new teaching methodologies. These events are open to all teaching staff. For those who cannot attend the seminars it is possible to follow the e-learning courses. 2019 courses are available at the following link <https://elearning.unite.it/course/view.php?id=2290>

Moreover, the staff is encouraged to participate in training courses related to teaching and is financially supported through the recognition of a research trip if the course has an important impact on the veterinary teaching plan. The last refresher course followed by teachers was entitled “Fundamentals in Veterinary Education” lasting 4 days and organized by the Department of Veterinary Medical Science University of Bologna and the Royal Veterinary College-University of London.

Furthermore, the University promotes and encourages teachers to participate in the Erasmus plus programme, with a view to improving and expanding teaching staff skills. The internationalization of the teaching staff has a positive impact on the University, obviously in terms of comparison and improvement of the knowledge of the teachers, but also in economic terms as a reward recognized by the Ministry when calculating FFOs.

There are no rewards for operational excellence. Teachers’ gratification takes place through student assessments which indicate the degree of satisfaction related to teaching. At the end of each course, the students are asked to express their judgment on the teaching quality of the course, through the procedure already described in standard 8. Students are asked specific questions relating both to the teacher’s ability to explain the course topics, and to motivate and arouse students’ interest in the subject.

The results of the assessments on teaching are discussed within the Educational Quality Assurance Committee (EQAC) and presented to the DVMPB. When teaching assessments are negative, the EQAC together with the teacher seeks a solution. Problems and hypothetical solutions are discussed by the Programme Year Committees and DVMPB and the strategy properly identified is then approved collectively (as described in Standard 3). The resources provided by the University to the Faculty for teaching activities are sufficient to cover the costs related to the DVMP, but do not allow further investments in training and participation in schooling activities. These activities, if different from those described above, are carried out by the teaching staff thanks to the funds that research groups obtain through the services offered (third mission) and projects.

The permanent Academic staff is made up of Full Professors, Associate Professors and Permanent Researchers. These figures have been recruited over time through public competitions based on the needs of the Faculties and their educational offer. Their contract type is permanent and is headed by the MIUR. For these types of staff, stability is guaranteed and continuing education is beneficial.

Full Professors and Associate Professors according to the provisions of Italian law, are asked to carry out 120 hours/year of standard i.e. frontal teaching and 350 total hours of activities related to teaching. There is no maximum legal limit of teaching hours, but it is the will of the Faculty that a teacher does not exceed overload (hours/year) of teaching in order to balance the workload in the different fields (teaching, research, professional and academic roles). When, a curriculum needs more hours for a given SSD, the Faculty may call for a public call to assign a teaching course. The contract of permanent researchers does not foresee their commitment in the teaching field. However, given their training, they can play a teaching role by taking charge of a teaching module, that the University of Teramo recognizes them economically.

Temporary staff can be divided into two categories, the new researchers (type A and type B) and contract workers with teaching support contracts. The New Researchers have been set out by 2010 University Reform (Law 240/2010) and have replaced the contracts of Permanent Researchers. These are young people who at the end of their PhD (or research contracts) undertake the academic career. The Type A (RTD-A) contract lasts 3 years and can be extended once only for 2 years. At the end of the 3 or 5 years, he/she can access the type B (RTD-B) contract. The RTD-B contract lasts 3 more years (the RTD-A or those with a long research career can access it) and at the end of this period, the RTD-B if obtained the ASN (National Scientific Qualification) can be recruited as an Associate Professor. The stability of these figures, temporary researchers, is short to medium term, varies from 3 to 8 years, but it is the path that leads to becoming a member of the permanent staff. The contract in this category includes both a commitment in research and in teaching, up to a maximum of 90 teaching hours per year. Finally, contract collaborators with teaching support contracts are employed yearly. There is no guarantee of stability, except for the annual duration of the contract. They are usually veterinary practitioners that support teaching within the VTH. They are recruited through a public call. However, the qualifications required in addition to the assessment of their professional skills include, previous teaching activity (at any University) and its positive evaluation by the students.

9.4 The Establishment 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 Establishment'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 Staff has the obligation to contribute to the Establishment's direction and to the decision-making processes. Every year the VMFB reviews, modifies and approves the Teaching Schedule (TS), and every 3 years the same body approves the planning of the roles.

Based on the budget assigned by the National Government to the Universities and on the teaching needs of the degree programmes, the VMFB can establish to which SSDs deserve an implementation of the academic staff or a career advancement.

Any career advancement between RTD-B, Associate Professor and Full Professor is related both to the faculty needs and to obtaining the ASN, which assesses the quality of the candidate's research.

According to this National system, progressions for the teaching staff are based on excellence mainly due to research activity. Teaching and clinical skills are considered secondarily.

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.

Any problem concerning teaching activity is usually detected by the Programme Year Committees which meet on average every 3 months. These Committees are composed of 2 teachers of the year course and 2 students, 1 representing the year in course and the 2nd one representing the following year. The task of these committees is to evaluate the teaching load, any overlapping of the subject programmes, any training deficiency to be filled in order to be able to deal with the skills of the curriculum. The interaction between teachers and students of the current year is the most immediate method for detecting any problem and being able to find quick solutions before the problem worsens.

At the end of each teaching course, each student must answer an evaluation questionnaire on the teaching skills of the teacher and on the overall teaching load. The Educational Quality Assurance Committee (EQAC) (a completed description is provided in standard 3) evaluates the questionnaires and intervenes on critical issues. The Committee provides for the active participation of students who together with the negatively assessed teachers make suggestions for solutions. The identified strategy is shared with the DVMPB after assessing the feasibility of the proposals and approval of the solutions.

Finally, the overall functioning of the entire training offer managed by the staff is monitored by the Joint Students-Teachers Evaluation Committee (JSTEC) composed of the Directors of the various Degree Programmes and the representatives of the students.

Comments on Standard 9

Most of the teaching staff involved in the DVMP have been recruited with the previous legislation, which provided for recruitment also through the evaluation of the candidate's teaching skills. The present legislation, although implemented with more objectivity and transparency, does not evaluate in any way the teaching skills of the candidate but is aimed mainly at evaluating research skills and results.

National Law doesn't provide reward for teachers who express excellence in teaching, and no tool is allowed to convince and stimulate those who do not excel in this area; nevertheless, the commitment of the University and the Faculty is to stimulate teachers to continuously improve, through the analysis of the results of students' assessments and through their continuous feedback within the various evaluation commissions (P1-P5 Year Committees, EQAC, JSTEC).

Tools are also provided for those who want to improve their skills, both at the level of training courses provided by the University, and through the incentive to participate in exchange projects with a view to improving their knowledge and skills.

The technical-administrative staff is also incentivized to participate in training courses; to this aim they have at their disposal a budget dedicated to the recognition of the costs incurred for training (as set out in standard 2).

Suggestions for improvement on Standard 9

The staff of the Faculty of Veterinary Medicine places the student at the centre of every activity and considers high-level teaching a goal to be pursued constantly. For this reason, the possibility of collaborating with the *Inter-university Service Center for educational innovation - established by the Universities of Salento, Bari and Foggia* has been considered. The aim is to improve the skills of the entire academic staff with particular attention to the new generations of teachers and the use of new teaching methodologies.

Furthermore, the Faculty of Medicine of Teramo together with the Faculty of Veterinary Medicine of Milan are collaborating with the ANVUR to an experimental project with the aim of providing the tools to better evaluate that students have the competencies (and not just the knowledge) related to the One Day Competencies. The results of this project will support the improvement of the teaching skills of the Academic Staff.

A formal scheduling of the training of technical and administrative staff would also be desirable, with a view to identifying the deficiencies in a collegial way and deciding on the strategy for improving the skills of the aforementioned staff in order to improve the support of the teaching staff.



STANDARD 10. RESEARCH PROGRAMMES, CONTINUING AND POSTGRADUATE EDUCATION

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

The Establishment has built over the last years a robust capacity to attract grants to support its research activities, spanning from basic, applied, and clinical research. The funding bodies successfully targeted are the most competitive programmes at international (United States Department of Agriculture, VII EU Framework programme, Horizon 2020) and national (Prin MIUR, CNR, Fibr, Minister of Agriculture, Minister of Health) level. In addition, private funds are also regularly attracted from national and regional bank foundations, private companies, and particularly pharmaceutical and animal feed companies. Research is carried out with the active participation of basic scientists and clinicians, with the inclusion of technicians, students to some extent, and the support of the administrative personnel of the Establishment. The current number of ongoing projects is listed in Table 10.1.1. Overall, the outcomes of research activities carried out by the Establishment foster the programme, for research-based teaching takes place in basic as well as clinical modules.

The themes supported are obviously related to the research activities currently underway in the Establishment, in all its disciplines, and this normally underpins the enthusiasm of its students. The most intense research-based education phase is represented by the internship of undergraduates in case they opt for an experimental compulsory degree thesis.

Table 10.1.1. List of the major funded research programmes in the Establishment which were ongoing during the last full academic year prior the Visitation (2018/2019)

SCIENTIFIC TOPICS	GRANT/YEAR (€)	YRS*
RESEARCH PROJECTS CO-FINANCED WITH FUNDS - FROM THE H2020 EU PROGRAMME		
ERAofART - H2020- Twinn -2015-Twinning	297,500.00 tot.	3
DryStore, MSCA-IF-2016 Individual Fellowships	180,277.20 tot.	2
DryNet MSCA-RISE-2016 – Research and Innovation Staff Exchange	760,000.00 tot.	4
RESEARCH PROJECTS CO-FINANCED WITH MIUR FUNDS (PRIN)		
A new non-invasive approach to the investigation of cerebral activity...	70,000.00	2
Endocannabinoid signaling in Alzheimer’s disease.	55,719.00	2
EXCELLENCE PROJECT “DEMETRA”- FOR DEPARTMENTAL DEVELOPMENT (MIUR)		
Interconnections between OneHealth and sustainable animal supply chain as priorities for sustainable development - “DEMETRA”	6,635,800.00 MIUR 6,000,000.00 Masterplan	5

RESEARCH PROJECTS SUPPORTED BY UNIVERSITY GRANTS		
FARDIB (n. 16 basic research projects)	51,000.00	1
RESEARCH PROJECTS OBTAINED BY OTHER COMPETITIVE CALLS FINANCED BY PUBLIC NATIONAL AND INTERNATIONAL SUBJECTS		
IZS Finalized research 2013- 02355019	44,000.00	3.5
IZS PLV 12/18 RC	14,200.00	2
IZS Abruzzo and Molise	9,335.00	2
Agreement for the implementation of the initiatives pursuant to articles 16.17 and 18 of Legislative Decree No. 154/2004 under the “Three-year national fishery and aquaculture program 2017-2019”	18,500.00	1
Agreement for the implementation of the initiatives pursuant to articles 16.17 and 18 of Legislative Decree No. 154/2004 under the “Three-year national fishery and aquaculture program 2017-2019”	51,400.00	3
LIST OF RESEARCH PROJECTS FOR THIRD PARTIES FINANCED BY PRIVATE BODIES (PHARMACEUTICAL AND FEED COMPANIES)		
Feed companies		
Evaluation of digestibility and in vitro fermentability of complete foods for dogs and cats	10,000.00	2
Study of the intestinal microbiota of dogs and cats for the development of nutraceutical complementary feeds	55,000.00	2
Study of intestinal absorption and bioavailability mechanisms of nutraceutical principles	60,000.00	3
BARF food formulation for dogs and cats	7,500.00	1
Benefits of using ribes pet symbio dog in dogs suffering from periannual atopic dermatitis on intestinal and skin microbiome: A field study	20,000.00	2
Experimental study for the characterization of the anti plaque activity of a nutraceutical supplement	10,000.00	0.5
Cellular and molecular mechanisms of response to nutraceutical compounds in animals	24,000.00	1
Pharmaceutical companies (topic: Parasitology)		
MSD Animal Health Innovation GMBH_ S18134-00	28,000.00	1
MSD Animal Health Innovation GMBH_ S18134-00 - Project extension	4,000.00	0.5
Merial/Boehringer Ingelheim GVTS-2018-01	13,500.00	1.5
Merial/Boehringer Ingelheim GVTS-2019-03	33,500.00	1
Bayer BAH ID 205939	16,500.00	1
Arcoblù EPGA0119	2,880.00	1.5
Klifovet_01824-055-1/2/3-1	17,994.00	0.5

*Duration

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.

The importance of scientific research for veterinary medicine is underlined during the curriculum and foresees basic training on scientific methods in veterinary research. Students are introduced to the technicalities in basic/clinical research, either by the senior, or junior staff (PhDs and Post Docs). Clearly, the training becomes more intense in the case students choose a research topic for the preparation of their final experimental thesis. Moreover, students are allowed to participate in the PhDs defence. Students are trained on the importance of evidence-based medicine, either by the lecturers, but also from the numerous events specifically dedicated to this issue, where students are invited along with practitioners. The Establishment is indeed very active in organizing scientific events open to students, PhDs, Post Docs and often to private practitioners on the latest development of different scientific disciplines, and several of them are lifelong learning events. The organizer and the secretary staff through the ordinary channels normally advertise such events. Students' participation in these events is encouraged by the acquisition of compulsory credits for elective subjects. By doing so, they become aware of the importance of re-

search, scientific-based medicine, evidence-based veterinary medicine and, uppermost, of the need to keep up with the latest development in veterinary sciences for their professional life.

The main approach of the students to the bibliographic search and scientific methodologies occurs once they start to work on the final degree thesis. Moreover, they can attend *ad hoc* courses aimed to improve their knowledge about how to draw up a thesis. Following the choice of a topic, generally a research line underway in the facilities that students have elected for their internship, students are guided by senior peers, PhDs or Post Docs to get familiar with the common research engines (CAB, Pub Med, etc.) to gather the most appropriated papers/chapters. Once a proper background is acquired, the laboratory/clinical training starts and students get the skills to carry out, as more independently as possible, the experiments related to their thesis. The most motivated students, embark on scientific writing.

Generally, a good proportion of the Establishment's students opt for an experimental thesis (>60). The possibility to participate in research programmes is non-compulsory in general, but it become so in case undergraduates opt for an experimental thesis. This data is unexpected considering that the proportion of our students with a real interest in starting a career in science is 3.5% in the first two years (raw data). To improve the interest in research, opportunities to do hands-on research are offered to all students, especially those aiming to work on an "experimental thesis", by the groups actively engaged in research programmes. The choice for an experimental thesis is rewarded with an extra score (1-4) on the occasion of the thesis defence.

The preparation of the degree thesis is compulsory. The writing and presentation of the thesis before an Examining Board on the occasion of the thesis's defence corresponds to and awards 10 credits. Normally students decide in which research area carrying out their internship to work on their thesis. Once accepted, a tenured or tenure-track Faculty Member of the Establishment will normally act as the students' supervisor(s), an additional tenured or tenure-track Faculty Member, PostDoc, PhD might act as a co-supervisor. External adjunct appointments require the approval of the DVMPB. Students can opt for two types of dissertation: the so-called "*Compilativa*", i.e., review type, typically, a monograph dealing with a delimited topic in a cohesive, book-like form with an introduction, problem statement, main sections, conclusion and bibliography; or the so-called "*Sperimentale*". In this latter case, a topic is assigned to the student by the supervisor, normally a line of research ongoing during the internship. Following an introductory phase, where students are introduced to the laboratory/clinical skills required, they participate actively in the assigned research. The level of commitment changes according to experimental work; normally they are allocated to the most feasible tasks. The internship timespan varies, and it is generally longer, up to 8 months minimum, for an experimental dissertation, while review type ones require less time, 6 months in general. The thesis is drafted by the student, under the guidance of a supervisor and a co-supervisor.

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

The Establishment provides first class opportunities for PhDs supported by the Central University Administration, private funding bodies, the Horizon 2020 programme (Marie Skłodowska Curie Actions, Co-Fund), and the National Minister for Research and Education (PON, MIUR). Regarding the last funding source, the Establishment with its project "*Demetra*", has recently been awarded with the status of "Department of Excellence". The project "*Demetra*" is supported by MIUR with a 6.6-million-euro budget, and one of its priorities is to provide for PhDs, including foreign applicants. The funds for PhD scholarships, including bench fees and additional remuneration for internships in foreign laboratories, converge into the PhD programme in "Veterinary Medical Sciences, Public Health, and Animal Welfare". The number of doctoral students/year may vary, and is usually allocated by the Central University Board, depending on national funding distribution to all Faculty PhD programmes. The Establishment, upon previous resolution of the PhD Committee, might increase the number of scholarships in case additional grants, like in our case Demetra and MSCA Co-Fund, are available.

Table 10.3.1. Number of students registered at postgraduate clinical training

TRAINING	AY MEAN 16-17	AY 18-19	AY 17-18	
Italian Specialization Schools Leading to Italian Specialist Qualification				
Specialization School in Equine Medicine and Surgery (horses)	17	21	18	19
Specialization School in Reproductive Physiology of Domestic Animals	39	38	22	33
Specialization School in Animal Health, Livestock Breeding and Production	30	30	32	33
Specialization School in Inspection of Food of Animal Origin	30	30	30	30
TOTAL	116	119	102	112
Master and advanced courses				
Master in diagnostic imaging - small animals	25	25	38	29
Master in nutrition and feeding of dogs and cats	27	14	14	18
Management of recovered, critical and intensive patients: small animals	33	35	-	17
Veterinary Rehabilitation	14	21	-	18
TOTAL	99	95	52	82
Residents: EBVS disciplines (number of supervising trainees) AYs 18/19 - 17/18 - !6-17				
ECVDI	4 (2 ECVO, 1 CEIM, 1 ECZM)	2 (1 ECVO, 1 ECVS)	1 ECVO	
ACVSMR	1 ACVSMR	-	-	

Table 10.3.2. Number of students registered at postgraduate research training (PhD new enrolment in each AY)

PROGRAMME	AY 18-19	AY 17-18	AY 16-17	MEAN
Veterinary Medical Sciences, Public Health, and Animal Welfare PhD	9 (2 foreigners)	9 (2 foreigners)	10 (4 foreigners)	9.3
TOTAL	9	9	10	9.3

Table 10.3.3. Number of students registered at other postgraduate programmes in the Establishment but not related to either clinical or research work (including any external/distance learning courses). These courses are also optionally opened to students of the DVMP, of the Degree in Animal Welfare and Protection and to PhD students.

PROGRAMME/ COURSES	AY 18-19	AY 17-18	AY 16-
Training events (multiple) "KRAINO"	110	96	89
Continuing education and training in apiculture	32	-	
Blue Economy: to be aware to become responsible	80	-	
International Forum of "Gran Sasso"	34	41	-
Training event: Practice management	32	35	33
The new Veterinary Medicine from teaching to professional work and Cooperative Day	92	84	101
Unity is strength	-	90	53
EU call UNITE	-	113	

Table 10.3.4. Number of attendees to continuing education courses provided by the Establishment. These courses are optionally opened to students with CFU recognition. These courses are also optionally opened to students of the DVMP, of the Animal Welfare and Protection Degree and to PhD students.

COURSES	AY	AY	AY
	18-19	17-18	16-17
Imaging and clinical aspects of canine discospondylitis and feline nasal disease	60	-	-
Training Event Medical School: Horse rehabilitation	-	48	52
Clinical aspects of bovine surgery and podology	30	-	-
Training Event: Acme products for orthopaedic management of the horse	20	-	-
Annual Convention of SivasZoo: Surgery and management of the bear.	87	-	
Nutrition of the mare in gestation, the weaning of the foal, the food rationing of the rider horse	20	-	
Oncology	-	58	40
Neurology	40	30	-
Parasitic zoonosis: dog, cat and more	-	-	56
Day of study: Leishmaniosis and Filariosis, so distant, so close	-	60	-
Ruminants endoparasites more relevant than ever	87	-	-
Exotics and nonconventional patients	-	64	-
First aid for exotic animals: when there is no time to waste	-	90	-
Animal and Human gut microbiome	-	-	71
Fatty Acid based membrane lipidomics: from chemical biology to molecular diagnostic	-	45	-
Microbiome in dogs and cats	-	60	-
Rep-Eat innovation forum	-	69	-
Dog and forensic disciplines	-	23	-
The sound of science: ecological research in acoustic field, implementation and prospects	27	-	-
Scientific workshop: VII Scientific workshop ISMULT	-	40	-
Aquaculture health and management	22	-	43
Aquarium health and management	-	38	27
Workshop on <i>Athina thumida</i>	14	-	-
Animal welfare seminar	67	-	-
Electronic prescription: technical modalities	102	-	-
Australian Flower Therapy	-	16	-
Dog and criminal investigation	-	63	-
The great white shark	-	18	-
Holidays with Fido	-	45	-
Vet and protected marine animals: cetaceans and turtles (multiple events)	-	-	25
Natural horsemanship	-	-	60
Placebo effect	-	-	21
Culture of legality	-	-	74
Dog, cat and human been: a domestic partnership	-	-	47
Efficacy, efficiency, time organisation strategies	-	-	38
Emotion and leadership	-	-	27
Management of wild and domestics Felids in confined areas	-	-	68
Basic ultrasound of the abdomen	-	12	-
Advanced ultrasound of the abdomen and neck	-	16	-
Radiology of the thorax	15	-	-
Radiology of the abdomen	15	-	-
Top ten surgeries (soft tissue)	5	-	-
Orthopaedic TPLO practical course	5	-	-
Imaging and Clinical medicine of skeletal diseases in the growth of small animals	-	60	-

The number of post graduate research and clinic students is expected to remain stable for the next 3 academic years, with minor fluctuation for the Specialization Schools. The number of postgraduates registered in the PhD

programme may vary according to the availability of external grants supporting extra scholarships. To this extent, the Establishment has jointly applied to a new MSC Co-Fund Action (Fabrip), that, should it be granted, will increase the number of PhDs enrolled in the next 3 academic years. Post graduate clinical training represents a great teaching opportunity for undergraduate veterinary education. Students take part in the practical teaching carried out for the clinical trainees and are asked to support the trainees as well. Moreover, new equipment purchased using the School's budget is also used for educational purposes. Finally, the schools normally boost the number of clinical cases processed by the Establishment, thus enhancing the student's case load. Normally, no conflicts are registered during case-management between post- and undergraduate students. In any case, the academic staff is always around to avoid them, in case they might arise.

In order to promote the continuing education to Vet practitioners, the Establishment provide for free courses on highly specialized issues. This courses are selected in agreement with the Teramo Veterinary Association and relevant Stakeholders. VMF also collaborate with the IZS, traditionally very active in organizing continuing education events that include external/international scientists as speakers, and academic staff from the Establishment. The topics are chosen in the case novel/updated clinical/diagnostic/therapeutic options are being made available for the practitioners, to match specific professional needs. In other cases, the topics covered by the events are driven by situations in progress (zoonosis, natural disasters, like earthquakes in our case, new formal requirements for veterinary prescriptions) to empower practitioners to cope with acute community needs.

10.4 The Establishment 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.

Besides the initial introduction on the importance of research in veterinary sciences and education provided to the students, the Establishment ensures that its research activities contribute to research-based education mainly during the internship the students elect to carry out their final degree thesis in its "experimental" mode. The research projects ongoing at the Establishment are many, therefore this represents a good opportunity for students to get acquainted with research activities. In this case, students have to commit at least 8 months to conduct experiments related to the topic they have chosen. It is usually during this period that students benefit for an intense research-based education. The outlines of the process have been described in Section 10.2. In addition, students are allowed to participate actively in the final defence of PhD theses.

Research: the steering of the research has both a hierarchical and bottom up control. The Central University decides the main general goals of the research activities, on the basis of the local/regional/cultural/economic needs. Each Faculty, the Establishment in our cases, must follow the main indications provided by the central university administration, but bending them to the specific topics carried out by the several Services. Each responsible scientist has the freedom (bottom up) to decide what research to carry out, and the most appropriated funding sources to apply to for support. A recently established Committee for Research Quality Assessment (RQAC) is composed of 7 members, comprising one member from each of the following: basic sciences, animal husbandry, pre/clinical areas, pathology and undergraduate students. The RQAC is charged with the following tasks: i) it assesses research through scientific quantity and quality of publications of the Establishment; ii) it recommends and controls the update of institutional databases (IRIS, SCOPUS, etc.); iii) it gives suggestions of rescue strategies for inactive academic staff members. Besides the publications control, the Committee steers broadly the research at the Establishment, and its president reports to the University Quality Assurance Committee (UQAC) for issues related to research policies. The decisions taken are communicated usually through formal channels (Establishment's Research Office, VMFB) to academic staff, technical, administrative personnel and students for their implementation. Research assessment takes place every 4 years at national level by the ANVUR quality assurance programme. ANVUR sets the productivity threshold for academic staff through the VQR programme. Research assessment spans 4 years and takes place every 4 years. The final reports are made public (<http://www.anvur.org>) and are usually the basis for a potential **revisio**n that is managed by the Rector's Delegates for Research. The Rector's Delegates empower the Faculty Committee for Research Quality to act according to the criticisms raised by the VQR experts. The Committee in turn sets up specific actions to **revise** the research programme, amendments that are passed through the VMFB to all actors, i.e., academic staff, junior staff (PhDs, Post Docs), technicians and students.

PhD Programme in Veterinary Medical Sciences, Public Health, and Animal Welfare: the Central University allocates the number of doctoral students per year, according to the yearly budget distribution by the MIUR. Extra

scholarships may be allocated to the programme in case additional grants from private, national or European institutions, are available. In our specific case, 4 extra scholarships have been provided by the MSCA Co-Found “Rep Eat”, and two scholarships per year have been provided by the project Demetra (MIUR). The Doctoral programme Academic Board is ruled by a Coordinator, and includes academic staff that must own the minimum standards requirements for the *Abilitazione Scientifica Nazionale* (i.e., National Scientific Qualification), as established by the MIUR. The Committee meets 3 times a year (or more for specific requirements) and is responsible for assessing doctoral students’ research activities and teaching schedule organisation. The scientific growth of PhD students is assessed by a yearly report, containing the research activities, as well as other skills (communication, dissemination, meeting participation, etc.) acquired by PhD students. This report is also conveyed through a formal presentation given by PhD students to the Doctoral programme Academic Board. The list of PhD student publications is continuously updated on the Unife’s web database. The final title is conferred following the examination of PhD students’ global activity, reported in a PhD thesis written in English, presented to the Doctoral programme Academic Board. The thesis is evaluated by two external peers, who may take part during the thesis’ defence.

National Specialisation Schools: veterinary specialisation schools awarding national specialist qualifications are organized in accordance with MIUR rules. Specialisation programmes are organised in 3 years of theoretical and practical courses on a specific subject with compulsory attendance. Each student must develop a clinical research project based on internal or external practical training (approved by the School Board) leading to a written thesis and final oral presentation. The Establishment offers a number of Specialisation Schools (subjects listed by the Italian Ministry of Education) on a voluntary basis. The university determines the number of attendees, and admission is based on curriculum and written admission tests. A board of professors with specific expertise on the School’s topics, plus two attendees meets a minimum of twice a year to assess and revise the courses if necessary, approve external practical training and prepare exams and evaluations. The list of trainees and approved students, are published on the Unife’s web page.

Internships and Residencies: at the moment the Establishment does not have formal internship programmes, and active residency, but the members of the European Board of Veterinary Specialisation active in the Establishment supervise external rotations of EBVS trainees.

Continuing education: the Establishment does not have an organizing body, but the events are promoted from individual academic staff (all levels) on the basis of their interest or arising issues of relevance for practitioners and postgraduate students in general. The event is finally implemented in case the Establishment approves it. The event is granted by the Establishment, in some cases with financial support, on the basis of its novelty, i.e., a theme not overlapping with other close Establishments, and provided that it is delivered by influential speakers. In some cases, the events are directly suggested by the students, or even by the stakeholders.

Comments on Standard 10

The Establishment takes Research and continuing and postgraduate education as high priorities, and the just appointed RQAC further testifies it. The capacity to apply successfully to national and international competitive grants is satisfactory, taking into consideration the relatively limited number of permanent academic staff. As a result, the research projects ongoing are numerous (see Table 10.1.1), with positive effects on research-based teaching and the involvement of students in research activities. The global outcome of the research activities is witnessed by the large number of publications issued between 2016/2017 and 2018/2019 is of 371, among them 239 have been published on peer reviewed journals. The PhD programme features an increasing number of students from foreign countries, and a significant degree of internationalization, obtained both through the internships in abroad institutions, compulsory for all PhDs, and foreign students. Important are also the supplementary scholarships provided by national (MIUR, Demetra), international (Horizon2020, MSCA Co-Found project Rep-Eat) projects and private entities. The Establishment is very active in organizing and stimulating National Specialization Schools, and advanced and expert courses, as well as seminars focusing on the latest developments in all the disciplines related to the veterinary sciences.

Suggestions for improvement on Standard 10

It could be useful to increase the students’ perception regarding the role of veterinarian as a scientist and the establishment ongoing research projects. In order to improve their awareness and their participation in the research activities carried out by the different groups in the Establishment, possible solution may be:

- involving PhD students and Early Stage Researchers in frontal and practical lessons in order to convey the research carried out in their group to the students;

- publishing, both on the Establishment's web page and in an accessible panel, the research projects granted to the Establishment arranged by disciplines. This information would encourage students to pursue an internal studentship in the field they find closer to their current interests, or future professional employment goals.

The recent shortage of University funds by the MIUR may jeopardize the PhD programme. Thus, the Doctoral programme Academic Board are currently pursuing other funding sources (MSCA actions, new Co-Fund programmes; private sources, etc).

According to the new national legislation regarding the Specialisation Schools of the health area (including those of veterinary medicine), these must be organized as full-time courses, offering grants to postgraduate students. This system has been already adopted for the Specialisation Schools in human medicine but, until now, has not been applied to veterinary Specialisation Schools, mainly because of a lack of funds. It would also be useful for Master's degrees to be legally acknowledged for the access to public recruitment competitions.

Greater efforts are needed in order to offer to postgraduate students more European specialisation opportunities (EBVS residency programmes).

ESEVT INDICATORS – Raw data

Name of the Establishment: Facoltà di Medicina Veterinaria - Università degli Studi di Teramo

Name & mail of the Head: Prof. Augusto Carluccio - acarluccio@unite.it

Date of the form filling: 26/02/2020

Raw data from the last 3 full academic years

	AY 2018/2019	AY 2017/2018	AY 2016/2017	Mean
1 n° of FTE academic staff involved in veterinary training	50,1	48,2	42,4	46,89
2 n° of undergraduate students	391	388	386	388,33
3 n° of FTE veterinarians involved in veterinary training	42,4	37,3	34,9	38,21
4 n° of students graduating annually	44	37	41	40,67
5 n° of FTE support staff involved in veterinary training	34,75	34,75	34,75	34,75
6 n° of hours of practical (non-clinical) training	785	785	785	785
7 n° of hours of clinical training	834	834	834	834
8 n° of hours of FSQ & VPH training	453	453	453	453
9 n° of hours of extra-mural practical training in FSQ & VPH	165	165	165	165
10 n° of companion animal patients seen intra-murally	2191	1858	1877	1975,33
11 n° of ruminant and pig patients seen intra-murally	51	6	1	19,33
12 n° of equine patients seen intra-murally	238	190	147	191,67
13 n° of rabbit, rodent, bird and exotic patients seen intra-murally	104	13	11	42,7
14 n° of companion animal patients seen extra-murally	764	700	650	704,7
15 n° of individual ruminants and pig patients seen extra-murally	556	656	353	521,7
16 n° of equine patients seen extra-murally	93	17		55,0
17 n° of visits to ruminant and pig herds	37	37	37	37,0
18 n° of visits of poultry and farmed rabbit units	7	7	7	7,0
19 n° of companion animal necropsies	111	52	46	69,7
20 n° of ruminant and pig necropsies	97	96	95	96
21 n° of equine necropsies	6	9	1	5,3
22 n° of rabbit, rodent, bird and exotic pet necropsies	197	134	134	155,0
23 n° of FTE specialised veterinarians involved in veterinary training	9	9	9	9,0
24 n° of PhD graduating annually	6	6	6	6,0

ESEVT INDICATORS – Calculated indicators

Name of the Establishment: Facoltà di Medicina Veterinaria - Università degli Studi di Teramo

Name & mail of the Head: Prof. Augusto Carluccio - acarluccio@unite.it

Date of the form filling: 26/02/2020

Calculated Indicators from raw data: 26/02/2020		Establishment values	Median values ¹	Minimal values ²	Balance ³
I1	n° of FTE academic staff involved in veterinary training / n° of undergraduate students	0,121	0,16	0,13	-0,005
I2	n° of FTE veterinarians involved in veterinary training / n° of students graduating annually	0,940	0,87	0,59	0,350
I3	n° of FTE support staff involved in veterinary training / n° of students graduating annually	0,855	0,94	0,57	0,288
I4	n° of hours of practical (non-clinical) training	785,000	905,67	595,00	190,000
I5	n° of hours of clinical training	834,000	932,92	670,00	164,000
I6	n° of hours of FSQ & VPH training	453,000	287,00	174,40	278,600
I7	n° of hours of extra-mural practical training in FSQ & VPH	165,000	68,00	28,80	136,200
I8	n° of companion animal patients seen intra-murally / n° of students graduating annually	48,574	70,48	42,01	6,564
I9	n° of ruminant and pig patients seen intra-murally / n° of students graduating annually	0,475	2,69	0,46	0,012
I10	n° of equine patients seen intra-murally / n° of students graduating annually	4,713	5,05	1,30	3,415
I11	n° of rabbit, rodent, bird and exotic seen intra-murally / n° of students graduating annually	1,049	3,35	1,55	-0,496
I12	n° of companion animal patients seen extra-murally / n° of students graduating annually	17,328	6,80	0,22	17,105
I13	n° of individual ruminants and pig patients seen extra-murally / n° of students graduating annually	12,828	15,95	6,29	6,533
I14	n° of equine patients seen extra-murally / n° of students graduating annually	1,352	2,11	0,60	0,757
I15	n° of visits to ruminant and pig herds / n° of students graduating annually	0,910	1,33	0,55	0,363
I16	n° of visits of poultry and farmed rabbit units / n° of students graduating annually	0,172	0,12	0,04	0,127
I17	n° of companion animal necropsies / n° of students graduating annually	1,713	2,07	1,40	0,313
I18	n° of ruminant and pig necropsies / n° of students graduating annually	2,360	2,32	0,97	1,390
I19	n° of equine necropsies / n° of students graduating annually	0,131	0,30	0,09	0,038
I20	n° of rabbit, rodent, bird and exotic pet necropsies / n° of students graduating annually	3,811	2,05	0,69	3,119
I21*	n° of FTE specialised veterinarians involved in veterinary training / n° of students graduating annually	0,221	0,20	0,06	0,158
I22*	n° of PhD graduating annually / n° of students graduating annually	0,148	0,15	0,09	0,060

Comments on indicators

The ESEVT indicators reflect the efforts made by the DVMP of Teramo, as far as dependent from its own decisions, to follow the most important indications received during the last EAEVE Visitation and to correct the negative balance of some indicators highlighted in the Interim Report (2018). It has to be outlined that the number of students graduating annually, considered to calculate the Indicators, refers to students graduating in 5+1 years, being the students graduating in more time (i.e. > 2 years over the normal duration of veterinary studies – 16,1%) a low number, and these students are no longer attending teaching activities.

Particularly:

- Indicator 1 (I1) shows that the Academic Staff continues to be aligned with the minimal value, represented by the 20th percentile of the establishments approved by the EAEVE. This data was also highlighted in the national Annual Monitoring Report in comparison with the other national DVMPs. The shortage of Academic Staff however marginally depends on the efforts of the Faculty, even if the recent attainment of the Demetra “Project of Excellence” has allowed the recruitment of new staff units. In addition, the University, on its own funding, is trying to make scholarships available permanently for teaching assistance. Furthermore, the efforts made in the recent years to improve the students carriers, and the adoption of a new curriculum, have substantially reduced the total number of undergraduates students and also the number of students graduating annually.
- The other Indicators concerning Staff are generally aligned with the median values of the establishments approved by the EAEVE, being a high number of Vets involved in teaching.
- The indicators concerning patients seen intra-murally point out the necessity to make an effort to increase the entry of companion animals, through the involvement of specialists able to represent a greater attraction towards pets owners and towards the veterinarians present in the region. Ruminants and pigs aren't generally visited intra-murally in the VTH but on farms, out of habit of local breeders. The faculty and its VTH represent a point of reference for the geographical area relative to the equine species, both for internal medicine and surgery, and for obstetric specialities.
- N° of rabbit, rodent, bird and exotic seen intra-murally is below the EAEVE minimal values as a consequence of the absence, in the actual buildings, of dedicated facilities to visit and hospitalise these species. An important effort has already been made by the Establishment to enrol within its temporary teaching staff, a diplomate in the European College of Zoo Medicine - ECZM (Small Mammal) and (Herpetology) - and 4 private practitioners specialized in clinics of non conventional animals.
- Extramural visits represent a good solution to compensate the low number of consultations at VTH of food producing species, and extramural visits in public shelters for stray dogs, for companions animals too. The establishment has recently increased his efforts in extramural CR, PPT and also in the EPT to increase the case load of food producing animals.
- the number of visits in food producing animals herds (especially for poultry and rabbits) has experienced some difficulties due to the reticence of some breeders to welcome students, both for reasons related to biosecurity and restrictions against infectious diseases, and for “fear of criticism” of the intensive farming systems by students who are mainly of urban origin.
- Since the Interim Report, an important work has been done by the Faculty in order to improve the necropsies case-load, both of companions and moreover for large animals. The recent necessity, following the Molinari building closure, to “share” the necropsy room for normal anatomy purposes has requested several “compromises” which will be overcome with the construction of the new and definitive facilities, within 2022. The number of necropsies of rabbits, rodents, bird and exotic pet has increased mainly by using for necropsies dead rabbits and broilers brought in the faculty from intensive farms nearby.

Suggestions for improvement

Further efforts are expected to increase personnel recruitment, compatibly with the resources made available by the Ministry. Particularly, investments from the University of Teramo are foreseen, at least in order to maintain the possibility of enrolling Vets specialists within the temporary teaching staff.

New strategies for implementation of the caseload will be undertaken, such as the development and distribution, collection and evaluation of customer satisfaction assessment questionnaires, and a greater effort will be done to get a better collaboration between the VTH and local private practitioners. The enhancement of the advanced diagnostic imaging facilities, with a CT, could give further “appeal” both for practitioners and private clients. Specialized issues relevant for practitioners will be identified in agreement with the Teramo Veterinary Practitioners

Association, and of these issues the VTH will pursue an investment in term of competence and instrumentation. These issues will consolidate a leading role for the VTH, as a reference centre for the Abruzzo Region and the surrounding areas.

The edification of the new buildings for the FVM in Piano D’Accio (Masterplan), foreseen for 2022, will also allow to improve the organisation of the VTH and the facilities with a new totally devoted necroscopy room, 10 new teaching classrooms, 2 classrooms for exercises and practical training, the Lecture Hall (Aula Magna) with 250 seats, a new library, the laboratories for the research units in “Pathological Anatomy”, “Embryology/Anatomy”, “Infectious Diseases”, “Parasitology”, “Inspection of Food of Animal Origin”, stables for cattle with the associated laboratories for Animal Reproduction, the Services of Pet Therapy and of Veterinary Rehabilitation.

These new spaces will not only improve the quality of clinical and teaching activities for the students, but will be of strong support to enhance and strengthen the relationship with the territory, offering more and better services to the customers and veterinarians in the Region.

As soon as adequate spaces will be available in the VTH, after the edification of the new buildings for the FVM in Piano D’Accio (Masterplan foreseen for 2022, visiting and hospitalisation facilities reserved for exotic animal will be set up.

Finally, a pilot project with MIUR in order to improve the assurance quality system, particularly for evaluating together with the teaching process also the learning outcome, and certifying the competences effectively acquired by the students, was developed in collaboration with ANVUR, and will start next autumn.

GLOSSARY ACRONYM

ACRONYM	ENGLISH FULL NAME	ITALIAN FULL NAME
AMR	<i>Annual Monitoring Report</i>	Scheda di monitoraggio annuale
ANVUR	<i>National Agency for the Evaluation of Universities and Research Institutes</i>	Agenzia Nazionale di Valutazione del Sistema Universitario e della Ricerca
AS	<i>Academic Senate</i>	Senato Accademico
BoD	<i>Board of Directors</i>	Consiglio di Amministrazione
CR	<i>Clinical Rotations</i>	Rotazioni Cliniche
CRC	<i>Clinical Rotations Committee</i>	Commissione Rotazioni
CTF	<i>Chiareto Teaching Farm</i>	Fattoria Didattica di Chiareto
DPAF	<i>Degree Programme Annual Factsheet</i>	Scheda Unica Annuale – Corso di Studio (SUA-CdS)
DPTR	<i>Degree Programme Teaching Regulation</i>	Regolamento Didattico
DVMP	<i>Degree in Veterinary Medicine Programme</i>	Corso di Laurea Magistrale in Medicina Veterinaria
DVMPB	<i>Degree in Veterinary Medicine Programme Board</i>	Consiglio di Corso di Laurea in Medicina
DVMPD	<i>Degree in Veterinary Medicine Programme Director</i>	Presidente del Corso di Laurea
EAEVEC	<i>EAEVE Committee</i>	Commissione EAEVE
ECTS	<i>European Credit Transfer System</i>	Credito Formativo Universitario (CFU)
ENQA	<i>European Association for Quality Assurance in Higher Education</i>	
EPT	<i>External Practical Training</i>	Tirocinio esterno
EQAC	<i>Educational Quality Assurance Committee</i>	Commissione Assicurazione Qualità
EQAR	<i>European Quality Assurance Register for Higher Education</i>	—
IQAS	<i>Internal Quality Assessment System</i>	Sistema interno di assicurazione qualità
IS	<i>Internal Student</i>	Studente interno
JSTEC	<i>Joint Students-Teachers Evaluation Committee</i>	Commissione Paritetica Docenti-Studenti

MIUR	Ministry of Education, University and Research	Ministero, Istruzione, Università e Ricerca
PIYear etc	Committee; Programme Year Committees	Commissioni d'anno
PIYear etc	Coordinator; Programme Year Coordinators	Responsabile o Coordinatore d'anno
PPT	Professional Practical Training	Tirocinio
PPTC	Professional Practical Training Committee	Commissione Tirocinio
QA	Quality Assurance	Assicurazione Qualità
RQAC	Research Quality Assurance Committee	Commissione Assicurazione Qualità della Ricerca
SAPC	Student's Administrative Procedures Committee	Commissione Pratiche Studenti
SP	Strategic Plan	Piano Strategico
TC	Teaching Course	Insegnamento
TCDF	Teaching Course Description Form	Scheda insegnamento
TCEF	Teaching Course Evaluation Form	Scheda di valutazione insegnamenti
TM	Teaching Module	Modulo
TS	Teaching Schedule	Programmazione didattica
TU	Teaching Unit	Unità didattica (all'interno di un modulo)
UEU	University Evaluation Unit	Nucleo di Valutazione di Ateneo (NUVA)
UNITE	University of Teramo	Università di Teramo
UQAC	University Quality Assurance Committee	Presidio di Qualità di Ateneo
VMF	Veterinary Medicine Faculty	Facoltà di Medicina Veterinaria
VMFB	Veterinary Medicine Faculty Board	Consiglio della Facoltà di Medicina Veterinaria
VTH	Veterinary Teaching Hospital	Ospedale Veterinario Universitario Didattico (OVUD)
VTHB	Veterinary Teaching Hospital Board	Giunta OVUD

LIST OF APPENDICES (which are provided in a separate document)

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

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

Appendix 3. Maps of the Establishment and the intra-mural and extra-mural facilities used in the core veterinary programme. 3a. General Planimetry of the Piano D'Accio site; 3b. FMV and VTH; 3c. New facilities (Master-plan); 3d. CTF, 3e. Colleparco facilities

Appendix 4. Written assessment procedures for QA including: i) the Degree Programme Annual Factsheet, ii) the Annual Monitoring Report, iii) the On-line student opinion questionnaire and iv) the "Documento di Facoltà su politiche della qualità della ricerca e terza missione 2019-2021".

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

Appendix 6. List and brief description of VTH services

Appendix 7. Abstract of the Biosecurity manual

Appendix 8. Copy of the agreement form with External Establishments for teaching and research



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