University of Torino

250 1769 - 2019 SCUOLA DI VETERINARIA DI TORINO

DEPARTMENT OF VETERINARY SCIENCES

SELF-EVALUATION REPORT

EAEVE Visitation

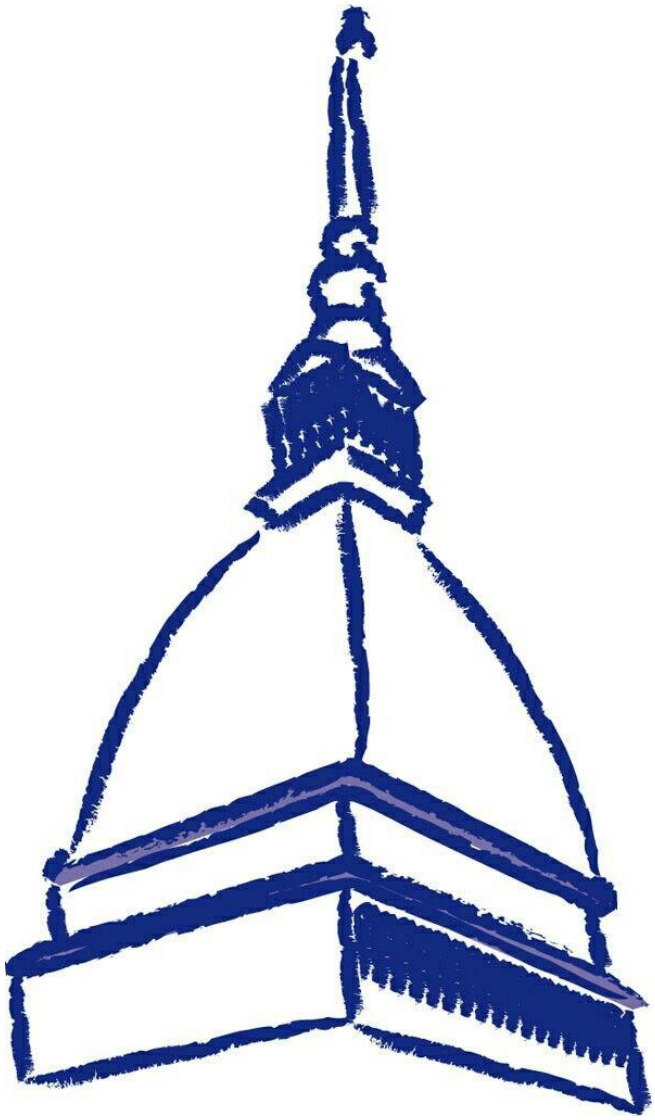
November, 9-13th 2020

DEPARTMENT OF VETERINARY SCIENCES
UNIVERSITY OF TURIN

Self-Evaluation Report

EAEVE Visitation

9-13th November 2020



MEDICINA VETERINARIA

PADIGLIONE DI CHIRURGIA
250
1769 - 2019
SCUOLA DI VETERINARIA DI TORINO
ITALIA
B
I.P.Z.S. S.p.A. - ROMA - 2019
G. MILITE

FACOLTÀ DI MEDICINA VETERINARIA DI TORINO
250° ANNIVERSARIO FONDAZIONE • Giorno di emissione
PT
31.10.2019
10126 TORINO 34

FOREWORD AND ACKNOWLEDGEMENTS

This Self Evaluation Report has been finalized on September 6th, 2020, according to the template and guidelines detailed in Annex 6 of the ESEVT Manual of Standard Operating Procedure issued in Zagreb in 2019.

Our community and its governance have lived the preparation for the upcoming EAEVE on-site visit as a unique opportunity to ameliorate our facilities, procedures and organization. This challenging report comes as the final act of considerable restyling work carried out to fully adhere to the new standards of veterinary education in Europe. It mirrors the strong effort made in these years by all the members of the Department of Veterinary Sciences, from academic and support staff to students. Here we want to warmly thank all of them.

We are definitely grateful to the University of Torino for the great support received throughout this process, in particular the present and past Rectors, the General Director, the Academic Senate and the Board of Governors, together with the Administrative Divisions that have included the EAEVE accreditation of our veterinary programme among their quality targets. We also acknowledge the external institutions that have concretely witnessed the attention to our growing social role in the regional context. Among them are the Fondazione Cassa di Risparmio di Torino and the Fondazione Cassa di Risparmio di Cuneo.

We are confident that experts in the EAEVE/FVE team will find in this SER accurate and updated information to prepare for the on-site visit scheduled in November. We welcome them in advance.

Prof. Domenico Bergero

Director of the Department of Veterinary Sciences
University of Torino

INDEX

INTRODUCTION	PG. 6
STANDARD 1	PG. 10
STANDARD 2	PG. 24
STANDARD 3	PG. 31
STANDARD 4	PG. 49
STANDARD 5	PG. 65
STANDARD 6	PG. 78
STANDARD 7	PG. 85
STANDARD 8	PG. 98
STANDARD 9	PG. 103
STANDARD 10	PG. 119
ESEVT INDICATORS	PG. 130
GLOSSARY	PG. 132
LIST OF APPENDICES	PG. 133

INTRODUCTION

Brief history of the Establishment and of its previous ESEVT Visitations

The ancestor of our Establishment was the Veterinary School in the Kingdom of Savoy, founded in 1769 and initially located in Venaria Reale (15 km from Torino center). The first Director, Giovanni Brugnone (1741-1818), had been educated at the School of Lyon, France, on the wishes of King Carlo Emanuele III concerned with the special needs of cavalry in a period of frequent wars. **This new School was the first established in Italy and the fourth in Europe.** The School was then repeatedly relocated in different royal premises in Piedmont, and finally settled in Turin (Via Nizza, at that time on the outskirts of the main City) in 1859. In 1934 the School became one of the Faculties of the University of Torino, and the premises were progressively incorporated in the growing urban environment. In 1999, the Faculty (nowadays Department of Veterinary Sciences) was relocated in a wide area in Grugliasco, 11 km apart from the center of Turin, in a shared campus with the Department of Agriculture, Forestry and Food Sciences. The new facilities, including a Special Didactic Veterinary Complex (acronym SDSV) have been designed to meet all the needs of nowadays students and teachers by providing *inter alia* a teaching farm, a fully equipped veterinary hospital, a didactic slaughterhouse and a campus kennel. The evolution of the Establishment in more than two centuries, from exclusively serving military needs to fully embrace the "One Health" view, reflects the scientific, professional and social evolution of the veterinary profession. In 2019, the Department of Veterinary Sciences celebrated the 250th anniversary from its institution, and, besides organizing a series of national and international congresses and an official celebration in the main hall of the University (Cavallerizza Reale), used this opportunity to step up the relationships with other veterinary bodies, including the Torino Chamber of Veterinarians, the national Federation of Veterinarians Chambers (FNOVI), and the National Veterinary Assistance and Welfare Agency (ENPAV).

The Establishment was visited by the EAEVE Committee in November 1999, while on relocation at the new premises, and was approved in 2002. It was visited again and approved in 2010, and the conclusion of the visiting team was: "In conclusion, the Faculty is an excellent teaching, research and service facility, fulfilling all standard requirements to produce graduates with satisfactory first-day skills in all areas as outlined in EU directive 36/2005. There are many positive areas, no serious deficiencies and among the weaker points, the equine clinic needs specific attention and continued support to maintain and improve standards. Specifically, no category 1 deficiency was identified and full approval is recommended." ECOVE decision in April 2011 was Full Approval.

Main features of the Establishment

The Establishment is one of 13 Veterinary Medicine establishments in Italy, the most capacious one as to the number of admitted students per year (N=101: 93 EU + 8 non EU in 2019/2020).

The high standard of expertise and clinical assistance is acknowledged by the public and the veterinary professiona. A constant relationship and fruitful exchange of information and views exists with stakeholders, including private professional and cultural associations and public entities.

The academic staff is highly qualified in terms of teaching and research (e.g. the number of teachers holding a European or American College is now 20).

The Establishment is well supported by the governance and the Central Administration of the University of Turin (UniTO) in the continuous effort to upgrade the quality assurance program, including the EAEVE accreditation.

Brief summary of the main developments since the last Visitation

Major regulatory changes have taken place for all Universities at the National level with the approval of the Law 240/2010. This law

introduces a new composition of the academic senate. Departments are now directly involved in both teaching and research organization and activities. Faculties are no more present in the organization. As to teaching staff, the permanent Assistant Professor position ("Ricercatore Universitario") was abolished and substituted by temporary university research positions (Type A and B Assistant Professors, the second one being a tenure track position leading in three years to a permanent Associate Professor position in case of positive evaluation).

Under the 240/2010 law, the previous Faculty of Veterinary Medicine subdivided into three Departments has become the Department of Veterinary Sciences (DVS), the single one in charge of the organization and running of the Veterinary Medicine program offered by UniTO. A complementary "Complex Structure" (the Special Didactic Veterinary Complex, acronym SDSV, including the Veterinary Teaching hospital, the Teaching farm, and a didactic slaughterhouse) has been established and assigned a certain degree of financial autonomy. Its primary mission is to provide clinical and professional training opportunities to veterinary students.

Law n. 240/2010 and Legislative Decree n.19/2012 introduced in Italy "The Higher Education Quality Assurance system". Following this legislation, the National Agency for the Evaluation of Universities and Research Institutes, ANVUR, has developed its own assessment criteria, methodologies and procedures to fulfil its tasks, in strict adherence to Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG). The Degree Courses offered by DVS are currently subjected to different quality evaluation processes (ANVUR, ISO 9001: 2015, EAEVE for the Degree Course in Veterinary Medicine). SDSV and the Campus Library are also managed under ISO 9001:2015 rules.

A main change in the organization is also the formal recognition of "Third mission", and the importance of a proactive engagement of Departments into the society and territory.

Since the last EAEVE visitation, UniTO has implemented the re-organization of technical and administrative services (the so called 2017 reorganization – acronym RIO 2017) that are now managed by eleven central Directions identified by functional area/s (e.g. didactics, logistiscs, etc). Seven campus hubs (among them is the Agriculture and Veterinary Sciences hub) have been identified. In line with the reorganization, technical and administrative services are no more under the direct control chain of Departments.

The curriculum structure has been significantly modified in the academic year 2009/2010 consistently with the issues by the Ministerial Decree 270 of 22 October 2004. The last EAEVE on site visitation in 2010 occurred in a bridging phase between the "old" and the revised curriculum structure. In 2015, organization of the first years of the new programme was modified to promote student career progression and ameliorate the integration between related disciplines. Finally, a full revision of the mandatory professional practical training (PPT) was accomplished in 2019. Worthy of note, in recent years the Degree Course in Veterinary Medicine has drafted and adopted: i) the Portfolio of Competences to certify the take-over of Day One Competences by students and ii) the Assessment policy including student assessment in a quality assurance framework. In addition, training initiatives for the teaching staff have been implemented, resulting in the remarkable expansion of e-learning resources and the greater use of e-learning tools and methods by the teaching staff. Compared to 2010, the design, monitoring and revision of the Veterinary Medicine course is now in charge of a new organism, the Monitoring and Review Committee (CMR), while the Degree Course Council has remained the deliberating body.

Part of the equipment has been completely renewed (e.g. diagnostic imaging and anesthesia equipment); a new performant

managing software was acquired for the needs of the Veterinary Teaching Hospital; several premises have been upgraded (e.g. the surgery rooms now air conditioned, the necropsy rooms, the equine and farm animal hospitalization premises); two clinical skill labs have been furnished. The security was also greatly improved by hiring external staff and by installing surveillance cameras. The building that houses main lecture halls was completely refurbished and is now considered A+ as to the energy classification scale.

Moreover, adjustments have been made for animal welfare, biosecurity, the new location for the Non-conventional Animals/Wildlife Unit, and for the Campus liveability in general. Unfortunately, due to the COVID crisis, some interventions are still in progress.

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

Since the last EAEVE on site visitation, considerable effort and time were invested to align the Establishment's organization to provisions of the new University law. In the meanwhile, new challenges were posed by the deep revision of the approval/accreditation process of European Veterinary Establishments, and the reorganization of UniTO Central Administration implying, among other changes, new chains of command for a large proportion of the support staff. Notwithstanding, facing these challenges has not prevented the Establishment from designing and implementing good standard procedures in nearly all branches of its activities, from undergraduate and post-graduate teaching to the provision of services to students, the veterinary profession and the community.

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

SOP approved at the Zagreb General Assembly, 30 May 2019.

STANDARD 1

Objectives, Organization 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.

Description of the mission statement and the objectives

According to its mission statement (https://www.veterinaria.unito.it/documenti/allegati/pianotriennale/MissionDSV.pdf), the Department of Veterinary Science (DVS) aims to provide higher education and research in the area of Veterinary Medicine, for the benefit of human, animal and environmental health, in compliance with national and international quality assurance (QA) standards.

The main objectives of the DVS may be extrapolated from the mission statement as follows:

Teaching objectives

- to offer up to standard education in all areas of Veterinary Medicine, from the necessary scientific foundations for the understanding of biological contexts to practical clinical training;
- to promote the cultural and professional development of alumni, by supporting the concept of "one health" and embracing the social demands of prevention, therapy, animal welfare and food safety;
- to improve the quality of teaching by strengthening the international sphere of education;
- to provide opportunities for postgraduate doctoral and specialist training.

Research objectives

- to support basic research while expanding the range of applied research;
- to promote and support research training by strengthening the ability to attract internationally recognised scientists;
- to increase the fund raising capability by boosting the competitiveness at the national and international level;

Third mission

- to strengthen the role of DVS in issues of environmental, public and social relevance;
- to increase the opportunities for public engagement, dissemination, orientation and provision of services for the territory and the stakeholders;
- to guarantee the continuous education of public and private veterinarians in the perspective of lifelong learning.

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

In order to follow its mission, the DVS offers a veterinary training program primarily designed according to Directive 2005/36/EC, the OIE recommendations on the Day One Competences of graduating veterinarians (https://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/Vet_Edu_AHG/DAY_1/DAYONE-B-ang-vC.pdf) and the ten standards and respective sub-standards set by ESEVT in the most recent version of the Manual of Standard Operating Procedure. The programme aims to offer up-to-standard training in all core veterinary subject areas, whether clinical or not. Student training is progressive and combines knowledge, skills and competences in order to favor strengthening of a horizontal problem-solving attitude. In line with this concept, no authentic tracking is offered to discourage, among students, specialty oriented moods ahead of time to the detriment of a sound comprehensive veterinary education.

The first two curricular years are almost exclusively dedicated to basic sciences and animal production subjects, whereas the following three years are mainly devoted to the clinical sciences, food safety and public health.

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

The University of Torino (UniTO), to which the Establishment belong, is a public institution which depends on the Italian Ministry of Education, University and Research (MIUR). UniTO has a clear governance structure and defines its own Statute and regulations on educational, scientific, organisational, administrative, financial and accounting activities (https://en.unito.it/sites/sten/files/university_turin_statute.pdf). The Rector serves as UniTO head and official representative, and chairs the two main UniTo governing bodies, namely the Academic Senate and the Board of Governors. A General Director is responsible for the organization and management of UniTO services, resources and technical-administrative staff.

UniTO is home of 25 departments organized in 7 hubs and 6 schools. Overall, 150 officially recognized Degrees programmes, 105 post-graduate courses (Specialization schools and Masters) and 35 PhD programs are offered. Detailed information can be found in UniTO website (https://en.unito.it/about-unito/unito-glance/unito-figures).

Veterinary students receive the core of their education at the Campus of Agronomy and Veterinary Medicine (hereafter "Campus"), located in Grugliasco at 11 km distance from the Rectorate. Services at the Campus are provided by the School of Agriculture and Veterinary Medicine ("SAMEV"), the Department of Agriculture, Forestry and Food Sciences, the Department of Veterinary Science ("DVS") and the Special Didactic Veterinary Complex ("SDSV").

SAMEV (hereafter "Campus School") was created in 2012 according to UniTO Statute. Its main functions include the provision of teaching related services (eg, operation of lecture rooms), the running of services for students (eg, international mobility, orienting, tutorship and job placement) and the bridging between UniTO and the Campus premises. The current Director of the Campus School is a member of the DVS academic staff.

Details of the Establishment, i.e. official name, address, phone number, E-mail and website addresses, Establishment's Head, official authority overseeing the Establishment

Name	Dipartimento di Scienze Veterinarie dell'Università degli Studi di Torino (DVS/UniTO)
Address	Largo Paolo Braccini, 2 - 10095 Grugliasco (TO)
Phone	+39 011 6709139
e-mail	direzione.dsv@unito.it
Website	https://www.veterinaria.unito.it/do/home.pl
Establishment's Head	Prof. Domenico Bergero, DMV
Official Authorities overseeing the Establishment	The Rector of the University of Torino, Prof. Stefano Geuna (Vice-Rector Prof. Giulia Carluccio)
	The General Director of the University of Torino, Dr. Loredana Segreto

Organisational chart (diagram) of the Establishment with a brief description of the decision making process

Please, see the chart posted at the end of Standard 1.

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

management (further information may be provided in the appendices)

The Department of Veterinary Sciences (DVS) is headed by a Director, a member of the academic staff elected by the Department Council for a three-year term. A single re-election is possible. According to UniTO Statute, she/he chairs the Department Council and the Department Executive Committee (for details on their composition and main function/responsibilities please see at the end of Standard 1). The Director nominates two Vice-Directors, in charge of research and teaching issues respectively, and several delegates (22 at the moment) for functions related to specific areas (for a complete list please see https://www.veterinaria.unito.it/do/documenti.pl/ShowFile?_id=l1bl;field=file;key=w5fY2lhgTaYRI2sxIqiPWgqqLk2gT25o77IK2z5BsTEizJNqffywAaOd4XAE10eM;t=9388). The veterinary curriculum is headed by a Coordinator, who is a member of the teaching staff elected by the Degree Course Council ("DVM Council") for a once renewable three-year term.

Ancillary to the DVS is the SDSV (Struttura Didattica Speciale Veterinaria/Special Special Didactic Veterinary Complex, a "Complex Structure" (including a Veterinary Teaching Hospital, a Teaching Farm and a Slaughterhouse), whose primary mission is to provide clinical training and other professional practical training opportunities for the veterinary students. Further missions are post-graduate clinical training, research and third mission activities. The SDSV has its own board chaired by the SDSV Director. The board has the responsibility of SDSV financial and administrative management, performance overview and developmental activities. Other consulting bodies supporting the SDSV board are the Clinical Commission and the Teaching Farm Commission.

Current DVM Course Coordinator and SDSV Director hold a veterinary degree and are qualified veterinarians.

As of June 2020, members of the DVS academic and support staff sum up to 104 and 35, respectively. However, other support staff not affiliated to DVS contribute to the functioning of Establishment (see Standard 9).

List of the councils/boards/committees with a very brief description of their composition/function/responsibilities and implication of staff, students and stakeholders (further information may be provided in the appendices)

Please see Table 1.1 at the end of Standard 1.

Description of the formal collaborations with other establishments

For provision of the veterinary programme and other post-graduate initiatives, the DVS formally collaborates with the regional Veterinary Chambers, the regional Veterinary Services of the National Health System, and the Istituto Zooprofilattico Sperimentale di Piemonte, Liguria e Valle d'Aosta (hereafter "IZS"), a public establishment in charge of official veterinary diagnoses and controls in northwest Italy on behalf of the Ministry of Health.

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

DVM Course Coordinator	Prof. Luca Aresu DVM
SDSV Director	Prof. Bruno Peirone DVM
VTH Health Director	Prof. Ada Rota DVM

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.

As per UniTO regulations, the DVS is bound to adopt a three-year strategic plan which embraces all structures and missions, and identifies priority actions to implement in order to achieve the agreed objectives. The strategic plan in place was approved in June 2018 and defines strategies and objectives for the period 2018-2021 (https://www.veterinaria.unito.it/documenti/allegati/cartaservizi/PianoTriennaleDSV_19-21.pdf). A detailed SWOT analysis is included, whose main points may be summarised as follows:

Strengths

° Since 2001, the Faculty of Veterinary Medicine of Torino (now DVS) enjoys the status of EAEVE Approved Establishment. Last approval was obtained following the on-site visit of EAEVE/FVE experts in November 2010 (ECOVE decision on April 2011);

° UniTO is among the best ranked Universities in Italy, and the first one amongst large Universities to be awarded the national accreditation status by ANVUR (Italian Agency for the Evaluation of Universities and Researches Institutes), in 2016. Worthy of note, during that visitation the veterinary study program was qualified "fully positive" and some "best practices" were recognized;

° the Grugliasco Campus is home of well-equipped facilities including a VTH, a teaching farm, a slaughterhouse, laboratories for practical classes, large and small animal isolation units, a large necropsy room and areas for self-learning and group study;

° undergraduate programs and Lifelong Learning courses, as well as the VTH and the Campus Library are run in conformity with the requirements of the international standard UNI EN ISO 9001: 2015;

° The VTH is compliant with the Code for Good Veterinary Practice as assessed by FVE;

° In 2018, the DVS has been top ranked in research amongst veterinary departments in Italy, thus obtaining by MIUR a special funding ("Department of Excellence") of about 11 million euros in 5 years (https://www.veterinaria.unito.it/do/home.pl/View?doc=D108_VetEccellenza.html);

° there is a high percentage of teachers holding a DVM, and among them a remarkable number of specialists of the European/American Board of Veterinary Specialisation (EBVS/ABVS) (see Standard 9);

° Students are involved in all processes of planning, self-evaluation and reviewing of all teaching activities.

Weaknesses

° the need and high cost of hiring extra-staff to support "hands on" training activities in small-groups;

° the suboptimal number of support staff authentically involved in veterinary training;

° the need to upgrade facilities and frequently renovate equipment and technologies to allow up to standard training;

° the growing need to maintain/reinforce the training of teaching staff on innovative teaching methods.

° the (still) considerable differences among subject areas and groups in research performance;

° the limited participation and success of the academic staff in international competitive grants.

.

Opportunities

° actions required for renewal of certifications will strengthen the involvement of staff and students in revising and updating QA related processes;

° the upcoming EAEVE on-site visitation will represent a great opportunity to refurbish and expand teaching facilities;

° the "Department of Excellence" project will enhance teaching and research internationalization, particularly by attraction of visiting professors and scientists. It will also foster the interest of a larger public on DVS activities and, in general, on the societal role of the veterinary profession.

Threath

° the underlying high costs of veterinary training, the most expensive of all UniTO education programs;

° the high maintenance costs for SDSV facilities and equipment;

° the suboptimal career development opportunities for excellent performing staff, essential for the maintenance of their motivation;

° the lack of solid mechanisms to reward teaching excellence and the commitment to organization and third mission tasks;

° the dependency on University budget allocations and the complexity of the Central Administration processes, not always meeting the DVS need for greater flexibility.

According to the SWOT analysis, an operating plan with strategic items and objectives has been developed by the QA Committee, then discussed and approved by the Department Council. Following endorsement by UniTO administration, the operating plan has been finally included in the DVS three-year strategic plan. The operating plan is structured into five areas of interest, namely teaching, research, third mission, internationalization and human resources, consistent with the UniTO strategic objectives (https://www.unito.it/ateneo/mission-politiche-e-strategie/piano-strategico). Actions and indicators have been defined for each of the major identified objectives, as follows:

OBJECTIVES	ACTIONS	INDICATORS
TEACHING		
Update training curriculum fostering innovative teaching	○ Setting up of a portfolio of competencies ○ Setting up of an assessment policy ○ Revision of the learning outcomes of practical training ○ Developing the professional knowledge in the curriculum ○ Reorganization of PPT activities ○ Purchase of tools for innovative teaching ○ Improving teaching staff training ○ Expanding and upgrading teaching facilities	Number of implemented actions
RESEARCH		
Stimulate proposals for scientific projects to increase fund-raising and competitiveness	○ Improving know how on funding opportunities ○ Implementing use of the *Research Professional platform* ○ Implementing a monitoring system for participation in calls ○ Encouraging collaboration and innovative partnerships ○ Strengthening national and international relationships through residency programs and attraction of visiting professors	Number of submitted research proposals
Implement actions related to the "Department of Excellence" project	○ Inventory of scientific outputs consistent with the "Department of Excellence" project ○ Inventory of post-graduate research consistent with the "Department of Excellence" project	% of scientific outputs related to the "Department of Excellence" project
THIRD MISSION		
Consolidate the image and visibility of the veterinary sciences (Public engagement)	○ Improve the Museum accessibility ○ Modernizing products to promote DVS activities in teaching, research and the provision of services ○ Modernizing products to promote the adoption of good veterinary practices ○ Celebrating the 250th Foundation Anniversary	Number of products and events
Develop synergies and collaboration with institution and enterprises	○ Promoting DVS expertise ○ Reinforcing the provision of different services	Number of agreements Number of services provided

INTERNATIONALIZATION		
Enhance the opportunities for mobility and cooperation	○ Increasing the number of outgoing staff (Erasmus +) ○ Increasing the number of incoming visiting professors ○ Increasing the number of PhD grants for international students ○ Strengthening the cooperation with international Universities and research institutions	Number of incoming/outgoing students and teachers
HUMAN RESOURCES		
Upgrade the decision processes for promotion and recruitment of academic personnel	○ Inventory of teaching needs in all study programs offered by DVS ○ Analysis of competence requirements to support educational offer ○ Identification of reliable criteria for the assessment of teaching excellence ○ Implementation of the UniTO guidelines on recruitment and promotion	Compliance with personnel needs and competence requirements for the offered programs

1.4 The Establishment must have a policy and associated written procedures for the assurance of the quality and standards of its programmes and awards. It must also commit itself explicitly to the development of a culture which recognises the importance of quality, and quality assurance, within their 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.

Description of the global policy and strategy of the Establishment for outcome assessment and Quality Assurance (QA), in order to demonstrate that the Establishment: -) has a culture of QA and continued enhancement of quality; -) operates cyclical, sustainable and transparent outcome assessment, QA and quality enhancement mechanisms; -) collect, analyse and use relevant information from internal and external sources for the effective management of their programmes and activities (teaching, research, services); -) informs regularly staff, students and stakeholders and involves them in the QA processes; -) closes the loop of any QA Plan-Do-Check-Adjust (PDCA) cycles; -) is compliant with ESG Standards.

Since the last EAEVE visitation in 2010, the DVS activities have been regularly submitted to internal and external evaluation. In 2014, the quality management system of the DVM Course and the Bachelor course in "Production and Management of Domestic and Wild Animals", as well the life-long education program and the services to students were certified as compliant with the requirements of the international standard ISO 9001. In 2015 the ISO 9001 certification has been also attributed to the VTH and the Campus Library services. Ever since, the ISO 9001 certification has been renovated on a yearly basis. Moreover, VTH activities and services are compliant with the Code for Good Veterinary Practice as assessed by FVE. Finally, in November 2015 UniTO successfully underwent the external evaluation by experts of the recently established National Agency for the Evaluation of Universities and Research Establishments (ANVUR) in the frame of the Higher Education Quality Assurance System (AVA). AVA sets standards for the self-assessment of programs and institutions, and the external assessment of the respective QA systems. External evaluation is based on peer review and is carried out through on-site visits and documents analysis. ANVUR is a member of the European Association for Quality Assurance in Higher Education, thus assuring full compliance with ESG standard (https://www.anvur.it/anvur/accreditamento-

enqa/). To our satisfaction, during the on-site accreditation visit to UniTO, the veterinary program was awarded the qualification of "fully positive" together with the recognition of some best practices.

Within this framework, the DVS develops and continuously implement its own system of quality assurance inspired by regulations and models defined at the European and national level, namely the European directive 36/2005 CE and UE 55/2013, the national University law (DM n. 270/2004, Legge 20/12/ 2010 n.240, Dlgs. 27/01/2012 n.19, DM 23/12/ 2013 n.1059, DM 30/01/ 2013 n.47, DM 12/12/2016 n.987), the ESEVT Manual of Standard Operation Procedure as approved in 2019 EAEVE General Assembly, the directives by the national system of accreditation AVA and the ISO 9001:2015 procedures. We are confident to affirm that DSV has steadily adopted the QA policy as instrument to express and communicate, in a formal but also direct way, the objectives and guidelines of the Establishment with respect to the quality of provided education and training. The DVS QA policy has a formal status and is published on the website (https://veteren.campusnet.unito.it/do/home.pl/View?doc=END108_Quality_policy.html).

On the basis of its QA policy, the DSV periodically establishes medium and long-term objectives, develops strategies to reach them, and formally commits itself to achieve the planned objectives through continuous improvement. All processes and activities are monitored and measured by collecting the relevant information. At all phases of the training programme, students' opinion is gathered using questionnaires and interviews. All lecturers, both academic and hired ones, are requested to fill a questionnaire once their teaching unit has been delivered. Customer satisfaction surveys (eg, by pet owners at the VTH) are used to evaluate services. Quantitative indicators are collected concerning students' progression and the employment rate of graduates. Research performance is monitored using internationally agreed indicators. The fore mentioned mass of information is used, annually, to assess outcomes and draft the monitoring reports of the DVS strategic plan. In addition to standard monitoring, a review is performed cyclically in order to update the context analysis, set new objectives and actions and close the PDCA cycle, thus enhancing quality.

In order to keep the overall teaching objectives constantly aligned with the professional profiles that the society demands, the DVS applies a system of periodical consultation of representatives of the veterinary profession and ex-alumni serving in private, public or corporate sectors. In 2016, five different working tables were established (focused on veterinary public health, companion animals, food-producing animals, equines, food safety and industries). Each table worked on thoroughness of the programme using ESEVT Day One Competences as guidelines. Deviations from the expected objectives/outcomes were identified and a review of several teaching units (including practical training and assessment methods) was implemented with a competence-based approach. Finally, explicit learning outcomes were set for each teaching unit and published in the online repository of subject forms accessible to all students and stakeholders (for consultation of the most updated version, please link at https://www.clmveterinaria.unito.it/do/corsi.pl/BrowseYears?). Ever since, the DVM Monitoring and Review Commission (CMR) is in charge to monitor the subject forms, with special commitment on checking the consistency of the teaching/assessing methods with the declared learning outcomes.

The periodical consultation of stakeholders, the analysis of the employment rate and the feedback by practitioners operating as tutors during EPT periods keep us informed about the suitability of our graduates to enter in all sectors of the veterinary profession.

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.

Description of how the Establishment informs stakeholders and the public on: -) its objectives, -) its education, research and teaching activities, -) employment destinations of past students -) profile of the current student population

Information about DVS teaching and research activities, and the services provided for is accessible to the general public through the DVS website. For each study programme, objectives, curriculum, learning environment, learning outcomes, self-evaluation outcomes, profile of the current student population and the employment destinations of the past student are disclosed through the Scheda Unica Annuale (SUA-CdS), a document with a well-defined structure whose update and publication is mandatory for all Establishments and study programmes countrywide (https://www.clmveterinaria.unito.it/do/documenti.pl/Show?_id=k6zh). The document is also accessible through a national communication platform (https://www.universitaly.it/index.php/scheda/sua/43692) intended to allow students, families and stakeholders to compare information on the different study programs.

Information about the integration of graduates into the labor market is accessible on the DVM website (https://www2.almalaurea.it/cgi-php/universita/statistiche/framescheda.php?anno=2016&corstipo=L&ateneo=70031&facolta=1256&gruppo=7&pa=70031&classe=10040&postcorso=0010106203800001&isstella=0&annolau=1&disaggregazione=condocc&LANG=it&CONFIG=occupazione). Data are collected annually by the national consortium Alma Laurea.

Timely information on continuing education events directly or indirectly organized by the DVS is easily accessible on the website to colleagues serving in private, public or corporate sectors (https://www.veterinaria.unito.it/do/home.pl/View?doc=D108_ECM.html). Similarly, all job opportunities offered by the DVS, the SDSV (e.g., contracts to serve as adjunct staff in the VTH or the Teaching Farm) and other employers are publicized on the website.

Besides virtual information, DVS interacts with stakeholders and the society at large in a variety of formal and informal ways. Periodical consultations of representatives of the veterinary profession and ex alumni are organized to receive feedback and suggestions before up-dating the curriculum. Practitioners and official veterinarians available to cooperate with the DVS in the professional training of undergraduate students are in turn offered targeted training on organization, scope and assessment of EPT activities. This training is awarded credits of continuing education. Colleagues are also special guests on occasion of the Career Day, during which they are asked to offer late students an influential overview of the labor market. Finally, orientation seminars and open days are organized for prospective students.

As for the society at large, the AgroVet Party (please see Standard 7 and https://www.unito.it/eventi/agrovet-days-2019-al-campus-di-grugliasco-5-giorni-di-festa-e-attivita-la-cittadinanza) is the annual enjoyable event, jointly organized with SAMEV and the Agriculture, Forestry and Food Sciences Department, to open the Campus and make the citizens aware of premises, main activities and services provided for. In addition, the DVS actively participates in Third Mission activities, including Public Engagement events (https://www.veterinaria.unito.it/do/home.pl/View?doc=D108_PubblicEngagement.html). Among them is the renewed "Researchers' Night", simultaneously celebrated in all Europe (https://www.unito.it/avvisi/notte-

europea-dei-ricercatori-2020-partecipa-alla-call-entro-il-6-settembre-2020).

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

The ESEVT status, the last self-evaluation report and the last visitation report (received in early 2011) are easily accessible at: https://www.clmveterinaria.unito.it/do/home.pl/View?doc=/mv/certificazione_eaeve.html

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.

Description of how (procedures) and by who (description of the committee structure) the strategic plan, the organisation, the activities and the QA policy are decided, communicated to staff, students and stakeholders, implemented, assessed and revised

The objectives and the actions announced in the five sections of the three-year strategic plan are periodically monitored by the DVS QA Committee. A qualitative analysis of the planned actions is carried out and the indicators for each action are measured. The monitoring activity offers the opportunity to detect possible deficiencies, identify corrective actions and, if needed, to review the strategy and define new actions and indicators. The resulting monitoring report is discussed and approved by the DVS Council. The final document is submitted to UniTO administration in order to receive comments and suggestions and ensure that the annual QA cycle is completed. The procedures and deadline for submitting the annual monitoring report are set by the University Presidium for Quality Assurance ("Presidio della Qualità": https://www.unito.it/ateneo/organizzazione/organi-di-ateneo/presidio-della-qualita).

As an example from recent years, students' opinion surveys and some indicators on student progression pointed out a working overload during the first two curricular years. In response, a revision of the corresponding courses' organization and content was implemented in 2015. More recently, the PPT (Professional Practical Training/"Tirocinio") programme was revised following inputs collected during consultations of the stakeholders. It is intended that, at the expiry of each three-year strategic plan, a final assessment of the objectives' achievement is conducted and a new context analysis (including a SWOT Analysis) is carried out.

The DVS Director, who chairs the QA Committee, has the responsibility of the strategic plan and its follow-up. The QA Committee supports the Director in drafting the strategic plan and, as anticipated, is the body in charge of monitoring and reviewing the planned actions. Besides members of the academic staff, the QA Committee includes student and support staff representatives.

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.

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

The Faculty of Veterinary Medicine of the University of Turin (this was the original name of the Establishment until 2012) was first awarded EAEVE Approval status in 2002, less than three years after the long awaited relocation in the new premises in the

Grugliasco Campus. In November 2010, a new on-site visitation resulted in the renewal of the approval status by ECOVE. In the final report, the EAEVE expert team expressed the view that "the Faculty is an excellent teaching, research and service facility, fulfilling all standard requirements to produce graduates with satisfactory first-day skills in all areas as outlined in EU directive 36/2005". Nevertheless, numerous suggestions and some recommendations to rectify minor weaknesses were included in the report. These suggestions/recommendations and the actions taken ever since to compensate are summarised in Appendix 1.1. In short, we are confident to affirm that a positive reaction was clear for all suggestions/recommendations dealing with:

- student welfare, orienting, tutoring and international mobility;
- the need to make research-based teaching a strong objective;
- the need to put more emphasis on welfare and biosecurity issues in farm animal teaching;
- the strengthening of the equine clinic;
- the development of the E-learning platform;
- the provision of formal training to the teaching staff;
- major funding issues;
- the enhancement of quality in student assessment;
- the improvement of problem-oriented teaching.

We are also aware that, for several reasons (sometimes for conflict with national regulations), reaction to the suggestions/recommendations of the visiting team was weaker or less effective for the following:

- the reduction of the time that members of the academic staff devote to administration, or at least its better recognition;
- the simplification of the committee structure;
- the insufficient recognition of excellence in teaching;
- the insufficient recognition of Diplomates and of the residency training they may offer;
- the introduction of external examiners;
- the formal adoption of measures to discourage students with overly long and unsuccessful study time and, in parallel, streamline the flow of motivated and industrious students.

COMMENTS

In the decade since the last EAEVE on site visitation, considerable effort and time have been invested to align the Establishment's organization to provisions of the new University law. The organization and running of such a demanding course has called for the active involvement of several members of the academic and support staff, resulting in greater motivation by all players and the strengthening of a diffuse culture of QA at the Establishment. This achievement and the favourable outcome of the multiple external evaluations that the Establishment has undergone since the EAEVE approval in 2010 have also undoubtedly strengthened the image and accountability of DVS in front of the UniTO governing bodies. As a result, UniTo has granted substantial support whenever DVS has submitted proposals for initiatives/investments to keep in line with internationally recognized educational standards.

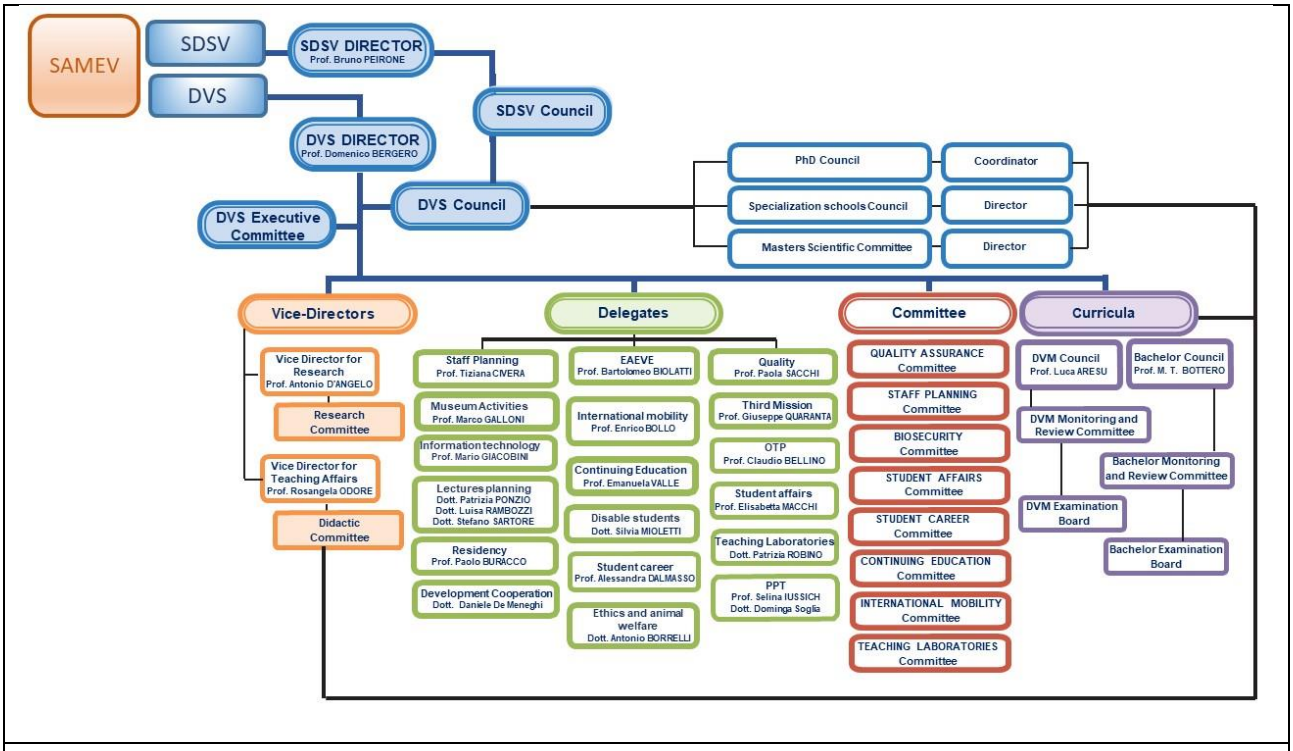
SUGGESTIONS FOR IMPROVEMENT

Commitment to QA has proved to be a major strength of the Establishment. Accordingly, QA procedures should be further implemented and/or refined to mitigate the identified weaknesses and threat.

COUNCIL/COMMITTEE	COMPOSITION	MAIN FUNCTIONS/RESPONSIBILITIES
DVS Council	All permanent academic staff 20 support staff representatives 8 PhD student representatives 13 post-graduate student representatives 11 student representatives	**Decision-making body of the DVS**; approves the three-year strategic plan; approves proposals about staff planning and related budget needs; decides about the activation of new study programs; organizes and manage the teaching and research activities of the academic staff
DVS Executive Committee	Director Vice Directors 9 teaching staff representatives 3 support staff representatives	Proactive and executive body in support of the Director
DVS Didactic Committee	Vice Director for Teaching Affairs DVM Coordinator Coordinator/s of other Degree courses offered by DVS Delegate for QA Delegate for International Mobility 2 representatives of the post-graduate programs offered by DVS Coordinator of the PhD program 2 student representatives	Coordination of all undergraduate and post-graduate teaching programmes offered by DVS. Planning of major investments related to teaching/training
DVS Research Committee	Vice Director for Research PhD Coordinator Representative support staff 7 representatives teaching staff	Coordination of all research activities. Planning of resources allocation and definition of relevant criteria
DVS Quality Assurance Committee	DVS Director Vice Directors Delegate for staff planning Delegate for international issues Delegate for the Third Mission Delegate for EAEVE/ESEVT Delegate for QA DVM Coordinator Coordinator/s of other Degree courses offered by DVS 2 representatives support staff 2 student representatives	Supporting the Director in the drafting, updating and monitoring of the three-year strategic plan (eventually including corrective actions). Setting up of the "Direction Review" according to ISO certification procedures. Bridging between DVS committees for matters related to QA
DVS Staff Planning Committee	16 academic staff representatives staff (one per "sector"/subject area)	Identification of recruitment needs and proposals for opening of new positions
DVM Council	DVM Coordinator All DVM teaching staff 9 student representatives	**Decision-making body of the DVM Course**. Monitoring and reviewing of the curriculum. Definition, assessment and revision of the learning outcomes. Management of all teaching activities
DVM Monitoring and Review Committee	DVM Coordinator DVM Vice-coordinator Delegate for QA Delegate for PPT 4 teaching staff representatives 6 student representatives	Supervision of the DVM curriculum. Periodic self-evaluation and revision. Teaching quality assessment

DVS Biosecurity Committee	Delegate for Biosecurity 1 UniTO Service for Prevention and Protection expert 9 academic staff representatives 9 support staff representatives 2 student representatives	Drafting and updating of the Biosecurity Manual. Ensuring a safe environment for staff, students and visitors. Organize the purchase and distribution of PPDs. Organize staff and student training in Biosecurity. Organize and monitor the special waste management. Organize poster advertising. Any other matter dealing with Biosecurity
DVS Student Affairs Committee	Delegate for Student Affairs DVM Coordinator Coordinator/s of other Degree courses offered by DVS Delegate for disabilities 5 teaching staff representatives 3 student representatives 2 Didactic Managers	Planning of budgeted cultural, social and recreational activities of students
DVS Student Career Committee	Delegate for Student Career 2 teaching staff representatives 1 support staff representative	Transfer procedures of students from other degree courses and/or other national and international veterinary Establishments
DVS Continuing Education Committee	Delegate for Continuing Education 6 teaching staff representatives 3 support staff representatives (including a responsible for website)	Planning and organization of the lifelong learning program and the individual events
DVS International Mobility Committee	Delegate for International Mobility 1 support staff representative 5 teaching staff representatives 2 student representatives	Supporting the mobility of incoming and outgoing students and staff members
DVS Teaching Laboratories Committee	Delegate for Teaching Laboratories 2 support staff representatives 9 teaching staff representatives	Management of teaching laboratories. Surveys of needs related to practical training (including off-Campus visits)
SDSV Council	SDSV Director VTH Health Director Teaching farm responsible Vice-Director for Teaching Affairs 2 clinical teaching staff representatives 1 clinical-diagnostic teaching staff representative 2 animal production teaching staff representatives 1 food hygiene teaching staff representative 2 support staff representatives 2 student representatives	**Decision-making body of SDSV**
SDSV Didactic and Scientific Committee	SDSV Director Coordinators of the degree courses offered by DVS Vice Director for Teaching Affairs (or delegate) Vice Director for Research (or delegate)	Consulting body. Bridging with DVS for matters related to student training and research at SDSV premises

TABLE 1.1 LIST OF THE COUNCILS/BOARDS/COMMITTEES WITH A VERY BRIEF DESCRIPTION OF THEIR COMPOSITION/FUNCTION/RESPONSIBILITIES AND IMPLICATION OF STAFF, STUDENTS AND STAKEHOLDERS



ORGANISATIONAL CHART (DIAGRAM) OF THE ESTABLISHMENT

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).

Description of the global financial process of the Establishment

The DVS, as a spending center depending from UniTO, is entitled to set up its own annual budget to the exclusion of important items including: expenditures related to the permanent staff salaries; the functioning of services such as student secretaries, ICT and the Campus Library; the maintenance and refurbishment of premises; logistics and the cleaning and security services. All these expenditures are in charge of UniTO with the single exception of salaries, in charge of MIUR. For items in charge of UniTO Central Administration, the DVS make its voice heard (in constant dialogue) through the Director, the Campus Administrative Director and their delegates. Decisions on the budget to allocate for firsthand management by DVS (this budget is identified with the acronym FFO, corresponding to Ordinary Financing Fund) are taken by the Academic Senate and the UniTO Board of Governors (CdA), following investigation by the UniTO Planning and Development Commission and the CdA Budget Commission respectively.

In order to build the DVS budget, the Director initially meet the Vice-Directors and the Campus Administrative Director to prepare a draft proposal. Then, the document is transferred to the DVS Executive Committee for possible budgetary trade-offs and amendments, and an official proposal is finally conveyed to the DVS Council for discussion and approval (in the autumn). Once passed, the budget can be modified limited to the FFO share (see below in this Standard for the other budget headings).

Decisions about the utilization of the FFO are taken as the result of a process, starting with the proposals elaborated by the different DVS Commissions, their subsequent evaluation by the Executive Committee and the final approval by the DVS Council. The Director is entitled to take independent decisions on lesser expenses, up to 1000 € for funding deriving from UniTO and up to 5000 € for grants.

A second spending center dealing with veterinary training and services is the SDSV, which operates in constant dialogue with the DVS management. To build the budget, the SDSV Director (by statute, a veterinarian and a member of the DVS academic staff) meet the SDSV Administrative Secretary to examine the history of expenditures and revenues and, in sequence, to audit the staff liable for the different services for opinions on equipment renewal and other contingencies. Then, a draft budget is elaborated and forwarded to the SDSV Council for discussion and approval.

For the sake of simplicity and consistency with the SER Template, data on expenditures, revenues and balance of the Establishment (including items financially in charge of MIUR and UniTO) has been merged into tables embracing both spending centers.

EXPENDITURES

	2019	2018	2017	MEAN
PERSONNEL	12.087.067	11.201.463	10.794.745	**11.361.091**
OPERATING COSTS	2.099.672	1.697.489	1.614.425	**1.803.862**
MAINTENANCE COSTS	232.178	191.450	177.279	**200.302**
EQUIPMENT	1.683.260	266.310	396.550	**782.040**
OTHER COSTS	2.246.910	1.251.766	1.533.714	**1.677.463**
TOTAL EXPENDITURE	**18.349.090**	**14.608.480**	**14.516.715**	**15.824.761**

TABLE 2.1.1. ANNUAL EXPENDITURES DURING THE LAST 3 ACADEMIC YEARS (IN EUROS)

PERSONNEL COSTS

DVS personnel *sensu stricto* includes the permanent teaching staff, permanent support staff dedicated to research and SDSV related services, as well as scholarships and hired veterinarians mainly serving the SDSV. The first ones are salaried by UniTO (following funds transfer by MIUR) whereas the second ones by the Establishment. Expenditures for scholarships and hired staff have been on substantial rise in the last years, reaching € 575.000 in 2019. However, other UniTO personnel working in the Campus (eg, permanent administrative staff, ICT and other technical staff) also serve for the needs of DVS and the veterinary training organization. In Table 2.1.1, the corresponding costs have been set up at 50% of the UniTO expenditure for the needs of the Campus (where two UniTO Departments are based, see Standard 1).

OPERATING COSTS

Operating costs are supported by the DVS and SDSV. They mainly relate to the purchase of consumables and PSDs, the keeping of animals, the purchase of animal material for practical trainings, the disposal of carcasses, waste management, the off Campus transportation of students, insurance of vehicles, the periodical check of hoods and fire extinguishers, as well as contracts for instructors to help during practicals of the core courses when necessary. The increase in 2019 is mainly due to consumables, in particular for the needs of VTH.

MAINTENANCE COSTS

For the purposes of Table 2.1.1, maintenance costs have been intended as the costs supported by the DVS and SDSV. As anticipated, maintenance costs for buildings are usually supported by the Central Administration, via the Logistics and Building Direction and the Informatics Direction, and have been included in "Other costs". However, in 2019 the Establishment has directly contributed to the extraordinary maintenance costs of the Campus slaughterhouse and other minor spaces.

EQUIPMENT

The Establishment's investment for equipment has tremendously increased in 2019, thanks to extra public funds which became available following the recognition of the "Department of Excellence" status by MIUR. Further substantial investment for equipment renewal on the same funds is occurring in 2020 and has been planned 2021.

OTHER COSTS

These costs are supported by UniTO and the Establishment. In the case of UniTO, the item includes costs for maintenance of buildings and the information network as well as the construction of new premises (e,g. at the LA-VTH). In the case of the Establishment, "other costs" are mainly represented by overheads on research grants and the VTH services returned to UniTO Central Administration, and by missions of personnel and the fellowships paid in the frame of research projects. The remarkable increase in 2019 is due, in particular, to the substantial UniTO engagement in the upgrade of Campus premises.

REVENUES

	2019	2018	2017	MEAN
PUBLIC AUTHORITIES	11.394.047	14.112.592	10.187.597	**11.898.078**
TUITION FEE (SPECIAL CONTRIBUTION)	260.465	264.985	277.980	**267.810**
CLINICAL AND DIAGNOSTIC SERVICES	2.190.136	1,816,920	1,668,492	**1.891.849**
OTHER SERVICES	72,122	65,434	77,428.67	**71.661.95**
RESEARCH GRANTS	1.743.460	1.386.868	1.573.263	**1.567.863**
CONTINUING EDUCATION	42.366	34.343	18,324	**31.678.40**
DONATIONS	0	0	0	**0**
OTHER SOURCES	1.046.602	374.914	662.405	**694.640**
TOTAL REVENUES	**16.749.200**	**18.056.060**	**14.465.491**	**16.423.583**

TABLE 2.1.2. ANNUAL REVENUES DURING THE LAST 3 ACADEMIC YEARS (IN EUROS)

PUBLIC FUNDING

Most of the public funding in Table 2.1.2 relates to payment of salaries. In addition, UniTO annually transfer a budget (FFO, Ordinary Financing Fund) that the Establishment is allowed to manage firsthand. This fund is annually assigned based on a formula taking into account the number of students and staff as well as performance in research and teaching. In the next future, performance in the Public Engagement area will be also included amongst criteria. FFO summed up to 179.346 € in 2017, 215.949 € in 2018 and 205.285 € in 2019. An extraordinary "EAEVE visit" oriented fund (110.000 €) was assigned the SDSV in 2019. The rise in 2018 is due to the "Department of Excellence" extra funding by MIUR.

TUITION FEES

Tuition fees are forfeited by UniTO Central Administration and indirectly contribute to FFO. They are difficult to single out from this budget. However, the Central Administration grants the Establishment with an additional "special contribution" for the Veterinary Medicine course (summing up to € 565 per student per year), to be spent exclusively on the to upgrade of practical training activities. This welcome contribution recognizes the higher costs of veterinary training compared with other degree courses.

SERVICES

Revenues from services (mainly clinical and diagnostic ones) show a clear tendency to increase. Of note, the favorable trend is net of the compensation between less profitable (even at loss) services and the more profitable ones, to cover all aspects of veterinary training. For instance, activities of unquestionable didactic value as the hospitalization of farm animals and some breeding activities at the teaching farm are assumed in need of sustained support.

RESEARCH GRANTS

This item includes funding by UniTO and other public and private sources. As for UniTO, a part of the FFO is allocated for the financing of "local research" projects. UniTO annually assigns this budget based on the number of academic staff and the average quality of research products in the previous three years. The funding averaged 108.000 € between 2017 and 2019. The other revenues include additional UniTO funding for fellowships (117.000 €/year on average) and grants deriving from research sponsors and the successful participation of academic staff in national and international competitive projects.

CONTINUING EDUCATION

This item includes, almost exclusively, the tuition fees of the Schools of Specialization currently offered (see Standard 10).

OTHER SOURCES

"Other" revenues are represented by UniTO investment to ensure the ordinary and extraordinary maintenance of buildings and information network.

BALANCE

ACADEMIC YEAR	TOTAL EXPENDITURES	TOTAL REVENUES	BALANCE
2019	18.349.090	16.749.200	**1.599.890**
2018	14.608.480	18.056.060	**-3.447.580**
2017	14.516.715	14.465.491	**51.224**
AVERAGE	**15.824.761**	**16.423.583**	**-598.822**

TABLE 2.1.3. ANNUAL BALANCE BETWEEN EXPENDITURES AND REVENUES (IN EUROS)

Note that the positive average balance in the last three years is mainly related to the "Department of Excellence" extra funding in 2018, whereas expenditures on this rich fund could not be started before 2019 for bureaucratic reasons.

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

A fixed 13% margin is paid to UniTO on revenues from services, continuing education and research grants. In the last three years, transfer to the Central Administration summed up to about € 360,000 annually. The margin (a quite high one in our opinion) is a point of major debate with the Central Administration. Despite this, we still perceive that services and research grants provide sufficient support to meet the DVS mission.

Annual tuition fee for national and international students

As anticipated, students (no matter where they come from) pay their annual tuition fee to UniTO Central Administration. The requested fee is tuned on ISEE, a national indicator of the family income, as follows:

ISEE (€)	TUITION FEE (€)
Up to 6,000	40
6,001 – 13,000	80
13,001 – 30,000	[(ISEE x 0.041 - 533) x 1.02]
30,001 – 50,000	[(ISEE x 0.035 - 350) x 1.02]
50,001 – 85,000	[(ISEE x 0.038 - 528) x 1.02]
Over 85,001	2,805

An equivalent index ("ISEE parificato") is calculated for foreign EU and non-EU students. For detailed instructions, please link to: https://en.unito.it/news/tuition-fees-isee-eu-and-non-eu-students.

According to UniTO regulations (https://en.unito.it/sites/sten/files/reg_tasse_2018_19.pdf), off-course students (N+2 and over) are not requested to pay higher tuition fees but in the case of high family income.

Estimation of the utilities (e.g. water, electricity, gas, fuel) and other expenditures directly paid by the official authority and not included in the expenditure tables

UniTO Central Administration covers the cost for the Cleaning Service, the Surveillance Service, and the hired staff (4 units at the moment) in support of teaching at the Campus premises (e.g. to open and lock lecture halls, operate overhead projectors and video equipment, etc.). All these services are externalized. Utilities (e.g. water, electricity, gas, fuel) are also directly paid by UniTO Central Administration. In 2019, these expenses summed up to 1,606,181 € for the whole Campus. Accordingly, we may estimate that around 800,000 € per year are spent by UniTO Central Administration for the needs of the Establishment.

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 efficiency of clinical and field services is perceived as key issue to ensure that expected Day One Competences are gained by our veterinary students, and that opportunities for qualified post-graduate veterinary education may increasingly be offered. The financial management of these services is entirely run by SDSV, which by UniTO regulations (and similarly to other "special structures") enjoys more flexible and agile spending procedures than DVS. However, since DVS remains a "major sponsor" of SDSV (eg, by annually transferring to the structure a remarkable quota of the additional special contribution for the Veterinary Medicine course), and DVS representatives sit in all SDSV decision bodies, a system of resources allocation control to prioritize the teaching mission of SDSV is *de facto* in place. The transfer of resources from the DVS to SDSV (eg, for equipment, PSDs or contracts for "adjunct" staff) must be clearly motivated by the latter, then submitted to evaluation by the DSV Didactic Committee, discussed by the DVS Executive Committee and finally approved by the DVS Council. A detailed financial reporting of the way the transferred resources have been utilized is due by the SDSV Director to the DVS governance. The report is discussed and approved by the DVS Council.

SDSV operates under the ISO 9001/2015 Quality Assurance protocol, and in accordance with the Veterinary Good Practices. This involves implementation of an at least yearly SWOT analysis and planning of the resources in function of the weaknesses identified.

Minutes of the meetings of DSV Council, SDSV Council and the different Committees involved in financial issues are published and public.

Degree of autonomy of the Establishment on the financial process

Over recent years the Establishment has undoubtedly enjoyed sufficient autonomy in using "its" resources (mainly represented by the FFO, the additional special contribution for the Veterinary Medicine course, income from services and research grants) to meet the ESEVT standards and other objectives announced in the three-year strategic plan.

Beyond this, evidence shows that, in multiple occasions since the last EAEVE on site visitation, UniTO and its financial bodies have strongly supported the maintenance and upgrading of the Establishment's educational and service standards.

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

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

Based on the three-years strategic plan and the fore-mentioned constant dialogue with UniTO management, major investments have been planned to upgrade the Establishment's consistency to all ESEVT standards and stakeholders' expectations. The ongoing major investments at July 2020 refer to the following: construction of the new clinic for non-conventional animals and wildlife; refurbishment and securing of the cattle barn and piggery; laying of the paving and furniture of the central pedestrian area; securing of the necropsy room and large animal isolation unit. Planned major investments are as follows: construction of a new stable for healthy horses; air conditioning of all lecture rooms, research laboratories and staff offices, in descending order of priority. The aforementioned ongoing and planned investments originate and are directly managed by UniTO Central Administration. However, purchase of new major equipment and some equipment renewals were made possible by recent recognition of the "Department of Excellence"

status and the associated extra funding by MIUR.

Prospected expenditures and revenues for the next 3 academic years

We expect that in the next three academic year some of the operating costs will increase due to needs (PSDs, frequent sanitation, organization of practicals and off-campus visits in smaller groups, etc.) related to the implementation of COVID-19 adaptation procedures and strategies. In addition, the "Department of Excellence" extra funding will have to be fully invested. As for revenues, while governmental announcements on the financing of higher education in Italy have been reassuring, the experts' forecast is that University enrollments (including at UniTO) will decrease at national level despite announced lower tuition fees and the strengthening of student support initiatives. At the same time, revenues from clinical and diagnostic services and private research sponsors will possibly diminish as a consequence of the expected economic crisis at the national and international level. Overall, DVS will probably have to face some public funding cuts and maybe lower revenues for the offered services and expertise. However, the financial effects of COVID-19 emergency are difficult to quantify at the moment since different (even opposite) sceneries have been accredited by authoritative experts. Accordingly, a revision of the objectives and actions listed in the DVS strategic plan in force is premature.

COMMENTS

In general, there are no major concerns on the "financial health" of the Establishment and the veterinary programme offered. Remarkable support is directly and indirectly provided to DSV by UniTO Central Administration, whereas sufficient additional resources are generated by clinical and field services and research grants. Requested overheads are nevertheless perceived as excessive, with the risk to weaken the Establishment's competitiveness in research and services.

Bureaucracy in spending procedures is also perceived as excessive, with the risk to generate disaffection by part of the academic staff with their proactive engagement in internationally funded projects.

SUGGESTIONS FOR IMPROVEMENT

Actions should be taken, in dialogue with UniTO Central Administration, to reduce the complex and cumbersome nature of current spending procedures, which are cause of undesirable stress for all staff involved, independently of the "river bank" they stay. Increasing requests by the Central Administration (e.g. filling a "ticket" even for the smallest need), daily difficulties and spilling of precious time, should be kept under control by shortening the chain of the spending process and by building, beyond personal (often good) relationships, a greater sense of community among all staff in force at the Campus. A concrete step towards simplification of spending procedures would be the elevation of the threshold for minor expenses by the DVS Director and governance. In general, alleviation of financial bureaucracy should be identified as an essential strategy to overcome the understandable resistance to additional workload, which is increasingly expressed by a not negligible part of the academic staff.

Further, the Establishment should explore new strategies to improve revenues from competitive international research grants and new post-graduate educational offer.

Finally, the 13% margin paid to UniTO on revenues from services, continuing education and research grants should be reconsidered.

Standard 3
Curriculum

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

Description of the educational aims of the Establishment and the general strategy for the design, resources and management of the curriculum

Along with other missions, the Establishment aims to provide international standard veterinary education, and graduate professionals capable of self-responsible, independent veterinary work and life-long learning. The curriculum in place is consistent with the enunciations of EU Directive 2005/36/EC (as amended by directive 2013/55/EU) and embraces all subjects listed in Annex V.4. In our opinion, a balanced programme including lectures, supervised self-learning, laboratory and desk-based work, as well as practical and professional training (both intramural and extramural) has been designed and implemented to meet societal expectations on the Day One veterinarian (please see Table 3.1.1.).

The curriculum design is consistent with current national standards in veterinary education. It is organized in 5 years, subdivided in 10 semesters, for a total of 300 ECTS (on average, 60 ECTS/year). Teaching units are delivered either in form of single discipline ("monographic") courses or as "integrated" courses including two or more "teaching modules". Basic sciences are primarily taught in the first two years while, starting from the third year, the exposure to pre-clinical and clinical/professional subjects gradually increases. While the curriculum design is not yet coincident with an authentic "integrated model", staff in contact with early students is encouraged to incorporate clinical relevance in the teaching of basic subjects and basic sciences.

The curriculum structure has been significantly modified in the academic year 2009/2010 consistently with the issues of the Ministerial Decree 270 of 22 October 2004. Hence, the last EAEVE on site visitation in 2010 occurred in bridging phases between the "old" and current curriculum structure. In 2015, the organization of the first years of the new programme was modified to promote student career progression and ameliorate the integration between related disciplines. Finally, a full revision of the mandatory professional practical training (PPT) was accomplished in 2019 (see 3.5 and 3.6).

The DVM Council is responsible of the design and management of the programme, whereas a major responsibility in analyzing issues and suggesting solutions is assigned (by national regulations) to the Monitoring and Review Committee (CMR) (please see Standard 1 and 7, see also 3.4).

Relevant instances originating from the DVM Course are illustrated in the DVS Didactic Committee. In particular, the DVM Coordinator (who is permanent member of the Committee) is asked to report on the main issues concerning planning, monitoring and revision activities, including financial needs related to the purchase of teaching materials and/or to the enrolment of additional temporary staff in support of practical training. Proposals of the DVS Didactic Committee are then approved by the DVS Council. This process ensures a rational distribution of resources and their harmonization at the Department level.

As illustrated in Standard 9 (please see), the progression of the academic staff and the opening of new academic positions is the core task of the DVS Staff Committee.

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

Over the last two decades the Italian university system has undergone a number of changes which have directly affected the overall organization of the veterinary medicine curriculum. The most relevant prescriptions (Ministerial Decrees nos. 509/1999, 270/2004 and 240/2010) relate to:

- the length of the programme (5 years, 300 ECTS);
- the homogeneous distribution of ECTS across the programme (60 ECTS/year);
- the balance between broad subject categories (see box below);
- the balance between subject areas within the fore mentioned subject categories;
- the number of core courses to offer (N=30);
- the institution of a mandatory accreditation system of all programmes by the Italian National Agency for the Evaluation of Universities and Research Institutes (ANVUR, https://www.anvur.it/en/homepage/). To our satisfaction, the veterinary programme offered by DVS was "fully approved" in 2015.

Whereas the legislator's intention to lay down concrete rules to harmonize university programmes across the country is understandable (there are as many as 13 veterinary programmes offered in Italy), it is nonetheless clear that, given the circumstances, Establishments enjoy limited freedom to implement substantial curricular changes. However, autonomous decisions may be taken (within certain limits) on the ECTS assigned to specific subject areas; on the balance between theoretical and practical hours at the teaching unit level; on workload distribution at the ECTS level (e.g. the amount of hours assigned to individual study vs theoretical and practical hours); etc. In recent years, the main curricular changes that the Establishment has managed to introduce included:

- the re-scheduling of selected teaching units and the relocation of their content (eg, Veterinary Physiology, to align teaching with Anatomy and rationalize the student workload);
- the increased time assigned for student individual learning (a minimum of 16 hours/ECTS has been introduced);
- the reorganization of the intramural and extramural professional practical training (PPT) programme (see 3.5 and 3.6).

However, all changes impacting on ECTS distribution among broad subject categories and/or subject areas must be approved (in addition to the DVM Course Council), by UniTo, the National University Council/CUN (https://www.cun.it/cun/about-us/#null) and ultimately by ANVUR. This is clearly a long bureaucratic burden.

BROAD SUBJECT AREAS*	ASSIGNED ECTS	MINIMUM LEGAL ECTS*
BASIC SUBJECTS	**67**	58
CHARACTERIZING SUBJECTS	**168**	130
INTEGRATIVE SUBJECTS	**15**	NA
ELECTIVES	**8**	NA
GRADUATION THESIS	**10**	NA
PROFESSIONAL PRACTICAL TRAINING	**30**	30
FOREIGN (EU) LANGUAGE	**2**	NA

(*) as per current national legislation

BROAD STRUCTURE OF THE VETERINARY PROGRAMME OFFERED BY THE DEPARTMENT OF VETERINARY SCIENCES, UNIVERSITY OF TORINO

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

Possible curriculum weaknesses are monitored at multiple levels:

- each course (either an integrated or a single discipline one) is coordinated by a teaching staff member with a consolidated experience in teaching. She/he is responsible for setting down the scientific and pedagogic

programme of the course and defining the educational objectives, learning outcomes and student assessment methods/format. She/he is also bound to publish/update all relevant information about the course in the Subject Form ("Scheda di insegnamento"), a key document available to all concerned on the DVM Course website;

- at the end of each semester, anonymous feed-back on teachers and courses is provided by students through Edumeter, the UniTo online evaluation platform (see Standard 9 for details). Results of the survey are discussed by the DVM Monitoring and Review Committee (CMR) and corrective actions are identified in case of criticism. Reports of student opinion are intended as essential tools to identify unintended redundancies and overlaps between courses, and monitor the efficacy of the implemented corrective actions;
- the CMR annually monitors the coherence of the programme by reading and cross checking the Subject Forms and the corresponding syllabus of practical activities, to ensure that the principal objectives (e.g. the take-over of competences) are clearly defined and that learning outcomes are in line with those of the programme as a whole, without unnecessary repetitions. If any weaknesses are identified, the CMR is entitled to get in touch with the individual teacher/s to agree on integrations and possible amendments. Minimal overlaps among courses are tolerated as they may favour a multilayer vision of important arguments;
- annually, an external body denominated "Commissione Didattica Paritetica" della SAMEV/Joint Teaching Committee of the Campus School" (https://www.samev.unito.it/it/la-scuola/organizzazione/organi-della-scuola/commissioni) explores a random sample of the Subject Forms and check their thoroughness and formal accuracy. A report is sent to the DVM Coordinator.

ACADEMIC YEAR	LECTURES	SEMINARS	SUPERVISED SELF-LEARNING	LABORATORY-DESK BASED WORK	NON CLINICAL ANIMAL WORK	CLINICAL ANIMAL WORK	OTHERS	TOTAL
FIRST YEAR	424		8	47	75			**554**
SECOND YEAR	585	12	5	115	30	1	8	**756**
THIRD YEAR	491	9	6	92	10	58	16	**682**
FOURTH YEAR	559			92	38	211		**900**
FIFTH YEAR	304		19	9	17	131		**480**
PPT								**750**
ELECTIVES								**200**
GRADUATION THESIS								**250**

TABLE 3.1.1. CURRICULUM HOURS IN EACH ACADEMIC YEAR TAKEN BY EACH STUDENT

Subjects	Lectures	Seminars	Supervised self-learning	Laboratory-desk based works	Non clinical animal work	Clinical animal work	Others	Total
Basic subjects								
Medical physics	18							**18**
Chemistry (inorganic and organic sections)	65			5				**70**
Animal biology, zoology and cell biology	30				40	15		**85**
Feed plant biology and toxic plants	22			8				**30**
Biomedical statistics	17			10				**27**
Basic Sciences								
Anatomy, histology and embryology	224			20	42			**286**
Physiology	182	12		20	12			**226**
Biochemistry	66			14				**80**
General and molecular genetics	83		5	8	1		8	**105**
Pharmacology, pharmacy and pharmacotherapy	79			16	3			**98**
Pathology	238	9		24	25	72		**368**
Toxicology	60			4				**64**
Parasitology	110			40			8	**158**
Microbiology	74		2	32				**108**
Immunology	63			8				**71**
Epidemiology	20		4	2		6	16	**48**
Information literacy and data management	8		25	12				**45**
Professional ethics and communication	14							**14**
Animal health economics and practice management	21		5					**26**
Animal ethology	10							**10**
Animal welfare	15							**15**
Animal nutrition	90			26		1		**117**
Clinical Sciences								
Obstetrics, reproduction and reproductive disorders	146			9	11	90		**256**
Diagnostic pathology	20			2		24		**46**
Medicine	190					83		**273**
Surgery	131			38	10	79		**258**
Anesthesiology	29			7		2		**38**

CLINICAL PRACTICAL TRAINING IN COMMON ANIMAL SPECIES						350		**350**
PREVENTIVE MEDICINE	21			10	25	6		**62**
DIAGNOSTIC IMAGING	27			5		10		**42**
THERAPY IN COMMON ANIMAL SPECIES	33					15		**48**
PROPAEDEUTICS OF COMMON ANIMAL SPECIES	72			18		22		**112**
ANIMAL PRODUCTION								
ANIMAL PRODUCTION, INCLUDING BREEDING, HUSBANDRY AND ECONOMICS	47		18		38			**103**
HERD HEALTH MANAGEMENT	14		18		27			**59**
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	36		4		50	40		**130**
CONTROL OF FOOD, FEED AND ANIMAL BY-PRODUCTS	83			33	60			**176**
ZOONOSES	10				25			**35**
FOOD HYGIENE AND FOOD MICROBIOLOGY	47			18	7			**72**
FOOD TECHNOLOGY	40							**40**

TABLE 3.1.2. CURRICULUM HOURS TAKEN BY EACH STUDENT

TYPES	LIST OF PRACTICAL ROTATIONS (DISCIPLINES/SPECIES)	DURATION (DAYS)	YEAR
INTRA-MURAL CLINICS (VTH)	ICU/HOSPITALIZATION COMPANION ANIMALS	3	III
	ICU/HOSPITALIZATION + VTH MANAGEMENT SYSTEM COMPANION ANIMALS	8	IV
	ICU/HOSPITALIZATION COMPANION ANIMALS	8	V
	ICU/HOSPITALIZATION LARGE ANIMALS	3	III
	ICU/HOSPITALIZATION + VTH MANAGEMEMT SYSTEM LARGE ANIMALS	8	IV
	ICU/HOSPITALIZATION LARGE ANIMALS	8	V
	VTH MANAGEMENT SYSTEM	1	IV
	CLINICAL SKILL LABS	25 HOURS OVERALL	V
	EQUINE CLINIC	5	V
	COMPANION ANIMAL MEDICINE	5	V
	COMPANION ANIMAL SURGERY AND REPRODUCTION	10	V
	DIAGNOSTIC IMAGING	3	V
	DIAGNOSTIC ULTRASOUND AND CLINICAL LABORATORY	6	V
	NURSING, MEDICINE AND SURGERY OF NON-CONVENTIONAL ANIMALS	3	V
AMBULATORY CLINICS HERD HEALTH MANAGEMENT	FARM ANIMAL CLINIC HERD HEALTH MANAGEMENT	8	V
	FIELD VETERINARY MEDICINE HERD HEALTH MANAGEMENT	4	V
FSQ & VPH	CAMPUS SLAUGHTERHOUSE OTHER PREMISES	8	III-IV
ELECTIVES	CLINICAL PHARMACOLOGY/HERD HEALTH MANAGEMENT FARM ANIMALS	4	V
OTHER (SPECIFY)	PHARMACOSURVEILLANCE	3 HOURS	III
	DIAGNOSTIC PATHOLOGY	5	V

TABLE 3.1.3. PRACTICAL ROTATIONS UNDER ACADEMIC STAFF SUPERVISION (EXCLUDING EPT) (*)

(*) NB. "Hours" are intended as "hours taken for each student". "Practical rotations" are intended as "hands-on practical rotations in small groups (1-8 students)". Blue shadowing refers to intra-mural PPT; pink shadowing refers to "Rounds"; green shadowing refers to practicals in core courses

SUBJECTS	LECTURES	SEMINARS	SUPERVISED SELF-LEARNING	LABORATORY -DESK BASED WORKS	NON CLINICAL ANIMAL WORK	CLINICAL ANIMAL WORK	OTHERS	TOTAL
CLINICAL PHARMACOLOGY OF FOOD PRODUCING ANIMAL SPECIES	18					18		**36**
EMERGENCY AND CRITICAL CARE	27				9			**36**

TABLE 3.1.4. CURRICULUM HOURS TAKEN AS ELECTIVES FOR EACH STUDENT

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

In the **1st year**, the course of Animal Husbandry and Management provides students with principles of production, management, housing, breeding, selection processes and economic management of farmed animals. Then, students focus on developing animal handling skills (overall, 49 hours of practical training). In the **2nd year**, Veterinary General Pathology, Pathophysiology and Parasitology aims at training students on the pathogenesis of diseases. Individual sessions at the optical microscope are performed to discuss the most common morphological lesions and get skilled in the search for and identification of common parasites (ova, larvae, mites, etc.) in biological samples. During Microbiology and Veterinary Immunology students develop laboratory skills

in microbiology (bacteriological examination, antibiotic sensitivity test and MIC).

During the **2nd and 3rd year** the course of Physiology of Control System, Physiology of Internal Organs and Physiology and Animal Nutrition provides students with training to perform observation and evaluation of ethological indicators, to define animal welfare conditions, to evaluate heart, ventilation rate and arterial pulse on large and small animals, auscultation of heart tones with the stethoscope, and localization of blood sampling sites. The students are also trained to use the refractometer for urine exam and the pulse oximeter to evaluate haemoglobin saturation; to perform a blood cell count and a microhematocrit; to visualize erythrocyte sedimentation rate (ESR); to perform blood smears for white blood cells evaluation and acquire 6-lead electrocardiographic trace. Finally, they acquire basic knowledge on rationing (also computer assisted) for livestock and pet animals.

In the **3rd year**, Veterinary Pharmacology and Applied Statistics provides training to perform appropriate drug dosage calculation in different animal species, to prescribe veterinary drugs, and get acquainted to operative aspects of pharmacovigilance and pharmacosurveillance. During Veterinary Medical Semiotics and Diagnostics students are divided in small groups and provided with the skills for correct clinical examination of the principal systems in companion animals, cattle and equine in the teaching farm and the VTH. Students are also trained to perform the main clinical laboratory analyses. In Animal Infectious Diseases, students develop knowledge and practical skills in diagnostic laboratory techniques, mastitis management and biosafety in order to develop proposals for the application of control measures for infectious agents. In Epidemiology and Veterinary Public Health, seminars including knowledge of the National and International Organizations involved in Public Health and Zoonoses monitoring, prophylactic and immunization schedules of swine and bovine, diagnostic procedures for infectious diseases are offered. Practical training also deals with the application of biosafety measures to prevent the spread of infectious diseases and transmission of zoonotic agents to humans. In the course of Veterinary Anatomical Pathology I, Immunopathology and Necropsy Techniques, each student performs a post mortem examination and evaluation of gross lesions, formulates an etiopathogenetic diagnosis and writes a technical report on this case. Finally, before starting intra-mural core clinical training, students are introduced to the VTH, including organization, activities, biosecurity/biohazard, and the opportunities offered by clinical skill labs.

Description (timing, group size per teacher, ...) of the core clinical rotations and emergency services (both intramural VTH and ambulatory clinics) and the direct involvement of undergraduate students in it (responsibilities, hands-on versus observation, report writing, ...)

Core clinical rotations and the opportunity to join emergency services are offered to all students: i) in the frame of the intramural part of the Professional Practical Training (PPT) programme (https://www.clmveterinaria.unito.it/do/documenti.pl/ShowFile?_id=gdon;field=file;key=F

7F89DahfZQCbmG0Uk43gQsdgduFYyEqse8brhh92ToeURWDsM43omEbAqnp9CncKr7fGFtPR2;t=8046, pg.32), and ii) during structured "Rounds" to be attended in the 5th year (https://www.clmveterinaria.unito.it/do/corsi.pl/Show?_id=hb23).

Professional Practical Training (intramural part): 3rd, 4th and 5th year students are mandatorily involved in rotations at the Emergency, Intensive Care and Hospitalization services of the VTH. Training is progressive and, in parallel, the degree of responsibility requested to trainees increases in years.

During the 3rd year, students are organized in 6 shifts of 8h/each equally divided between small and large animals. Shifts are scheduled during daytime and activities implying low responsibility are offered. In the 4th and 5th year, students take 32 shifts of 8h/each (5 ECTS annually, please controllare il dato). Of these shifts, 16 are in contact with small animal and 16 with large animal patients. Shifts are scheduled during day and night hours, including the weekends. Activities imply moderate to advanced responsibility, according to the trainee's experience. Students are also trained in the basic use of the VTH management system (including data upload and archive consultation),

A detailed list of the activities to carry out and the competences to take over during the intramural part of PPT has been identified. The list is available online (link).

Trainees are in number of one for small animal shifts and two for large animals shifts. In case of co-presence of 3rd and 4th/5th students during the same shift, peer to peer training is encouraged.

As a complement to the fore mentioned clinical activities, students are requested self-training at the recently set up clinical skill labs. One ECTS is allotted to this complementary activity.

Finally, 5th year students are involved in off Campus clinical rotations on farm animals (4 shifts of 6 hours each) under the tutorship of hired practitioners operating as adjunct teaching staff. Trainees in each shift are 2-3.

"Rounds" is the nickname of structured intramural clinical rotations which 5th-year students are bound to attend provided their background is sufficient (a threshold of 160 certified ECTS has been established). Two annual shift periods are scheduled, in March and October. Each shift period lasts 8 weeks, from Monday to Friday (6 hours/day), for a total of 30 hours per week and 240 hours/student.

Appointed students are organized into small groups of 5-6 students and weekly assigned to the different VTH services. Eight rotation points to be attended have been identified, including:

- Equine clinic;
- Production animal clinic;
- Nursing, medicine and surgery of non-conventional animals;
- Companion animal medicine;
- Companion animal surgery and reproduction (two rotation points);
- Diagnostic imaging;
- Diagnostic ultrasound and clinical laboratory.

Rotating students are bound to fill a daily logbook summarizing the main clinical findings, whereas record of the clinical procedures they proactively carried our is kept on the Portfolio. These proceduresa are signed off by the teaching staff on duty, and finally validated by an entitled member of the academic staff.

During clinical rotations (intramural PPT or Rounds), students are involved in the management of the daily activity at the VTH, including communication with clients, history taking, clinical examination, collection of biological samples, developing a diagnostic and treatment plan and documentation. For production animals (including ruminants, pigs and rabbits), the clinical rotations also include

off Campus herd health visits, ambulatory service and daily short-term farm visits. Supervised by the academic staff, students perform (or participate to) the diagnostic and therapeutic procedures, evaluate the recorded data, plan further investigations to improve the diagnostic work-up, engage in differential diagnosis with the corresponding therapy and prognosis, and schedule the patient follow-up. Moreover, students on rotation are expected to fill the clinical report, write the medical prescriptions and inform the owner on patient management. During these activities, students are also trained on how to discuss and report the clinical case to colleagues.

Description (timing, group size per teacher, ...) of the teaching in slaughterhouses and in premises for the production, processing, distribution/sale or consumption of food of animal origin

Two core subjects include teaching in the aforementioned premises: Food industry and food control (3rdyear) and Inspection, Control and Certification of Food Products (4th year).

In "Food industry and food control", all students receive practical training at the Campus slaughterhouse, with a special focus on structural requirements, animal welfare and hygienic practices. Group size is 7-10 students and each student receive 7 hours of training.

In "Inspection, Control and Certification of Food Products", all students undergo a further training session at the Campus slaughterhouse, aimed to the practical teaching of animal welfare issues during transport, as well as of ante-mortem and post-mortem veterinary inspection. Post mortem procedures are performed individually on cattle/horse carcasses, under the supervision of a teacher, a hire practitioner and the competent Veterinary Officer. Group size is 5 students and each student receive 3 hours of training. In the same course all students are involved in 5 external visits to premises selected in in order to cover a variety of topics: Milk and dairy products, Meat products, Collective catering services, Pig Slaughterhouses and cutting plants, Fish market. Group size is 20-25 students and each student receive 20 hours of training. During the visits, students can deepen the understanding of food production along the supply chain and the role of Veterinary Officers and Food Business Operators in the Food Safety Management, under the supervision of one teacher and the Veterinary Officer responsible for the visited plant.

Additional mandatory practical training on food hygiene, summing up to 100 hours/student (5 ECTS credits), is carried out in form of EPT, under the supervision of an accredited Official Veterinarian (group size 1-3 students).

Description of the selection procedures of the Electives by the students and the degree of freedom in their choice (e.g. what happens when too many students select one specific track)

The programme provides for a limited number of elective ECTS credits (N=8) that students are requested to accumulate before graduation. Students with a minimum of 190 absolved ECTS may select from the list of elective courses which is made available before the beginning of the 5th curricular year.

Three types of electives are available:

- Elective courses offered by the DVS academic staff: only courses selected by a minimum of 5 students are activated;
- "External" elective courses offered by a different Degree Course at UniTO: the proposal to attend an "external" elective is examined by a dedicated Committee ("Students' Career Committee/Commissione Carriere Studenti"). The advice is favorable when consistency with the programme is ascertained.
- Intramural and/or extramural elective practical training periods (acronym APS). Each period has a duration of 100 hours (4 ECTS). Extramural APS is performed in accredited clinics, farms or at the side of practitioners willing to involve students in their daily activity. A logbook must be filled by the attending student. The APS is validated by the DVM Coordinator Monitoring after checking the activity logbook. A discussion

(oral interview, written report and/or oral presentation) with the student may be requested before certification. At the end of the APS, two different evaluation forms must be filled by the student and the receiving clinic/practitioner, respectively.
APS are traditionally very popular among students, and the offer by hosting clinics/practitioners is broad. In the rare event of too many students applying for the same elective course, priority is given to students who performed better during their studies.

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

Attendance to the core practical/clinical activities is mandatory to the extent of 80% for practicals offered by monographic or integrated courses, 80 for "Rounds" and 100% for all activities included in the PPT program. In the first case, attendance is tracked by the course coordinator. When a student fails to obtain the signature, she/he is required to take the whole course again. In the second case, attendance is tracked by the academic tutors based on check of the daily register and the signatures on it by non-academic tutor/s in charge.

Competences achieved by attending practical and clinical activities are validated according to the "Portfolio of Competencies". The Portfolio was the result of long working aimed to harmonize the ESEVT Day One Competencies document with suggestions by the academic staff, stakeholders and students on the essential abilities to develop and certify. It was designed to stimulate the student proactivity in achieving the expected skills/competences and to certify their acquisition. In the Portfolio, ESEVT Day One Competences have been declined into a list of "Performance Criteria" which are mainly, although not exclusively, related to specific practical and clinical activities. Most of the "Performance criteria" listed in the Portfolio have to be mandatorily fulfilled before graduation, while other not mandatory criteria are intended to reward highly motivated students (see Standard 8). The Portfolio was previously assembled in hardcopy format, but since March 2020 a web-based mobile application is available for the students and the teaching staff. The fulfilment of "Performance Criteria" is certified by entitled members of the teaching staff on occasion of core practicals, "Rounds", PPT periods as well as during those examinations whose format includes a practical part. In the case of EPT activities, individual "Performance Criteria" countersigned by external tutors must be afterward validated by a member of the academic staff. A copy of the Portfolio is available at https://www.clmveterinaria.unito.it/do/avvisi.pl/Show?_id=ph55.

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.

Description of how the Establishment ensures that the study programmes meet the objectives

Subject Forms are intended as a transparent pact signed with students, the other teachers and stakeholders. Accordingly, great value is put on their consistency and accuracy.

Information provided in the Subject Forms deals with course content, teaching modalities, the expected learning outcomes, the competencies and how they are developed and assessed. Consistency between learning outcomes and assessment formats is expected. A thorough annual check is performed by the Monitoring and Review Committee (CMR).

A cross-matrix among different subjects and a syllabus of the practical activities along the entire curriculum are also available to the dVM Course Coordinator and the CMR as working tools to evaluate the completeness of the programme and facilitate the identification of inconsistencies.

Undoubtedly, since October 2019, the availability of the Portfolio has substantially improved the quality of the follow-up of Day One Skills/Competencies.

Description of how the Establishment promotes an academic environment conducive to learning

An environment conducive to learning is complex outcome of a mix of several factors, including the quality of teachers, the programme organization, the available learning resources and spaces, the number and variety of patients, the hands-on involvement of students in practical and clinical training, the equity and transparency of assessment methods, etc. Whereas in general it is preferable that others judge, the Establishment is nevertheless aware that progress has been made since the last EAEVE on site visit in 2010. The main steps forward include:

- the implementation of training initiatives for the teaching staff, with a special focus on innovative teaching methods (see Standard 6);
- the reorganization of the Professional Practical Training (PPT) to reduce group size and favor hands-on student-centered training in a variety of species and contexts;
- the drafting and adoption of an assessment policy (see Standard 8);
- the remarkable expansion of e-learning resources and the greater use of e-learning tools and methods by the teaching staff;
- the strengthening of the equine unit and, for the first time, the availability of a significant number of intramural farm animal patients (see Standard 5);
- the opening of two clinical skill labs for refinement of technical gestures on mannequins or stuffed toys;
- the construction of the long-awaited Campus Cafeteria;
- the provision of new functional spaces for individual study and group work;
- the reset of outdoor spaces for the socialization and the necessary rest and relaxation.

Description of how the Establishment encourages and prepares students for self-learning and lifelong learning.

During the COVID-19 emergency, self-learning has become a sort of key word, and the available platforms have been rapidly populated (as never before) with abundant material and self-directed tests. The challenge is to keep the good once the emergency has vanished.

The COVID-19 emergency apart, self-learning is particularly encouraged in two well-defined moments, namely when students attend clinical rotations (from the 3rd to the 5th year) and are assigned responsibility on a specific case/patient, and when they are engaged in preparing the graduation thesis. In the first case, the requests by teachers/tutors for further information may range from diagnostic algorithms to available therapeutic options, clinical nutrition, prognosis, costs, etc. Self-learning is further promoted by attendance to the clinical skill labs. In the case of the dissertation thesis (10 ECTS) students are initiated to the scientific approach and the autonomous literature search/selection to substantiate statements, allow comparisons and critically discuss data. A specific seminar is annually organized to guide last year students in the preparation of the thesis manuscript.

The renovated PPT programme provides for the traceable and mandatory participation of 5th year students to CPD events for a total

attendance of 25 hours. Students may participate to "in house" and/or external accredited events, according to personal interest in the themes covered. Participation to "in house" CPD events is free. Information about scheduled events is easily accessible on the DVS website.

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.

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

The principal educational aims and learning outcomes of any university programme offered in Italy are set at the national level (please see http://attiministeriali.miur.it/media/155598/dmcdl_magistrale.pdf, pg. 167-170). Establishments are annually requested to decline those aims and outcomes, and monitor a range of related parameters in view of identifying possible areas for improvement. This work is the core content of the "Scheda SUA-CdS", a dedicated document publicly available to all concerned, including students and stakeholders. The Scheda SUA-CdS typically includes the following four sections:

- General information
- Learning objectives
- Student's experience
- Learning outcomes.

The Scheda SUA-CdS of the DVM Course, Academic year 2019/20, is available at:https://www.universitaly.it/index.php/scheda/sua/43692#3.

Strategic decisions on how to achieve the intended learning outcomes are left to Establishments. In particular, our Establishment has focused on a strategy based on four major axes, represented by: i) the "constructive alignment" of all courses with the objectives of the programme as a whole (implying trade-off with the "classic" concept of academic freedom); ii) the update and strengthening of the Professional Practical Training (PPT) programme; iii) the editing and adoption of a Portfolio of Competencies (based on ESEVT Day One Competencies) whose "performance criteria" must be fulfilled by all students before graduation; iv) the agreement of the teaching staff on an Exam Policy favoring the integration of different exam formats and a greater use of practical formats.

Description of how the Establishment ensures that the learning outcomes fit with the ESEVT Day One Competences

Soon after publication of the ESEVT Day One Competencies (annexed to Uppsala 2016, and then to Zagreb 2019 SOPs), a debate was launched on the way to provide a stronger evidence that learning outcomes of the DVM programme were authentically consistent with the development and certification of the expected competencies and skills. Meetings were organized with the stakeholders to inform on the need to update the learning outcomes, to have a discussion on reaction strategies and to collect further inputs. As anticipated, the milestone decision was the editing and adoption of the Portfolio of Competencies. As a matter of fact, this document has streamlined the revision/alignment process of the programs and assessment methods at the teaching unit level. Changes have been agreed during meetings between the Coordinator of the DVM Course and the teaching staff of the different disciplines. The subsequent adoption of the Exam Policy (see Standard 8) has strengthened the process by providing assessment formats consistent with a competence-based approach.

Description of how (procedures) and by who (description of the committee structure) the learning outcomes are decided, communicated to staff, students and stakeholders, assessed and revised

For the structure of CMR, please see 3.4. Official communication of the learning outcomes to the teaching staff, students (including prospective students) and stakeholders is ensured by the online publication of the Scheda SUA-CdS. In parallel, direct communication to students is ensured by their representatives in the CMR and the DVM Council, as well as by the Didactic Manager during the end-of-semester tutoring meetings.

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

Description of how (procedures) and by who (description of the committee structure) the core curriculum is decided, communicated to staff, students and stakeholders, implemented, assessed and revised

As mentioned, the core curriculum is monitored and revised by the CMR, whose composition (see Table 1.1 and the box below) ensures that all interested parties are adequately represented. In particular, the CMR is in charge of:

- regularly collecting and analyze feedback from students, teaching staff and stakeholders on the running and quality (including assessment) of all teaching units, intramural and extramural practical training activities, and the graduation exam;
- discussing about the need of changing the structure/organization of the programme or individual parts of it (e.g., the PPT programme), and formulate proposals for improvement;
- taking care of the annual compilation of the "Scheda SUA-CdS;";
- carrying out the annual comment of the national (ANVUR) quality indicators of student flow, internationalization and integration of graduates into the labor market ("Scheda di Monitoraggio Annuale", see https://www.clmveterinaria.unito.it/do/documenti.pl/Show?_id=wxcz see);
- carrying out the prescribed periodical review of the DVM programme ("Rapporto di Riesame ciclico" https://www.clmveterinaria.unito.it/do/documenti.pl/Show?_id=lplb);
- ensuring the bridging/communication on teaching related policies and major acts/decisions with other relevant academic bodies and committees.

Composition of the DVM Monitoring and Review Committee (acronym CMR):

DVM Coordinator (*Chairman*)
DVM Vice-coordinator
Delegate for QA
Delegate for PPT
Delegate for OTP
6 teaching staff representatives
6 student representatives

All analyses, proposals and reports/documents of the CMR are conveyed to the DVM Council for discussion, approval and the subsequent publication on the DVS website. Changes of the structure/organization of individual teaching units are publicized on the respective Subject Forms.

When substantial issues of the veterinary curriculum are addressed, representatives of the veterinary profession are preliminary

officially audited. Feedback is also given to the profession when major organizational changes of the curriculum have been implemented.

3.5 External Practical Training (EPT) is compulsory training activities organized 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.

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

The EPT is mandatory part of the veterinary programme. Extramural activities are scheduled starting from the third year and are considered as fully-fledged teaching modules (summing up to 14 ECTS credits). EPT is organized into five periods during which students are trained in different expertise areas of the veterinary profession, namely:

- Animal Health and Preventive Veterinary Medicine (50 h)
- Inspection and Hygiene of Food of Animal Origin (125 h)
- Animal Husbandry, Animal welfare, Pharmacosurveillance and Pharmacovigilance (75 h)
- Post-mortem Diagnostics (IZS) (25 h)
- Companion Animal Clinics (75 h)

A remarkable proportion of EPT hours is in contact with colleagues (Official Veterinarians) operating at the local Veterinary Units of the National Health System (ASSL, Aziende Socio Sanitarie Locali), a countrywide network providing public services in the first three listed expertise areas. Extramural training in Post-mortem Diagnostics is hosted at premises of the Istituto Zooprofilattico Sperimentale (IZS), another public health body providing multiple services in support of official and private veterinarians, farmers and the general public. Finally, students are requested to attend non-academic companion animal clinics.

The list of activities that students are exposed to during each EPT period is published at https://www.clmveterinaria.unito.it/do/didatticapl/ShowFile?_id=6ojt;field=file;key=UPwY8k1J6ikZhzgEsqFpgAzJbKGo0bftA8vJaSZT70U;t=9040.

Intended EPT learning outcomes are defined and regularly revised by the CMR, then approved by the DVM Council (the last revision dating back to 2019). Students are allowed to choose the location of their EPT (e.g., the receiving ASSL and Companion animal clinic) provided that the external establishment is included in the official UniTO list. To be allowed to start any EPT period, the student must be compliant with specific pre-requisites (e.g. having passed the publicized propaedeutic exams). At the end of any EPT period, the non-academic tutor and the student have to fill a reciprocal evaluation form. Finally, the logbook that the trainee is bound to fill out on a daily basis must be submitted for approval by the Academic Tutor.

As already mentioned, EPT is undertaken in a range of veterinary expertise areas. The educational objectives ensure that contents are relevant to the degree course and complementary to academic training. The integration between external and internal training programmes is guaranteed by meetings with the stakeholders (non-academic tutors) during which the intended learning outcomes and evaluation strategies are discussed. The last meeting was held in February 2020. EPT complements academic training by providing (inter alia) opportunities to:

- be exposed to real world challenges and procedures not fully covered by intramural training (e.g. herd health procedures in poultry industry);

- get acquainted to the official databases of the National Health System (e.g. the Regional Integrated Plan for Food Safety Control - PRISA);
- gain further experience of basic medical and surgical treatments in companion animals;
- develop communication skills in different expertise areas of the veterinary profession.

FIELDS OF PRACTICE	MINIMUM DURATION (WEEKS)	YEAR OF PROGRAMME
PRODUCTION ANIMALS (PRE-CLINICAL)	2	III or IV
COMPANION ANIMALS (PRE-CLINICAL)	NA	NA
PRODUCTION ANIMALS (CLINICAL)	NA	NA
COMPANION ANIMALS (CLINICAL)	2	V
FSQ	4	IV
VPH	1	V
OTHERS (SPECIFY)(*)	1	V

(*) Post mortem diagnostics

TABLE 3.5.1. CURRICULUM DAYS OF EXTERNAL PRACTICAL TRAINING (EPT) FOR EACH STUDENT

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 standardized 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.

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

EPT is regulated to ensure that students are fully covered by insurance and gain benefit and knowledge from their experience. The administrative management of EPT is under the responsibility of the OTP service of the Campus School. To be selected by students, EPT providers have to be included in an official list following signature of a specific agreement with UniTO. Students can propose the inclusion of new providers in the official list, however no EPT can be agreed or carried out before countersigning the agreement.

For any EPT period in its startup phase, the academic tutor (a member of the permanent teaching staff), the non-academic tutor and the student are bound to sign a second specific agreement on the training objectives ("Progetto Formativo").

The non-academic tutors assess trainees and provide feedback to the Establishment by filling out a standard evaluation report at the end of the training period. EPT providers are invited to join classroom-based and/or distance interactive courses aimed to clarify which kind of training the student is expected to achieve, and harmonize the evaluation criteria of student performance.

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

Prof. S. Iussich is the current Delegate for the supervision of PPT activities, including EPT. Other members of the academic staff have been identified as supervisors (syn. academic tutors) for specific EPT periods.

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.

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

To attend each of the five EPT periods (see above), students are required to possess an adequate theoretical background, as suggested by having passed the publicized propaedeutic exams. In this way, the new EPT organization ensures (better than before) alignment of the training with the knowledge and career development of the individual trainee. A short video dealing with EPT administrative procedures and student responsibility is available made available.

During the training period, activities by the student are carried out under the guidance of a non-academic (external) tutor. Trainees have to fill out a logbook to describe the daily activities and certify attendance. Reported activities are countersigned by the non-academic tutor. Students on EPT can also happen to fulfill (for the first time in their career) one or more performance criteria listed in the Portfolio. In this particular case, validation is the academic tutor responsibility.

Students are requested to evaluate their EPT experience by filling out a questionnaire whose results are periodically sent to EPT providers and external tutors. Feedback by the students is discussed during periodical meetings with the stakeholders.

Description of the complaint process in place concerning EPT

As already mentioned, students and providers are required to evaluate the EPT. Data are collected by the OTP service of the Campus School, analyzed by the EPT Delegate and discussed annually by the CMR. In case of criticism, corrective actions are planned, implemented and monitored by the Committee. Complaints by the students can be also conveyed to the DVM Coordinator: by student representatives in the CMR; by the filling out of an anonymous form made available; or (as a third option) via the report of the end-of-semester tutorial sessions drafted by the Didactic Manager.

COMMENTS

The present curriculum has been designed and implemented over the years to fit national requirements, the ESEVT standards and, in general, the legitimate expectations from the profession and the society. Our community has become well aware of the amount of energy, creativity, patience and dedication needed in trying to improve and evolve continuously. On its turn, COVID-19 emergency has made the teaching staff better aware of the limitations of traditional teaching and the potentialities to enhance students' active learning by means of supervised self-directed training. This unexpected "full immersion", and the subsequent know-how rapidly achieved by "all age" academic staff would be wasted if not fully integrated in the upcoming periodical review of the whole curriculum, planned by 2021.

The recent editing of a Portfolio of Competencies has undoubtedly contributed to raise students' awareness of the professional competencies to achieve, and streamline the organization of practical training by the teaching staff.

Electives courses are clearly not offered in sufficient number.

SUGGESTIONS FOR IMPROVEMENT

The Establishment is currently actively engaged in the national discussion on how a new veterinary curriculum (intended to be at the same time innovative and realistic) should be designed and implemented. In our opinion, the key trait of the new curriculum and its common denominator countrywide should be the competence-based framework. This vision should inspire all other pedagogic decisions (e.g., whether prioritize a species, system or problem-based approach). The definition and transparent adoption of a common Portfolio of Competencies would be an important step ahead in the national scenario but further refinement work of the "performance criteria" is needed, in particular for an accountable declination of transversal competencies.

Regardless of the choices that will be taken at the national level, the Establishment should make the achievement of a greater teaching efficacy (e.g., by focusing to a greater extent on students'active learning) and the implementation of new innovative teaching methods (e.g., spiral teaching methods and flipped classrooms) two strong objectives for the near future. In parallel, the amount of lectures in theoretical training should be further reduced in favor of supervised self-directed learning.

Finally, offering more elective courses eventually organized in learning paths should be considered as a means to enhance the appeal and flexibility of the curriculum.

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.

Description of the location and organisation of the facilities used for the veterinary curriculum (surface area, ...) (maps to be provided as appendices)

DVS is located in the Agriculture and Veterinary Medicine Campus in Grugliasco, 12 km away from metropolitan Torino https://veteren.campusnet.unito.it/do/home.pl/View?doc=END108_Aboutdepartment.html).
The Campus is connected to the main town by bus, train and underground. Distance from the closest stops/stations is 100 m, 800 m and 1 km, respectively. Distance from the the highway is 4.5 km.

The Establishment area comprises 120,000 m^2 of land and 50,611 m^2 of built-up area (Map 1,0). Maps of the facilities used in the core veterinary program are provided as Appendix 4.1.

Briefly, main facilities include:

- a two-storeyed building in common with the Agriculture Department, where lecture rooms are located, together with the Students' Office and DVS headquartes;
- another two-storeyed building ("Green Building"), housing the Veterinary Teaching Hospital, a large Necropsy Room and additional lecture rooms;
- the Teaching Farm;
- the three-storeyed Didactic Center ("Lilac Building), housing teaching laboratories, a Dissection Room, a slaughterhouse and additional lecture rooms;
- the one storeyed Student Center with spaces for individual study and group work;
- the Campus Library;
- the Sanitary Kennel (operated in agreement with the Municipality of Grugliasco);
- the Campus Cafeteria;
- three four-storeyed buildings ("Yellow Building", "Blue Building" and "Red Building") housing staff offices and research laboratories.

The whole Campus area is covered by Wi-Fi connection. Real time information on class and exam schedule and running initiatives is provided through monitors located in the main open spaces. Lecture rooms are equipped to be audio/video connected with the surgical theatres and the necropsy room.

All facilities are accessible to people with reduced mobility.

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

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

Maintenance and upgrading of the Campus facilities is the responsibility of UniTO Building management, logistics and sustainability Directorate (https://www.unito.it/ateneo/organizzazione/amministrazione/direzioni-dellamministrazione/edilizia-sostenibilita) and UniTO ICT, website and e-learning Directorate (https://www.unito.it/ateneo/organizzazione/amministrazione/direzioni/sistemi-informativi-portale-elearning). Main needs and actions are made explicit in the UniTO "three-year program for facilities maintenance, renovation, innovation and acquisition", which is submitted to annual review.

Peripheral units of the afore mentioned Directorates, logistics and ICT, are based in the Campus

(https://www.veterinaria.unito.it/do/home.pl/View?doc=organizzazione_servizi/D108_servizi_ICT_Web_E-learning.html and https://www.veterinaria.unito.it/do/home.pl/View?doc=organizzazione_servizi/D108_servizi_logistici.html). The local staff provides daily for the correct operation of the informatic/electronic equipment, included Wi-Fi connection for staff and students, and for the safety and functionality of all buildings at the Campus.

Within the limits of its budget, the DVS is responsible for further needs related to maintenance and upgrading of the educational equipment and the associated building adjustments. The DVS Didactic Committee collects and examines the consistency (eg., teaching scope) of requests by the academic staff and the DVS/SDSV management. Proposals endorsed by the Committee are then forwarded to the DVS Executive Board and finally to the DVS Council for approval. Requests related to SDSV functioning may be directly examined and deliberated by the SDSV Council. They can be (partially or entirely) financially supported by DVS depending on the impact on teaching and on the available budget.

Description of how the Establishment ensures that all physical facilities comply with all relevant legislation

As anticipated, ensuring the consistency of physical facilities with relevant legislation is the responsibility of the "ICT, website and e-learning" and the "Building management, logistics and sustainability" UniTO Directorates and their Campus based units. Unit coordinators report to the respective UniTO headquarters and to the DVS Director. Mandatory inspections of all lifting equipment and trolleys, compressors, X-ray equipment, hoists, fire extinguishers, etc., are guaranteed with the expected periodicity.

On the other hand, the maintenance and surveillance of chemical fume hood cabinets, centrifuges, microbiological safety stations and anaesthesia equipment in laboratories, clinical spaces and operating theatres is organized by the respective DVS/SDSV services, in line with requirements of the Quality Management System UNI EN ISO 9001: 2015 which the DVS and the SDSV comply with.

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

Short description (number, size, equipment, ...) of the premises for lecturing, group work (seminars, tutorials, ...), practical work (laboratories, ...), skill labs (preclinical stimulation-based training on dummies, ...)

Short description (number of rooms and places, ...) of the premises for study and self-learning catering, canteens, locker rooms, accommodation for on call students, leisure, sanitary (toilets, washing and/or shower facilities, ...)

The requested short descriptions are available in the following tables. For detailed information, please see the appendices mentioned in the tables.

PREMISES FOR LECTURING					
PREMISE	MAP N.	ROOM CODE	SIZE (M^2)	SEATS	DESCRIPTION
Aula magna	1.1	0360	295.1	284	Seats can be increased to 560 by operating a removable wall that separates this theatre from a twin one in use at the Agriculture Department. The Aula magna is equipped with computerized projection systems, a full size screen, a professional sound system. Lessons can be audio-video recorded and made available online. The theatre is also used/hired for congresses and conferences.
Aula SAMEV A	1.1	0520	216.5	196	Projector, board, sound system, wifi
Aula SAMEV D	1.2	1030	215.5	196	
Aula Godina	2.1	4600	118	100	
Aula Micheletto	2.2	5420	97.4	98	
Aula Ospedale 1	2.1	2700	137	100	
Aula Monti	2.1	1820	58	70	
Aula 11	6.2	0070	61.7	60	
TOTAL			**1200.2**	**1104**	

PREMISES FOR GROUP WORK					
PREMISE	MAP N.	ROOM CODE	SIZE (M^2)	SEATS	DESCRIPTION
Physiology	2.1	3790	27.4	20	Tables, PC, portable or fixed beamer
Animal Production	2.1	4020	13.2	6	
Pathology	2.3	7980	33	6	
Animal Nutrition	2.3	8640	40	6	
Infectious Diseases	2.4	10115	26.6	6	
Parasitology	2.4	8990	31.3	6	
Pharmacology/Toxicology	2.4	9380	27.4	6	
Anatomy	2.4 2.2	9820b 6830	12.8 39.4	6 20	
Parasitology 1	2.1	2890	57.6	10	
Parasitology 2	2.1	2940	51.3	18	
Aula SDVS	2.2	6060	53.3	20	
Seminar CD1	2.1	4510	35.5	20	
Seminar CD2	2.1	4530	29.9	20	
Seminar CD3	2.1	4570	34.5	20	
TOTAL			**513.2**	**190**	

CLINICAL SKILL LABS					
PREMISE	MAP N.	ROOM CODE	SIZE (M^2)	SEATS	DESCRIPTION
Skill lab 1	2.1	1830	71	8	See appendix 4.2.3
Skill lab 2	2.2	6340	30.5	6	
TOTAL			**101.5**	**14**	

PREMISES FOR PRACTICAL WORK					
PREMISE	MAP N.	ROOM CODE	SIZE (M^2)	SEATS	DESCRIPTION
Necropsy room 1 (pathology)	2.1	2500	232	120	See appendix 4.2.3
Necropsy room 2 (parasitology)	2.1	2850	35	10	
VTH					For the description of VTH premises see tables below: "PREMISES FOR CLINICAL ACTIVITIES", "PREMISES FOR DIAGNOSTIC SERVICES", "PREMISES FOR HOUSING HOSPITALIZED ANIMALS", "PREMISES FOR ISOLATION"
Companion animals	2.1 2.2 2.5	NA	741	60	
Equine and Production animals	2.1 3.2 3.1.1 3.14 3.9	NA	778		
Non-conventional animals	2.1	NA	1063		
Diagnostic imaging	2.1	NA	271		
Biological lab	2.1	4970	129.3	40	See appendix 4.2.3
Chemical lab 1	2.2	7270	74	22	
Chemical lab 2	2.2	7300	130	43	
Computer labs	2.2	7150 7230	40.8 74.8	40 55	
Microscopy rooms	2.2	7210 7220	74.8 40.8	44 25	
Anatomy dissection room	2.1	4660	121.5	40	
Osteology room	2.2	7110	68.8	10	
Feed analysis lab	2.1	4380	36.8	6	
Teaching farm				See appendix 4.2.3 **NB. Although the Teaching farm provides for a greater number of attendants, the daily access is limited to 50 students for logistic and biosafety reasons**	
Horse	3.0	2710	200	25	
Cattle	3.0 3.4	0840	423	25	
Pigs	3.0 3.8	1080	299	25	
Sheep	3.0 3.6	0950	153	25	
Poultry	3.0 3.12	1280	153	25	
Feed mill	3.0 3.3	0325	311	25	
Slaughterhouse	2.1	4780 4790 4800 4830 4840 4940 4950 4960	252.3	15	See appendix 4.3.8
Campus Kennel *(Grugliasco Public Sanitary Kennel)*	4	NA	440	5	http://www.cadmoinfor.com/siti/canile-cat/index.htm
TOTAL			**6142.9**	**685**	
NB. For a description of the equipment used in the pre-clinical teaching labs, please see appendix 4.2.3_1					

PREMISES FOR STUDY AND SELF-LEARNING					
PREMISE	MAP N.	ROOM CODE	SIZE (M^2)	SEATS	DESCRIPTION
Campus Library	5.1	NA	225	100	See Standard 6
Student Center	6.1	0690 0708 0710 0750 0760 0770	580	176	44 tables, 4 photocopy machines; 5 computer workstations
Miscellanea	2.2	6030 6032 6034 6036 6200	96.7	48	Tables and seats
	1.2	0753 0757	116	46	
	1.1	0342 0344 0346 0348	82.4	48	
TOTAL			**1100.1**	**418**	

PREMISES FOR CATERING					
PREMISE	MAP N.	ROOM CODE	SIZE (M^2)	SEATS	DESCRIPTION
Canteen	6.2	0110	325	120	Fast lunch, complete lunch including warm dishes
Cafeteria	7	NA	206	150	Breakfast, soft drinks, snacks and fast lunch
Vending machines	NA	NA	NA	NA	Available in all buildings Snacks and soft drinks
TOTAL			**531**	**270**	

PREMISES FOR ACCOMODATION FOR ON CALL STUDENTS/STAFF					
PREMISE	MAP N.	ROOM CODE	SIZE (M^2)	PLACES	DESCRIPTION
VTH	2.2	5330	14	2	A double bedroom and kitchen
Teaching farm	3.1.1	0010 0040 0060 0080	64	8	Four double bedrooms
TOTAL			**78**	**10**	

PREMISES FOR LOCKER ROOMS					
PREMISE	MAP N.	ROOM CODE	SIZE (M^2)	LOCKERS	DESCRIPTION
Yellow building, ground floor	2.1	2780 2790 2820 2860 2900 2950	188.6	700	For students only
VTH	2.1	1790 1800 2020 2030 2090 2100 2110 2130 2140 2150	78.7	78	For staff and students
	2.2	5290 5300 5330	39.7	50	For staff and students
Anatomy	2.1	4620 4650	23.6	35	For students only
Pathology	2.1	2440 2450	26.8	120	For students only
	2.1	2470 2480	26.4	10	For staff and guests
Teaching farm	3.1.1	0150 0160 0170 1430	34.6	75	For students only
	3.1.1	0240 0200	20.4	10	For staff only
Slaughterhouse	2.1	4730 4740 4750 4760	50	20	For staff and students
TOTAL			**488.8**	**1098**	

Within the Campus, the spaces for leisure include the newly built cafeteria and the numerous benches and tables scattered in the green areas. For a description of other leisure spaces, please see Standard 7.

Toilets, washing/showers are located all over the Establishment buildings. They totally number 119 toilets and 40 showers.

Brief description of the staff offices and research laboratories

Offices for permanent and temporary staff are 11 to 25 m² in size. Of the 130 available offices, 21 (18%) are shared spaces (2-4 places). All offices enjoy the natural light. With few exceptions, their location is at the same floor as the research laboratories. Overall, 84 research laboratories, 13 to 60 m² in size, are available for the following units: Anatomy, Physiology, Biochemistry, Pathology, Food Hygiene and Safety, Microbiology and Infectious Diseases, Parasitology and Parasitic Diseases, Pharmacology and Toxicology, Medicine, Surgery, Obstetrics and Gynecology, Animal Husbandry, Animal Nutrition, Genetics (see Appendix 4.2.11).

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.

Description (number, size, species, ...) of the premises for housing healthy animals, research animals and hospitalized animals

Description (number, size, equipment, species, disciplines...) of the premises for clinical activities and diagnostic services

For the requested descriptions, please see the tables below (please see).

In addition, note that:

- ruminants, equine, pigs and poultry are housed in the Teaching Farm, whereas dogs are housed in the Campus Kennel;
- a 200 m² small rodent facility is available. Mice and rats are housed in enriched environment conditions (large cages, running wheels and toys) (see Appendix 4.3.2, Map 3.7).
- clinical activities at the VTH are functionally organized into: a Companion Animal Veterinary Teaching Hospital (CA-VTH); a Large Animal (Equine and Production Animals) Veterinary Teaching Hospital (LA-VTH); a Non-conventional Animals and Wildlife Unit (CANC); Diagnostic Services, subdivided into Diagnostic Laboratories and Diagnostic Imaging. Please see Appendix 4.3.4 and 4.3.7 for additional information on clinical activities, and Appendix 4.4.1, 4.4.2, 4.3.5 and 4.3.7 for additional information on diagnostic services.

PREMISES FOR HOUSING HEALTHY ANIMALS						
SPECIES	MAP N.	PREMISE CODE	SIZE (M²)	N. ANIMALS	N. ANIMALS/YEAR	DESCRIPTION
Dogs	4	NA	440	16	120	16 boxes
Equine	3.0	2710	200	5	5/6	5 boxes
Cattle	3.4	0840	328	28	40/45	16 enclosures
Small ruminants	3.6/3.11	0950	153	40	60/100	8 enclosures
Pigs	3.8	1080	299	90	160/180	29 pens
Poultry	3.12	1280	153	280	1150/1500	8 pens
TOTAL			**1.573**	**469**	**1.535/1951**	

PREMISES FOR HOUSING HOSPITALIZED ANIMALS				
SPECIES	MAP N.	ROOM CODE	SIZE (M²)	DESCRIPTION
Dogs	2.2	5160	41.9	3 individual boxes and 2 cages
Cats		5190	41.8	10 individual cages
Dogs/Cats		5270	58.7	Intensive care only 4 individual cages for dogs, 11 for cats + 2 IC cages
Equine	3.2	0830b	160	8 boxes
		0830a	159	Intensive care only 6 IC boxes
Production animals	3.14	NA	80	4 sheds (4 adult cattle, 4 calves,4 pigs, 4 small ruminants)
Non-conventional animals/Wildlife	2.1	1620 1630 1640 1650 1670	63	A shed, 13 small mammal cages, 25 bird cages, 10 terraria + 5 external large bird cages and an external pen
TOTAL			**604.4**	

PREMISES FOR CLINICAL ACTIVITIES						
SPECIES	DISCIPLINE/S	FUNCTION	MAP N.	ROOM CODE	N. OF ROOMS	SIZE (M^2)
All species	All clinical disciplines	Waiting room/Secretary	2.2	5120 5140 5150	1	58
All species	All clinical disciplines	Pharmacy and rooms for the preparation of surgical material	2.1	2210 2230 2270	3	41
Companion Animals	Medicine Surgery Oncology and Chemotherapy Obstetrics Ophthalmology	Visiting Rooms	2.1/2.2	5070 5020 5010 5080 5060 1500 1470	7	143
	Arthroscopy, Orthopaedics and Neurosurgery Soft Tissues and Ophthalmic Surgery Obstetric and Emergency Surgery	Surgical suites	2.2	1980 1940 1890	3	105
		Rooms for the preparation of surgical patients	2.1	1850 1880 1900 1930 1970	5	80
		Rooms for the preparation of surgeons	2.1	1860 1870 1960 1950	4	44
	All clinical disciplines	Hospitalization/ Intensive Care/ Emergency Unit (including an emergency clinical laboratory and a gait analysis laboratory)	2.2/2.5	5210 5180 5160 5190 5220 5260 5270 0191	8	270
Equine and Production Animals	All clinical disciplines	Visiting rooms	2.1/3.1.1	1770 0180	2	98
		Day hospital boxes	2.1	NA	3	27
	Surgery Obstetrics	Surgical suites	2.1	2280 2380	2	118
		Rooms for the preparation of surgical material/surgeons	2.1	2330 2320 2360	3	35
		Boxes for the preparation of surgical patients	2.1	NA	2	18
		Induction and Recovery boxes	2.1	2340 2250	2	26
Non-conventional Animals and Wildlife	All clinical disciplines	Rooms for hospitalization	2.1	1620 1630 1640 1650 1670	5	39
		Visiting room/ Surgical suite *(*)*	2.1	1680 1685	2	24

		External excercise area	1.0	NA	NA	1000 *(**)*
Diagnostic Imaging	All clinical disciplines	Rooms CA Radiology	2.1	2160 2170 2190 2200	4	68
		Room LA Radiology		2240	1	44
		Rooms CT, MR		1562 1564 1566 1568	4	94
		Room Endoscopy		1440	1	15
		Room CA Ultrasound		1430	1	50
Others	All clinical disciplines	Drug and consumable warehouse	2.1	1570 1610	2	90
		Waste warehouse	2.1	NA	1	18
	NA	Gallery *(***)*	2.2	5500	1	200 *(**)*
		Surgical unit for experimental animals	3.5	0340 0350 0360 0370 0385 0380 0400 0410 0420 0420 0430 0460	12	218
TOTAL					**78**	**2923**
(*) Surgical suites in CA-VTH are also used if necessary; (**) Not included in the total surface area; (***) Allows students to look into CA and LA surgical suites from above						

PREMISES FOR DIAGNOSTIC SERVICES				
SERVICE	MAP N.	ROOM CODE	SIZE (M^2)	DESCRIPTION
Clinical pathology	2.2	5750 5770 5820 5850 5890 5930 5980	142	7 laboratories: Haemostasis, Clinical chemistry, Serology, Microscopy, Electrophoresis, Haematology, and Flow cytometry
Pathology	2.1	2500	232	Necropsy room
Histopathology	2.3	8000 8040	80	Microscopy room and histopathology laboratory
Microbiology	2.4	10210 10240 10360	80.6	Virology, Bacteriology and Molecular Biology laboratories
Parasitology	2.4	9130	29.6	Clinical Parasitology Laboratory
Mycology	2.4	9000	26	Clinical Mycology Laboratory
Diagnostic Imaging	Information available in the above Table (see Premises for clinical activities)			
TOTAL			**590.2**	

Description of the equipment used for clinical services (diagnostic, treatment, prevention, surgery, anaesthesia, physiotherapy, ...)
All requested information is available in detail in appendix 4.3.7.

Brief description of the premises (both intra-mural and extra-mural) used for the practical teaching of FSQ & VPH (slaughterhouses, foodstuff processing units, ...)
The Establishment includes a CE authorized slaughterhouse managed by the SDVS. The premise (961 m² in size) is equipped with a complete slaughtering line for bovines, horses, sheep and goats. Students can observe slaughter operations from a dedicated raised platform. The plant is outsourced to an external operator, in the frame of a contract in which special emphasis is given to adaptation of the slaughtering rate to the underpinning teaching mission.
In addition, students attending practicals of the core courses and the mandatory EPT are granted access to off Campus slaughterhouses and food processing plants, including swine slaughterhouses, dairies, a fish market, fish processing plants, food storage plants, etc. (see appendix 4.3.8).

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.

Description of the organisation and management of the VTH and ambulatory clinics (opening hours and days, on-duty and on-call services, general consultations, list of specialised consultations, hospitalisations, emergencies and intensive care, ...)
For a detailed description and list of specialised consultations, diagnostic services, hospitalisations, emergencies and intensive care, please see Appendix 4.4.1. For visiting time see Appendix 4.4.2.

Description on how the VTH and ambulatory clinics are organised in order to maximise the hands-on training of all students
For organization of the clinical training of undergraduate students, please see 3.1. Solutions adopted in recent years to maximize the hands-on training of students attending the VTH and the ambulatory clinic include:

- the definition of a Portfolio of Competencies (see Standard 3) and the agreement of all concerned parties on a detailed list of performance criteria to be fulfilled by all students before graduation;
- the definition of clear and realistic training outcomes for all intramural PPT periods;
- the reorganization of intramural PPT, implying a lower number of trainees on duty and far more time in contact with equine and farm animal patients;
- the increased number of “adjunct staff” at the VTH and (for the first time since relocation in the new premises in 1999) the explicit inclusion of training tasks in their hiring contract;
- the strengthening and diversification of the equine caseload;
- the long awaited availability of intramural farm animal patients;
- the setting of rules (e.g., the passing of propaedeutic exams) to better align the theoretical knowledge of the individual student with the possibility for her/him to be admitted to a specific clinical training period.

Positive feedback by all parties suggest that full awareness of the training objectives by the students and the teaching staff, combined with all efforts done to increase and diversify the large animal caseload, have contributed to enhance the quantity and quality of hands-on clinical training at the Establishment.

Statement that the Establishment meets the national Practice Standards

The Establishment meets the national Practice Standards (see 4.9).

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.

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

It is implicit in the design and concept of the "Rounds" and of the new mandatory PPT program that all students will have access to available diagnostic and therapeutic facilities and a variety of patients of the different species starting from the 3rd curricular year. Students are transparently informed about requirements (usually having passed one/two propaedeutic exams or accumulated a threshold number of ECTS credits) permitting them to be admitted to the different clinical training periods. Once achieved the requirements, students autonomously get in contact with dedicated support staff to announce themselves and start the scheduling procedure. Possible deviations from the schedule are allowed for reasons of force majeure, however accountability and 100% attendance to the PPT program is expected.

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.

Description (number, size, species, ...) of the premises for housing isolated animals and how these premises guarantee isolation and containment of infectious patients

The DVS maintains two isolation units, for companion animals and equine/farm animals respectively. A third isolation unit for non-conventional animals and wildlife is currently under construction. The first isolation unit is part of the VTH main building. This unit may accommodate two large/medium dogs and three small dogs/cats in individual cages though not in separate rooms. One special cage, for patients with suspected parvovirus infection is available. The unit has dedicated intensive care monitor, oxygen regulators and infusion pumps. The recently refurbished second unit is located in a fenced area peripheral to the Teaching Farm. A first section includes three boxes for equines or adult cattle, whereas one box for one/two veals in individual cages, three pens for swine and three smaller pens for uncaged veals and/or small ruminants are present in the second section. The manure and sewage are collected in a separate tank. Both units operate autonomously under forced air flow through

PREMISES FOR ISOLATION				
SPECIES	MAP N.	ROOM CODE	SIZE (M^2)	DESCRIPTION
DOG	2.1	1730 1740	23.4	5 individual cages
CAT	2.1	1750	12.4	
EQUINE	3.9	1620 1630	24.2	2 boxes
ADULT CATTLE	3.9	1640	12.1	1 box
PIG/ SMALL RUMINANTS/ VEALS	3.9	1520 1530 1540 1670 1680 1690	66	6 boxes
TOTAL			**138.1**	

HEPA filters and with a close circuit surveillance system. All the materials are stainless steel or disposable. Washbasins have foot pedal sinks and boot washers are available. Isolation facilities at DVS are operated under biosecurity guidelines and protocols (see 4.9) in line with the Biosecurity Committee requirements. All students are briefed in these protocols and utilize them whenever relevant, under staff supervision. Slides and a video tutorial for refreshing are also available.

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

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

The theoretical basics of field veterinary medicine and Herd Health Management are provided to all students in the frame of core courses taught by members of the permanent teaching staff during the 3rd ("Infectious Diseases of Animals", "Epidemiology and Veterinary Public Health"), 4th ("Veterinary Pathology II-III, Avian pathology and Pathology of Minor Species") and 5th ("Reproduction Pathology") curricular years.

Practical training is in form of:

- practical sessions in the frame of the above mentioned core courses (group size: 10-25 students), including visits to premises of the Teaching Farm premises and a single off Campus poultry farm;
- nine daily shifts during "Rounds", including visits to off Campus cattle, donkey, swine and rabbit farms and horse stables (5-6 students/shift);
- intramural PPT shifts at the LA-VTH and the LA Isolation Unit (approximately 45 hours; 1-2 students/shift);
- four off Campus PPT shifts during which students participate to the daily activity of hired farm animal practitioners (24 hours overall; 2-3 students/shift). During the four off Campus shifts, rotating students are exposed to different expertise areas, from individual medicine, surgery and obstetrics/gynecology to herd health and production management, including preventive medicine and the implementation of mastitis control in dairy herds.

Description of the vehicles and equipment used for the ambulatory clinic

The are two vehicles used for the ambulatory clinic. The first one is a 9-seats minibus (Fiat Ducato) equipped with three portable ultrasound scans, a blood ketometer for β-hydroxybutyrate, an oto/ophthalmoscope set, two refractometers, an i-STAT Portable blood gas analyser, a blood lactate analyser, a glucometer, a metal detector, a portable endoscope, four stethoscopes and two thermometers. The second vehicle is a quite cumbersome 7-seats Fiat Ducato camper, now rarely used but for specific purposes (e.g., on farm collection, analysis and freezing of equine semen). It is designed to accommodate a dispensary, ad equipment for basic field surgery and first line laboratory analyses.

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.

Brief description (number, size, equipment, ...) of the vehicles used for: transportation of students (e.g. to extramural facilities); transportation of live animals; transportation of cadavers/organs

In addition to the ambulatory clinics (see 4.7), the DVS owns the following vehicles:

- four 9-seats minibuses for students' transportation (Ford Transit, Renault Master, two Fiat Ducato). One of them is equipped with a towing hook;
- a 5-seats car (Fiat Doblò), for the transportation of biological samples and other logistic tasks;
- a leak proof vehicle (Ford Transit), equipped with cold room and winch, for the

transportation of specified risk material (e.g., cadavers and organs);

- two vehicles (Ford Transit, Fiat Fiorino) for the transportation of large and smaller (veals, sheep, goats) live farm animals, respectively;
- a trailer for large animal transportation;
- a utility four-wheel-drive vehicle (Iveco Massif) adapted to accomodate cages, crates and all equipment which is necessary for the field capture of injured wildlife and their safe transportation to the dedicated premises at the Campus.

All DVS-owned vehicles are operated in compliance with current regulations dealing with the qualification of individual drivers; vehicles insurance, qualification and periodic revision; seasonal use of winter tires; disinfection and cleaning.

When needed (eg, on occasion of horse or livestock shows), 25 to 50-seats buses are rent by private companies for transportation of larger groups of students.

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.

Description of how (procedures) and by who (description of the committee structure) changes in facilities, equipment, biosecurity procedures (health & safety management for people and animals, including waste management) good laboratory practices and good clinical practices are decided, communicated to staff, students, stakeholders (and, if appropriate, to the public), implemented, assessed and revised. The Establishment's manual for biosecurity, health and safety must be provided as an appendix (with a summary in English).

As anticipated in Standard 1, biosafety and biosecurity issues are addressed by the DVS Biosecurity Committee, composed of an expert on behalf of UniTO Service for Prevention and Protection and by members of the academic and support staff representing the different services concerned https://www.veterinaria.unito.it/do/organi.pl/Show?_id=ttit.

The Establishment has set protocols aimed to ensure that all activities and services are run smoothly and safety, including quality controls governing the following areas: the processes of animal admission to clinics, diagnosis and treatment, the management of the first aid, the hospitalization and intensive care, the management of pharmacy and the rotation of central and peripheral warehouses of drugs and consumables, all diagnostic imaging activities. Written rules govern the access to work premises and the clothing to be kept in different areas; procedures have been defined for cleaning and sanitizing of the different areas, for the maintenance of plants and equipment as well for the calibration of measuring instruments. In addition the Biosecurity Committee updates the biosafety manual, plans and monitors the prevention and safety procedures to protect human and animal health; organizes and monitor the management of special waste; prompt the purchase and organizes the distribution of PPE, promotes and organizes the mandatory training on biosecurity for the students and staff. Though courses are different, the training duration is similar (16 hours) and includes basic information on health and safety along with specific information on workplace health and safety standards. An on line final test is planned. One ECTS is awarded to students who pass it whereas a certification is released to staff members. For information is available at:
https://veteren.campusnet.unito.it/do/home.pl/View?doc=/department/END108_Occupation

al_training.html. The owners of patients and other visitors are informed on biosecurity procedures through signs hung at the main entrance of the VTH and of the different services.

The management of special waste is regulated at the UniTO level (Regulation on the disposal of hazardous, special waste adopted by Rectoral Decree No. 3353 of 5 October 2016). Furthermore, the Establishment has set up a Vademecum on the disposal of special waste for teaching and research laboratories outlining procedures for the delivery of waste to the temporary storage and subsequent disposal (https://veteren.campusnet.unito.it/do/home.pl/View?doc=/department/END108_Special_waste.html). Waste management is organized according to the different types of materials. Hazardous waste is collected in specific containers in the laboratories. The water used for cleaning the necropsy rooms and the isolation units is collected in special tanks for subsequent chemical disinfection. Discarded formalin and chemical solutions are stored in special tanks for final disposal by a specialized company.

Processes involved in the Quality and Good Veterinary Practice (GVP) Management System at the SDSV are subject to periodical internal audits and customer satisfaction questionnaires, that are elaborated for the annual management review. Stakeholders can send to the organization complaints and suggestions, that are reviewed by the QA manager and appendixed to the annual management review. Questionnaires are available in the waiting room of the VTH and online on the VTH website, where customers, staff, students and other stakeholders can express judgments about the health care and teaching services offered. There are e-mail boxes for the complaints (reclami.sDVS@unito.it) and for the quality communications (qualita.sDVS@unito.it). In case of complaints, there is a procedure (PO TNC 01) and a specific software (Ayama Suite) to manage all the processes, from the receiving of the complaint to the corrective actions taken. The software Ayama is a powerful tool used to manage all the processes involved in the quality system management: purchasing, staff training, non-conformity and complaints, calibration, maintenance, document management, internal audits, and help to organize the indicators for the management review. This suite is used in synergy with the PROVET Cloud suite, in use for the clinical process control. Every year, all the Key Processes Indicators (KPI) dealing with the main processes are collected and presented in the ISO 9001 and GVP management review of the SDVS.

Operational policies and procedures are collected in the "Risk assessment, prevention and Biosafety manual" available on the website (https://www.veterinaria.unito.it/do/documenti.pl/Show?_id=5ki4.), and in the ISO 9001 Quality and Good Veterinary Practice Management System in Google Drive File Stream/ISO 9001 Drive. An English summary of the biosafety manual is available as Appendix 4.9.

Clinics and all sectors concerned with biological risks submit any relevant issues to the Biosecurity Committee that gathers information to build a case and discuss it during meetings. Solutions are proposed to the applicants and the deliberating organisms (DVS Council and SDSV Council, when applicable). An e-mail address biosicurezza.DVS@unito.it is available to collect and process all requests on biosecurity and convey feedback to the involved services.

COMMENTS

Though the Campus was built new in 1998, signs of deterioration have been already detected on several buildings. Main recent maintenance works have concerned the slaughterhouse (several structural works), the didactic centre (laying of a wall envelope) and all flat roofs (waterproofing).

Other major works done include: the refurbishing of the equine stable to accommodate an Intensive Care Unit and additional boxes for hospitalised equine

patients; the new premises for the hospitalization of farm animal patients; a new additional equine and farm animal surgery room; the refurbishing of the Student Centre (see Standard 6); the refurbishing of the large animal isolation facility; the building of an internal cafeteria and the creation of a pedestrian area all around; the provision to students of new spacious locker rooms. Works are also in progress to complete the construction of the new premises for the hospitalization of non-conventional animals and wildlife.

Minor (though essential) works have been also carried out at the teaching farm, including the improvement of housing standards to minimize handling risks for students and staff; the installation of two vehicle disinfection systems; the installation of a Danish entry for the piggery and the hen house; the setting up of temporary boxes for healthy horses.

Despite remarkable effort and investment, two major problems remain on the table: the overcrowding of the Campus parking, due to the high number of students and staff that use their own car to reach the workplace; the lack of air conditioning in the vast majority of lecture rooms, offices and laboratories, that clearly impacts on users' welfare since late spring and along the summer.

SUGGESTIONS FOR IMPROVEMENT

The frequency of train and bus journeys should be improved during peak hours, in order to motivate to public trasportation the students and personnel which currently use their own cars to reach the workplace.

Air conditioning should be provided in all spaces that are frequently used by the staff and students, to ensure up to the task welfare standards.

Finally, though not urgently, a new horse stable should be made available to accomodate a limited number of healthy horses.

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.

Description of the global strategy of the Establishment about the use of animals and material of animal origin for the acquisition by each student of Day One Competences (see Annex 2)

The DVS explicitly aims to provide students with a training that guarantees the take over of Day One Competencies in line with EU Directives (2005/36 and 2016/35), the internal QA policy (https://veteren.campusnet.unito.it/do/home.pl/View?doc=/department/END108_Quality_policy.html) and the Three-year strategic plan (https://www.veterinaria.unito.it/do/documenti.pl/ShowFile?_id=ow9i;field=file;key=q7LST1lJN5kjkTlGKzM69YI6SU8qCnmIlhgd0QH3ghwidVBbViKA8vJaSZT70U;t=1281). In this perspective, the use of animals and material of animal origin is deemed essential for the practical training in different core subjects, from Anatomy to Pathological Anatomy, Food Hygiene and all clinical subjects, amongst others.

The DVS global strategy to ensure adequate resources and material for practical training relies on: i) periodic monitoring of ESEVT indicators and sharing of results with the academic staff; ii) interaction with the VTH and the Teaching Farm management for the provisions related to clinical training; iii) optimization of the recruitment and use of cadavers by a dedicated working group; iv) agreement with external parties, including public health agencies, a public kennel and veterinary practitioners; v) purchase of material of animal origin for practical training in multiple disciplines.

On request of the Didactic Committee, needs are annually identified (on request of the Didactic Committee) by the responsible of each teaching unit on the basis of:

- the learning objectives;
- the number of students/cohort;
- the expected number of students/group;
- ESEVT indicators.

In order to ensure up to standard practical training while deserving the due attention to animal welfare issues, the DVS has recently set up two clinical skills labs (see Standard 3). The use of animal simulators and/or virtual software is not intended to replace hands-on activity on live animals but aims to consolidate skills and should be considered complementary to the contact with real patients.

Description of the specific strategy of the Establishment in order to ensure that each student receives the relevant core clinical training before graduation, e.g. numbers of patients examined/treated by each student, balance between species, balance between clinical disciplines, balance between first opinion and referral cases, balance between acute and chronic cases, balance between consultations (day patients in the clinic) and hospitalisations, balance between individual medicine and population medicine

As announced in the Three Year Strategic Plan 2018-2021, the DVS is committed to provide up-to-standard clinical training to all students. Following in-depth review, several actions have been undertaken in recent years to enhance coherence with the statement above. Among them are:

- the implementation of a Competencies Portfolio (see Standard 3);
- the revision of the PPT program (See Standard 3);
- the implementation of self-learning environments to favor the take-over of clinical skills;
- the identification of specific areas of intervention, on the basis of the new SOPs, the analysis of ESEVT indicators and precious suggestions by local stakeholders. These areas were labeled “High priority” in a planning

document initially called “Road Map” then “Agenda 2020” (see Appendix 5.1). Relevant to Standard 5 were: i) the enhancement of the 24/7 emergency and ICU service workflow in ***equine***; ii) the increase of the intramural ruminant and pig patients flow; iii) the balancing between second and first opinion cases in companion and production animals, by increasing the second ones; iv) the greater provision of ***nursing care*** skills.-

- ***Description of the procedures developed to ensure the welfare of animals used for educational and research activities***

Procedures to ensure the welfare of animals used in educational and research activities at the DVS are consistent with national pending legislation, D.Lvo n° 26/2014[a], and further regulations adopted by UniTO[b].

Requests about the use of animals in research must be conveyed to, examined and specifically approved by the DVS Ethic and Animal Welfare Committee and/or the Bioethics UniTO Committee, as applicable. The step is mandatory before submitting any such request to the Ministry of Health and other competent bodies for definitive approval. In addition, for those experiments involving the use of animals at the Campus facilities, the Ministry of Health requires the favourable advice of the DSV Committee for Animal Welfare (acronym OPBA)[c].

As anticipated, the DVS has independently set an internal Ethic and Animal Welfare Committee, whose core mission is protecting the dignity, integrity and welfare of animals used in clinical and non-clinical research and teaching activities at the Establishment[d]. The committee provides for reasoned opinion on ethical issues and evaluate the requests about the use of animals for which the approval of the Ministry of Health is not requested (e.g. clinical/not clinical procedures authorized by the owner and the use of healthy live animals for teaching).
Beyond rules in force, all activities performed by students during intramural and extramural practical training are supervised by staff members and/or official tutors in order to guarantee animal welfare and to avoid pain and

q unnecessary stress to handled individuals and groups.

[a] https://www.gazzettaufficiale.it/eli/id/2014/03/14/14G00036/sg
[b] https://www.unito.it/sites/default/files/allegati/25-07-2014/statuto_comitato_bioetica.pdf
[c] https://www.veterinaria.unito.it/documenti/allegati/stabulario/IndicazioniUtentiSPAEVer01-02-2016.pdf
[d] https://www.veterinaria.unito.it/documenti/allegati/CEBA/D108_RegolamentoCommissioneEBA.pdf

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

Anatomy

Cadavers of companion animals are supplied by internal and external sources, namely from VTH and private clinics after obtaining the informed consent by the owner/s. The teaching farm provides cadavers of accidentally dead swines. Ruminants consist in medium-sized cloven-hoof game (mostly road-killed Roe deer, *Capreolus capreolus*), whose corpses are obtained by agreement with public wildlife agencies. Other teaching material of animal origin includes organs (eg, heads, plucks, limbs, genitals and isolated organs of horses, bovines and pigs) provided by the internal and some external nearby slaughterhouses.

Cadavers and organs are stored in freezers or refrigerators according to needs. A collection of fixed specimens is also available. These samples are firstly fixed in Klotz solution containing low formalin concentration (0.2%) and subsequently stored in formalin-free fixative (Histofix®, based on glyoxal 40%) to reduce chemical risk when manipulated.

Pathology

The majority of cadavers for training in Pathology are those submitted to the Departmental post-mortem service for diagnostic purposes, including animals from the VTH, the Teaching farm, private clinics, practitioners, public and private kennels, charities and individual owners. If needed, eg. during peak student training periods in small groups (e.g. “Rounds”), additional cadavers are provided by an official carcass disposal service in Turin. Finally, wildlife cadavers are obtained by agreement with the competent regional authority through a range of local

agencies (National and natural parks, Hunting Management Units, Public Veterinary Services, wildlife rescue centers).

Cadavers are either fresh (shortly after euthanasia or death) or cooled. Since 2020 two new cooled rooms (12m x 2.5m x 2.5 m) have been placed to increase storage of organs and cadavers for teaching and research purposes. Cadavers may be also frozen, then thawed when needed. Animals for routine diagnostics are processed on arrival or refrigerated (0-4°C) until the following day, if necessary. For teaching purposes cadavers are also frozen and then thawed when needed. After necropsies, multiple samples from systemic organs/tissues are cooled (for short term use), frozen (for long term storage or microbiological, toxicological and molecular biology exams) or fixed in 10% neutral buffered formalin (for long term storage and optical microscopy examination). Furthermore, interesting organs or tissue samples are preserved in Klotz solution, thus representing a valuable tissue bank for students and colleagues. Samples of necropsied animals and biopsy specimens are catalogued with a unique number. Paraffin-embedded samples and slides are stored in a dedicated archive.

Records of all necropsy reports are available in electronic format in a dedicated server. Each record may include gross pathological and histological findings as well as results of virological, bacteriological and parasitological examinations.

The material used for training in anatomy and pathology originating from external sources is transported to the Department by a vehicle authorized for the transportation of animal by-products as prescribed by the Regulation (EC) No 1069/2009.

Finally, the materials (cadavers, fresh and fixed organs/tissues and fixed tissues) are collected and disposed of by incineration at a specialized firm (http://www.inpromasrl.com/).

Description of how (procedures) and by who (description of the committee structure) the number and variety of animals and material of animal origin for pre-clinical and clinical training, and the clinical services provided by the Establishment are decided, communicated to staff, students and stakeholders, implemented, assessed and revised

As already mentioned in 5.1, the extant procedure to decide, verify and review the number of animals, material of animal origin and the clinical services for students' training is based on the regular monitoring of ESVET indicators. Data are usually evaluated once every two years. However, an extra evaluation has been carried out in June 2020 to cope with the sudden caseload decrease determined by COVID-19 emergency. An Excel file calculator adapted from the one available on the EAEVE website is used to keep current and expected values at hand.

A member of the teaching staff is responsible of the collection and regular communication of the data to the Self-evaluation Committee (CMR) of the Degree Course. The CMR is in charge of reviewing the data, identifying the caseload/services in need of strengthening and designing the actions to compensate for weaknesses. Suggested compensation strategies are submitted to endorsement by the DVS Didactic Committee with special focus on resources and sustainability. Finally, the discussion is brought to the attention of the Establishment deliberating bodies. Communication towards SDSV is ensured by presenting the data in the SDSV Didactic and Scientific Committee. Proposals for gap compensation are also communicated.

Communication flow with students is ensured by their delegates in the CMR and the Establishment deliberating bodies. Provision of new services is announced to stakeholders on occasion of the periodical update/consultation meetings.

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.

Description of the organization and management of the external sites (teaching farms, ...) and the involvement of students in their running (e.g. births, milking, feeding, ...)

All students are involved in mandatory off-Campus training (overall 14 ECTS) scheduled throughout the curriculum, starting from the third year (for details please see Standard 3.5). Extra-mural training is done at Local Healthcare units (ASSL) of the National Health System, at the Diagnostic Laboratoratories of the Istituto Zooprofilattico Sperimentale (IZS), and, starting from fall 2020, at Private Veterinary Clinics or Veterinary Hospitals.

Briefly, Local Healthcare units are organized in three different areas, namely A, B and C. **Area A** deals with Animal Health and Preventive Veterinary Medicine. During this training period each student visits different farms, supporting the tutor in the application of national/regional plans for control of livestock transmissible diseases, the prophylaxis of the main diseases of equines, pigs and poultry, and the prevention and control of zoonoses. **Area B** focuses on Food Hygiene and Safety of Foodstuffs. Trainees follow the tutor during official control activities, ranging from ante- and post-mortem slaughterhouse inspection of different species (at least 5-8 visits per student) to inspection and audits at food companies (at least 5 per student). Most students attend this EPT period at the Veterinary Unit TO3, which is based at approximately 10 km away from the Campus. **Area C** deals with Animal Husbandry and Welfare, Pharmacosurveillance and Pharmacovigilance. Trainees are expected to perform visits in different facilities (farms, kennels, catteries, dairy industries), supporting the tutor during his activities such as the monitoring of animal welfare at farms and kennels, and the control of the use of the veterinary drugs, control of animal production chain hygiene (dairy herd and industry) and control of animal product not intended for human consumption.

EPT at the Istituto Zooprofilattico Sperimentale focuses mainly on post-mortem diagnosis of production and companion animals, including clinical bacteriology and parasitology.

When attending each trainee, students are under the direct supervision of a local tutor (an official veterinarian) formally trained on the skills to be developed. Academic supervision is guaranteed by a member of the permanent teaching staff (please see Standard 3.6). Students have to fulfill a logbook describing the daily activities and certifying their attendance. Moreover, during the EPT students can also acquire skills/competences listed in the Portfolio. Student pro-activity is encouraged since the completion of the entire list of performance criteria in the Portfolio represents a rewarding factor for graduation mark.

Students are free to suggest the Veterinary Unit/s (and the Private Veterinary Clinics/ Hospitals shortly) where they are willing to do the EPT periods. However, Establishments involved in EPT have to be included in an official list after having countersigned a specific agreement with UniTO.

Alignment between the different EPT periods and the veterinary program is formally guaranteed through the signing of the expected training outcomes (*Progetto Formativo*) by the Academic Tutor, the non-academic Tutor and the student.

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.

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

During the intramural PPT period at the VTH, 3rd year and 4th year students receive hands on training in nursing procedures, large and small

animal hygiene and the implementation of biocontainment protocols in a clinical context. Students are involved during hospitalization as well as during the visit of patients in front of the owners.

Nursing skills acquired by the trainee relate to safe and confident animal handling and restrain, assistance of veterinary surgeons, care of hospitalized patients (including monitoring and health checking, and feeding, grooming and walking animals), supervised administration of treatments (including injections, tablets and fluids), performing basic clinical tests (e.g. blood sampling, urine analysis), bandaging, application of biosafety procedures, and maintaining the cleanliness and hygiene of the premises attended. Communication skills (e.g., to gain trust by the pet owners, and reassure them about their animal's treatment) are similarly promoted.

Since the professional figure of "veterinary nurse" is not officially recognized in Italy, nursing care skills are mainly taught by the teaching and adjunct staff on duty at the VTH. The teaching mission is explicitly provided for in the contract of hired staff and a mandatory online course has been conceived to inform collaborators about the skills to be developed and the way to certify the takeover by the trainee. Peer-to-peer tutorship by late students is also encouraged. In addition, some nursing care skills are taught and developed during clinical rotations ("Rounds"), clinical core practicals, or can be autonomously put into practice in the clinical skill lab using simulators and mannequins.

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

Hands-on clinical training is provided in three major forms: clinical rotations during the 5th year ("Rounds"), intramural and extramural PPT and the core practicals of teaching courses.

Clinical rotations on companion animals are carried out exclusively at the VTH, while those on food production animals and equines are also carried out off-Campus (ambulatory clinic). The number of students per rotating group is established at the beginning of the 9th semester, dividing the number of students by the number of rotation points. In order to guarantee small groups of students, "Rounds" are repeated twice during the 5th year. This ensures that for each rotation point the maximum teacher-to-student ratio never exceeds 1:6.

In the case of intramural and extramural clinical PPT, the maximum teacher-to-student ratio is set at 1:2 and 1:3, respectively.

Finally, practicals in the frame of core teaching courses are organized in groups with a maximum teacher-to-student ratio ranging from of 1:12 to 1:20.

Description of the hands-on involvement of students in clinical procedures in the different species, i.e. clinical examination, diagnostic tests, blood sampling, treatment, nursing and critical care, anaesthesia, routine surgery, euthanasia, necropsy, report writing, client communication, biosecurity procedures, ... (both intra-murally and extra-murally)

During the first curricular years, students are involved in supervised procedures on live animals and material of animal origin in the frame of practicals of the core teaching courses. In the ***Animal husbandry and management*** course students are trained how to safely approach and handle dogs, ruminants and equines, assess a BCS and measure the thickness of dorsal fat layer in swine. Students also get acquainted to basic biosecurity procedures, from dressing adequate PPDs to correctly dispose them off. In ***Physiology***, students assess the reticulo-ruminal motility with a stethoscope, identify venous blood sampling sites and determine major blood parameters using basic laboratory equipment. During ***Epidemiology and Veterinary Public Health***, students are trained hands-on on biosecurity procedures at the large animal isolation unit.

Clinical training *sensu stricto* starts from the 3rd year. A complete list of hands-on

procedures that students are requested to perform is available in the Portfolio.

In **companion animal medicine**, clinical training starts with practicals during which students perform the general physical examination, and the neurologic, gastrointestinal, respiratory and cardiologic clinical examinations of healthy dogs and cats. In addition, they are trained to perform basic abdominal and cardiac ultrasound and are exposed to the basic use of endoscopes. On cadavers, they are trained to collect liquor, place a urinary catheter and identify different venous accesses. On hospitalized animals, students perform the daily physical examination and provide nursing care. During clinical rotations in their final year ("Rounds"), students are involved hands-on in history taking, physical examination, blood and urine sampling and managing of the patient whenever diagnostic imaging is deemed necessary. They also interpret diagnostic tests, suggest treatment procedures and assist the clinician in the emergency visits. In case of euthanasia, they assist in communication with the owner and in the entire procedure.

Training on **companion animal surgery** starts with practicals during which students perform sutures on mannequins, and then on cadavers. They also perform fine needle aspirates and punch biopsies on anatomical specimens (Jamshidi bone biopsies, bone marrow withdrawal), and feeding tube insertion in cadavers. Each student performs a cystotomy and an enterectomy (usually on bovine organs), a splenectomy on a rabbit cadaver and simple cutaneous reconstructions on dog and cat cadavers. Students also carry out an ovariohysterectomy on a dog simulator and an ovariectomy on a rabbit cadaver. During clinical rotations in their final year, students assist the surgeon as a second player in a surgical case, and the anesthesiologist in the anesthetic procedures. Students are trained to wear surgical clothing and hold surgical instruments. They perform the hair clipping, skin scrubbing, drape the patient for an aseptic surgery and apply standard biosecurity practices. Students assess the patients prior to performing the sedation/anesthesia and plan a perioperative drug protocol based on the animal condition and the ongoing surgical procedure.

As for **non-conventional animals**, students perform handling and physical restrain of birds, reptiles and small mammals. They are involved in history taking and physical examination, and assist the clinician in the emergency visits. Students carry out the collection of biological samples, interpret the results of diagnostic tests and suggest treatment procedures. In case of euthanasia, they assist the clinician in the communication with the owner and in the entire procedure.

Equine clinical training starts with core practicals during which students perform the general physical examination, and the gastrointestinal, respiratory and cardiologic clinical examinations of healthy horses. Additional exercises are carried out on a horse mannequin and a simulator, namely limb bandages, the trans-rectal palpation for colic diagnosis, AI and the recognition of delivery phases and dystocia. Euthanasia is simulated on a mannequin head. On organs from slaughterhouses, students simulate castration, suturing and surgical treatment of a skin wound, diagnostic nerves block injections and Artificial Insemination (AI). On live animals, students perform static musculoskeletal clinical examination and place a horse to be radiographically examined according to standard recommendations. Moreover, each student performs the US examination of the abdomen and tendons/ligaments. During PPT rotations, students assist the clinicians during first aid management of emergency, perform the physical examination of hospitalized patients and provide nursing care. During "Rounds" in their final year, students perform history taking, physical examination and biological samples collection (blood, feces, nasal/uterine swab). They interpret diagnostic tests, suggest treatment procedures and assist the clinician during the execution of diagnostic techniques (radiology, ultrasonography, endoscopy). Students also assist the surgeon performing a sterile surgical procedure (laparotomy, castration, arthroscopy, wound

repair, osteosynthesis surgery), wear surgical clothing and hold and clean surgical instruments. They assess the animal prior to performing the sedation/anaesthesia and plan a perioperative drug protocol based on the animal condition and the surgical/diagnostic procedure. In **reproduction**, each student performs trans-rectal palpation, pregnancy diagnosis and ultrasound in mare or jennies. Moreover, students assist the teacher in gynaecological, andrological or neonatal examination, stallion semen collection and semen evaluation/handling.

In production animals, clinical training starts with practicals during which students perform the general physical examination and the gastrointestinal, respiratory and cardiologic clinical examination of living cows. Moreover, each student performs the US examination of the main organs of the abdomen. Bovine simulators (http://www.breednbetsy.com.au/) are used to improve student skills in trans-rectal palpation and in eutocic and dystocic delivery care. On bovine female genital tracts students simulate AI and assess the phase of the cycle and ovarian pathologies. On bovine uteri and bladders students are trained to perform sutures while on limbs they simulate a finger amputation. During the PPT period, students assist the clinicians during first aid, perform daily clinical cases physical examination and provide nursing care. On the animals raised in the teaching farm student assist the clinician during the most common clinical procedures (vaccination, deworming) and perform physical examination, samples collection (blood, feces) and drugs administration of sick animals. "Rounds" in the final year are mainly carried out in form of ambulatory clinic. Students applies biosecurity practices in bovine, pigs and rabbit herds, and perform history taking, animal handling, physical examination and biological samples collection. In ruminants and pig herds they carry out trans-rectal palpation, pregnancy diagnosis and US examination of the reproductive tract. Moreover, full implementation of the new PPT scheme since fall 2020, will allow all students to enjoy additional off Campus practical work under the supervision of hired large animal veterinarians. The program agreed upon embraces the main branches of private practice, from herd management (including preventive medicine, reproduction, neonatology and on-farm mastitis control) to the most common medical, surgical and obstetric emergencies, including taking of biological sample, use of animal-side tests (e.g ketone bodies assessment), surgical scrub, local/regional anaesthetic blocks and suturing during a surgery performed in field conditions.

The hands-on involvement of the students in **Necropsy** starts in the 3rd curricular year and continues through the 4th and 5th year. Training includes necropsy techniques, anatomical and pathological examination of organs and systems, sampling and conservation of samples for lab investigation, and reporting. Students perform supervised necropsies on different animals to become familiar with the general necropsy techniques. They evaluate diseased organs from slaughterhouses, to perform a gross pathology morphological diagnosis and provide a list of likely differential diagnoses, when applicable. During 4th year, exercises include reading and comment of histopathological slides on multiple microscopes. Students perform, among others, the examination on avian species, fish, and exotic/wild animals. In the final year "Rounds", each student practice on pathological organs and full carcasses of animals spontaneously died or emergency slaughtered, to get acquainted with post-mortem diagnosis.

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

In line with the expected learning objectives of the core clinical courses, "Rounds" and PPT periods, students are progressively stimulated to improve their autonomy, including the critical understanding of the case management. This delicate process requires a remarkable investment of time and effort by several actors, from lecturers to the hired practitioners on duty at the VTH. Students themselves are expected to contribute by strengthening their understanding after working hours.

Students become deeply involved in the daily discussion of the caseload particularly during their 5th curricular year. From admission to discharge of any patient, time is dedicated on a daily basis to discussion of the case with particular attention to clinical examination findings, data recording, differential diagnosis, diagnostic procedures and workup, treatment options and prognosis. Discussion sessions are organized involving students on duty and the relevant clinical staff. During these sessions, teachers address the issues raised by the students, and encourage their active and critical participation to the decision-making process. The same approach is used during rotations in clinical pathology, anatomical pathology and the off-Campus clinical activities with the mobile clinic.

All students enjoy easy on-line access to clinical literature through services offered by the Campus Library (see Standard 6).

Beyond their duties, students are invited to join the Journal Clubs organized by clinical services for interns, residents, PhD students and other junior 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.

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

The electronic patient record system is essential tool for the quality of services provided by the VTH as well as for undergraduate and postgraduate clinical teaching. To improve on both aspects, a new cloud-based veterinary practice management software (https://www.provet.cloud/) was purchased in 2018. After an initial implementation phase, the patient record system became fully operative since February 2020. In line with Standard 5 expectations, Provet Cloud base model has been upgraded to support queries by clinical disciplines, consultations *vs* hospitalizations and first-opinion *vs* referral cases. Moreover, feedback on work by the individual student (e.g. the cases for which she/he were assigned major responsibility) has been streamlined. In Provet Cloud, all data on admitted patients at VTH (including companion animals, equines, food producing animals and non-conventional animals) are conveyed in a single centralized data-warehouse, allowing a complete retrieval of any patient, case management and administrative information. Through a dedicated functionality it is also possible to have an overview on daily clinical activities planned by the different VTH services.

Students and staff access to the patient record system through their University's Unified Credentials System (SCU). All information about the clinical case with the exclusion of those protected by privacy (financial data and owner's personal data) are freely available to students to learn on real cases. 4th year students are requested to devote 25 hours of PPT to become acquainted to the proficient use of the patient record system. The initial training is provided by a video tutorial available on the Moodle platform (https://elearning.unito.it/samev/mod/kalvidres/view.php?id=31282) followed by a practical session in which a staff member illustrates the basic functionality of the system on real VTH cases. Students continue their training independently on a series of Patient Identification Numbers (selected for species and clinical discipline) available on Moodle and recommended by the teaching staff. At the end of the training period, students are expectedly able to autonomously enter patient data and medical history, write the medical record, send a laboratory request, consult the reports, etc.

Until migration of VTH patient data on Provet Cloud, the available electronic record system was Virtual Machine HyperV (Windows server 2012-R2), run as an Intranet service.

A dedicated "*home-made*" record system "CANC 5.0" (based on Microsoft Access) for clinical data has been implemented in the non-conventional animal section. Finally, a separate electronic system for recording of treatments and vaccinations is in use at the Teaching Farm.

COMMENTS

In the years prior to this visitation, all ESEVT indicators dealing with the number and variety of healthy and diseased animals, cadavers and teaching material of animal origin have been the object of sustained and structured monitoring. Based on surveys, actions were taken to fill major identified gaps, including equine and farm animal patients seen intramurally, large animal necropsies and companion animal patients seen extramurally. In parallel, the use of mannequins and simulators has been promoted to enhance manual skills in unexperienced students, thus reducing unnecessary stress to patients of all species and to the large animals housed at the teaching farm.

Provision of carcasses of a variety of species for practical anatomical training has long remained suboptimal due to the chronic shortage of support staff suitable for the purpose. A dedicated unit of personnel has been recently appointed.

SUGGESTIONS FOR IMPROVEMENT

The number of cadavers (especially production animals) used in practical anatomical training should be increased to improve dissection skills. Correlating the morphology and topography of various systems with X-ray, ultrasound, CT and MR images would also facilitate the durable learning of anatomical concepts. Implementation of both training initiatives would help rising the motivation by early students.

The academic staff should make the harmonious improvement of ESEVT indicators a strong objective for the near future. The refurbished PPT has provided the necessary framework but additional effort is needed to increase the frequency that the average student is exposed to simple ("day one") caseload in all species. In this context, we are pleased to announce that in July 2020 (after a long negotiation) the Establishment has finalized an agreement with the Municipality of Turin based on which the DVS is identified as the sole partner for the health care of free-roaming dogs and cats admitted and maintained at the City Shelter (numbering approximately 500/year).

Species	2019	2018	2017	Mean
Cattle				
Cadavers	0	0	0	**0**
Isolated organs*	82	36	37	**51.7**
Small ruminants**				
Cadavers	3	7	7	**5.7**
Isolated organs*	0	0	0	**0**
Pigs				
Cadavers	3	6	0	**3**
Isolated organs*	29	26	26	**27**
Companion animals				
Cadavers	46	53	53	**50.7**
Isolated organs*	1	1	1	**1**
Equine				
Cadavers	0	0	0	**0**
Isolated organs*	50	41	41	**44**
Poultry & rabbits	0	0	0	**0**
Aquatic animals	0	0	0	**0**
Exotic pets	0	0	0	**0**
Others (specify)	0	0	0	**0**

**Complete skeleton and individual bones also available; **Including wild ruminants (roe deer)*

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

Species	2019	2018	2017	Mean
Cattle	35	45	40	**40**
Small ruminants	100	95	60	**85**
Pigs	180	160	180	**173. 3**
Companion animals	20	20	20	**20**
Equine	5	5	6	**5.3**
Poultry & rabbits	1500	1200	1150	**1283.3**
Exotic pets	0	0	0	**0**
Others (specify)	0	0	0	**0**

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

Species	2019	2018	2017	Mean
Cattle	63	22	29	**38**
Small ruminants	53	46	33	**44**
Pigs	43	39	12	**31.3**
Companion animals	5821	4691	4952	**4974.7**
Equine	285	168	149	**200.6**
Poultry & rabbits	256	153	122	**177**
Exotic pets	807	249	341	**465.7**
Others (specify)				
Wildlife				
Mammals	574	580	523	**559**
Birds	2451	2191	2330	**2354**
Cold blooded	8	66	73	**49**

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

SPECIES	2019	2018	2017	MEAN
CATTLE	704	690	633	**675.6**
SMALL RUMINANTS	6	2	6	**4.6**
PIGS	173	88	0	**87**
COMPANION ANIMALS	0	0	0	**0**
EQUINE	177	109	107	**131**
POULTRY & RABBITS	246	138	86	**156.6**
EXOTIC PETS	0	0	0	**0**
OTHERS (SPECIFY)				
WILDLIFE				
MAMMALS	0	6	34	**13.3**

TABLE 5.1.4. NUMBER OF PATIENTS SEEN EXTRAMURALLY (IN THE AMBULATORY CLINICS)

SPECIES	2019	2018	2017	MEAN
CATTLE	72	76	86	**78**
SMALL RUMINANTS	10	89	75	**58**
PIGS	99	92	75	**88.6**
COMPANION ANIMALS	42	43	42	**42.3**
EQUINE	30	29	35	**31.3**
POULTRY & RABBITS	100	100	100	**100**
EXOTIC PETS	95	95	95	**95**
OTHERS (SPECIFY)				
WILDLIFE	100	100	100	**100**

TABLE 5.1.5. PERCENTAGE (%) OF FIRST OPINION PATIENTS USED FOR CLINICAL TRAINING (BOTH IN VTH AND AMBULATORY CLINICS)

SPECIES	2019	2018	2017	MEAN
CATTLE	103	30	49	**60.6**
SMALL RUMINANTS	23	11	6	**13.3**
PIGS	105	19	10	**44.6**
COMPANION ANIMALS	271	143	144	**186**
EQUINE	27	11	11	**16.3**
POULTRY & RABBITS	357	309	146	**270.6**
AQUATIC ANIMALS	90	90	90	**90**
EXOTIC PETS	77	69	29	**58.3**
OTHERS (SPECIFY)				
WILDLIFE	705	801	159	**555**

TABLE 5.1.6. CADAVERS USED IN NECROPSY

Species	2019	2018	2017	Mean
Cattle	107	118	122	**115,6**
Small ruminants	7	2	6	**5**
Pigs	16	16	0	**10,6**
Poultry	4	3	0	**2.3**
Rabbits	16	16	16	**16**
Aquatic animals	5	1	0	**2**
Others (specify)				
Donkeys/Horses	62	62	62	**62**

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

Species	2019	2018	2018	Mean
Ruminant slaughterhouses	4	7	6	**5,7**
Poultry slaughterhouses	0	0	0	**0**
Pig slaughterhouses	6	5	3	**4,7**
Related premises	2	1	2	**1,7**
Others (specify)				
Dairy plants	5	7	5	**5,7**
Fish market	4	1	1	**2**
Fish processing plant	0	1	0	**0,3**
Canning industry	0	1	2	**1**
Supply chain	1	1	1	**1**
Canteen	1	1	1	**1**

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

(*) *Number of visits per student per year. Additional visits at the Campus slaughterhouse (3 per student) are planned each year. These visits are not reported in the table.*

STANDARD 6

Learning resources

6.1 State-of-the-art learning resources must be available to support veterinary education, research, services and continuing education. 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 under graduated students.

Description of the general strategy of the Establishment on learning resources

Since the last EAEVE on-site visitation in 2010, staff has become increasingly aware of the attitudes and needs of the latest generation of students towards state-of-the-art interactive learning resources. Accordingly, the general strategy of the Establishment – which until that moment was mostly focused on resources available at or via the Central and subsidiary libraries – has progressively included e-learning resources and, lately, the establishment of two Clinical Skills Labs. The following points have been essential to this process: i) the educational program for teaching staff, which has been strengthened since 2017 (see Standard 9), and ii) the reorganization of intramural PPT to include mandatory self-training at the Clinical Skills Labs. Undoubtedly, the COVID-19 emergency has resulted in the rapid and widespread adaptation of e-learning teaching tools and resources, leading to a quantitative and qualitative "boom" of such resources. This process has been intensively supported by UniTO through the institution of a dynamic working group on distance teaching, which includes the DVS Vice-Director for Teaching Affairs. On the other hand, the COVID-19 emergency has postponed the awaited opening of the Clinical Skills Labs to September 2020.

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

At the beginning of each academic year, a welcome session is organized for new students. The president of the degree course, the didactic manager, the Coordinator of the Campus library and the person responsible for the Campus IT services are present. Amongst other things, students are explained how to activate and manage the institutional e-mail account, access the Virtual Campus and benefit from the library services.

Upon request by students and/or staff, library staff can organize sessions (on average once a month) to demonstrate the use of search engines, different types of databases available, catalogues and retrieval systems. Information is also provided on the use of available licensed software for literature research and on the management of bibliographic data. The library staff also provides individual reference desk services. Tutorials (https://www.bibl-agrovet.unito.it/it/tutorial-work-progress/ricerca-bibliografica-e-banche-dati) and free study resources (https://www.bibl-agrovet.unito.it/it/risorse-lo-studio-liberamente-accessibili/dsv) have been increasingly made available via the library website.

For PhD students, dedicated courses are offered to encourage and facilitate the use of advanced online resources. Furthermore, regular seminars are organized to discuss bibliometric evaluation of research.

The Campus IT service offers to staff basic and advanced courses on the use of the Moodle platform (e.g. four courses were offered in 2019) on a regular basis. These courses focus on teaching staff's daily needs, ranging from how to upload learning resources to tracking student's activity and analysing teaching unit reports. During the COVID-19 emergency, the Campus IT service generously offered on-demand refresher courses on video conferencing, as well as a new course on how to conduct remote exams.

Description of how (procedures) and by who (description of the committee structure) the learning resources (books, periodicals, databases, e-learning, new technologies, ...) provided by the Establishment are decided, communicated to staff, students and stakeholders, implemented, assessed and revised

A dedicated committee ("Consiglio di Biblioteca" – *Library Committee*) is responsible for a full time management of the Campus library, whereas strategic decisions on e-learning and new technologies are both handled at the Didactic Committee level. The Campus IT Services provides all the necessary technical support.

The Library Committee is composed of six academic staff members (three of them belonging to DSV and three to the Agronomy and Forestry Department), two student representatives and two representatives of the technical staff. The current chairman is a DVS full professor. The committee is appointed every three years (the last triennium is 2018-2020).

The Committee's main tasks include:
° establishing and developing the library policy, including budget planning;
° updating and renewing book collections and subscription to periodicals;
° monitoring the quality of library services (see below).
The Library Coordinator reports regularly to the Committee on new developments and management issues. The latter also provides feedback and suggestions.

An important decision made by the Committee in the broader DVS's QA-oriented framework was to approach the quality management system using the standard ISO 9001. The certification was first received in 2015 (ISO 9001-2008) and then upgraded in 2018 to comply with the new standard ISO 9001-2015, making the Campus Library the first ISO-certified library in UniTO. The ISO quality management system has prioritized the following items:
° revision and expansion of the documentation system with regard to processes related to the provision of library services, with extensive involvement of the operational staff;
° definition of new performance indicators of key processes (e.g. document delivery, library loan, book and periodicals cataloguing, customer satisfaction);
° extensive training of staff in quality management systems, while ensuring their involvement in building and maintaining the ISO quality system;
° improvement of user satisfaction monitoring system through questionnaires for both students and teachers.

As per UniTO policy, the Committee enjoys freedom when it comes to decision making; nevertheless, feedback on resources to acquire (e.g. books and e-books) or dismiss (e.g. subscription to poorly consulted periodicals or obsolete books) is regularly provided by both the academic staff (who are contacted individually via e-mail twice per year) and students via their representatives within the Library Committee. External requests are also accepted if duly justified. In addition, usage statistics on library resources are used as a benchmark for decision-making purposes. Needs and wishes of students and staff, including their satisfaction with the library services, are regularly monitored and published. Information and documents on policy, services, annual activity, and user satisfaction are available in a QA dedicated section on the Library website (https://www.bibl-agrovet.unito.it/it/qualita).

A list of newly available books can be found on the library homepage; photocopies of new book titles are displayed at the entrance of the library.

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.

Brief description of the main library of the Establishment: -) staff (FTE) and qualifications -) opening hours and days -) annual budget -) facilities: location in the campus, global space, number of rooms, number of seats -) equipment: number of computers, number of electrical connections for portable PC -) softwares available for bibliographical search

The Campus library (*https://www.bibl-agrovet.unito.it/it*) is part of the Library System of the University of Turin, which is included in the National Library Service. It offers a wide collection of books, e-books, scientific journals, Dissertation and PhD-theses, conference proceedings, media and teaching resources for students, University staff and the general public (in this latter case, limits set by individual licenses apply).

The staff consists of a full-time Coordinator (a qualified librarian), three full-time librarians and two part-time library assistants. These staff members are responsible for technical services and the daily management of the library, in addition to providing support to students and users.

The Campus Library is open 5 days a week (Monday to Friday, from 08:30 a.m. to 07:00 p.m.). Opening hours will soon be extended to include Saturday mornings (08:30 a.m. - 01:00 p.m.), coming to a total of 57 hours per week.

The annual budget for the 2017-2019 period was the following:

2017	€ 43,559
2018	€ 24,390
2019	€ 66,470

This budget does not include the costs of personnel, premise maintenance and subscription to periodicals and e-books, which are paid for by UniTO.

The Campus Library is located within a historical building which hosted the former Psychiatric Hospital of the city of Grugliasco. The total available space is 1,218 m^2, with the main reading room occupying 756 m^2. Besides the underground archives, the building includes offices, the main reading room, two rooms for the consultation of periodicals and a meeting room. There are around 100 seats available for users.

Equipment includes 17 computers and 77 electrical outlets for laptops.

Licensed software (EndNote X9 and Zotero 5.0) is available to all users for bibliographical research and the management of bibliographic data.

In 2020, the Library staff and committee have substantially contributed to the renovation and furnishing of the already existing Student Center on the Campus. The underlying concept has been that of "Learning Commons", where spaces for individual study – which provide a silent study area – are combined with more informal ones so as to foster socialization and group work. The refurbished area, also known as the "Diffuse Library", will be open to students in fall. Campus library staff will be relocated to this premise to ensure daily surveillance of facility while facilitating consumer access to resources available. The "Diffuse Library" will substantially increase the Campus' total space for book consultation and other learning resources. Please, see Appendix 6.1 and 6.2 for details.

Brief description of the subsidiary libraries (if any)

Certain units (Food Hygiene, Pathology, Microbiology and Infectious Diseases, Parasitology, Pharmacology & Toxicology) have small subsidiary libraries. In 2018, an extensive work was completed to catalogue all books and periodicals (in some cases of historical value) of these libraries. As a result, more than 5,500 volumes have been made available (upon request to such units) for

consultation to staff and students during opening hours.

Brief description of the IT facilities and of the e-learning platform (dedicated staff, hardware, software, available support for the development by staff and the use by students of instructional materials)

The Campus IT service (eight staff members overall) has a unit dedicated to e-learning platforms. This unit is currently composed of a Coordinator and two staff members, who can be contacted via e-mail (through *ticket* or directly) (antonino.varetto@unito.it) or mobile phone (+39 3357945792) whenever support is needed. The hardware of the e-learning platform is available on an outsourced basis (https://www.cineca.it/en), whereas the Moodle software package is the official learning environment in use at UniTO (https://elearning.unito.it/samev/course/index.php?categoryid=43). Teaching material (including recorded lectures and audio commented slide presentations) is easily retrievable for all units of the veterinary program, as are self-assessment tests, examples of assessment tests, chats, recordings of question times, etc. Cisco Webex is the suggested software (https://www.webex.com/downloads.html) for remote group work, video conferencing and real time lectures. As already motioned, both staff and students enjoy and appreciate the generous support of the Campus e-learning unit.

Description of the accessibility for staff and students to electronic learning resources both on and off campus (Wi-Fi coverage in the Establishment and access to resources through a hosted secured connection, e.g. Virtual Private Network (VPN)

Wi-Fi coverage is available in all spaces on Campus. Students and staff may access internet using their SCU credentials. VPN for secured off-Campus connection must be set up autonomously by users according to instructions. W-LAN for mobile devices is available in the library, as well as in all offices, teaching rooms and open spaces within the Campus.

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.

Brief description of: -) the number of veterinary books and periodicals -) the number of veterinary e-books and e-periodicals -) the number of other (e)books and (e)periodicals -) the available learning resources to students, including electronic information and e-learning courses (and their role in supporting student learning and teaching in the core curriculum) -) the organisation and supervision of the skill labs.

The Campus library has more than 57,000 books and nearly 33,000 periodicals. Books currently available for student loans are 12,655 (5,007 loans in 2019). The Library also holds a collection of approximately 1,000 historical books and periodicals.

As part of the Library System of the University of Turin, online access to the most important journal bundles and e-books from the main biomedical publishers (Elsevier, Taylor and Francis, Springer Verlag, Wiley, etc.) is granted. With regard to e-book access, every year an average of 15,000 chapters are consulted online and 1,500 books downloaded.

Note: in response to the COVID-19 crisis the main publishers made nearly 200 journals and 176 e-books available for free. Moreover, a grant by UniTO has allowed the Campus library to provide authenticated users with free access to almost 180 new e-books covering most veterinary disciplines and relevant basic sciences.

In the last decade, the number of subscriptions to online journals has significantly increased (to the detriment of printed journals). However, some printed collections are still maintained on historical grounds. Over 200 subscriptions to periodicals related to specific agro-vet topics are available, in addition to packages by large publishers.

Students can access the library's electronic resources from outside UniTo network using any browser and electronic device through SCU credentials. Two options in particular are available: the user-friendly BiblioPass function (https://login.bibliopass.unito.it/menu) and Proxy UniTO, which involves minimal browser configuration. Details are available on the Campus library website (https://www.sba.unito.it/it/strumenti/accedi-da-casa). A complete list of journals and books in all UniTO libraries is available at https://unito-opac.cineca.it/SebinaOpac/Opac.

Students usually download the "raw" teaching material used during lectures (usually audio free ppt slides) from UniTO platform, CampusNet (https://www.clmveterinaria.unito.it/do/didattica.pl/Home). All members of the permanent teaching staff as well as hired professors are requested to upload teaching material used at the beginning of their lecture period at the latest.

Another popular repository for teaching material is the E-Moodle platform (https://elearning.unito.it/samev/course/index.php?categoryid=44), whose large capacity allows to upload recorded lectures, focus points, PowerPoint presentations with audio included, self-produced or purchased videos, self-evaluation tests, examples of exams and their corresponding results (anonymous), etc. As already mentioned, the "lockdown" imposed by COVID-19 emergency and the need to cope with unprecedented restrictions has favoured increased interest in the platform and its proficient use by the vast majority of teaching staff. As of June 2020, there are 57 out of 73 teaching modules available through E-Moodle. Further units will start uploading material during summer 2020, as UniTO has recently announced that distance teaching will be adopted for all programs (including VM) during the fall semester of the upcoming academic year.

Further learning resources that are made available for free to all authenticated users include the most common databases for bibliographic research (PubMed, Scopus, CAB abstracts, Web of Science). In addition, in spring 2020 the Library signed up for a new subscription to FSTA and Food Science Source, which are amongst the largest databases on food science and technology.

Finally, students are also granted access to the open catalogue developed by UniTO for all the research products published by the UniTO faculty. IRIS (https://iris.unito.it/) is the new platform used to collect and manage data on research activities and outputs.

Clinical Skills Labs have been conceived for self-directed learning and interactive education complementary to training on live animals. Students can freely access to the labs by using a personal key card storing user's identification data. A video monitoring system is also available. To optimize the use of labs, on-line booking has been implemented for each activity offered. Once performed the activity, students are requested to go through an on-line self-evaluation test. A member of the technical support staff is in charge to supervise objects and materials, and maintain order in the premises. A tutor (usually a member of the clinical staff) is also available once a week to provide specific support.

COMMENTS

Since the 2010 EAEVE on-site visitation, a great effort has been put into the Campus Library's quality management system, the provision of additional reading places and study rooms for students, the strengthening of e-learning platforms and resources, and the allocation of new spaces (the first two Clinical Skill Labs) for self-directed learning.

While commitment and professionalism of the dedicated (Library and IT) staff is

unquestionable, merging staff into a single "learning center" would potentially favour the harmonious evolution of policies and the related services toward innovative perspectives.

SUGGESTIONS FOR IMPROVEMENT

To further streamline the provision of various up-to-standard learning resources, an open discussion should take place to assess the advantages and disadvantages of an integrated management of all services.

In order to ensure the best possible conservation of the Library's paper collections, the installation of an automated humidity control system in underground areas is recommended. Once upgraded, veterinary paper collections that are temporarily stored off Campus may be relocated to the most appropriate site.

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.

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

Information about admission and progression procedures, and the educational programme is available on the website of the DVM Course. Information provided includes:

Enrolment criteria:
https://en.unito.it/studying-unito/enrolment-procedure/courses-national-restricted-number-places-and-national

Course programme:
https://www.veterinarymedicine.unito.it/do/home.pl/View?doc=courses.html

Progression criteria:
https://www.clmveterinaria.unito.it/do/documenti.pl/ShowFile?_id=gdon;field=file;key=F7F89DahfZQCbmG0Uk43gQsdgduFYyEqse8brhh92ToeURWDsM43omEbAqnp9CncKr7fGFtPR2;t=8046

International Mobility/Partner Countries :
https://veteren.campusnet.unito.it/do/home.pl/View?doc=END108_Erasmus.html

Graduation exam:
https://www.veterinarymedicine.unito.it/do/home.pl/View?doc=thesis_and_graduation.html

State exam:
https://www.veterinarymedicine.unito.it/do/home.pl/View?doc=state_exams.html

The educational programme (known as "*Manifesto Guida dello Studente*") is updated annually and, upon approval by both the DVM Council and the DVS Council, is published on the DVM website in July.

Detailed information on the didactic objectives and structure of the DVM Course, Campus equipment and facilities, as well as QA issues, is provided annually in a document (Scheda SUA-CdS) drawn up by the Monitoring and Review Committee (CMR) of the Course. The document is available for prospective students at https://www.clmveterinaria.unito.it/do/documenti.pl/Show?_id=k6zh. Complementary information is provided by UniTO and the Campus School. In particular:

- UniTO provides orientation to secondary school students, including comprehensive information on admissions procedures. Enrolment and orientation timetables and selection criteria and processes are published every year on UniTO website: https://www.unito.it/didattica/orientamento/giornate-di-orientamento

https://en.unito.it/studying-unito/enrolment-procedure/courses-national-restricted-number-places-and-national

Prospective students may participate in the so-called "Orientation Fair" (Monday to Friday) which is organized by UniTo well before the admission test date. The event is usually held in February and is advertised in local/national newspapers, social networks and broadcast media (e.g.: http://www.informagiovanicossato.it/on-line/Home/articolo63000032.html), the website of the Municipality of Turin, and the websites of UniTO, Campus School and the DVM Course. During the "Orientation Fair", an information desk service is available for future students, providing first-hand information on the Veterinary Medicine programme. Information desk staff comprise

teachers, support staff and student representatives. Within five days of the event, each course or Department organizes two one-hour orientation sessions with the aim of providing prospective students with more details on study location and University life. Information concerns admission test criteria, class timetables, campus facilities and career perspectives. All sessions are streamed live and saved to the "on-demand" section of UniTO website: (https://media.unito.it/?section=OnDemand&searchtext=medicina+veterinaria).

- the Campus School also plays a key role in providing student support thanks to its permanent orientation, tutoring and placement service (OTP) (Tuesday-Thursday, from 9.00 a.m. to 11.a.m., Wednesday from 1.30 p.m. to 3.00 p.m.). Every year the OTP staff organize two open day sessions (usually in March and July) during which participants are given the opportunity to visit learning facilities, talk to staff and students and get a first understanding of the academic atmosphere. Information on the event is available at: https://www.samev.unito.it/it/orientamento/attivita-di-orientamento.

Due to COVID-19 emergency and related containment measures, this year's spring open day was held online in May.

Upon request by Institutions and/or secondary schools, the OTP staff also organize on-site orientation meetings for future students (e.g.: http://www.targatocn.it/2019/01/13/leggi-notizia/argomenti/scuole-e-corsi/articolo/cuneo-tutto-pronto-per-il-salone-dellorientamento-universitario.html). Finally, a short orientation video on the DVM Course is available on the Campus School website (https://media.unito.it/?content=9235).

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

The number of students admitted per year is established by MIUR Decree every year. Before MIUR sets the intake number, Establishments are requested to submit their own proposal with regard to the number of students they would like to have admitted, taking into consideration "resources" available (in particular, facilities, equipment and teaching staff). The proposal is drawn up by the DVS Didactic Committee (see 7.3), approved by the DVS Council and finally submitted to UniTO and MIUR. The assigned quota, which is the result of a country-wide survey and a debate with stakeholders, is usually slightly lower than the initial proposal (on average, a 15% reduction was applied in the last three academic years). It shall be noted that the DVS is the Department with the highest number of veterinary students admissible at the national level.

In the last decade, most Veterinary Medicine courses in Italy have suffered a remarkable reduction in the *"numerus clausus"*. In Turin, places available decreased from 120 EU students plus a maximum of 10 non-EU students (year 2010) to 101 (93 EU + 8 non-EU students, academic year 2019/20). When considering the last three years, the number increased from 92 in 2017/18 (82 EU + 10 non EU) to 101 in 2019/20(see Table 7.2.1). Please note that according to new regulations (Ministerial notes no. 4251 of 08/02/2019 and no. 9691 of 19/03/2019), places for non-EU students which remain vacant can be allocated to EU students with retrospective effect from the academic year 2016/17.

Table 7.2.1 Number of new veterinary students admitted by the Establishment

TOTAL ADMITTED	2019	2018	2017	MEAN
	101	**101**	**92**	**98**

The veterinary programme at UniTO attracts a large number of applicants (an average of 750/year). As a result, there is no difficulty in filling allocated places.

Table 7.2.2 Number of veterinary students registered at the Establishment

YEAR OF PROGRAMME	2019	2018	2017	MEAN
FIRST	101	101	88	97
SECOND	100	86	82	89
THIRD	83	81	91	85
FOURTH	79	92	107	93
FIFTH	92	105	104	100
OFF COURSE STUDENTS*	221	191	204	205
TOTAL	**676**	**656**	**676**	**669**

**Off course students are those students registered at the Degree Course for more than 5 years.*

Starting from second year, further students may be admitted on a meritocratic basis, in case of drop outs of other students or in the frame of international exchange programmes. Admission criteria are available at: https://www.clmveterinaria.unito.it/do/home.pl/View?doc=/mv/immatricolazioni_iscrizioni.html.

In the last three years, the mean number of incoming Erasmus students attending specific courses and/or traineeship in the framework of international exchange programmes was 26.

The total number of students graduating annually at the Establishment has been increasing in the last three years, especially that of students enrolled in the new programme (502) (see Table 7.2.3).

Table 7.2.3 Number of veterinary students graduating annually at the Establishment

DEGREE PROGRAMME	2019	2018	2017	MEAN
NEW DEGREE PROGRAMME (502)	112	85	65	87
OLD DEGREE PROGRAMME (501)	10	18	17	15
TOTAL GRADUATING (501 + 502)	**122**	**103**	**82**	**102**

Almost two thirds of students in the new Degree Programme graduate in 5 + 1 years (Table 7.2.4), whereas less than half of them graduate in 5 years. Based on data by the National Agency for the Evaluation of Universities (ANVUR), these values are in line with the national average.

Table 7.2.4 Average duration of veterinary studies at the Establishment – New Degree Programme (502)

	% OF STUDENTS WHO GRADUATED ON			
	2019	2018	2017	MEAN
+ 0 YEAR	38.4	32.9	44.6	38.6
+ 1 YEAR	27.7	22.3	30.8	26.9
+ 2 YEAR	11.6	21.2	16.9	16.6
+ 3 YEARS OR MORE	22.3	23.5	7.7	17.8

As expected, when merging the data of both programmes (502 + 501), the percentage of students graduating in +3 or more years increases from 17.8% to 30.8% (Table 7.2.4 bis).

Table 7.2.4 bis Average duration of veterinary studies at the Establishment – Old Degree Programme (501) + New Degree Programme (502)

	% OF STUDENTS WHO GRADUATED ON			
	2019	2018	2017	MEAN
+ 0 YEAR	35.4	27.2	35.2	32.6
+ 1 YEAR	24.4	18.4	25.4	22.7
+ 2 YEAR	13.4	17.5	10.6	13.8
+ 3 YEARS OR MORE	26.8	36.9	28.7	30.8

Table 7.2.5 Number of postgraduate students registered at the Establishment

	2019	2018	2017	MEAN
PHD PROGRAMMES	24	21	19	21.3
POSTDOCTORAL FELLOWSHIPS	9	9	8	8.6
NATIONAL SPECIALIZATION SCHOOLS	48	38	28	38
MASTERS	0	13	13	8.7
RESIDENTS	13	10	10	11
INTERNS	32	43	22	32.3

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.

Description of the selection criteria

In Italy, Veterinary Medicine candidates are selected based on their position in the national test score ranking. The legal basis for this procedure was defined in 1999 (Law 264, 2nd August 1999) and still applies today. Each year, the admission test is prepared by MIUR with the help of Cambridge Assessment and a panel of experts appointed by Ministerial decree. The test is simultaneously administered to all applicants on the same day and at the same hour in all Veterinary Departments at the national level. Every year a description of admission requirements is published on UniTO website (https://www.unito.it/didattica/immatricolazioni-e-iscrizioni/corsi-ad-accesso-programmato-con-graduatoria-nazionale)
and the DVM Course website: (https://www.clmveterinaria.unito.it/do/home.pl/View?doc=/mv/requisiti_ammissione.html

MIUR sets the date of the national test, which usually takes place at the beginning of September. All students holding a High School Diploma (with no restrictions for the type of diploma earned) can apply to sit the admission test. Foreign candidates (from both EU and non-EU countries) must have a similar qualification certified by the relevant Consular and Academic Authorities. Proficiency in Italian language is assessed by a specific committee appointed by Rectoral Decree. All students must pre-register on-line at: http://www.universitaly.it/.

A ranking list of candidates is established at the national level. Results are in form of score ranging from 0 to 90. The test includes 60 MCQs where only one answer out of five is correct. Students have 100 minutes to complete the test.

Although admission is based on student's performance (ranking), candidates are expected to successfully pass a predefined "minimum threshold score", which is currently set at 20 points. In case of students who scored the same, priority will be given to those with a higher score in chemistry, logic, general knowledge, biology, physics/mathematics, in descending order. In case of a further tie, priority will be given to the younger candidate. The relevant procedure is available at: https://accessoprogrammato.miur.it/2020/index.html. Following the admission test, candidates are assigned protected passwords to access ranking lists (https://accessoprogrammato.miur.it/2019/VE_HP.html).

Admitted students are required to choose the Establishment at which they want to study Veterinary Medicine within 4 days from publication of test results. If a decision is not made within this period, the place will be offered to the next ranked applicant. The Establishment at which the candidate decides to sit the admission test is intended as their first choice.

In order to improve the efficiency of the recruitment process, the Board of Directors of Veterinary Departments in Italy has recently decided to include a motivation questionnaire that candidates must fill when registering to sit the admission test.

Feedback and suggestions concerning the selection process are discussed within the Board of Directors of Veterinary Departments and submitted to MIUR.

Policy for disable and ill students

Students with disability certificates or specific learning disabilities (SLDs) are eligible for special admission measures (e.g. extra time and/or the use of specific devices such as non-

scientific calculators, video-magnifiers, tutor assistance, etc.). Detailed information is available at: https://www.unito.it/didattica/immatricolazioni-e-iscrizioni/corsi-ad-accesso-programmato-con-graduatoria-nazionale

Composition and training of the selection committee

Although the selection process is managed exclusively at the MIUR level, an internal selection Committee is designated annually by the Rector (upon DVS proposal) to ensure that recruitment procedures are properly implemented. The selection Committee meets at least twice before the test date so as to ensure procedures are shared.

Appeal process

Students excluded from the national ranking list may appeal to the Regional Administrative Court (TAR) against MIUR selection criteria.

Advertisement of the criteria and transparency of the procedures

As already anticipated, admission criteria/procedures and legislative references are published every year on MIUR, UniTO and the DVM Course websites.

Description of the admission procedures for full fee students (if different from standard students)

Not applicable.

Description of how the Establishment adapts the number of admitted students to the available educational resources (facilities and equipment, staff, healthy and diseased animals, material of animal origin) and the biosecurity and welfare requirements

Before being submitted to MIUR (see above), the annual DVS proposal concerning the number of admissible students is approved by the DVS Council following a preparatory phase by the DVS Didactic Committee. Main documents/data taken into account by this key Committee include:

- the periodical survey of needs communicated by teachers (teaching equipment and consumables);
- needs communicated by hired instructors for repeated practical activities;
- the available academic FTEs and their breakdown by area of competence;
- the positioning of the DVM Course with respect to ESEVT indicators influenced by the number of graduating students.

Description of the prospective number of new students admitted by the Establishment for the next 3 academic year

No significant changes are expected with regard to the number of new students admitted by the Establishment.

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

Description of the policies and procedures devoted to applicants with disabilities

Both UniTO and the DVS have dedicated Delegates for students with disabilities. At the Establishment level, the Delegate collects certifications of disability and offers advice to students and academic staff about possible compensation strategies that can be used in specific contexts. Upon request of students and future students, the Delegate liaise with teaching staff for specific counseling.

Procedures for students with disabilities are published on the UniTO and DVM Course websites (https://en.unito.it/services/students-special-needs-0). They include:

- guidance: support given either by students who have been awarded a study grant or by National Civic Service Volunteers trained to accompany disabled students to university structures, research and assistance centers and during meals;
- didactic tutorship: support given by students who have been awarded a study grant and received training to perform tasks that

include assistance in note taking and study activities, access to textbooks and photocopying, support for handling bureaucratic paperwork, etc.;

- support for Deaf and Hard of Hearing Students, by Italian Sign Language Interpreters and Communication Mediators;
- personalized support for specific individual projects, thus ensuring needs of disabled students are met;
- support during exams: undergraduate students with disability certificates or specific learning disabilities (SLDs) are eligible for special support measures (e.g. additional time, non-scientific calculators, video-magnifiers, tutor assistance, etc.);
- support to enrolling students: students with disability certificates or specific learning disabilities (SLDs) are eligible for special admission procedures (e.g. additional time, non-scientific calculators, video-magnifiers, tutor assistance, etc.). Detailed information is available at: https://www.unito.it/didattica/immatricolazioni-e-iscrizioni/corsi-ad-accesso-programmato-con-graduatoria-nazionale
- support and possible extra grants for students taking part in international mobility within the Erasmus programme (https://www.unito.it/internazionalita/studiare-e-lavorare-allestero/erasmus/erasmus-persone-con-disabilitaesigenze).

Access to services such as the University canteens, scholarships, accommodation and special contributions is guaranteed to students with disabilities as per specific instructions established by EDISU, the Regional Body for the Right to Education.

Students with a disability level of 50 to 65% must only pay the first and second installment of University tuition fees, while students with a disability level of 66% are eligible for fee exemptions.

As concerns logistic barriers, classrooms and hospital/teaching farm facilities are entirely accessible to students with physical disabilities.

At the Departmental level, specific education programmes concerning inclusive teaching have been provided to academic staff starting from 2019 (see Standard 6).

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.

Description of progression criteria and procedures for all students

General progression criteria are specified in the "Regolamento Didattico del Corso di Studi" (Didactic Regulation of the DVM Course) and the "Manifesto Guida dello Studente" (Student Guide). They can be summarized as follows:

- to be allowed to sit exams, students must achieve the minimum percentage of mandatory attendance (intended as 80% attendance of practical training offered);
- to be allowed to attend the PPT programme and sit specific exams, students must have passed propaedeutic exams (e.g. Anatomy and Biochemistry must be passed before Physiology);
- to be allowed to attend clinical "Rounds", students must have acquired at least 160 ECTS;
- to be allowed to attend elective practical activities (APS, see Standard 3) or elective courses, students must have acquired at least 190 ECTS;
- students cannot graduate until they have passed all exams, acquired the fundamental Day One Competencies (as certified in the Portfolio of Competencies),

completed the PPT programme and written the graduation thesis.

At present, as per UniTO rules, there is no limitation (e.g. blocks) to enrollment of low performing students in the following curricular year.

In 2018/19 the CMR implemented the Exam Policy (see Standard 8) with the aim of harmonizing exam procedures and ensuring an efficient exam system in terms of QA, with clear guidelines for both teaching staff and students (https://www.veterinarymedicine.unito.it/do/documenti.pl/Show?_id=3bvl). Likewise, new evaluating criteria for the Graduation thesis have been approved (https://www.veterinarymedicine.unito.it/do/home.pl/View?doc=thesis_and_graduation.html).

As of 2018, training events on assessment concepts and methods are offered to academic staff. Different formats (in-person and/or distance learning) have been made available (see Standard 6).

Remediation and support for students who do not perform adequately

Student progression and performance is monitored on a yearly basis taking into account official data transmitted by ANVUR. The monitoring of student performance is part of the self-assessment process of the DVM Course. An Annual Monitoring Report must be drafted and submitted to the University Quality Committee (https://www.clmveterinaria.unito.it/do/documenti.pl/Show?_id=wxcz). In case of critical issues, the Degree Course is called upon to investigate possible causes and propose corrective actions.

Upon request, an individual tutorial system provides counseling sessions to students. Each new enrolled student is assigned a personal tutor among the academic staff. Students can contact tutors through approved communication channels (e.g. institutional email address) if needed.

The Didactic Manager is also available for any information on the organization of teaching activities and to support students by referring them to different contact persons (e.g. the Coordinator of the Degree Course or individual teachers) to attain better results.

As of Academic Year 2019/20, a new e-learning platform for the development of soft skills (UNITOSKILLCASE) is available via UniTO website (https://elearning.unito.it/competenzetrasversali/). Topics that are dealt with include communication skills, problem solving and solution finding, team working and self-empowerment. A didactic self-directed platform (ORIENT@MENTE) providing online tutorial lessons and exercises in basic subjects is also available (https://orientamente.unito.it/course/index.php?categoryid=1).

The advertisement to students and transparency of these criteria/procedures

Students are actively involved in the decision making process concerning progression criteria by means of their representatives in the CMR and the different decision bodies. Progression criteria for the whole program, courses and the graduation exam are published on the DVM Course website: https://www.veterinarymedicine.unito.it/do/home.pl/View?doc=thesis_and_graduation.html.

Description of the rate and main causes of attrition

Dropout rates are low and have been stable over the last three years. On average, two first-year students did not continue to 2nd year (about 2% of first year students) and about five students enrolled in subsequent years withdrew from the course (total dropout rate after 1st year, approx. 0,9%). Nevertheless, drop-outs are rare and mainly related to students' personal reasons.

Description of how (procedures) and by who (description of the committee structure) the admission procedures, the admission criteria, the number of admitted students and the services to students are decided,

communicated to staff, students and stakeholders, implemented, assessed and revised

As already anticipated, admission procedures are decided by MIUR. Admission criteria for years other than the first year (e.g. in case of dropouts by other student) are suggested by the DVS Didactic Committee and approved annually by the DVS Council. The call is published at: https://www.clmveterinaria.unito.it/do/home.pl/View?doc=/mv/immatricolazioni_iscrizioni.html

Student services are planned, implemented, monitored and revised as illustrated in the figure below.

Planning and implementation of services are operated by the following bodies:

- the DVS Council, which draws up the three-year strategic plan, including a SWOT analysis of processes and goals to be achieved in different fields. Within this frame, didactic issues are dealt with by the vice-Director for Teaching Affairs: (https://www.veterinaria.unito.it/documenti/allegati/cartaservizi/PianoTriennaleDSV_19-21.pdf)
- the DVS Didactic Committee (see Standard 1 for composition), which coordinates overall teaching affairs at any level (including postgraduate initiatives). Specific issues are represented by the evaluation of resources and the drawing up of the calendar of didactic activities;
- the Monitoring and Review Committee (CMR, see Standard 1 for composition), which is responsible for planning, monitoring and self-evaluating all aspects of the Degree Course, including student services. The decision-making body for CMR proposals is the DVM Council;
- the Campus School (where the DVM Course is represented by its Coordinator and a student), which plans Orientation/Tutoring and Placement activities, as well as logistic aspects (e.g. lecture rooms, study points).

The educational offer is presented every year in a public document, the Annual SUA-CdS Report (https://www.universitaly.it).

Monitoring of services is performed:

- at the DVS level: by periodical monitoring the three-year strategic plan;
- at the DVM Council level: by discussing and approving the Annual Monitoring Report drafted by the CMR. The objective of the report is to comment performance indicators suggested by ANVUR and grouped by topics (didactics, internationalization, and further indicators for the evaluation of didactics);
- at the Campus School level: by means of comments/suggestions of the Joint Teachers-Student Committee ("Commissione Didattica Paritetica"), whose feedback is conveyed to the DVM Council and the University Independent Evaluation Unit (Nucleo di Valutazione).
- at the UniTO level: by means of reviews and comments that the University Independent Evaluation Unit publishes in its Annual Report.

Finally, the **Revision/self-evaluation** of student services is carried out by the DVM Council, which is the body responsible for discussing and approving the Cyclical Self Evaluation Report drafted by the CMR every five years (https://www.clmveterinaria.unito.it/do/documenti.pl/Show?_id=lplb). After approval, the report must first be submitted to UniTo and then to ANVUR. Corrective and/or improvement actions shall be identified in case of mild to severe criticism.

The revision/self-evaluation of student services is also part of the ISO 9000:2015 Quality Management and Quality Assurance Process (see Standard 1).

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

Description of the mechanisms for the exclusion of students

According to UniTO regulations, there is no limit with regard to the number of times students can enroll in supplementary years. Similarly, there is no possibility to exclude even the lowest performing student from the programme. Regularly registered students permanently maintain their status. In case of interruption of studies for a period of up to 8 years, students may resume their career, provided that formerly acquired ECTS are not deemed "obsolescent" by the Establishment.

Description of the appeal process

Management of appeal processes related to career progression is described in detail in the Exam Policy document (see Standard 8 and https://www.veterinarymedicine.unito.it/do/documenti.pl/Show?_id=3bvl).

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 counseling 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).

Description of the services available for students (i.e. registration, teaching administration, mentoring and tutoring, career advice, listening and counselling, assistance in case of illness, impairment and disability, clubs and organisations, ...)

Student support services are provided both at UniTO and Campus level as follows:

UniTO

- there is a section of the University website dedicated to student services: https://en.unito.it/services/online-services;
- updated information on orientation services and events is available at https://en.unito.it/events/orientation-days-2020 and on the Campus School website (https://www.samev.unito.it/it/orientamento);
- students may seek support regarding online administrative procedures that are relevant to their career via the following link: https://www.unito.it/servizi/liscrizione/segreterie-studenti;
- a University Guarantee Committee (*Comitato Unico di Garanzia* - CUG) works towards promoting equal opportunities, well-being in the workplace and non-discrimination (https://en.unito.it/about-unito/governance-and-organization/guarantee-committee);
- a University counseling service is made available by trained psychologists to all students. Such a service can be accessed on a voluntary basis and is free of charge. Sessions are confidential and take place off campus. (https://en.unito.it/services/counseling);
- a counseling service for women victims of violence is also available: https://en.unito.it/services/health-and-assistance/domestic-violence-counseling.

Campus

Services for students attending any programme at the Campus are organized as follows:

- the Student Administration Office supports students with administrative requirements throughout their university experience. The office operates in close contact with the central UniTO offices responsible for admission, registration and any other administrative matters concerning undergraduate and postgraduate studies.

Students can also report special needs by completing an online from (commonly referred to as "ticket") (https://fire.rettorato.unito.it/helpdesk_ddss/);

- the Didactic Manager provides information and guidance to students on the entire study programme and the graduation thesis;
- the Campus School offers an on-site service for student orientation, tutoring and placement (OTP). A tutoring/placement desk service providing specific information on the PPT programme and procedures is also available twice a week;
- the Campus Library provides reading rooms and further services (e.g. library/interlibrary loan, document delivery, self-service photocopying of available material, literature search procedures, etc.) (see Standard 6);
- on-demand counseling for disabled students (including specific learning disabilities) is provided by the dedicated DVS staff (https://www.veterinarymedicine.unito.it/do/home.pl/View?doc=contacts.html).

As is the case with all UniTO students, veterinary students are covered by an insurance which includes accidents and third party liability**.** Among categories eligible for insurance cover are also students on temporary bursaries, students who are abroad as part of international mobility programmes, and students enrolled in post-graduate and master courses.

Veterinary students are specifically trained to protect their own health/safety and that of others. First year students are expected to complete a 16-hour course. At the beginning of fourth year, a qualified expert provides an additional 3-hour training course on radiation protection.

As reported in Standard 6, individual and collective indoor and outdoor study spaces are available on Campus. Free wireless internet connection, computer access, a canteen and a cafeteria are also available.

Indoor and outdoor sports facilities for students are managed by the University Sport Centre (CUS Torino). Facilities are located both in Turin and Grugliasco (https://www.custorino.it/impianti/). CUS Torino aims to promote the practice of both competitive and non-competitive sports among UniTO students, teachers and employees. It offers opportunities to practice more than 100 different sport disciplines at all levels. The CUS CARD is free for UniTO students, Erasmus students, teachers and employees. Furthermore, thanks to "CUS Progetto Disabili", students with disabilities can enjoy free access to a broad range of activities, under the guidance of qualified instructors (https://en.unito.it/living-turin/when-you-arrive/sport).

A Hall of Residence, Villa Claretta, is located in the Grugliasco city center, at only 1 km from the Campus. The residence offers 174 single bedrooms, 117 double bedrooms, 22 single bedrooms for disabled students, recreation room, study rooms, laundry room, kitchen, conversation/TV room and a bike sharing service. A counseling service, RESIDENZASCOLTA**,** is available to all students living within the hall of residence. Support is offered for both issues concerning everyday life at the residence and personal issues (https://www.edisu.piemonte.it/en/services/living/halls-residences/hall-residence-villa-claretta). The Residence is managed by EDISU Piedmont, the Regional Agency for the Right to Education of Piedmont. The Agency was created to foster access and participation in university studies for outstanding students with limited economic means.

Moreover, the Campus School organizes the Campus Party (AGROVET), which is usually held at the end of May every year. The party includes demonstrations and seminars that are open to the public, as well as street food, musical and sport events for both students and the whole Campus staff.

Recently, a dynamic IVSA-affiliated association has been founded by DVS students (https://ivsatorino.wixsite.com/ivsatorino)

During the COVID-19 lockdown, students' needs (both individual and/or cohort-based) have been addressed online. Similarly, student-teacher meetings have been organized on a weekly basis to discuss any issues concerning the running of semester lectures.

Description of the mechanisms for resolution of student grievances

The Didactic Manager is regarded as the first contact person students may refer to for grievances. The management of instances is dependent on severity and context, and may involve the CMR or single persons (e.g. the DVM Coordinator, the DVS Director and Vice-Directors and the DVS QA delegate).

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.

Students convey their needs and queries to the Establishment through:

- their representatives in the CMR (https://www.clmveterinaria.unito.it/do/home.pl/View?doc=mv/rappresentanti_studenti.html)
- their representatives in the Committee for Students Affairs;
- the report that the Didactic Manager completes following the tutorial sessions scheduled for each class at the end of every semester. During such sessions, the Didactic Manager encourages students to discuss strengths and weaknesses of the corresponding didactic period. The report is then submitted to the CMR;
- the feedback on courses that all students must provide at the end of every semester.

Comments/complaints/suggestions are anonymous and discussed by the CMR. Further actions may be decided and implemented thereafter.

During the COVID-19 emergency period, students' needs and wishes have been conveyed to the Establishment through online meetings

At any time, students are given the possibility to convey further suggestions, comments and complaints to the Establishment by completing the following form (anonymously if they wish): https://www.clmveterinaria.unito.it/do/documenti.pl/Show?_id=2txp.

COMMENTS

The shifting, in 2016, to a national procedure for the admission test has undoubtedly prolonged the completion time of student's enrollment procedures. As a result of it – and regardless of the Establishment's level of proactivity – some students may be enrolled at the end of their first curricular semester. Late admissions may result in partial (if any) attendance to scheduled practical works.

Cooperation between UniTO, the Campus School and the DVS is key to achieve the best outcome with regard to orientation and tutoring services. There is a good level of coordination between central and peripheral structures involved in the process.

A major concern shown by newly enrolled students are learning difficulties experienced throughout their first semester or year. Further learning-oriented events would be desirable to improve early student performance.

Theoretically speaking, students enrolled outside of the prescribed time do not attend lectures and practicals. However, they cause a significant increase in the total number of registered students and the number of students graduating annually. These numbers may have a negative impact on relevant ESEVT indicators.

Although data is improving, the number of students graduating within the allotted time (5 years) is still suboptimal.

SUGGESTIONS FOR IMPROVEMENT

Late admission of a part of newly enrolled students has been partially compensated by scheduling the bulk of practical training towards the end of the first semester. Nevertheless, lobbying by the Board of Directors of veterinary departments to improve timing of enrollment procedure should be reinforced at the national level. Pressure on MIUR to anticipate admission test dates must continue.

More academic coaching sessions should be dedicated to first year students to improve their self-management skills, such as time management, organization and study skills.

An upcoming revision of the whole undergraduate veterinary programme will explicitly prioritize the strategies aimed to improve the percentage of students graduating in the allotted time (5 years).

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.

Description of the general student's assessment strategy of the Establishment

The structure responsible for the assessment strategy is the Monitoring and Review Committee (CMR) of the DVM Course. Within this Committee is the Examination Board**,** in charge of supervising student's assessment affairs and serving as a mentoring board for students. The Examination Board**,** created in 2017, is headed by the President of DVM and includes the QA referent of the Degree Course, four teachers and two student representatives. The Examination Board, which periodically reports to the CMR (usually on a six monthly basis), has advisory, monitoring and suggestive functions with respect to student assessment. Among other functions, the Examination Board analyses the results of student opinion surveys on exams.

The student's assessment strategy at the Establishment is made explicit in a dedicated document ("Exam Policy") which was first drafted by the CMR in 2017, then widely debated and amended in 2018 and early 2019, and finally adopted by the DVM Council in July 2019 (https://www.veterinarymedicine.unito.it/do/documenti.pl/Show?_id=3bvl)
Main points of the document are:

- assessment principles;
- assessment formats recognized by the Establishment;
- management of assessment tests and sessions;
- Quality Assurance in assessment activities;
- student advertising;
- student appeal procedures;
- responsibility of students;
- responsibility of teaching staff.

The key strategy points are: i) to provide clear learning outcomes and consistent assessment criteria; ii) to engage students so that they can take responsibility within the assessment process; iii) to ensure transparency of the whole assessment process; iv) to include student assessment in a QA framework. Moreover, it was assumed that the combination of at least two different assessment formats would have enhanced the consistency of the overall regime by limiting assessment bias and assuring a better evaluation of expected competencies. During the design phase of the policy, consulted stakeholders (and in particular representatives of the veterinary profession) agreed on strengthening the "mixed format" assessment regime so as to encourage students to apply theoretical knowledge using a problem-oriented approach.

Following approval of the policy document, mixed assessment formats have been implemented in the majority of subjects, and the progressive embracement of practical assessment formats along the curriculum has been consolidated, as desirable (please see Tables below).

Percent of mixed assessment formats on the total subjects taught in each curricular year

CURRICULAR YEAR	MIXED FORMAT
FIRST	42.8%
SECOND	100%
THIRD	100%
FOURTH	71.4%
FIFTH	100%

Percent distribution of the main assessment formats in each curricular year

CURRICULAR YEAR	WRITTEN	ORAL	PRACTICAL
FIRST	54.5%	27.3%	18.2%
SECOND	31.3%	43.7%	25.0%
THIRD	33.3%	41.6%	25.0%
FOURTH	42.8%	28.6%	28.6%
FIFTH	25.0%	37.5%	37.5%

Between 2018 and 2020, in order to raise awareness amongst lecturers on the importance of QA in the assessment process, the DVS has implemented a program of training initiatives including insights into assessment methods and formats (see Standard 6 and 9). Similar initiatives have been dedicated to the training of tutors involved in practical (intramural and extramural) training to inform on competence certification procedures and harmonize assessment criteria.

Among other functions, the Examination Board analyses the results of student opinion surveys dedicated to exams. The evaluation is mandatory and anonymous, and is performed twice a year through a University online system (EDUMETER). Questions concern: i) satisfaction on the exam procedures; ii) adequacy of the didactic material made available by lecturers; iii) consistency of ECTS with actual study workload. An Edumeter screenshot is reported below.

DOMANDE	Indice di soddisfazione	DISTRIBUZIONE PERCENTUALE DELLE RISPOSTE					
		Decisamente NO	Più NO che SI'	Più SI' che NO	Decisamente SI'	N.R.	N.A.
Soddisfazione svolgimento esame	92.50%	0.52%	6.54%	37.96%	49.21%	5.76%	0.00%
Adeguatezza materiale didattico	92.22%	1.31%	6.02%	35.08%	51.83%	5.76%	0.00%
Congruenza CFU e carico di studio	93.26%	0.79%	5.50%	39.53%	47.38%	6.81%	0.00%

Guidelines for the follow-up of students' evaluation have been published (https://www.clmveterinaria.unito.it/do/documenti.pl/Show?_id=62me). Noteworthy, in case of severe criticism, intended as a student satisfaction percentage below the cut-off of 33.3%, lecturers are requested to discuss strengths and weaknesses of their assessment approach in front of the CMR and to adopt concrete and shared corrective actions. In case of mild criticism, intended as a satisfaction percentage between 33.3% and 66.6%, lecturers are invited to autonomously reflect on perceived weaknesses and eventually suggest adjustments. Suggestions of the Examination Board are discussed within the CMR at the end of each semester.

The CMR is in charge to periodically (annually) reviewing the catalogue of Subject Forms ("Schede Insegnamento") and to check the consistency of assessment formats with the declared learning outcomes. Where there are discrepancies, the relevant teachers are firmly urged to modify the assessment format and rectify the subject form accordingly. A further check (on 10 randomly selected subject forms/year) is carried out by an independent organism, the Joint Student-Teachers Committee ("Commissione Didattica Paritetica"), on behalf of the Campus School. Results of this independent monitoring are included in the Annual Report that the Campus School is bound to send to the Coordinator of the DVM for self-evaluation purposes.

Description of the specific methodologies for assessing the acquisition of: i) theoretical knowledge; ii) pre-clinical practical skills; iii) clinical practical skills; iv) soft skills (e.g. communication skills, team player, dealing with pressure, strong work ethic, positive mental attitude, flexibility, time management, self-confidence, dealing with criticism, ...)

Theoretical knowledge is primarily assessed by means of MCQs or mixed MCQs + short open question tests. Compared with the situation in recent past (e.g. time interval between the upcoming EAEVE visitation and the one in 2010), oral exams are being progressively dismissed for this particular purpose; rather, they are intended as a way to assess problem solving attitudes and train/assess communication skills, including the use of appropriate terminology. In a growing number of cases, the order of questions and that of individual responses within questions are randomized to improve

the guarantee of a fair examination process. Although less frequently, theoretical knowledge is continuously assessed, taking into account the evaluation of supervised work too. Most subjects also include mid-term tests (formative assessment).

Pre-clinical practical skills are assessed during practicals and/or theoretical exams, and during PPT. In the case of practicals and PPT specifically, both lecturers and tutors are entitled to certify the fulfilment of the performance criteria listed on the Portfolio (see Standard 3) using a continuous assessment approach. Further skills and competencies are also assessed during exams involving practical tasks (usually a combination of oral-practical or written-practical format), contributing to the final grade as per the relevant subject form.

Clinical practical skills are mainly evaluated during the last two curricular years. As already mentioned for pre-clinical skills, assessment of clinical practical skills occurs in a formative way during practicals and PPT, and in a summative way during the practical part of clinical exams, mainly during the fourth and fifth year. Two clinical skill labs (see Standard 3) also contribute to improving self-training of fifth-year students as they perform PPT at the VTH.

The teaching staff is aware of the difficulties and uncertainties underpinning the reliable certification of all expected soft skills at the individual student level. Nevertheless, assessment of selected soft skills (e.g. communication skills) is announced as a learning objective in several exams, including the public discussion of the graduation thesis and the post-graduation State Exam. In the latter, professional knowledge and other profession-related attitudes are evaluated by external examiners (8 in a board of 14) selected by the Turin Veterinary Chamber. Other soft skills are not assessed in the literal sense; however, it is intended that a positive outcome of activities such as exams, clinical rotations and the PPT programme also implies that students have received adequate training to develope a wide range of soft skills.

According to national lockdown guidelines on the COVID-19 emergency and to prioritize the safety of the Campus community while supporting students to complete their spring semester, all assessment sessions of the Veterinary Medicine Course have been operating online since late February 2020. In the emergency strategic plan developed by the Department of Veterinary Sciences (https://veteren.campusnet.unito.it/do/documenti.pl/Show?_id=9btk), particular emphasis has been placed on the student's examination process, including the graduation thesis procedure. In order to give our students the best possible chance of succeeding in their assignments, oral and written examinations have been offered, as well as two graduation thesis sessions.

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

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

A general normative framework for assessment procedures is set in articles 23 to 25 of the "Regolamento Didattico" of the University of Torino (https://www.unito.it/sites/default/files/reg_mod_dr_1883_8_aprile_2013.pdf) and in two related documents:

i) "Regolamento Didattico" (Didactic Regulation) of the Department of Veterinary Sciences, articles 20 to 22 (https://www.veterinaria.unito.it/documenti/allegati/regolamenti/D108_RegolamentoDidattico.pdf) and,

ii) "Regolamento Didattico" of the Degree Course in Veterinary Medicine, articles 7 and 8 (https://www.veterinarymedicine.unito.it/do/documenti.pl/Search?search=%7bcategoria%7

d%20%3d%7e%20%2f%5eTeaching%20regulations%24%2fm&format=&sort=&si=&title=Teaching%20regulations).
The DVM Didactic Regulation is revised annually by the CMR and approved by the DVM Council.

As per university regulation, the examination schedule provides for:
- eight exam sessions per year;
- a minimum of 10 days between consecutive sessions;
- no overlap between exam sessions and lecture periods.
Student representatives in the Examination Board contribute to reviewing the annual examination schedule.

As per University Statute, student representatives sit in all bodies responsible for the Curriculum management and self-evaluation. Updated information on all aspects of the assessment procedures (including the yearly schedule of exam dates) are available to all students via the following sections of the DVM Course website:

Exam calendar:
https://www.veterinarymedicine.unito.it/do/home.pl/View?doc=exams.html

Exam Policy:
https://www.veterinarymedicine.unito.it/do/documenti.pl/Show?_id=3bvl

Grading criteria of the individual teaching units:
https://www.clmveterinaria.unito.it/do/home.pl/View?doc=/mv/insegnamenti.html

Graduation exam:
https://www.veterinarymedicine.unito.it/do/home.pl/View?doc=thesis_and_graduation.html

State exam:
https://www.veterinarymedicine.unito.it/do/home.pl/View?doc=state_exams.html

Starting from year 2019, the Examination Board annually collects cumulative data on student passing rates at each core exam, and on cumulative passing rates in each curricular year. In the near future, when data collection becomes more exhaustive, undesirable deviations from average passing rates will be promptly identified and submitted for review.

Description of the processes for awarding grades, including explicit requirements for barrier assessments
Processes for awarding grades are officially managed at the University level (https://www.unito.it/sites/default/files/reg_mod_dr_1883_8_aprile_2013.pdf). Grades for individual subjects must be expressed as numbers, from 18 (minimum passing grade) to 30 *cum laude* (excellence). The examination board for each subject is composed of a minimum of two members of the teaching staff. Students have the right to re-sit an exam in an attempt to improve their grade.

Assessment criteria of each subject, and passing requirements are reported in detail in the subject description forms ("Schede di Insegnamento"). Every year, such a document must either be updated or confirmed by the subject Coordinator (https://www.clmveterinaria.unito.it/do/home.pl/View?doc=/mv/insegnamenti.html).

Lecturers are strongly invited to inform students on assessment criteria and procedures at the beginning of the course. A question concerning the clarity of information provided is included in the questionnaire that students must complete at the end of each semester. Critical issues are managed by the Examination Board and the CMR.

Additional requirements to sit an exam (e.g. prerequisites) and/or attend specific activities (e.g. rounds/PPT/elective courses) are explicitly reported in the "Schede di Insegnamento" and in the "Manifesto Guida dello Studente" (see Standard 7). Both documents are updated annually.

Grades for the graduation thesis are awarded by a Commission made up of 11 lecturers, including the supervisors of theses to be defended within the same daily session

(usually, from 10 to 12). Grades are attributed by each member of the Commission according to her/his role. In particular, the thesis supervisor and an independent co-advisor (selected among the teaching staff) are in charge of evaluating parameters regarding the quality of the manuscript and the experimental or bibliographic work behind it. The remaining members of the Commission are in charge of evaluating transversal and soft skills (e.g. quality of the presentation, communication skills of the candidate, ability to properly reply to questions asked by the Commission). Additional grades (two points at most) may be attributed in case of: i) students graduating within the five-year prescribed time (1 point); ii) completion of at least 12 ECTS in institutions abroad (0.5 point); iii) achievement of 66% of the elective performance criteria listed in the Portfolio (1 point) (see Standard 3); iv) achievement of 100% of such criteria (1.5 points). The final grade awarded takes into account the weighted average of grades obtained across all subjects, converted in 110th. This is then added to the average of grades awarded by each member of the Commission, plus any additional grades (see above). A *cum laude* distinction may be awarded in the case that a final grade exceeds 110, provided that the Commission is unanimously in favor of it. An outstanding thesis work may be awarded the mention "recommended for publication". Excellent careers in terms of awarded grades (at least 105/110) and time to graduation (5 years) may also be given the "mention to career" label. The final grade is orally communicated to new graduates during the graduation ceremony taking place at the end of each session.

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

Results of oral exams are released at the end of the single exam. In the case of written tests, the subject Coordinator uploads the results on a UniTO platform (https://esse3.unito.it) soon after marking. Privacy of this data is secured by student access to the online platform with her/his login credentials. Students are given a five-day period to decide whether to accept or refuse the grade. According to the Assessment Policy, upon request by the individual student and by appointment, teachers must provide feedback on the exam outcome, including counseling for improvement, where necessary. Finally, in the case of written reports, teachers must provide feedback no later than two weeks after the student receives the grade.

Some lecturers voluntarily offer a refresher course for those students who failed to pass the exam in a previous session. In other cases, a refresher course is organized upon request by the students.

Description of the appeal processes against assessment outcomes

Procedures for appealing against exam results are outlined in Annex 1 of the "Exam Policy". Additionally, students are officially informed on the appealing process and their rights during tutorship events held during the first curricular semester. In general, an appeal may be filed by any student who believes the announced assessment criteria and procedures have not been complied with. The appeal process is run by the Examination Board and may lead to a revision of previously awarded grades following reappraisal of the grading decision by the examiner.

In addition to the aforementioned "first line" appealing mechanism, students may appeal against any perceived unfairness during an exam by completing an anonymous form available at: https://www.clmveterinaria.unito.it/do/documenti.pl/Show?_id=2txp.
Furthermore, as already mentioned (see 7.8), students can: i) send complaints concerning exams to the Coordinator of the DVM Course; ii) raise discomfort or ask for for clarification during the end-of-semester tutorial session scheduled for each class (the Didactic Manager will include them in the session report which is then forwarded to the CMR for discussion); iii) report any issue concerning exams to the CMR through student representatives.

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.

Description of how (procedures) and by who (description of the committee structure) the students' assessment strategy is decided, communicated to staff, students and stakeholders, implemented, assessed and revised

The CMR, which operates on behalf of the DVM Council, enjoys freedom with regard to initiating processes concerning the student assessment strategy. The periodic revision of the student assessment strategy also falls within the tasks of the CMR. It is intended that the DVM Council stands as the decision-making body, hence it reserves the right to discuss and amend (where appropriate) proposals of the CMR before approval. In recent years the publication of new ESEVT standards and guidelines has been a major driver of the drafting and implementation of an explicit student assessment policy.

Communication to students on affairs and novelties dealing with assessment strategies is carried out at different levels, namely:

- the on line publication of the relevant DVM Council resolution;
- feedback to peers by student representatives in the CMR;
- dedicated tutorship events with the participation of the Didactic Manager.

As already anticipated (see 8.1), assessment strategies are discussed with stakeholders concerned on a regular basis. Stakeholders are allowed free online access to the Exam Policy document and the DVM Council resolutions dealing with the student assessment strategy.

Description of the link between learning outcomes and assessment design

The "constructive alignment" principle of teaching and learning activities and the respective assessment tasks was the underpinning concept for the drafting of the Exam Policy document. Accordingly, each subject Coordinator is responsible for ensuring consistency between learning outcomes and the assessment design at the subject level, besides highlighting it explicitly in the subject form available in the published catalogue. In turn, the CMR is in charge of checking annually the aforementioned consistency, of identifying possible mismatches and guiding lecturers towards improvement.

Currently, the vast majority of lecturers has complied with the indication that exams shall consist of a minimum of two different formats, usually MCQs (and/or short written assays) and an oral or practical part. Inclusion of the last format has been firmly advocated for clinical and professional subjects. Accessibility has also improved, as students who are disadvantaged by a particular assessment method may enjoy greater opportunity to demonstrate their full range of abilities.

As expected, the use of practical examination formats increases from basic to clinical subjects. The discussion of clinical cases/videos allowing the assessment of clinical reasoning and communication skills has been particularly encouraged. In the first curricular years, oral examination formats (which are regarded as a must in the Italian academic tradition) have been progressively flanked by written formats. However, oral examination formats are still appreciated as tools to stimulate verbal interactions and the use of appropriate terminology since the early stages of students' career.

Following substantial revision, the assessment criteria for the graduation exam have been now clearly defined, in line with the competencies (including report writing and communication skills) expected of students at the very end of their career who are ready to enter the professional world.

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.

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

Unlike other international academic systems, comprehensive end-of-semester assessment sessions are not common in our Country, and each subject has a specific exam.

Achievement of learning outcomes is certified in four complementary ways: i) a positive grade in the final exam of any subject (for learning outcomes listed in the corresponding subject form); ii) a positive grade (or "approved") in an interim test, when applicable; iii) a signature (by a lecturer or a tutor) on any box of the Portfolio of Competencies, proving the fulfillment of performance criteria (see Standard 3); iv) the grade awarded following discussion of the Graduation thesis. The first two certifications are traceable on the university online platform, ESSE3; the third one involves the use of a mobile application, whose running has been detailed in a previous chapter (see Standard 3); the last one is the sum of grades awarded to the thesis work and discussion and a cumulative grade based on student career (see 8.2).

Due to privacy regulations, no teaching staff member is granted free access to students' certified grades. However, students' career may be checked by authorized support staff members to verify the compliance with prerequisites (e.g. fulfillment of training requirements and possession of mandatory competencies before discussion of the Graduation thesis). The CMR, in turn, is entitled to carry out enquiries at the cohort level, especially for matters dealing with QA processes.

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

The general strategy to encourage students to take an active part in the learning process is based mainly on: i) offering targeted tutorship activities; ii) providing feedback upon requests by students; iii) involving students in curriculum management; iv) adopting teaching methods capable of stimulating a pro-active attitude by students.

Tutorship activities play a key role in this context. Tutorial sessions planned at the end of each semester are aimed at gathering students' feedback on perceived strengths and weaknesses, and to provide them with feedback about improvements, changes and corrective actions arising from their previous comments/suggestions. Results of students' opinion questionnaires on teaching and assessment methods are discussed, and the corrective actions adopted by the Establishment communicated. Feedback by students suggests that the cause-effect approach encourages both motivation and responsibility.

Particular attention has been placed on student participation in curriculum management at the DVS and DVM Course level. Students sit in all relevant Committees and all decision-making bodies. Their proposals/suggestions are discussed, in particular, by the CMR, the DVS Didactic Committee and the Students' Affairs Committee.

As for the adoption of fit-for-purpose pedagogical methods, a proactive attitude to learning has been promoted by linking the performance criteria of ESEVT Day One Competencies listed in the Portfolio to specific learning units and/or practical/clinical training periods. Students are now aware that either the lecturer's or tutor's signature (which is proof that mandatory performance criteria have been fulfilled) in the Portfolio is a prerequisite for sitting the Graduation exam. Students are also aware that the signing of a proportion of optional performance criteria will result in additional grades in the final score.

Different courses include small-group work and/or activities such as role playing exercises in order to enhance motivation and develop autonomy and responsibility. Many teachers use interactive software (e.g. Socrative; Mentimeter) to stimulate peer to peer discussion.

The recent strengthening of self-learning (e.g. Clinical Skill Labs) and the requested attendance to continuous education events (see Standard 3) can also be intended as a means to increase students' awareness and participation.

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.

Description of the assessment methodology to ensure that every graduate has achieved the minimum level of competence, as described in the ESEVT Day One Competences (see Annex 2)

The Establishment has adopted different methods of formative and summative assessment, whose alignment with learning outcomes is ensured and regularly monitored by the CMR.

At present, formative assessment methods are adopted in approximately half of the curricular courses. They include:

- interim written tests (e.g. MCQs, open questions, identification of plant and animal images, problem solving exercises);
- interactive question/answer sessions by means of dedicated software (e.g. Socrative, Mentimeter);
- oral presentation of specific topics on the basis of available scientific literature;
- written reports;
- data management and analysis.

Major summative assessment categories are almost evenly represented across the curriculum (please see the Table below).

Distribution of the major summative assessment formats in percent of the total exam tests provided for

EXAM FORMAT	%
WRITTEN	37.7
ORAL	36.1
PRACTICAL	26.2

Main changes occurred since the last 2010 EAEVE visitation include balancing between different examination formats (written and practical formats were much less represented at the time) and the substantial increase in mixed formats (now adopted in 80% of summative exams). Since the publication of the first ECCVT "Day One Competencies" in 2015, the CMR (supported by volunteering staff members with experience in EAEVE meetings and visitations) started a review process to break down the "Day One Competencies" description to measurable performance criteria, in view of their reliable certification by teachers and tutors. As already mentioned (Standard 3), all performance criteria were collected in a single document, named "Portfolio delle Competenze" (syn. Portfolio). This document was agreed on by both the academic staff and students in 2019. As a major outcome, students are admitted to the public discussion of the graduation thesis provided that all performance criteria included in the so called "mandatory list" have been individually certified by a teacher or a tutor. The Portfolio now represents the platform for sustained review of the curriculum organization and educational goals, and for the declination of the latter at the subject level. Noteworthy, detailed performance criteria were identified limited to the Day One Competencies numbered 1.15 to 1.36 in the last available DOCs version (approved by ECCVT on 17 February 2019). As regards the DOCs numbered 1.1 to 1.14, the CMR has

recognized how difficult it is to agree on a list of reliable performance criteria, thus recommending (although provisionally) that such DOCs be regarded as acquired once the student has positively completed her/his career, including the PPT programme and the discussion of the graduation thesis.

Actions are in progress to agree with the Profession that the ECCVT approved DOCs and the respective performance criteria be adopted as the cornerstone of the State Exam in Veterinary Medicine.

COMMENTS

In recent years, the Degree Course has focused on the pivotal role of QA in all student assessment processes. The setting up of a dedicated Examination Board and the agreement on an explicit Exam Policy document are proof of this. Undoubtedly, the adoption of a common assessment policy represents an innovative approach in the framework of "sacred" lecturers' autonomy in Italy. In our view, the Exam Policy document represents a substantial step towards a sustainable standardization and harmonization of assessment procedures.

It is expected that education programmes offered to teaching staff will strengthen the the overall instructional skills, while enhancing commitment for the adoption of state-of-the-art assessment techniques. Transparency, sharing of good assessment practices and teachers' training are the perceived strengths of the whole process. Nevertheless, awareness exists that further efforts are needed, in particular to:

- harmonize/standardize written and oral examination formats;
- increase the offer of practical examination formats, and identify a solid composite indicator (e.g. Skills Index) for clinical training assessment.

SUGGESTIONS FOR IMPROVEMENT

Priority should be given to:

- the creation of internal guidelines for designing written/oral examination tests in line with the best recognized examination standards;
- the identification of a Skills Index to improve the assessment of practical clinical skills;
- further implement practical examination formats;

The identification of reliable and realistic criteria for an objective assessment of all expected Soft Skills at the individual student level should be also given particular attention.

.

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.

In the Italian system, academic staff is culturally identified according to "scientific disciplinary sectors" and the corresponding "recruitment fields". Disciplines characterizing Veterinary Medicine and Animal Production include fourteen sectors and six, which are all covered by the DVS academic staff.

According to the existing University Law (240/2010), permanent academic staff include Full and Associate professors. Before the entry into force of the new law, the category of Assistant Professors also enjoyed a permanent position status. Today, however, new staff positions are covered with temporary appointments including both Type A Assistant professors (untenured) and Type B Assistant professors (with tenure-track). Whereas the former are contracted for 3 years, with the possibility of further extending the period for another two years (based on an interim assessment by the Department), the latter may be contracted for 3 years only. To access the position of Type A and B Assistant professor candidates must hold a PhD. Assistant Professors who, based on their scientific outputs and bibliometric indexes, have been awarded the National Scientific Qualification/NSQ (https://abilitazione.miur.it/public/index.php) can participate in available public competitions to become an Associate professor (University Law 240/2010, art. 24.5). Holding a NSQ that is relevant for the vacant position is also required to progress to permanent positions.

To tackle academic endogamy, the University Law governs – for the first time on a national level – that 20% of permanent academic positions be open only to candidates who, in the previous three years, have not carried out research and/or teaching activities within the hiring University.

Recruitment and promotion of academic staff depend on available public funding. From an operational perspective, each year a variable number of dedicated "staff points" are assigned to DVS by UniTO. The amount of points depends on the general allocation of resources by the competent Ministry, and a range of locally established parameters, including fulfilment of research and teaching goals, the student population size and the expected academic turnover. The allocation of "staff points" is discussed within a dedicated Committee (Staff Committee/"Commissione Organico"), and a proposal is submitted for deliberation to the DVS Council. In recent years, further public funding has occasionally been made available for specific purposes (e.g. progression of senior Assistant Professors in 2018 and 2019). New positions (two academics and two technicians) have also become available thanks to the extra budget assigned by MIUR after the DVS was recognized as a "Department of Excellence".

According to UniTO regulations, the DVS is requested to define its policy for the recruitment and promotion of academic staff in the Three-year Strategic Plan, an internal QA document. The DVS Staff Committee is in charge of identifying the needs of academic and technical research staff and evaluate requests for new positions put forward by the different "sectors" on the basis of criteria such as teaching load, the need to support clinical activities and maintain/expand teaching competences, balance across staff levels and their harmonious distribution across "sectors". Proposals of the Staff Committee, after being approved by the DSV Council, are eventually deliberated by the Academic Senate and the Board of Governors.

Staff Committee's proposal is then discussed and approved by the DVS Council. A final approval by the Academic Senate and the Board of Governors is required.

Members of the permanent academic staff are requested to complete an activity report every three years. The report, which includes a detailed list of teaching, research and

organization activities carried out, is subjected to peer-to-peer evaluation by the DVS Council.

With regard to the hiring of non-academic teaching staff, who mainly include practitioners with relevant professional experience, this takes place through publication of a public notice of competition.

UniTO Central Administration recruits the support staff on the basis of professional attitudes and skills, and the degree of autonomy required for the job (for further details, please visit the following link https://www.rsu.unito.it/cci_regolamenti/RegolamentoAccesso&Progressioni191205.pdf). The selection is public and competitive. Application pre-requisites may vary depending on the qualification category (B, C, D, EP). Horizontal progression within the same category is based on certified professional development (relevant to both the workplace and tasks performed) and the evaluation of the individual's performance. Vertical progression can either be achieved by written/practical/oral examination and evaluation of qualifications, or by evaluation of qualifications only (the so called "*corso-concorso*"). In both cases, the individual's professional knowledge and development are of the utmost importance.

In general, the Establishment has a limited say on recruitment of support staff. Nevertheless, a certain "openness" has been demonstrated by UniTO since 2018, with Departments being allowed to use the assigned "staff points" for both academic and research support staff.

At the moment, the Establishment's transparency as to recruitment and progression processes relies on the following: i) existence of a Staff Committee with a balanced composition of members which include representatives of all the "disciplinary sectors" taught in the undergraduate programs; ii) participation of both academic staff members and support staff representatives in the DVS Council, the decision-making body to which proposals of the Staff Committee are submitted to. This enhances the sharing of information and allows members to contribute suggestions for amendments; iii) the three-year strategic plan of the DVS, which identifies objectives and strategies for staff recruitment and progression on the basis of a SWOT analysis; iv) timely publication of all recruitment and progression procedures on the DSV website.

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.

In 2017 the DVS implemented for the first time a formal training program for academic staff. Although courses are offered to all teachers, they are especially recommended to beginners and lecturers who have received a negative assessment by students. The list of courses provided includes:

- IRIDI, a comprehensive course (organized by UniTo) dealing with teaching-learning strategies, competence-based teaching, skill education, assessment practices and information and communication technologies applied to teaching (https://elearning.unito.it/iridi);
- IRIDI START, a starter version of the previous course dedicated to newly enrolled teaching staff (https://www.unito.it/didattica/elearning/progetto-iridi). Among topics covered are: teaching strategies, planning and implementation of online lessons, new technologies for teaching, strategies for students' assessment, inclusive teaching, QA within academic teaching;
- "Training for better teaching, learning and the development of communication skills in vehicular language" (English) (British Council);
- "Veterinary Evidence Based Learning (VEBL)", with on-site participation of members of the Center for Veterinary Education, University of Bristol;
- Training activities to enhance "Academic Communication Skills in English for Italian Lecturers" (DVS/UniTO);
- "Introduction to the use of e-Moodle platform" (DVS/UniTO);

- "Teaching strategies for students with disabilities" (DVS/UniTO);
- "Strategies and tools for e-teaching/e-learning" (UniTO);
- "Training in Biosafety and Biosecurity" (DVS/UniTO).

Despite the non-compulsory attendance to any of the above initiatives (except for the biosafety and biosecurity training course), the vast majority of academics and tenure-track staff participated in two or more scheduled events.

Support staff can benefit from a solid and structured training program, mostly organized by UniTo, concerning both transversal and disciplinary subjects. DVS support staff has also received training in QA practices, including the EAEVE accreditation process and standards.

In January/February 2020, a training course on ESEVT, and more specifically on Day One Competences and their assessment, was offered to Veterinary Officers supporting extramural PPT in Veterinary Public Health.

Most academic staff (Calculated as FTE) involved in the veterinary training must be veterinarians. It is expected than more than 2/3 of the instruction that the students receive, as determined by student teaching hours, is delivered by qualified veterinarians.
All academic staff involved in clinical training must be members of a veterinary chamber ("Ordine Professionale"). This requisite, however, is not mandatory for academics holding a DVM who are involved in the teaching of Basic Sciences, Animal Production and Food Hygiene. Overall, approximately 85% of the academic staff involved in veterinary training are qualified veterinarians.

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.
In the academic year 2019/2020, the academic staff involved in veterinary training is 78.5 FTE, with an acceptable gender representation (51% males, 49% females). Since the last EAEVE on-site visit, the DVS academic staff involved in veterinary training has increased of 19.8 % (from 65.5 FTE).

About 40% of permanent staff is represented by teachers under the age of 50. About 96% of the permanent teaching staff is affiliated with the DVS, whereas the remaining 4% is represented by teachers belonging to other Departments. The high proportion of DVS affiliated teachers ensures the sharing of the educational mission and processes of the DVM Course.

Currently, permanent teaching staff cover all areas of the veterinary curriculum, from Basic Sciences to Professional Knowledge. It should be noted that certain Basic subjects (e.g. Organic Chemistry, Biomedical statistics and informatics) are taught by DVS academics, thus ensuring a veterinary oriented approach.

Academics are bound to deliver a yearly amount of at least 350 hours of teaching, including lectures, practicals, integrative teaching, tutorship, etc. Within this limit, minimum thresholds have been established (at the national level) with regard to the number of "frontal" hours to deliver. Thresholds take into account the academic role as follows:
- Full and Associate professors: 120 h/year;
- Type B Assistant Professors: 90 h/year;
- Assistant Professors (according to the "old" University Law): 60 h/year.

Type A Assistant Professors are not officially required to participate in undergraduate teaching, however they may be assigned up to 60 h/years.

Non-academic teaching staff are mainly recruited to support repetitions of practical activities in small groups. Selection criteria in the competitive hiring process include an

adequate level of professional experience (including previous teaching) and the possession of skills necessary to perform the task at hand. Financial sustainability is guaranteed by ordinary and additional Department funds. In the last three years, targeted recruitment of new academic staff has led to a 30% decrease in the number of outsourced teaching hours.

Support staff involved in the veterinary program include both research support staff in force at DVS, and a quota of the administrative staff in force at the Campus. The latter is affiliated with six UniTO divisions, and officially serve the needs of the DVS, the Department of Agriculture, Forestry and Food Sciences and the Campus School. For the purposes of this document, FTE Administrative staff has been calculated as follows: 1 FTE for staff fully implicated in the management of the Veterinary program and 0.50 FTE for staff whose involvement is only partial. Outsourced staff providing security, cleaning and sanitation services for the whole Campus (summing up to 28) were not included. For academic and support staff numbers (expressed in FTE), please see Table 9.2.1 and 9.2.4 respectively.

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.

The Italian law does not provide for any type of official procedure to assess, individually, the competence and effective teaching skills of staff involved in undergraduate training (eg., there is not a National Teaching Qualification). Yet the Italian National Agency for the Evaluation of Universities and Research Institutes (ANVUR) that makes on site visits for the accreditation of the programs has issued a positive certificate to the DVM Course after in-depth evaluation of teaching procedures and effectiveness (https://www.unito.it/sites/default/files/rapporto_anvur_ap_torino.pdf; see pg. 23).

Assessment mechanisms at the local level include the collection of students' feedback on the individual teacher (usually a member of the permanent academic staff) and the different PPT activities offered. Both are the object of a six-monthly reports by EduMeter (https://www.unito.it/node/2364), the Campus School and the Didactic Manager. Reports are published in the DVM course website (https://www.clmveterinaria.unito.it/do/home.pl/View?doc=/mv/opinioni_studenti.html) and analyzed by the DVM Monitoring and Review Committee. Results are illustrated and debated in the DVM Council. For additional information, please see 8.1 and 9.5).

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 specialization must be available. The Establishment must clearly define any systems of reward for teaching excellence in operation.

As already mentioned, various courses and seminars have been proposed to improve teaching skills since 2017. In particular, attention has been placed on tools and strategies to stimulate students' active learning. The Department not only has included academic staff training among the objectives of its Three Year Strategic Plan, but has also invested in developing opportunities for the pedagogic growth of all academic staff.

Moreover, following the adoption of the Examination Policy (please see Standard 8), all teaching staff were asked to think about exam strategies, in addition to aligning the examination format with the learning outcomes of the Degree Course and their own course. The process was also conceived as a means to stimulate professional growth in veterinary teaching/training.

The number of staff holding a specialist Diploma has increased since the last EAEVE evaluation (from 16 to 20, please see Standard 10).

At the time being, no reward system for teaching excellence has been defined. However, this is also the case with other national Establishments. This lag behind is clearly influenced by the vision of the University law, which is unambiguously skewed toward recognition of the sole excellence in research. The balancing process would certainly benefit from the long-awaited definition of nationwide applicable criteria by MIUR. In 2018, the DVS Staff Committee initiated a discussion aimed at drafting guidelines for (more) balanced criteria for career progression, taking into consideration teaching and other than research skills.

According to the University QA system, the Degree Courses monitor teaching quality by collecting and analyzing students' opinions. At the end of each semester, the Self Evaluation Committee of the Degree Course discusses the results of the survey according to specific guidelines and identifies corrective actions where critical issues are detected (please see 9.5 for details).

Until the coming into force of Italian Law 240/2010, the economic progression of academic staff was dependent on the years of service and role covered. Since then (due to the economic downturn), only sporadic (*una tantum*) incentives were awarded for the three-year period 2016-2018. In 2019, a three-year economic promotion system based on (mild) meritocratic criteria essentially related to scientific outputs was endorsed by MIUR for budgeted academic positions.

Support staff are evaluated periodically for category pay rises. Support staff with higher professional positions (EP) who are linked to specific allowances are evaluated every year.

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.

According to the relevant legislation, full time professors are required to dedicate no less than 350 h/year to teaching, including mentoring, tutoring and learning assessment. Part-time academics are instead expected to deliver 250 h/year. Partial reductions of the teaching workload may be conceded in case of heavy and challenging academic duties/roles (e.g. Director of Department). In general, the required workload is perceived compatible with professional development and other activities (e.g. the so called "Third Mission"). Nevertheless, great pressure is put on academics engaged to cover major organization roles, when we consider that no explicit recognition for career progression and no economic incentives (with the exception of the DVS and SDSV Directors) are provided. On the other hand, stability and continuity of academic staff are implicit in the civil servant status.

9.4 The Establishment must provide evidence that it utilizes a well-defined, comprehensive and publicized program for the professional growth and development of academic and support staff, including formal appraisal and informal mentoring procedures.

As regards teaching staff's development opportunities, the training program described in 9.1 (please see) has been designed in order to:

- fulfill professional growth requirements;
- cover the main topics in veterinary teaching/assessment;
- stimulate the interest of staff with respect to teaching missions;
- encourage review of syllabus/examination format.

The training program has been officially presented before the DVS Council, and

communicated via e-mail to all staff potentially concerned in a timely and proper way. As mentioned above, a high rate of attendance was registered, even though participation of teaching staff was not mandatory. These results are not only proof of teachers' willingness to further strengthen and update their professional skills, but also provide a great stimulus for the DVS to continue pursuing the path taken.

Other training opportunities offered to all interested parties include:

- seminars/lessons held by visiting professors in the framework of the "Department of Excellence" project (for a list, please visit https://www.veterinaria.unito.it/do/home.pl/View?doc=D108_VetEccellenza.html). Events were mainly focused on the One Health approach and other veterinary topics (e.g. drug resistance and prevention strategies), as well as on dissemination of research results, from high rank scientific journals to the general public. The program was largely publicized both on and off Campus;
- training on new research equipment (e.g. MALDI TOF), including potential applications in the veterinary context.

The Department has been organizing the so called "Research Days" for some time now. For two days every year, academic staff are invited to present the results of ongoing research projects with the aim of launching peer-to-peer debates and foster collaboration.

Most academics are affiliated with scientific societies and regularly attend national and international events and meetings in their main field of research/professional activity. This ensures life-long learning and continuous professional growth. It should be noted that an increasing number of scientific societies have been paying attention to teaching missions, offering opportunities to share learning outcomes, best practices and strategies to implement on the national level.

As for mentoring procedures, all academic staff are part of a teaching and/or research group according to the discipline involved, and generally operate under the supervision of one or more senior academics. Technical staff work under the guidance of their respective research team. Depending on the topic dealt with, informal mentoring is also ensured by the Vice-Director for Teaching Affairs, the Vice-Director for Research and/or the President of the Degree Course.

A program for the professional update and development of support staff is planned by UniTo on a three-year basis, taking into account provisions of the national legislation, namely:

- Decree no. 165/2001 (art. 7-bis), according to which public administrations are bound to prepare a staff training plan that takes into account existing needs and skills to be developed;
- Decree (DPR) no. 70/2013, which provides for the drafting of a three-year staff training plan that ensures a rational use of human resources;
- Decree (D.Lgs) no. 13/2013 (art. 1), which promotes lifelong learning as a person's right, as well as equal opportunities for people to improve their skills.

The program, which can be accessed via UniTo website using the university credentials, includes the development of both transversal (e.g. communication, management) and professional competences in specific areas/topics (e.g. didactics and services to students, quality assurance, privacy, research etc.). A welcome kit and dedicated training are offered to newly enrolled staff, together with the opportunity of "tutoring on the job" (20-40 hours of tutoring by a senior colleague).

Finally, support staff are invited to join training events organized by DVS whenever relevant or potentially interesting.

Staff must have the opportunity to contribute to the Establishment's direction and decision making processes.

As reported in Standard 2, a significant number of academic and support staff representatives sit in the many Committees and working groups the DVS and SDSV rely upon – with

the exception of the Staff Committee, which is exclusively composed of academics. The composition of main decision bodies (namely the DVS Council and the Degree Course Council) includes all the relevant academic staff and a broad representation of support staff.

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

Progression of academic staff depends on: i) the budget UniTO allocates every year for staff strategies at the Departmental level (on the basis of requests by the "scientific sector" representatives within the Staff Committee), and ii) the candidate's possession of the NSQ for the role to be covered. Beyond local efforts and brainstorming, it is quite obvious to all Italian academic staff that the existing University Law does not favour an explicit definition of promotion criteria other than ability in research. This systemic weakness is the object of an ongoing fierce debate and recurring proposals for improvement of current legislation.

Progression criteria for support staff are explicit for both "horizontal" and "vertical" progression.

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.

Students regularly assess all teachers involved in the veterinary program through Edumeter, an UniTO's online evaluation system (https://www.unito.it/ateneo/assicurazione-della-qualita-aq/aq-didattica/opinione-studenti). The evaluation is mandatory and anonymous. To encourage students to complete end-of-course evaluations and provide useful feedback, cohort-targeted tutorial sessions are organized at the end of each semester. During these sessions, the Didactic Manager and the QA Delegate discuss the following points with students:

- **importance of frank and constructive appraisal**;
- **genuine interest of the Establishment to receive feedback (whether positive or negative) on courses**;
- **type of feedback that is most useful;**
- **how students' opinions are dealt with.**

A video tutorial for students is available at https://www.youtube.com/watch?v=AGRuld0fEiw.

Students are asked to evaluate:

- the possession of adequate pre-requisites (i.e. if background knowledge is adequate for students to follow lectures);
- the consistency of study workload with the course assigned ECTS;
- the adequacy and availability of didactic material;
- the transparency and clarity of assessment formats;
- compliance with teaching timetable;
- the ability of teachers to encourage/motivate students;
- the clarity in teaching;
- the usefulness of practical sessions with respect to the objectives and outcomes of the course;
- the consistency of the course organization with information reported in the catalogue of subject forms;
- teachers' availability to see students during office hours or for tutoring.

It should be noted that as of 2015 students are requested to complete an additional questionnaire about the exams that were taken during the previous academic year. Questions deal with: i) satisfaction with exam procedures; ii) adequacy of didactic material; iii) consistency of ECTS with study workload (please see Standard 8). For both questionnaires, cut-off values have been identified for mild and severe criticism by students (66.6% and 33.3% percentage satisfaction, respectively). In addition, students' opinions are collected during the tutorial sessions that are scheduled for each

class at the end of each semester. The Didactic Manager meets all available students (without their lecturers) to discuss strengths and weaknesses of the reference didactic period. The Manager completes a report of the tutorial session and submits it to the Self Evaluation Committee (please see Standard 7). Finally, students are also expected to evaluate all practical training activities (both intra and extra-mural).

Results of students' questionnaires and the report of the Didactic Manager are discussed by the Self Evaluation Committee at the end of each semester. According to guidelines set by the Establishment at the time of the last onsite visit by the Italian National Agency for the Evaluation of Universities and Research Institutes (ANVUR) in 2015 (https://www.clmveterinaria.unito.it/html/valutazione/linee_guida_Edumeter.pdf), in case of negative feedback teachers must discuss strengths and weaknesses of their teaching and/or assessment approach before the representatives of the Self Evaluation Committee, in addition to adopting coherent and shared compensatory measures (please see Standard 8).

The analysis of students' feedback by the Self Evaluation Committee and the related reactions/compensations are presented and discussed within the Degree Course Council, besides being monitored by the Joint Student-Teacher Committee ("Commissione Didattica Paritetica") that acts behalf of the Campus School. Monitoring results are included in the Annual Report that the Campus School must submit to UniTO Independent Evaluation Unit (Nucleo di Valutazione).

COMMENTS

Number and qualifications of teaching staff currently involved in the veterinary program are deemed substantially adequate. It is worth noting that in recent years:

- recruitment of new academic staff has allowed to compensate weaknesses related to specific competence areas (e.g. equine abdominal surgery);
- several training initiatives have been organized to improve quality in teaching and assessment. The dense and diversified training program was intended to fill a gap common across most national academic contexts. Further training initiatives will be planned and organized based on need analysis.

Regarding support staff, the 2017 re-organization (a sort of revolution at the local University level) has undoubtedly reshuffled the cards and deserves special comment. By estimating the extent to which the administrative staff of the Campus actually contribute to the running of the veterinary program, the FTE support staff seem adequate for the scope. On the other hand, the shortage of support staff affiliated with DVS (and SDSV) is clear, especially when considering the expansion that several activities have registered in recent years. Such staff are essential for the functioning of research and teaching laboratories and the Teaching Farm, as well as for the provision of VTH services. Being well aware of this and of the limited direct support that UniTO can offer to any Department, the DVS has agreed to allocate part of its "own" resources ("Staff points") to support the recruitment of temporary and permanent support staff. In particular, under this new deal, the opening of six new permanent positions has been recently deliberated.

The DVS academic community is also aware that, nationally speaking, there is still a long way to go before progression criteria are designed in a balanced way (e.g. by placing equal emphasis on all aspects of teaching, research, services and other scholarly activities). Meanwhile, internal solutions for improvement should be debated and publicized, for the benefit of transparency and to motivate staff committed to excellent teaching and/or available to assume challenging organization/management duties. The need to improve the student's evaluation system is closely related to this, as it proved to be an effective way to identify and solve issues related to weak teaching, but ill-suited to highlight excellence in teaching.

SUGGESTIONS FOR IMPROVEMENT

Up-to-standard training of academic staff remains a complex issue as it ideally embraces a balanced development of teaching, research and organization skills. In the future, all of the aforementioned skills should be given full recognition and be submitted to evaluation. Promotion criteria for the role to cover should evolve accordingly. The DVS undertakes to contribute to the ongoing debate at the national level, to identify criteria for the evaluation of skills other than research-related ones, and to draft guidelines to further improve locally and within the limits of current legislation.

Recruitment of new permanent support staff should be the incentive to better orient and streamline, in close collaboration with UniTO governance, the programme of educational events aimed to promote the professional growth of all support staff.

TYPE OF CONTRACT	2019	2018	2017	MEAN
PERMANENT	**70.0**	**69.5**	**69.5**	**69.7**
TEMPORARY	**21.3**	**20.5**	**22.8**	**21.5**
Interns	NA	NA	NA	NA
PhD Students	NA	NA	NA	NA
Practitioners	17.3	16.5	19.8	0
Other*	4	4	3	NA
TOTAL	**91.3**	**90.0**	**92.3**	**91.2**

TABLE 9.2.2 ACADEMIC STAFF OF THE VETERINARY PROGRAMME (FTE)**

*** All staff included in this table must have received training to teach and to assess undergraduate students. Practitioners involved with EPT are not included in this table*

TYPE OF CONTRACT	2019	2018	2017	MEAN
PERMANENT	80.2	85	85.4	83.5
TEMPORARY	90.6	91.7	91.2	91.2
TOTAL	**82.4**	**87.7**	**86.7**	**85.6**

TABLE 9.2.2 PERCENTAGE (% FTE) OF VETERINARIANS IN ACADEMIC STAFF

TYPE OF CONTRACT	2019	2018	2017	MEAN
PERMANENT	78.5	77	77	77.5
Research	35	34.5	34.5	34.7
Administration	43.5	42.5	42.5	42.8
TEMPORARY	2	1	1	1.3
TOTAL	80.5	78	78	78.8

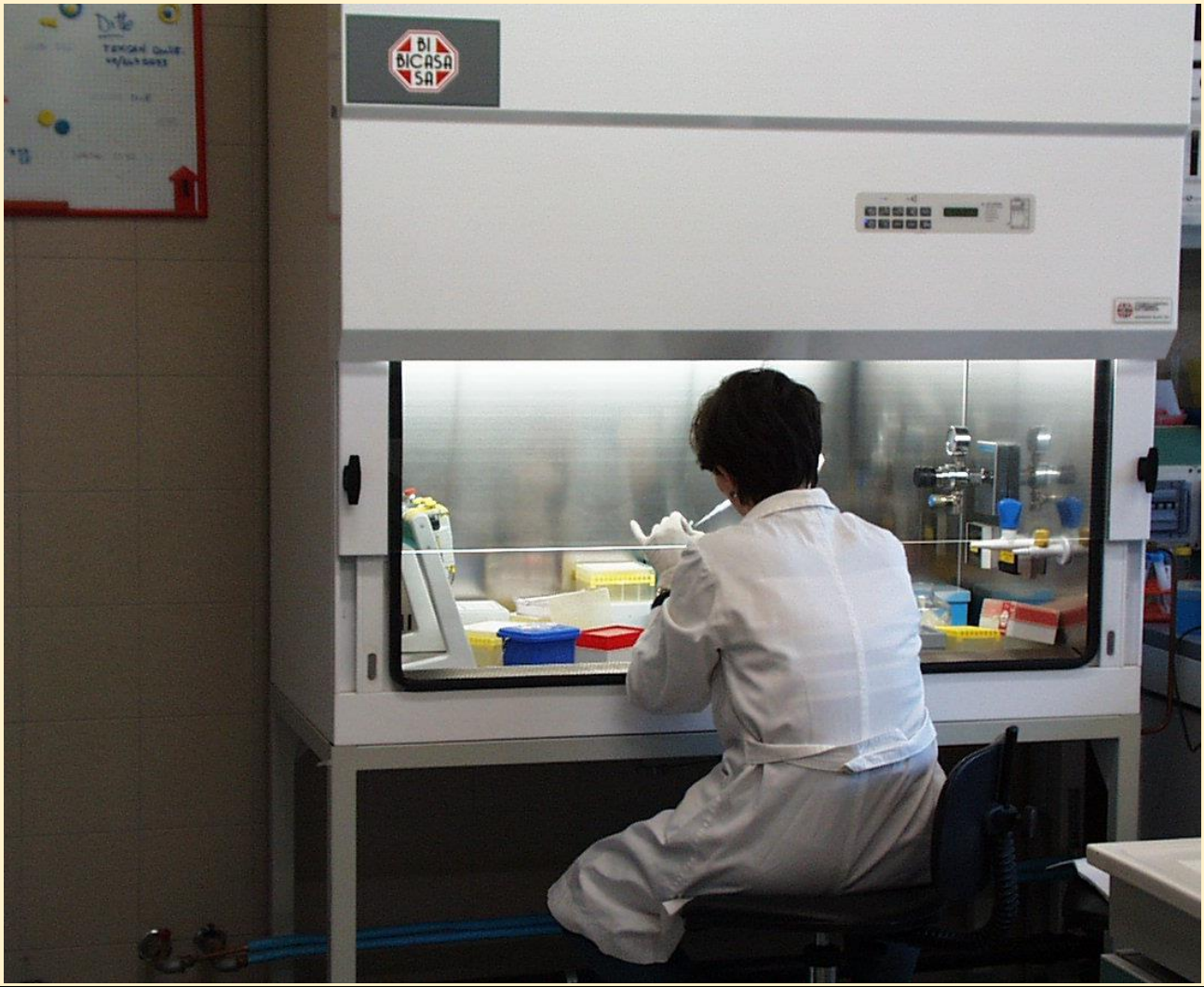
TABLE 9.2.3 SUPPORT STAFF OF THE VETERINARY PROGRAMME (FTE)

TYPE OF CONTRACT	2019	2018	2017	MEAN
PERMANENT	NA*	NA	NA	0
TEMPORARY	21	21	15	19

(*) In the Italian Academia, there are no permanent research staff positions

TABLE 9.2.4 RESEARCH STAFF OF THE ESTABLISHMENT (FTE)

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.

Description of how the research activities of the Establishment and the implication of most academic staff in it contribute to research-based veterinary education

Description of how the research activities of the Establishment and the implication of most academic staff in it contribute to research-based veterinary education

Research activity at DSV is characterized by a fair standard which is reflected in the amount of scientific outputs. Between 2015 and 2019, 753 scientific papers were published in WOS or Scopus indexed journals. Of these, 447 were published in journals belonging to the first quartile of their subject area. Active engagement in research can be demonstrated for all represented subject areas (syn. "sectors", see Standard 9). Accordingly, research is so to speak "in the air" and student may easily perceive this at all stages of their education.

Research at DVS contributes to education in several ways. For example, it i) influences the lecturer's pedagogical approach (e.g. through the selection of a few relevant themes/subject to look at in depth), ii) provides real-world scenarios for valuable fieldwork and the generation of meaningful working hypotheses, iii) orientates the clinical caseload, iv) provides essential background for students to be able to write their graduation thesis under appropriate guidance, etc.

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.

Description of how (undergraduate) students are made aware of the importance of evidence-based medicine, scientific research and lifelong learning

The relevance of both evidence-based decision making and the scientific approach to the multiple challenges of the veterinary profession is emphasized in several ways across the curriculum. In particular, during the first three curricular years, students become acquainted with the language of research and the importance of numbers, statistics and effective data representation. Report writing and/or the presentation of scientific data in front of peers are also utilized to train early students to be concise, get acquainted with literature research and understand the value of supporting statements with appropriate citations. Over the last curricular year, students are increasingly exposed to evidence-based thinking, in particular when engaged in small-group clinical rotations and other PPT activities, and while conducting the mandatory thesis work. Student interaction with the supervisor as they correct their thesis is regarded as a key moment not only for critical thinking, but also to refine report writing and bibliographic research skills. Assessment of the graduation thesis work includes explicit evaluation of the aforementioned skills.

On a voluntary basis, students are also invited to:

- attend seminars and conferences organized by DVS;
- participate in "Research Days" https://www.veterinaria.unito.it/do/home.pl/View?doc=D108_GiornateRicerca.html
- participate in research promotion events, such as the Night of Researchers https://en.unito.it/events/european-researchers-night-2019
- attend the annual audits of PhD students
- attend the Journal Clubs for residents and PhD students (with the possibility of illustrating and commenting a scientific article).

Recently, to further raise students' awareness about the importance of lifelong learning, participation to congresses or other accredited educational events has been included amongst mandatory activities in the restyled PPT programme

https://www.clmveterinaria.unito.it/do/didattica.pl/ShowFile?_id=iiyq;field=file;key=LEEZoZdLr4UCJRIIy43y0osnKH1JfRI3o8vJaSZT70U;t=3886.

Description of how undergraduate students are initiated to bibliographic search, scientific methods and research techniques, and writing of scientific papers

As already anticipated (please see 6.1), the Campus Library staff is available (on request) to start the students to use popular and advanced literature search engines and manage the bibliographic data. Several seminars are organized annually and tutorials are also available.

Scientific reasoning, ranging from asking a question to communicating research results, has been smoothly integrated into lectures and seminars by teachers; furthermore, basic techniques used in veterinary and biomedical research are shown during practical and clinical work sessions. Full awareness of the scientific method and mastery of selected research techniques are expected learning objectives of the graduation thesis work.

Introduction to the writing of scientific papers is not a learning objective for undergraduate students. Nevertheless, outstanding students may be invited by their supervisor to participate in the drafting of scientific articles (or abstracts) based on thesis work outcomes.

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

Due to their dense training schedule, undergraduate students are not usually offered to participate in research programmes other than the mandatory thesis work. Exceptions are rare. This notwithstanding, motivated students may participate, on a voluntary basis, in the activities performed by the research team they are part of during the thesis work.

Available thesis projects are announced in classroom or during practical training sessions, or published on the DVM course website (https://www.clmveterinaria.unito.it/do/tesi.pl/Search). However, the majority of students prefer to set up an appointment with their possible supervisor/s to discuss about topics, workload, difficulty of the project, doubts, expected graduation time, etc.

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

Although no minimum requirements (e.g. a threshold number of ECTS) are officially set for the assignment of a graduation thesis, students are invited to choose a topic and their supervisor/s not earlier than the end of the third/beginning of the fourth curricular year.

The graduation thesis may be an original experimental work ("tesi sperimentale") or a review ("tesi compilativa") critically summarizing the state of the art of any topic relevant to basic or applied Veterinary Sciences. Experimental theses are usually (but not necessarily) awarded higher marks.

The writing and defending of the thesis, with the presentation and discussion of context, methods and results thereof, in front of an Examination Board is the final step of any undergraduate student's career, before being officially awarded the title of DVM. Detailed guidelines for the drafting of the thesis and its defense are provided (https://www.clmveterinaria.unito.it/html/laurea_2_livello/links_magistrale/strutturazione_della_tesi_e_ricerca_bibliografica.pdf). Assessment criteria are also transparently announced and reported in detail on the DVM Course website (https://www.clmveterinaria.unito.it/do/documenti.pl/ShowFile?_id=p9rb;field=file;key=mmaVlqPjRIhFJH7NoBi3M690axmOCAO6VfhSwu4HgoDKjPh3DYG7MwZ5N3NnBOThzq71OghyGAEo4XlypkaUUPkU5p4EC42cDLj2vSjTgKZugV4rrVEOZKRq3URJs;t=3896). Awarded grades are expected to take into account the value of the research work as well as students' transversal competencies, including personal commitment, autonomy and communication skills.

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.

As of today, post-graduate programs available at the DVS are:

- PhD in Veterinary Sciences for Animal Health and Food Safety (https://dott-scivet.campusnet.unito.it/do/home.pl)
- (three-year) Specialization School in Animal Health, Husbandry and Production (https://www.veterinaria.unito.it/do/home.pl/View?doc=D108_ScuolaSanitaAnimale.html)
- (three-year) Specialization School in Inspection of Food of Animal Origin, (https://www.veterinaria.unito.it/do/home.pl/View?doc=D108_ScuolaIspezioneAnimale.html)
- (three-year) Specialization School in Pathology and Clinic of Companion Animals (https://www.veterinaria.unito.it/do/home.pl/View?doc=D108_ScuolaPCAA.html);
- 8 Residency Programs (ECAR, ECVCN, ECVN, ECVPH, ECVPT, ECVS, EVPC, ACVSMR);
- a Continuing Education/Continuing Professional Development Programme (https://www.veterinaria.unito.it/do/home.pl/View?doc=D108_ECM.html).

Research grants (12 or 24 months) and Research scholarships (3, 6, 12 months) are also offered. As of June 2020, the number of grants and scholarships awarded was 12 and 11, respectively.

A Specialization School in Bovine Clinic (https://www.veterinaria.unito.it/do/home.pl/View?doc=D108_ScuolaClinicaBovina.html#submenu) and a Master in Quality, Food Safety and Sustainability of the Dairy Industry (https://www.masterlatte.unito.it/do/home.pl/View?doc=ml/struttura.html) have been put on hold for the time being.

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

Postgraduate students are expected to increase in parallel with the provision of new educational initiatives and the re-proposition of existing programmes. Estimates of growth are as follows: Y+1 (+15%), Y+2 (+20%), Y+3 (+25%). New residency programmes will be offered (ACVIM-SAIM, ECBHM), with new residents enrolling in already active programmes. A sponsorship shall be made available by the Specialization School in Small Animal Clinic and Pathology. Joint residency/PhD programmes will also start to benefit from available PhD grants. The Specialization School in Bovine Clinic will be reproposed, while already active Specialization Schools (in Animal Health, Husbandry and Production; Inspection of Food of Animal Origin; Small Animal Clinic and Pathology) will continue being offered. The Master in Quality, Food Safety and Sustainability of the Dairy Industry will also be reproposed, together with a new Master in "Behavioral Medicine of the Dog, Cat and New Companion Animals", which will be activated jointly with SCIVAC, a scientific society targeting companion animal veterinarians (https://www.scivac.it/it).

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

Despite the great support provided by postgraduate trainees to academic staff in undergraduate students' hands-on professional training, they are not officially involved in teaching. Their qualified contribution is nevertheless appreciated during practical training sessions in small groups (e.g. during "Rounds" and intramural PPT periods). Generally, training of residents and interns is not seen as in competition with the clinical training of undergraduate students. This is because a sufficient number of cases of different severity and complexity is deemed to satisfy the needs of both.

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

The DVS is accredited as a provider of Continuing Education in Medicine (ECM) by the Ministry of Health, and of Continuous Professional Development (CPD) by the Italian National Federation of Veterinarians (FNOVI). Courses, seminars and conferences (both in person and online) are organized by the DVS alone or in collaboration with external bodies and professional associations based on inputs provided. A dedicated internal Committee is responsible for coordinating proposals by the scientific coordinators of educational events and keeping the agenda updated (please see Standard 1 and 9.3). Synergies have been created with research and post-graduate educational programmes offered by DVS to optimize budget and organizational efforts.

The Continuing Education Committee operates in accordance with a regulation (https://www.veterinaria.unito.it/do/documenti.pl/ShowFile?_id=b8to;field=file;key=yQ5657M1AoOyhnDBZfIpcZe8sPZQXs22i0kfyGabekAIYiDaT5asA;t=5253) based on which a six-monthly assessment of training needs expressed by the veterinary profession is performed and the annual Plan of the Educational Offer (POF) drafted. Needs are identified by the Committee on the basis of:

- questionnaires distributed to both professional and graduands attending educational events organized;
- inputs by the academic staff and the interviewed scientific societies;
- possible ongoing emergencies;
- information on new veterinary legislation and national/regional strategic objectives.

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.

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

Quality of research carried out by academic staff is evaluated by ANVUR once every five years. Outcome of the VQR peer-to-peer exercise (https://www.anvur.it/en/activities/vqr/) is expressed by scientific "sector" (see Standard 9) and includes benchmarking and comparisons with similar "sectors" at the national level. The VQR exercise primarily aims to explore to which extent academic staff is actively involved in research. Accordingly, it may be intended as a measure of the extent to which research may have a fall-out on undergraduate veterinary education at any Establishment. As concerns the DVS, results of the last VQR exercise have weighed heavily in the recognition of the "Department of Excellence" status by MIUR in 2017. It shall be noted that such a distinction was awarded to only 4 out of 13 Italian veterinary Establishments.

This being said, it is clear that ongoing research projects offer to students varied opportunities to be integrated in a research team and perform the mandatory thesis work under qualified guidance. Similarly, engagement in research projects offer academic staff stimuli and opportunities to involve students in off Campus fieldwork, hands-on management of clinical cases, collection of live and post-mortem samples, interviews with practitioners and farmers, etc. A user-friendly overview of ongoing research and teams at DVS is available at https://veteren.campusnet.unito.it/do/home.pl/View?doc=/research/research_line/research_line.html.

Further ways to ensure that research activities contribute to research-based education include:

- the organization, on a regular basis, of Journal Clubs (mainly by clinical "sectors");

- the six-monthly celebration of scientific meetings ("Giornate della Ricerca"/Research Days"), which are open to all staff and students. During such meetings an overview of ongoing research projects is presented alongside the intervention of keynote speakers on broad topical issues;
- the attitude towards meeting the demands of scientific societies that wish to organize congresses at the Campus premises, provided that free or low cost access is granted to interested students.

Description of how (procedures) and by who (description of the committee structure) research, continuing and postgraduate education programmes organised by the Establishment are decided, communicated to staff, students and stakeholders, implemented, assessed and revised

The DVS relies on the Research Committee chaired by the Vice-Director for Research (see Standard 1) as the consulting organism for the planning and coordination of activities related to research. Among other tasks (see https://www.veterinaria.unito.it/do/organi.pl/Show?_id=2x8d), the Research Committee:

- suggests the criteria for the distribution of resources made available by UniTO;
- develop guidelines for the internal evaluation of research outputs;
- promotes the exchange of scientific information and knowledge among all concerned, including students;
- encourages transversal collaborations between "sectors" and the participation of young researchers to international competitive calls;
- supports the DVS Director in the elaboration and writing of the Departmental three-year strategic plan;
- manages the flow of information on competitive calls between UniTO and the DVS.

The DVS offers a single PhD program entitled "Veterinary Sciences for Animal Health and Food Safety". Since 2014, the whole programme is held in English. It is organized and managed by the PhD Committee, which is made up of a Coordinator and a variable number of full-time members of the academic staff (currently 15) fulfilling the highest scientific standards established by MIUR. The Coordinator, who is selected among the members of the PhD Committee, remains in office for 4 years and can be re-elected. The Committee meets at least 3 times a year. Among the members are also three student representatives. According to UniTO regulations (http://dottorato.ph.unito.it/DR_28_Reg_Dott.pdf), the Committee:

- organizes the training and teaching activities of the programme and assigns teaching tasks to participating academic and non-academic staff;
- organizes entry exams and final exams, as well as the annual student audit;
- assigns each student an academic tutor and informs the DVS Director about assignments;

coordinates the activities of academic tutors and monitors student progress;
signs relevant agreements with national and foreign public and private bodies;
proposes the name of board members for entry and final exams, including the name of external referees for theses, to the Rector.

In addition, the Committee sets policies to reach and maintain the demanding UniTO standards for PhD programmes, including quality assurance (QA), curriculum, internationalization, qualification of the participating academic staff members and transparency. A specific website (https://dott-scivet.campusnet.unito.it/do/home.pl) to communicate with staff, students, prospective students and stakeholders is available. Moreover, the PhD Coordinator sits in the DVS Didactic Committee. Fifth-year veterinary students are informed of PhD opportunities and organization during a tutorship event focusing on postgraduate education programmes available at DVS.

Since 2013, the Continuing Education programme at DVS is organized and managed by a specific Committee composed of a President (a delegate of the DVS Director), five academic staff members and three support staff members. As announced in

https://www.veterinaria.unito.it/do/organi.pl/Show?_id=2a65, the Continuing Education Committee is responsible for:

- detecting and analysing training needs, and drafting the annual POF (Plan of Training Offer) accordingly;
- supporting the academic staff in the planning of educational events;
- streamlining the accreditation process of proposed events by the competent Regional Office and uploading the accredited events (and the related documentation) on the regional platform;
- ensuring the smooth running of events offered and the evaluation of teachers/lecturers by attendees.

Accredited educational events are publicized on the DVS website (https://www.veterinaria.unito.it/do/home.pl/View?doc=D108_ECM.html) and e-screens located on Campus, and by email invitation (targeted mailing lists) and flyers. The Continuing Education Committee annually reviews its activity and reports to the DVS Council.

Veterinary Specialization Schools awarding specialist qualification are established by MIUR (http://attiministeriali.miur.it/anno-2006/gennaio/dm-27012006.aspx). Their programme must be consistent with one of three ministerial classes, for which cultural profiles, learning objectives and characterizing subjects/activities have been defined in detail (http://attiministeriali.miur.it/UserFiles/2329.pdf). In 2019, UniTO established specific regulations for the functioning of Veterinary Specialization Schools (https://www.veterinaria.unito.it/do/documenti.pl/ShowFile?_id=f6gi;field=file;key=GQHx4VeszxgYRQhku0imJkT0WiHlbz0kOyhnDBZfIpcBxczwPW9LgZ6beQHfWRPwhYWxLqKXCKr7fGFtPR2;t=0757). The governance of programmes currently offered at DVS comprises a Specialization School Council that includes all participating academic staff, hired professors and student representatives (in a percentage corresponding to 20% of attendees). In particular, each School Council is responsible for:

- suggesting the annual or periodical re-offering of the programme (prior opinion of the DVS Didactic Committee) to the DVS Council;
- supporting administrative staff in preparing the competition notice for admission;
- proposing the name of board members for entry, annual and final exams;
- proposing the name of teachers and tutors;
- approving the academic calendar and the training plan of individual students, including practical training;
- suggesting new agreements to strengthen the educational network to the Campus School;
- proposing changes to tuition fees to the Board of Governors.

Directors nominate a representative who sits in the DVS Didactic Committee.

Organization and coordination of postgraduate clinical education programmes by the Establishment is currently hampered by the lack of official recognition of any College and residency programs at the national level. Therefore, the offer of internships and residencies remains the initiative of individual specialists in agreement with EBVS regulations. Residents are recruited directly by the specialist/s or selected by competition (e.g., when attending a residency and a PhD programme at the same time is contemplated by the specific College regulations).

COMMENTS

Evidence shows that DVS is strongly committed to provide up-to-standard research, as well as post-graduate and continuing education programs matched with needs of the veterinary profession and the Academia. To our satisfaction, since 2019 the PhD program is ranked the best one at UniTO level based on national QA indicators.

Organization is solid in the case of the PhD and the continuing education programme, whereas QA procedures should be integrated to a larger

extent into the management of postgraduate educational initiatives.

A Departmental strategy for the promotion of durable Residency programs is difficult to implement due to persisting uncertainties in the recognition of Diplomates at the national level.

SUGGESTIONS FOR IMPROVEMENT

Support staff with competence on the design and implementation of QA procedures should be made available for the needs of the Specialization Schools and Masters.

A strategy should be developed to attract private sponsors for additional PhD and Residency fellowships.

Legal recognition of European or American Diplomates at the national level should be promoted, in synergy with the other veterinary education Establishments.

BROAD SUBJECT AREA	GRANT (€)	DURATION (YEARS)
ANIMAL HUSBANDRY, PRODUCTION AND ENVIRONMENT	455.000	2
MOLECULAR AND CELLULAR RESEARCH	230.040	3
ANIMAL HUSBANDRY, PRODUCTION AND ENVIRONMENT	216.764	3
ANIMAL HUSBANDRY, PRODUCTION AND ENVIRONMENT	173.600	4
EPIDEMIOLOGY, DATA SCIENCE AND MODELLING	100.000	3
ANIMAL DISEASES AND PATHOLOGY	76.000	3
ANIMAL HUSBANDRY, PRODUCTION AND ENVIRONMENT	55.235	6
EPIDEMIOLOGY, DATA SCIENCE AND MODELLING	40.000	1
ANIMAL DISEASES AND PATHOLOGY	35.000	3
EPIDEMIOLOGY, DATA SCIENCE AND MODELLING	30.000	3
ANIMAL HUSBANDRY, PRODUCTION AND ENVIRONMENT	30.000	1
ANIMAL DISEASES AND PATHOLOGY	28.000	3
EPIDEMIOLOGY, DATA SCIENCE AND MODELLING	25.000	3
FOOD SAFETY AND QUALITY	25.000	3
FOOD SAFETY AND QUALITY	25.000	3
ANIMAL DISEASES AND PATHOLOGY	20.000	3
ANIMAL DISEASES AND PATHOLOGY	20.000	1
CLINICAL SCIENCES	16.393	3
FOOD SAFETY AND QUALITY	15.000	3
FOOD SAFETY AND QUALITY	15.000	3

TABLE 10.1.1. LIST OF THE MAJOR (≥ 15.000 €) FUNDED RESEARCH PROGRAMMES IN THE ESTABLISHMENT WHICH WERE ONGOING DURING THE LAST FULL ACADEMIC YEAR PRIOR TO THE VISITATION

TRAINING	2019	2018	2017	MEAN
INTERNS				
COMPANION ANIMALS	22	30	17	23
EQUINE	5	2	0	2,4
PRODUCTION ANIMALS	2	7	4	4,3
OTHERS (SPECIFY)	3	4	1	2,7
NON- CONVENTIONAL ANIMALS/WILDLIFE				
TOTAL				
RESIDENTS				
ECVCN (Veterinary Comparative Nutrition)	5	4	4	3,7
ECVPT (Veterinary Pharmacology & Toxicology)	2	1	1	1,3
ECAR (EC Animal Reproduction)	1	1	1	1
ECVN (EC Veterinary Neurology)	1	1	1	1
ECVPH (EC Veterinary Public Health)	1	1	1	1
ECVS (EC Veterinary Surgeons – Small Animal)	1	1	1	1
ACVSMR (Veterinary Sports Medicine and Rehabilitation)	1	1	1	1
EVPC (European Veterinary Parasitology College)	1	0	0	0,3
TOTAL	**13**	**10**	**10**	**11**

TABLE 10.3.1. NUMBER OF STUDENTS REGISTERED AT POSTGRADUATE CLINICAL TRAINING

	2019	2018	2017	MEAN
PHD	24	21	19	21.3
OTHERS*	9	8	9	8.3
TOTAL	**33**	**29**	**27**	**29.7**

(*) post-doctoral fellowships

TABLE 10.3.2. NUMBER OF STUDENTS REGISTERED AT POSTGRADUATE RESEARCH TRAINING

PROGRAMMES	2019	2018	2017	MEAN
SPECIALIZATION SCHOOL (Animal Health, Husbandry and Production)	30	20	10	20
SPECIALIZATION SCHOOL (Inspection of Food of Animal Origin)	18	18	18	18
MASTER (Quality, Food Safety and Sustainability of the Dairy Industry)	13	13	13	13
TOTAL	**61**	**51**	**41**	**51**

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)

COURSES (N)	2019	2018	2017	MEAN
36**	562	1128	431	707

(*) for a list of courses with the respective number of attendees please see Appendix 10.1
(**) 9 courses provided in 2017, 17 in 2018, 10 in 2019

TABLE 10.3.4. NUMBER OF ATTENDEES TO CONTINUING EDUCATION COURSES PROVIDED BY THE ESTABLISHMENT*

ESEVT INDICATORS

INDICATORS		ESTABLISHMENT VALUES	MEDIAN VALUES	MINIMAL VALUES	BALANCE
I1	n° of FTE academic staff involved in veterinary training / n° of undergraduate students	**0,136**	0,15	0,13	0,010
I2	n° of FTE veterinarians involved in veterinary training / n° of students graduating annually	**0,784**	0,84	0,63	0,154
I3	n° of FTE support staff involved in veterinary training / n° of students graduating annually	**0,773**	0,88	0,54	0,233
I4	n° of hours of practical (non-clinical) training	**830,33**	953,50	700.59	129.74
I5	n° of hours of clinical training*	**781,66**	941,68	704.80	76,86
I6	n° of hours of FSQ & VPH training	**470**	293,50	191.80	278,20
I7	n° of hours of extra-mural practical training in FSQ & VPH	**158,33**	75	31.80	126,53
I8	n° of companion animal patients seen intra-murally / n° of students graduating annually	**48,77**	62,31	43,58	5,19
I9	n° of ruminant and pig patients seen intra-murally / n° of students graduating annually	**1,11**	2,49	0,89	0,22
I10	n° of equine patients seen intra-murally / n° of students graduating annually	**1,96**	4,16	1,53	0,43
I11	n° of rabbit, rodent, bird and exotic seen intra-murally / n° of students graduating annually	**29,37**	3,11	1,16	28,21
I12	n° of companion animal patients seen extra-murally / n° of students graduating annually	**0**	5,06	0,43	**-0,43**
I13	n° of individual ruminants and pig patients seen extramurally / n° of students graduating annually	**7,52**	16,26	8,85	**-1,32**
I14	n° of equine patients seen extra-murally / n° of students graduating annually	**1,28**	1,80	0,62	0,66
I15	n° of visits to ruminant and pig herds / n° of students graduating annually	**1,28**	1,29	0,54	0,74
I16	n° of visits of poultry and farmed rabbit units / n° of students graduating annually	**0,24**	0,11	0,04	0,20
I17	n° of companion animal necropsies / n° of students graduating annually	**1,82**	2,11	1,40	0,42
I18	n° of ruminant and pig necropsies / n° of students graduating annually	**1,16**	1,36	0,90	0,26
I19	n° of equine necropsies / n° of students graduating annually	**0,15**	0,18	0,10	0,05
I20	n° of rabbit, rodent, bird and exotic pet necropsies / n° of students graduating annually	**3,22**	2,65	0,88	2,34
I21	n° of FTE specialised veterinarians in veterinary training / n° of students graduating annually	**0,242**	0,27	0,06	0,182
I22	n° of PhD graduating annually / n° of students graduating annually	**0,078**	0,15	0,07	0,008

COMMENTS

All indicators are above the calculated minima with the exception of I12 (n° of companion animal patients seen extra-murally / n° of students graduating annually) and I13 (n° of individual ruminants and pig patients seen extramurally / n° of students graduating).

As regards I12, extra-mural clinical training in companion animals has never been mandatory activity at DVS. Despite this, approximately 80% of the 5th year students benefits from it in form of elective activity (acronym APS, see Standard 3). In the revised PPT program (https://www.clmveterinaria.unito.it/do/documenti.pl/ShowFile?_id=gdon;field=file;key=F7F89DahfZQCbmG0Uk43gQsdgduFYyEqse8brhh92ToeURWDsM43omEbAqnp9CncKr7fGFtPR2;t=8046, pg.32), attendance to off Campus companion animal clinics has become mandatory for all students, starting from fall 2020. Training will last 75 hours (9 working days) with a minimum expected caseload of 90-100 patients/trainee. Even more important for the indicator concerned, in July 2020 (after a long negotiation) the Establishment has finalized an agreement with the Municipality of Turin based on which the DVS is identified as the sole partner for the health care of free-roaming dogs and cats admitted and maintained at the City Shelter (numbering approximately 500/year). This essential agreement will soon enable the Establishment to offer students an authentic extramural training on first opinion small animal patients, under the requested supervision (in this case the presence) of at least one member of the academic staff.

As regards I13, the value is approximately 25% lower than the minimum caseload number generated by the Excel table for automatic calculation of ESEVT Indicators, updated in 2019. However, the value is higher than minima generated by the previous version of the "calculator", updated in 2016. Regardless of this, the Establishment was aware of this potential weakness, related *inter alia* to the great effort that was being made in parallel to strengthen the intramural farm animal patients' caseload (previously a very limited one). Accordingly, the review of the PPT program has included four additional working days/trainee during which 5th year students are actively involved in off Campus clinical rotations under the guidance of four hired practitioners operating as adjunct academic staff ("Professori a contratto"). Trainees in each shift will be 2-3 and the expected caseload will be no less than 30 individual patients/rotating group. Shifts will start in fall 2020. For details, please see 3.1 and 5.3. Finally, a new academic staff position (a farm animal clinician covering a Type A Assistant Professor position) has been recently opened.

SUGGESTIONS FOR IMPROVEMENT

With the review of the PPT program, the foundations have been laid for the compensation of both suboptimal indicators.

GLOSSARY

ANVUR	ITALIAN AGENCY FOR THE EVALUATION OF UNIVERSITIES AND RESEARCHES INSTITUTES
CA-VTH	COMPANION ANIMAL VETERINARY TEACHING HOSPITAL
CMR	MONITORING AND REVIEW COMMITTEE
DVM Course	DEGREE COURSE IN VETERINARY MEDICINE
DVM Council	DEGREE COURSE COUNCIL
DVS	DEPARTMENT OF VETERINARY SCIENCES
IZS	ISTITUTO ZOOPROFILATTICO SPERIMENTALE (AN OFFICIAL VETERINARY DIAGNOSTIC ESTABLISHMENT)
LA-VTH	LARGE ANIMAL VETERINARY TEACHING HOSPITAL
MIUR	ITALIAN MINISTRY FOR UNIVERSITY AND RESEARCH
OTP	ORIENTATION, TUTORSHIP AND PLACEMENT SERVICE
PPT	PROFESSIONAL PRACTICAL TRAINING ("TIROCINIO")
PSDs	PERSONAL SAFETY DEVICES
SAMEV	SCHOOL OF AGRICULTURE AND VETERINARY MEDICINE (CAMPUS SCHOOL)
SDSV	SPECIAL DIDACTIC VETERINARY COMPLEX
UniTO	UNIVERSITY OF TURIN/TORINO
VQR	EVALUATION OF RESEARCH QUALITY (NATIONAL EXERCISE FOR….)

LIST OF APPENDICES

APPENDIX CODE	CONTENT	LANGUAGE
A	Current academic staff, qualifications, their FTE, teaching responsibilities and departmental affiliations	ENG
B	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 ESEVT SOP	ENG
C	Written assessment procedures for QA	ENG
D	List of scientific publications from the Establishment's academic staff in peer reviewed journals during the last three academic years	ENG
E	Maps of the Establishment (see Appendix 4.1)	ITA
F	Other relevant documents	
1.1	List of the suggestions/recommendations received at the time of the last EAEVE/FVE on site visit, and actions taken to compensate	ENG
4.2.3	Premises for practical work, laboratories, teaching farm and kennels	ENG
4.2.3_1	Description of the equipment used in the pre-clinical teaching labs	ENG
4.2.11	Staff offices and research laboratories	ENG
4.3.2	Premises for housing research animals	ENG
4.3.4	Premises for clinical activities	ENG
4.3.5	Premises for diagnostic services	ENG
4.3.7	Description of the equipment used for clinical service	ENG
4.3.8	Description of the premises for FSQ & VPH	ENG
4.4.1	Description and list of specialised consultations, diagnostic services, hospitalisations, emergencies and intensive care	ENG
4.4.2	Visiting time	ENG
4.9	Summary of the Biosafety Manual	ENG
5.1	"Road map"/"Agenda 2020"	ITA
6.1/6.2	Diffuse library	ITA
10.1	List of Continuing Education/Professional Development courses offered by the Establishment, with the respective attendees	ENG

This report was edited in 2020 by Prof. Luca Rossi (Liaison Officer of the EAEVE-FTE on site visitation), with the unvaluable support of Prof. Rosangela Odore (Vice-Director for Teaching Affairs of the Department of Veterinary Sciences, University of Turin, Italy). On behalf of the Department Director (Prof. Domenico Bergero), the Editor and Co-Editor of the report warmly thank all colleagues that supported them in collecting data and in the writing of individual chapters, including – in alphabetical order - Prof. Luca Aresu, Prof. Mario Baratta, Prof. Claudio Bellino, Prof. Domenico Bergero, Prof. Bartolomeo Biolatti, Prof. Tiziana Civera, Prof. Antonio D'Angelo, Prof. Francesco Ferrini, Prof. Ezio Ferroglio, Prof. Paola Gianella, Prof. Adalberto Merighi, Prof. Marina Martano, Prof. Carlo Nebbia, Dr. Tiziana Nervo, Prof. Bruno Peirone, Dr. Alessandra Rota, Prof. Paola Sacchi, Prof. Emanuela Valle, Prof. Alberto Tarducci, Prof. Renato Zanatta.

250
1769 - 2019
SCUOLA DI VETERINARIA DI TORINO

University of Torino

UNIVERSITÀ DEGLI STUDI DI TORINO

Dipartimento di Scienze Veterinarie

Largo Paolo Braccini 2, Grugliasco (TO)

direzione.dsv@unito.it

www.veterinaria.unito.it