



DIPARTIMENTO DI MEDICINA VETERINARIA
UNIVERSITA' DEGLI STUDI DI SASSARI, ITALY

SELF-EVALUATION REPORT

DEPARTMENT OF VETERINARY MEDICINE

UNIVERSITY OF SASSARI, ITALY

EAEVE VISITATION
SASSARI, 20-24 MARCH 2023

FOREWORD

This Self-Evaluation Report (SER) is the result of the collaboration and efforts of all members of the Department, including junior staff, support staff and students. The SER was prepared in accordance with the ESEVT SOP Zagreb 2019 as amended in September 2021 and sent to the members of the department for comments and corrections and finally approved by the Council on 18 January 2023. We are confident that the EAEVE experts will find accurate and updated information in this report to prepare the on-site visit planned in March 2023.

We welcome them in advance,

Enrico De Santis

VEE's head

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Introduction

History of the VEE and of its previous ESEVT Visitations - The University of Sassari was founded more than 460 years ago and is the oldest university of Sardinia. More than 12,000 students attend the graduation courses in 10 departments, including the Department of Veterinary Medicine (DMVSS), which was initially established as the Royal Institute of Veterinary Medicine in 1928, and proclaimed the first graduates in 1932. The faculty of Veterinary Medicine was founded in 1934 and was originally located in the city centre, but it moved to its actual location in the city's outskirts, in 1982. In 2012, the actual configuration of the DMVSS became definitive, with the Veterinary Teaching Hospital (VTH) and Isolation Units buildings completed. The VEE shares a beautiful green campus with the Department of Chemical, Physical, Mathematical and Natural Sciences, thus providing easy access to students, and animal owners (large and small pets). The Sassari VEE is the only veterinary teaching establishment in the island of Sardinia, whose economy is based on agriculture, animal productions and tourism. The island has a distinct identity and a millenary tradition, and is home to about 40% of the sheep raised at national level (more than 3 millions of heads) (see [Appendix 11](#) and [Appendix 12](#)). The mainland is quite distant and can only be reached by flight or by a 6/8 hour ferry ride; therefore, the VEE plays a pivotal role in the impact of the professional profile of its graduates from an economic and social perspective for Sardinia. Sardinia has been recognised by the Italian Government as “a region with special status” which receives additional support from the Italian Government and from the European Union. The VEE was visited for the first time by EAEVE in 1998, and was evaluated as not-approved. Since then, major changes have taken place, as new VTH and isolation units, along with new animal housing facilities, stables, paddocks, necropsy facilities, laboratories and other improvements have been added. In May 2013, the VEE was accredited from the EAEVE, confirmed by the European Committee of Veterinary Education (ECOVE). Even though several comments and suggestions from the ECOVE report in 2013 have been mostly addressed during the last ten years, the VEE continues to experience new challenges. In particular, since 2022 the VEE has 50 students admitted to the first year, as suggested in 2013. *“The purpose was to build facilities that offer space for at least 50 students per class, yet only about 30 are being admitted annually; this creates a favourable teaching staff/student ratio and compensates for still relatively low case numbers in the new hospital”*. The VEE evolved to be also more international, by offering an International Master's Degree in Wildlife Management Conservation and Control (fully in English) in addition to the five-year Veterinary Medicine Degree. As to the post-graduates, the VEE has increased the number of junior staff (PhD students) from foreign countries, demonstrating that *“internationality on all levels is increasing and English language skills are improving and enhancing.”* In general, looking back to 2013, students now have more chances to be enrolled in hands-on activity than before. Thanks to the introduction of Clinical Rounds, and Professional Practical Traineeship (PPT) and External Practical Training (EPT), they develop Day One Competences through different disciplines. During the clinical rounds, students undergo specific training - exclusively practical and hands-on - under the supervision of academic staff and/or veterinary practitioners contracted and trained by the VEE. The aim of VEE in designing Clinical Rounds was to introduce students to practical clinical activities from the day one of the 1st year. The syllabus was specifically conceived to introduce students to skills they can progressively acquire. *“Where in-house cases are missing, ample provision on a formal basis has been arranged for extramural practical teaching, especially for food animal species and in horses. Fully functioning mobile clinics contribute substantially”* and *“Basic science teaching is satisfactory as well, however, there are proposals to further expand practicals in some areas”*. Unfortunately, the VEE still suffers from the same issues as evidenced in 2013, mainly due to low budget incomes and also due to the fact of being part of a relatively small University in a remote island: *“The financial situation is sustainable, but modalities to obtain additional resources through services and research are actively pursued. A long-term business plan and strategic plan is needed to address these and related issues”*. The VEE is trying its best to solve this issue, however the pandemic by SARS-COV2-19 has exacerbated this problem. As a consequence, the activities of the VTH, born in 2012, did not develop smoothly and suffered since and after the pandemic. *“The Teaching hospital should evolve into a clinical center of excellence, and together with other services, it should contribute to an increase in revenues. Overall, hands-on teaching is satisfactory*

in all areas, but in-house case numbers must continuously increase". Furthermore, because the VEE, like many other institutions from small to medium universities, is unable to increase its staff due to *"a shortage of technical support staff, especially nursing staff"*, it was compelled to reduce personnel units in order to accommodate staff turnover and replace those who have retired.

Main features of the VEE and summary of the main developments since the last Visitation - The VEE is located in a large green area surrounded by olive groves, with extensive areas for teaching and research facilities of approximately 9,500m², with 5 intercommunicating modules inside. The main teaching facilities include student spaces, lecture halls, equipped teaching laboratories, a dissection room, a microscope room, a computer room, and a dairy and a meat processing teaching plants. In the same settings there are various teaching infrastructures, such as enclosures for housing livestock and companion animals with some grazing plots, used for teaching activities on a total area of more than two hectares. The Department has a state of art Veterinary Teaching Hospital (VTH), a reference point in the field of animal care, protection and welfare, as well as 960 square meters of animal shelters used for teaching and research. Clinics, surgical rooms for companion and food-producing animals, and magnetic resonance imaging are among the advanced medical facilities available at the VTH. Despite the enthusiasm for full approval in 2013, the VEE decided to maintain the EAEVE Committee in order to monitor SOPs and suggest measures to comply with the ESEVT standards. In 2018, the VEE underwent a compulsory visitation from the ANVUR (National Agency for the Evaluation of the University and Research System), which is governed by the European Network for Quality Assurance in Higher Education (ENQA), resulting in a positive assessment. The main developments since the last visitation are summarised in the following table and discussed extensively in each area:

AREA	Main developments since the last Visitation
1	The VEE developed the Strategic Plan, which also includes the developing plan and the recruitment plan procedures as well as a complete SWOT analysis. Several procedures have been implemented and are periodically monitored following the PDCA (Plan, Do, Check, Act) management method in a QA environment.
2	The VEE has a financial autonomy subject to limits of the UNISS balance, and VEE resources expenditure is actually affected by Italian Central Government expenditure annual budget law constraints. Pandemic has also determined lower service income (e.g., for VTH and related assistance contracts). A medium term intervention strategy is planned to allocate a three-year funding (2023-2025) from the Government of Sardinia of about € 1,100,000 to support the VEE.
3	A complete revision of the Curriculum started in 2021 and departmental procedural steps are now completed. Currently the revision is waiting to be approved by UNISS and its enforcement is expected for the academic year 2023-24. Main changes are the introduction of animal welfare, communication, management of the veterinary structure in the CV. Practical and clinical training were re-organized to improve functional organization and the creation of Clinical Rounds. Review and improvement of Syllabus. Review and improvement of logbook.
4	Facilities have been almost unmodified, however maintenance and upgrading started in late 2020, with new fire compartmentation, renovation of the building layout, air conditioning upgrading, and insulation of the buildings. The UNISS board has allocated a complementary budget for VTH equipment and to improve lecture halls and laboratory facilities.
5	A new database for management of clinical cases for students was improved. A new Biosecurity manual and relative procedures were implemented. Teaching animals welfare procedures. Definition of Teaching and clinical animals layout; Agreements for student training with several public and private institutions (PPT and EPT).
6	Improvement of direct communication for and with students (Facebook, Instagram, Whatsapp accounts). Improvement of digital contents for students training with tutorials, podcasts (Youtube, Spotify accounts). Skill Lab project/Compensation measures improvement. Improvement of Self Learning. All UNISS online resources and library services are now accessible via UniSSearch. The number of books in their original language (mainly English) has increased. Virtual slaughterhouse simulator.
7	Agreements for student training with public institutions: Forestas, Agris, IZS, Ortueri. Agreements for student training with private institutions. Re-organization of Clinical Rounds. New website completely dedicated to students.
8	Improvement of direct communication for and with students (Facebook, Instagram, Whatsapp accounts, TEAMS). Implementation of an additional Syllabi website. Implementation of student careers monitoring by lecturers responsible for each semester.

9	Training courses for Staff. Development of Self Learning for staff
10	New positions of RTD-A and RTD-B devoted to research. Re-organization of Internship. Increase of PhD positions and MSc improvements. Increase of Residents

Major problems encountered by the Establishment – As anticipated in the 2013 EAEVE report, “*Any relapse of attention and any decrease in budget might render the Department again vulnerable and might jeopardize the obtained results*”. In its development and growth, VEE had to face several challenges, some of which are still not fixed. The COVID-19 pandemic had a significant impact on VTH: in accordance with the Minister's Decree dated March 4, 2020, practical activities of subjects, PPT, EPT, and the most important teaching activities at VTH were suspended and resumed in September 2021. This, together with the chronic lack of support for H24 and undersized staff due to the lack of replacements of retired personnel over the last years, led to a deep crisis with the change of three different VTH directors. The majority of VTH clients were transferred to close veterinary clinics, rendering the finances untenable (more expenses than incomes). Finally, in 2021, when everyone expected a new beginning following the pandemic, the VEE and therefore the VTH were impacted by a spending freeze imposed by the Italian central government on UNISS, limiting the possibility to reinvest revenues and thus to self-finance. Therefore, in this situation, UNISS could not direct more funds to the VEE or the VTH, which are under controlled expenditure management. This situation determines different major deficiencies of which the VEE is well aware and that are constantly managed by the permanent EAEVE committee. The VEE conducted a voluntary audit in May 2022: on that occasion two ESEVT experts were invited to review the progress of the VEE towards EAEVE accreditation. The VEE strategy has been constantly devoted to monitoring the critical problems and finding solutions in short, medium, and long term; finding new partners for a financial support (incoming from external parties are not subject to the restrictions imposed by the government); and making agreements with public and private institutions to ensure adequate training for the students. The priority of VEE is to fully restore the H24 service, find adequate funds to contract external staff for practical training, meet ESEVT indicators that are not balanced, replace old buses for transporting students and establish a canteen catering service for students within the campus. In this process, we are trying to deepen our relationship with the students and intensify our efforts to compensate for the deficiencies. The VEE still believes that we can overcome this situation, even though this process will take some time and require deep changes in the organization of VTH.

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

ESEVT SOP 2019 as approved by the General Assembly in Zagreb, 30 May 2019 and amended by the General Assembly in Turin, 30 September 2021

Area 1. Objectives, Organisation and QA Policy

Standard 1.1: The VEE 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 recognized branches of the veterinary profession and to be aware of the importance of lifelong learning. The VEE must develop and follow its mission statement which must embrace all the ESEVT Standards.

Mission Statement and objectives - The mission of Department of Veterinary Medicine of Sassari (DVMSS) is to provide excellence in Veterinary Medicine education, research, and scientific knowledge application and dissemination, aimed to improve the health and well-being of animals, humans, considering

environment protection and sustainability in a One Health perspective. According to its Strategic Plan, the DVMSS strategic objectives can be summarised as follows:

Teaching:

- Support policies aimed at training students according to quality criteria and guaranteeing the right to education.
- Support the cultural and professional development of the person, in accordance with the society needs, also through the expansion of collaborations with Degree Programs of other Departments and Universities.
- Improve the quality of teaching by promoting and strengthening the internationalization of education.
- Provide students with the tools to put into practice the basic scientific, theoretical, and practical skills for carrying out the profession (Day One Competences, DOC)
- Encourage policies aimed at the specialization of graduates, maintaining, and implementing third-level teaching and continuing post-graduate training.

Research:

- Improve the multidisciplinary approach that allows a more adequate reading of the environmental, biotechnological, health and food contexts in the context of the One World, One Health concept.
- Promote and support basic and applied research, strengthening the ability to attract foreign researchers to their research facilities.
- Increase the ability to attract external resources by improving competitiveness in national and international calls.
- Introduce integrated objective criteria in the allocation of resources, favoring the aggregation and interaction of researchers.
- Introduce an *ex-post* evaluation of the allocated resources and the achieved results.

Third mission:

- Strengthen the relationship and the socio-political role of the Department at regional, national and international technical tables dealing with animal and human health, public awareness growth, socio-economic issues of different producing sectors along with environmental protection
- Guarantee the health and welfare of animals through prevention and treatment plans and measures, innovative research, pre- and post-graduate training and qualified dissemination spinning off.
- Support the decision making of enterprises aiming to ensure the quality and safety throughout the animal production chain and products derived from Support the continuous training of veterinary practitioners whether they are involved in Veterinary Public Health or in private businesses.
- Implement opportunities for public engagement, dissemination, guidance, and provision of services to stakeholder and other interested parties.

The DVMSS is aware of its role and responsibility in meeting the requirements and expectations of students, professionals, stakeholders, institutions, and society, that are essential to develop sound science, knowledge and competence in the different fields of Veterinary Medicine. The Department recognizes that students and research, support, and teaching staff require resources, and need a supportive organization and positive work environment where commitment, responsibility and merit are promoted, which result in the professional and personal growth of individuals. To accomplish this goal the Department's resource attribution process rewards the commitment and results of individuals, balanced by measures that support sustainable maintenance of the different research and teaching competence related to Veterinary Science. The DVMSS strategic vision intends to promote creative experience on learning and research activities, staying connected with open mind to the challenge of continuous improvement and the demands of the constantly changing context of Veterinary Medicine and science. To accomplish this goal, the Department is increasing its participation in research and educational frameworks and programs, to improve the attitude to collaboration, personal skills and competence of students, researchers, and support and teaching staff. The Department policy also promotes a more open and collaborative approach with stakeholders by

improving clinical services, cooperation with veterinarians and professionals, the participation in technological development programs involving farms and companies, scientific dissemination and public engagement programs. The Department values include respect, inclusiveness, equal opportunities, commitment, recognition of merit, safeguard of teaching and research autonomy, sharing strategic objectives supported by transparency and communication.

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

Organization of the DVMSS - The [University of Sassari](#) (UNISS), to which the VEE belongs, is a public institution that depends on the Italian Ministry of University and Research (MUR). The rector chairs the two main governing bodies of the University of Sassari, which are the Academic Senate and the Board of Governors. The General Manager is responsible for the organization and management of the services of the University of Sassari, its resources and the technical-administrative staff.

Name of the VEE	Dipartimento di Medicina Veterinaria (Department of Veterinary Medicine, DVMSS)
Institution	University of Sassari (UNISS)
Address	Via Vienna 2, 07100, Sassari, Italy
Telephone and email	+39 079229403 - vetpres@uniss.it
Website	https://veterinaria.uniss.it/it - www.veterinariasassari.it
Title and name of the DVMSS Head	Prof. Enrico P.L. De Santis (Full Professor), DVM
DVMSS Course coordinator	Prof. Stefano Rocca (full Professor), DVM, PhD
VTH Director	Prof. Maria Luisa Pinna Parpaglia (Associate Professor), DVM, PhD
Official Authorities overseeing the establishment	The Rector of University of Sassari, Prof. Gavino Mariotti The General Director of University of Sassari, Dr. Elisabetta Neroni

The educational offer of the DVMSS consists of:

- Single Cycle Master's degree Course in [Veterinary Medicine](#) (LM42)
- Master's degree in [Medical and Veterinary Biotechnologies](#) (LM9)
- International Master's degree in [Wildlife Management, Conservation and Control](#) (LM86)
- PhD Course in [Veterinary Sciences](#)
- Post-graduate specialization school in [Animal health, breeding and zootechnical production](#)
- Post-graduate specialization school in [Inspection of food of animal origin](#)

The functions, compositions, and methods of action of the various statutory and regulatory bodies of the VEE are specified in the [DMVSS regulation](#) available on the DVMSS and UNISS websites (table 1). The statutory bodies of the Department are the Head of the DVMSS, Board of the Department, Department Council, and Department Joint Teachers-Student Committee. The Department's regulatory bodies, as provided by [DMVSS regulation](#), are listed in detail in table 1. The VEE's Head is elected by the Department Council and remains in office for 3 academic years and can be immediately re-elected only once. The Department is managed and administered by the VEE's Head who is responsible for enforcement of Council decisions. The VEE's Head appoints a Deputy Head and the Director of the Veterinary Teaching Hospital. Furthermore, in the various statutory and regulatory bodies (figure 1) the VEE's Head proposes delegates to whom he can entrust specific functions and activities. All the components and proposed delegates are appointed by the DMVSS Council. The functioning of the Department is based on working documents and proposals of committees. The activities of these various committees and their proposals are then analysed

and decided by the Department Council. The correct functioning of all the activities of the Department and their compliance with UNISS regulations and procedures is ensured by an administrative manager and its staff, who reports directly to the VEE's Head. The DVMSS [meetings annual calendar](#) is published on the Department section in the website. DVMSS Head and VMDC Course coordinator, respectively, send the meeting agenda to all the members at least 5 days before the reunion. The teachers form functional units, usually considering homogenous scientific competence and specialisations, for teaching and research purposes. Functional units and their location in DVMSS premises are shown in figure 2.

The DVMSS boasts a good tradition of international collaboration and cooperation as evidenced by the numerous framework agreements and bilateral scientific/academic collaboration agreements which have been stipulated over the years with universities and research centres of various European and non-European countries. The international activity of the Department has also made use of the Visiting Professor program which has made it possible to host, in the last three years, Professors from different countries through Short Visits (3+5+2) and Long Visits (1+1+1) for a total of 13 collaborations. Particular attention is paid to the Maghreb countries both in the organisation of curricular and post-graduate training and in the structuring of new forms of teaching collaboration through the presentation of common projects to international organisations. The Department is part of the [REEV-Med Med](#) (Réseau de Établissement d'Enseignement Vétérinaire de la Méditerranée) association for the development of cooperation supported by the OIE. Some professors and researchers of the Department are part of the NRD (Nucleo Ricerca Desertificazione, Desertification Research Centre), a unique center in Italy dedicated to the analysis of aspects related to desertification processes. It is engaged in cooperation projects in Africa and Latin America for the promotion of new policies and practices of integrated and sustainable management of natural resources in arid environments. Department professors contribute to different projects funded by the European Union, European Food Safety Agency (EFSA) or other institution that provides international partnership: e.g. [Enetwild](#), [Nutrephhealth](#), [Life safe for vultures](#), [Under the griffon wings](#), "[Urbanization of a top predator: are wolves and humans adapting to life together](#)", [Conservation and re-stocking of the *Pinna nobilis* in the western Mediterranean and Adriatic sea](#), [Life Imagine](#).

The VEE is also actually involved in different Projects granted by Italian National Recovery and Resilience Plan funded by Next Generation UE: [Agritech](#), National Center for Agricultural Technologies; [The national future biodiversity center](#); [Ecosistema e.INS](#) – Innovazione per la Next Generation Sardinia, an innovation framework that supports the regional productive system.

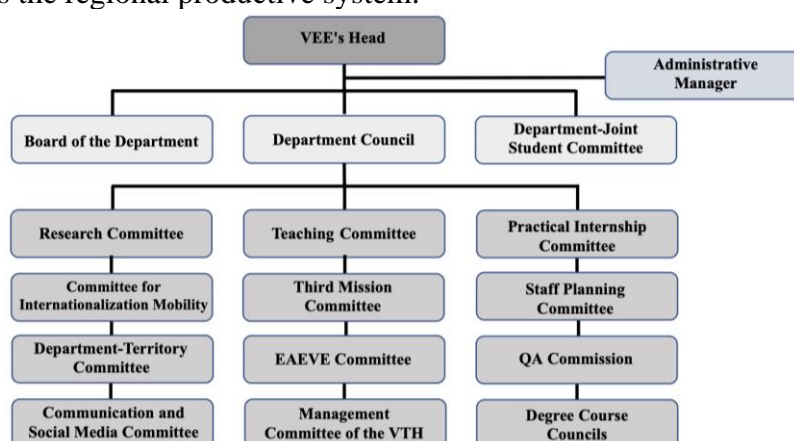


Figure 1: VEE organisation chart with statutory and regulatory bodies

Table 1 DMVSS statutory bodies and regulatory bodies, composition and functions

DVM Bodies	Composition	Functions
DVMSS council	The head of the Department; permanent academic staff; The representatives of the technical-administrative staff; a representative of the contract professors; a representative of the research fellows; representatives of students enrolled in degree courses, postgraduate courses and PhDs; the	Deliberates on the use of resources, structures and equipment assigned to the Department. Approves the planning and reporting documents; requests the activation of the procedures for the recruitment of teachers and proposes their call; it assigns teaching responsibilities to the teachers and decides on the coverage of the activated courses

	Administrative Manager	
Department Board	The head of the DVM, a member of the Research Committee; a member of the Teaching Committee; a member of the staff planning committee; a member of the EAVE Committee and the Director of the VTH; a representative of the technical-administrative staff and a student representative	Assists the Director and the Department Council in carrying out their respective functions and carries out the tasks assigned to it by the General University Regulations
Department Joint Teachers-Students Committee (JTSC)	It is made up of student representatives in the Department Council and an equal number of professors representative of the DVMSS degree courses	Identification of the criteria for evaluating the results of the teaching and student service activities, monitoring the teaching activity and proposing initiatives to the Department Council to improve the organization, delivery methods and contents of the teaching proposal; formulates opinions to the Department Council on the activation and cancellation of study programmes
Research Committee	The Research Committee is appointed by the Department Council and is made up of a representative for each disciplinary macroarea present in the Department. The Committee for Research is chaired and convened by the Coordinator,	Preparation of the overall three-year research plan of the Department and setting of strategic and operational objectives, taking into account the financial resources and indications of the Department-Territory Committee; coordination, promotion of research and obtaining funding; research performance monitoring; Formulation of motivated proposals for the needs of technical personnel to support research
Third Mission Committee	The TM Committee is appointed by the Department Council and is made up of a representative for each group of disciplines present in the Department. The Committee for Third Mission is chaired and convened by the Coordinator as a Delegate of the Head of the Department	Promotes third mission activities, also through specific communication initiatives; draws up an annual and/or, where appropriate, a three-year program for the development and implementation of third mission activities ensures the monitoring of the third mission activities carried out at the Department and verifies the effectiveness of the initiatives being planned.
Practical Internship Committee	Head of DVMSS (or by his delegate), who presides over it, and by a teacher for each of the professional areas (Surgical and Obstetric Clinic, Medical Clinic and Avian Pathology, Food Inspection and Safety, Zootechnics), and by a representative of the students	- Compilation and update, at the beginning of each AY, of the list of establishments where the student can carry out the practical internship; reviewer of the applications from trainees; coordination of the periods of the internship at the various structures
Teaching Committee	Is made up of the Presidents of the Degree Courses activated at the Department, by a student representative for each degree course and by the Department Educational Manager; it is chaired and convened by the Coordinator, who is the Director of the Department or his delegate	Reconnaissance of the common needs of the study programs active in the Department and coordination activities for teaching initiatives; formulation of opinions for the definition of teaching development plans (establishment of new degree courses, doctoral courses, specialization schools, masters or the deactivation and suppression of existing courses); promotion of teaching innovation and dissemination of good practices; presents an annual report on the activities carried out within the three-year teaching plan, to be submitted to the Department Council
Committee for Internationalization and Mobility	It is made up of professors and student representatives, appointed by the individual Degree Program Boards, by the Didactic Manager	Promotion and coordination of the international activities of teachers and students, with particular reference to: coordination of existing international mobility agreements; promotion, management and monitoring of new teacher and student exchange agreements with foreign universities and research centers promotion of study courses and/or joint masters and doctorates with foreign universities; promotion of international student mobility
Staff Planning Committee	President of the Degree Courses of the Department of Veterinary Medicine; Director of the Specialization Schools of the Department of Veterinary Medicine; Coordinator of the PhD in Veterinary Sciences	The Staff Planning Committee, on the basis of the teaching and research needs of the Department, taking into account the available resources and the University planning, defines the criteria for drafting the three-year and multi-year planning proposal, as regards staff planning of the Department.
Department-Territory Committee	Head of DVMSS who presides over, by the Coordinator of the Doctoral Course, by the Directors of the Specialization Schools, by the Director of the VTH, by the Presidents of the Councils of the Degree Courses, and by a student representative chosen from within the Council of the Department and of parts and interested organizations of the various stakeholders	Consultation body of the interested parties and organizations which, through the acquisition and sharing of feedback, information and proposals, contributes to improving the Departmental processes related to research, teaching and the third mission.
EAEVE Committee	The EAEVE. it is composed of the Director's Delegate and 13 teachers (one for each of the SSD Vet), 2 students, and the Didactic Manager	It has the task of promoting, coordinating and monitoring the activities related to quality, with particular reference to the EAEVE parameters
Quality Assurance Commission	The Quality Assurance Representative and 3 teachers and a representative of the technical and administrative staff appointed by the Department Council	It supports the Department Management in implementing the Department's quality assurance policy; promotes the realization of quality in the different organizational structures of the Department; takes care of the preparation of forms and templates for the drafting of procedures

Committee for Communication and Social Media	It is made up of the Director's delegate and the Didactic Manager, plus another member appointed by the Department Council	It deals with the implementation of the Department's social channels to enhance communication, in particular with students and with the public, by controlling the dissemination of news concerning the Department as a whole
Management Committee of Veterinary Teaching Hospital (VTH)	This is made up of the Medical Director, a deputy Director, a representative for each service and a Administrative Manager	It provides for the proper operation and management of the VTH: monitors and makes decisions on VTH activities, allows students to carry out practical activities

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

VEE strategic plan - To define strategies, objectives, and resource attribution for personnel positions, the VEE has developed an integrated approach. DVMSS policy and strategic objectives are addressed to the [Integrated Strategic Plan](#) (ISP) (usually updated every three years); the operative objectives to a triennial [Developing plan](#) (DP), that includes their management and assessment; finally, the resource attribution for personnel to the triennial [Recruitment plan](#) (RP) ([Appendix 4](#)). All decisions, contents, and documents are defined with the contribution of different DVMSS Committees, discussed by the JTSC and formally approved by the Department Council. Final documents are sent to the Rector and the General Director of the UNISS, and also submitted to stakeholders during the annual meeting for criticisms and suggestions. The [Integrated Strategic Plan](#) in force (2020-2022) is currently under revision to update the context analysis, the vision and strategies in accordance with the 2023-2025 UNISS strategic plan (that is expected to be released in 2023). In the [2021-2024 DP](#), short and medium term operative objectives are addressed, with regard to education and teaching activities, research and third mission; its annual revision will be completed in 2023. The DP indicates operative objectives, actions, indicators, targets, monitoring, responsibilities, QA and *ex post* effectiveness verification criteria. The planned activities are carried out and managed considering the phases of the PDCA cycle, with monitoring, verification and review cycle that precedes the definition of the annual update. With relationship with DVMSS policies, strategic and operative objectives, the [Recruitment plan](#) (2023-2025) defines the criteria and resource attribution for teaching, research and technical and support position to the different scientific areas represented in the Department. The DVMSS QA procedure enforcement is the responsibility of the Department Director, who designates a QA Representative that coordinates the DVMSS QA Committee (QAC) and is in charge to give advice and assistance to the QA management. The QA Representative is also the contact point for Presidio di Qualità. For Research and third Mission delegates and specific Committees, that are also in charge of the relevant operative objectives and activities provided by DP, give advice and assistance also for QA, including monitoring, verification, and review. The Research Committee and Third Mission Committee release annual reports that are submitted to DVMSS Council.

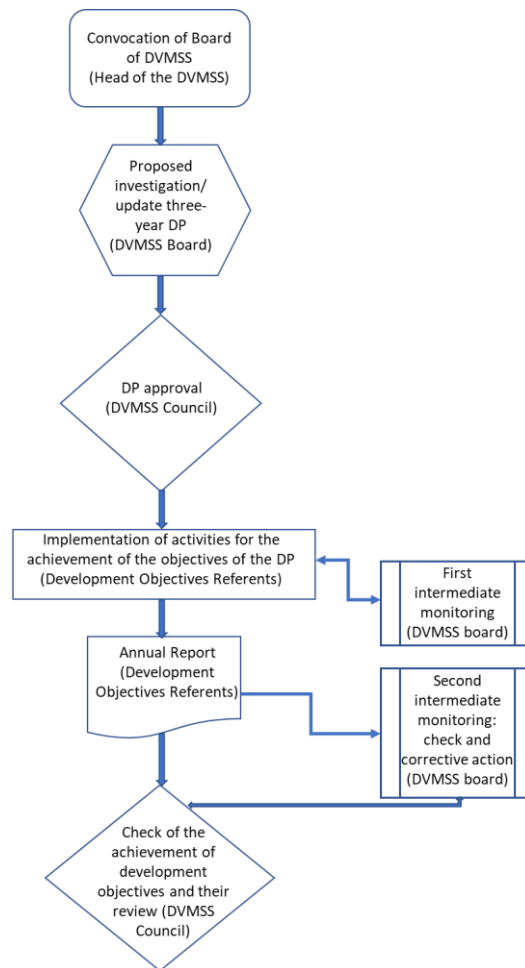


Figure 2: Flow chart of the development plan of the Department of Veterinary Medicine

SWOT analysis - Italian Universities recognize three main areas in their mission namely, Education, Research, and Third Mission, and we have performed the SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis according to these areas:

SWOT Analysis-Teaching		
Internal factors	Strengths	Weakness
	<ul style="list-style-type: none"> ▪ DVM recognized in 2013 as compliant with the requirements of EAEVE Dir. 2005/36 / EC; ▪ didactic structures with spaces and classrooms suitable for the theoretical and practical activities carried out by the VMDC; ▪ attention to the quality of teaching provided, with particular reference to practical activities in small groups and internship activities; ▪ expansion of the training offer and skills due to the new composition of the Department 	<ul style="list-style-type: none"> ▪ completion of cohorts of students who enrol in the first year late due to the complex mechanism of national rankings of limited number courses; ▪ high number of “chronic” out-of-school courses; ▪ high cost and need for personnel related to practical teaching in small groups to meet EAEVE requirements; ▪ normal duration of the course of study insufficient for the achievement of the objectives set by the ministerial class LM / 42, (a problem common to all degree courses in veterinary medicine); ▪ Difficulty in reducing the teaching load in consideration of the knowledge and skills required by the international guidelines and the EAEVE system.
External factors	Opportunities	Threats
	<ul style="list-style-type: none"> ▪ unique VMDC present in Sardinia with a still significant attraction, in a context with a strong agro-zootechnical orientation; ▪ activation and implementation of quality procedures for EAEVE accreditation in order to undergo accreditation in 2023 (Step 2) ▪ adapt one's quality policy and share this moment within the DVMSS as a moment of growth and useful redefinition of processes; ▪ rationalize administrative resources to optimize services and make them more effective; ▪ creation of synergies and joint programs with regional bodies and institutions operating in the health, livestock and environmental fields; ▪ creation of the figure of "practicing" teachers, in support of repeated practical activities. 	<ul style="list-style-type: none"> ▪ lack of financing funds (ordinary endowment); ▪ sustainability of the costs of practical teaching, which can be faced in the presence of an extra contribution from the UNISS; ▪ difficulty in maintaining the role of the teaching instructors, in support of repeated practical activities; ▪ change in the management processes of the UNISS not always aligned with the department's need for flexibility and speed (internship management, online purchases, etc.); ▪ requirement for compliance with the EAEVE parameters of teaching staff (Full Time Equivalent) and support staff (Administrative Staff); ▪ difficulty in reducing the workload, starting from the revision of the contents of the teaching units to encourage practical activities, self-learning and self-study activities.
SWOT Analysis-Research		
Internal factors	Strengths	Weakness
	<ul style="list-style-type: none"> ▪ adequate quantitative level of scientific production; ▪ possibility of attracting funding from competitive tenders; ▪ valuable structural and infrastructural equipment; ▪ advanced training action. ▪ scouting applied research projects to highlight to the Third Mission Committee 	<ul style="list-style-type: none"> ▪ qualitative-quantitative level of scientific production not evenly distributed among the scientific disciplinary sectors and within them; ▪ persistence of chronic inactivity; ▪ shortcomings in the choice of products to be subjected to research quality assessment (VQR); ▪ degree of internationalization susceptible to further improvement.
External factors	Opportunities	Threats
	<ul style="list-style-type: none"> ▪ improve the positioning of the University in scientific research and increase the quantity / quality of projects; ▪ consolidate and expand collaboration networks for scientific research on a national and international level. 	<ul style="list-style-type: none"> ▪ reduction in the ordinary funding of the University; ▪ limitation of generational turnover; ▪ lack of proper recognition of the work carried out by researchers for the career advancement of the teaching staff; ▪ presence of different methods, tools and evaluation criteria not always compatible with the research; ▪ excessive bureaucracy that limits institutional activities.
SWOT Analysis-Third mission		
Internal factors	Strengths	Weakness

	<p>The TM Committee liaises with the TM Central Office of UNISS. the TM activities operate in: Initiatives of research transfer to businesses (Spin off, Patents), Continuous Education, Public Engagement The TM Committee, through its Delegate, displays potentials, informs about updates and contacts members to accomplish with national requests (ANVUR). Yearly lays the report collecting the minutes of TM meetings and intermediate monitoring of TM activities. The TM Committee interacts with: a) the Board of PhD School for R&D of candidates working on industrial research. b) the VTH Committee for activities open to the public and third parties. c) with Schools of specialisations for planning Continuing education seminars/courses. The public engagement can rely on a Delegate of the VEE Head, whose high profile and skills are shared for public speaking courses and communications on social media. The last VQR exercise (2014-2019) acknowledged the highest score to the case study "Life under griffon wings" proposed by the DVMSS for UNISS evaluation.</p>	<p>One of the weaknesses identified by the Committee for the TM relates to the voluntary and very diverse commitment of members. Meanwhile some members turn to be highly engaged, others still do not. This generates in turn the difficulty to plan activities, harmonically.</p>				
External factors	<table border="1"> <thead> <tr> <th data-bbox="260 723 839 757">Opportunities</th> </tr> </thead> <tbody> <tr> <td data-bbox="260 757 839 1189"> <p>The DVMSS is the only one on Sardinia island and it is strictly bound to the regional territory;. For this reason, several opportunities were identified.</p> <ul style="list-style-type: none"> •Low competition for the establishment of interactions with stakeholders and regional policy makers •Develop the outer image of the DVMSS through targeted events for the various areas of the Third Mission Department Exhibition (VTH, Museo della Balena.) •Identify activities meeting, with special commitment on animal/human/environment interactions to emphasize the veterinary medicine role on the territory. •Providing a format for citizen education to increase the public awareness on One Health approach. •Planning to establish joint ventures and round tables with main representatives to innovate and valorize the peculiarities of feed and food production and local value </td> </tr> </tbody> </table>	Opportunities	<p>The DVMSS is the only one on Sardinia island and it is strictly bound to the regional territory;. For this reason, several opportunities were identified.</p> <ul style="list-style-type: none"> •Low competition for the establishment of interactions with stakeholders and regional policy makers •Develop the outer image of the DVMSS through targeted events for the various areas of the Third Mission Department Exhibition (VTH, Museo della Balena.) •Identify activities meeting, with special commitment on animal/human/environment interactions to emphasize the veterinary medicine role on the territory. •Providing a format for citizen education to increase the public awareness on One Health approach. •Planning to establish joint ventures and round tables with main representatives to innovate and valorize the peculiarities of feed and food production and local value 	<table border="1"> <thead> <tr> <th data-bbox="839 723 1476 757">Threats</th> </tr> </thead> <tbody> <tr> <td data-bbox="839 757 1476 1189"> <p>The progressive and continuous increase in the acknowledgment of TM activities of Universities is gaining more and more importance and will presumably contribute to elevate the actual weight to a higher proportion for the destination of ministerial functioning fundings (FFO) to each Atheneum at national level. At present, all Departments and the whole UNISS, likewise all Italian Universities, find themselves halfway of the next VQR exercise (2020-2024). Guidelines from ANVUR related to the TM activities to apply are not issued yet, but Department and individual member evaluation knowing whether the level of evaluation for TM activities (formerly at UNISS level, but Department or single member evaluation is expected</p> </td> </tr> </tbody> </table>	Threats	<p>The progressive and continuous increase in the acknowledgment of TM activities of Universities is gaining more and more importance and will presumably contribute to elevate the actual weight to a higher proportion for the destination of ministerial functioning fundings (FFO) to each Atheneum at national level. At present, all Departments and the whole UNISS, likewise all Italian Universities, find themselves halfway of the next VQR exercise (2020-2024). Guidelines from ANVUR related to the TM activities to apply are not issued yet, but Department and individual member evaluation knowing whether the level of evaluation for TM activities (formerly at UNISS level, but Department or single member evaluation is expected</p>
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Standard 1.4: The VEE must have a policy and associated written procedures for the assurance of the quality and standards of its programs and awards. It must also commit itself explicitly to the development of a culture which recognizes the importance of quality, and quality assurance, within their Establishment. To achieve this, the Establishment must develop and implement a strategy for the continuous enhancement of quality. The development and implementation of the Establishment's strategy must include a role for students and other stakeholders, both internal and external, and the strategy must have a formal status and be publicly available.

VEE policy for Quality Assurance - DVMSS activities and Veterinary Medicine training are developed in accordance with the national legislation, including D.lgs 9 novembre 2007, n. 206, national enforcement of the Directive 2005/36/EC and subsequent amendments. The Department organization takes into account the principles, the organisation framework and functions provided by [Statuto dell'Università di Sassari](#), that are also implemented in the [Department Regulation](#). The [Presidio di Qualità](#) of the UNISS is the committee responsible for the internal QA system, involving the whole University and all Departments. The **Nucleo di Valutazione** of the University of Sassari, the Quality Independent Evaluation Committee, is in charge of the review and assessment of the UNISS Departments, including the DVMSS, related to teaching activities and student satisfaction. The annual report 2022 of Nucleo di Valutazione is available [here](#). The Department and the Degree Course in Veterinary Medicine received a [positive evaluation in 2018](#) as part of the periodic accreditation visitation of the ANVUR, which is under control of the European Network for Quality Assurance in Higher Education (ENQA). The Department management is based on a QA system,

that is intended to guarantee the satisfaction of students, stakeholders and third parties, in meeting their requirements and expectations with regard to different tasks of the departmental mission. DVMSS Quality assurance system is developed in compliance with Standard Operating Procedure (SOP) 2019, amended in [September 2021 provided by ESEVT](#), and requirements of national mandatory Self-assessment, Assessment, and Accreditation system [ANVUR](#) of Degree and PhD Course, Department and Universities. To define strategies, objectives and resource attribution for personnel positions, the DVMSS is developing an integrated approach. DVMSS policies and strategic objectives are addressed according to the ISP (usually updated every three years); the operative objectives to a triennial DP (annually revised and updated), that includes their management and assessment; finally, the resource attribution for personnel to the triennial RP (annually updated, see 1.3). All decisions, contents and documents are defined with the contribution of different DVMSS Committees, discussed by the DVMSS JTSC, and formally approved by the Department Council. Final documents are sent to the UNISS Rector and the General Director, and also submitted to stakeholders during the annual meeting for criticisms and suggestions. UNISS and DVMSS integrated QA framework is summarised in figure 3.

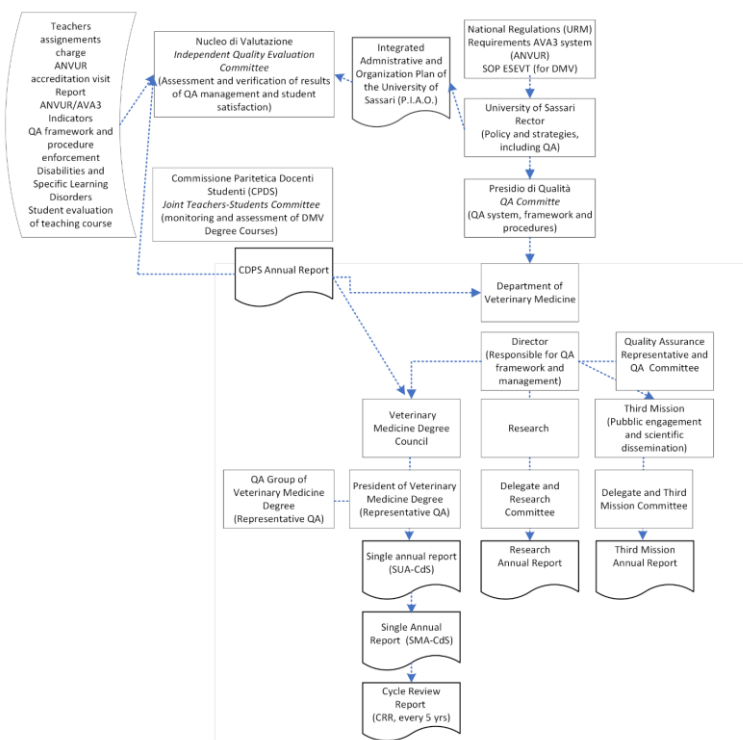


Figure 3: UNISS and DVMSS Quality Assurance integrated framework and relationship

The management of planned activities is carried out considering the phases of the PDCA cycle, with monitoring, verification and review cycle that precedes the definition of the annual update as detailed in the Quality Policy in [Appendix 4](#).

Quality Assurance System of Veterinary Medicine Degree - The person responsible for Degree on Veterinary Medicine QA is the President, while the deputy President coordinates Quality Assurance Management Commission (QAMC), that is in charge to give advice and assistance to the QA management. The DVMSS JTSC, is in charge of monitoring, proposing for corrective action, verifying, and annually reviewing the teaching program and activities, considering the students' evaluation of the teaching course. The JTSC annual report is sent to the DVMSS Council, to the Degree Courses President (DCP), to the Rector, to the NDV, and to the Academic Senate. The Veterinary Medicine Degree Council (VMDC) is in charge to organize and manage teaching activities, to review and update content and teaching plan, also

adopting corrective actions related to teaching in relation to claim, JTSC proposal or results of student evaluations. The VMDC has to communicate to third parties (including families and candidate students) general information, teaching staff, prerequisite knowledge required for access, and content of the course, by means of the SUA-CdS, the Degree [Course Single Annual Report](#). SMA-CdS, the [Degree Course Annual Monitoring Report](#), is a synthetic report about indicators related to student career and satisfaction, course attractiveness, occupation, and international exchange. The obtained results about indicators are compared with similar courses and also take into account homogeneous geographical context. Every 5 years the VMDC is required to perform a more accurate review, the Rapporto di Riesame Ciclico (Cycle Review Report, CRR), extended to cycle of the whole course to analyze and identify critical points, and corrective action, that could be adopted for the subsequent DVMSS course cycle. As the last report was completed in 2018 a new CRR is expected to be completed in 2023.

Standard 1.5: The VEE must provide evidence that it interacts with its stakeholders and the wider society. Such public information must be clear, objective and readily accessible; the information must include up-to-date information about the study program, 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.

Stakeholders' interactions - Each year the VEE carries out [meetings with stakeholders](#) such as representatives of Professional Veterinary Associations, of the relevant Areas and/or Services (e.g., Zootechnics, Environment, Agriculture, etc.), of the production industry, and veterinary practitioners collecting their feedback. Moreover, the VEE organises meetings with [new graduates](#) in order to collect suggestions useful for the improvement of the training in Veterinary Medicine. The minutes of these meetings can be found [here](#). To ensure that UNISS graduates in Veterinary Medicine are in step with the needs of the regional but also national territory, the Department organises formal and non-formal meetings every year (on the occasion of study days, round tables, update days and contacts with external public and private actors). The methods and frequency by which the social partners are consulted are described in a specific Department Procedure available at the following [link](#). The results of the proposals activated in consultation with the social partners are monitored annually by the Department's QA Commission and by the DVMDC coordinator. At the end of these [meetings](#), minutes or reports of the sessions are drawn up which are useful for compiling the annual report. The information and requests received by the Department-Territory Committee and/or the JTSC, following consultations with social partners and stakeholders, are collected by the Planning Committee, which analyses them and studies their feasibility. The specific proposals for modification or updating of the study plan or the establishment of elective courses or informative seminars that can integrate and enrich the course of study are assessed (for congruence and effectiveness) by the Study Program Review Group and then submitted for approval to the reference educational structure (VMDC).

Furthermore, the documents periodically published by the National Federation of the Italian Veterinary Order ([FNOVI](#)) are taken into consideration, relating to the prospects of the veterinary profession and the objectives to be achieved; it is also crucial to know the opinion of the Institutions, Bodies, Associations and professionals who interact with the Degree Course and for this reason, the Degree Course in Veterinary Medicine is in constant contact with some Professional Orders of Veterinarians, the National Association Italian Veterinarians ([ANMVI](#)) and multiple professionals who carry out their activities in different sectors and with whom students come into contact during their academic career. Access to the ESEVT Establishment's status and to the last ESEVT Self Evaluation Report and Visitation Report (SER) on the Establishment's website - The DVMSS EAEVE status and other related information (e.g., SER, certificate of approval, interim report) are displayed on the [VEE webpage](#).

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

Monitoring and Review actions - The current SP (2020-22) was approved in July 2020 by the council ([Appendix 6](#)). The SP was positively evaluated by the UNISS Rector and General Director. It is publicly available on the [website of the Department](#). The VEE organisation is largely established by national legislation. The UNISS Statute determines the organisation, function and composition of Departments, Schools and teaching councils. All other bodies, boards, committees, and services are outlined in departmental regulations and approved by the Department Board and DVMSS Council. At the end of this process, departmental regulations are approved by the UNISS Rector. This organisation and corresponding documents are available in the public area of the [Department website](#). The SP implementation assessment and revision involves the following steps with transparent decision processes and dissemination:

- The DVMSS Head drafts the SP following PQA guidelines, in accordance with the UNISS Strategic Plan; priorities, objectives, and goals are identified by interviewing internal and external stakeholders;
- The DVMSS Council discusses and approves the SP;
- The QA manager (AVA member of the QA Group), following PQA guidelines, monitors the functioning of different bodies and suggests major changes/improvements;
- The DVMSS Head monitors and periodically adjusts the plan that is formally approved by the DVMSS Council.

The **Organisation** of the DVMSS is defined by UNISS general rules; the DVMSS Head identifies delegates and coordinators of DVMSS committees usually at the beginning of the mandate. Changes to adapt the organisation to new strategies or to meet needs remain the responsibility of the DVMSS Head/management. The **QA policy** ([Appendix 4](#)) is proposed/implemented/monitored/reviewed by the QA group and adopted by the DVMSS Council.

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

The VEE was fully visited by EAEVE in May 2013, receiving a full approval and no major deficiencies. The [final report](#) suggested that the purpose-built facilities offer space for at least 50 students per class, (at the present 45/48 are being admitted annually); this creates a favourable teaching staff/student ratio. Where in-house cases are missing, ample provision on a formal basis has been arranged for extramural practical teaching, especially in food animal species and horses. Fully functioning ambulatory clinics also contribute substantially. There was a shortage of technical support staff, especially nursing staff and Specialization in clinical areas. This deficiency was to be met by developing internship and residency programs under the guidance of Diplomates. Basic science teaching was considered satisfactory as well, but suggestions were made to further increase practice in some areas. Food hygiene and public health teaching, biosafety/security, infectious disease teaching, were all delivered according to standards; animal welfare teaching should be better coordinated. For the EAEVE commission, all in all, the VEE in 2013 made giant steps of improvement in many and especially in the previously critical areas; the DVMSS and administration should be congratulated on this achievement and should be encouraged to continue in this direction, especially in the clinical areas.

Comments on Area 1 - The years following the EAEVE visit in 2013 have been one of great enthusiasm and undoubted growth for the whole staff of the Department. The VEE had to put itself to the test again a few years ago in relation to the ANVUR visit linked to the new standards in terms of QA. On that occasion, we realised the lack of familiarity with the processes related to quality assurance, the lack of well-defined procedures and adequate monitoring of the same. The appointment of an adequate Commission for QA and an active working group has led to the definition of numerous procedures regulating all the main work activities of the VEE and the [processes of verification and correction](#) of the same. In recent years after 2015, however, the DVMSS, despite the accreditation by the EAEVE commission and a good placement at national level as a degree course, has warned little attention from government bodies of UNISS to the problems that a degree course in veterinary medicine entails and also the costs that this entails. This has often resulted in a limitation also in the offer of VTH services and in some teaching activities. - In fact, the VTH shows needs for financial support and for figures with organisational-managerial functions that are not reflected in the current managerial structure of the Universities.

Suggestions for improvement in Area 1 - In the VEE, there is a need to consolidate the European accreditation process of the Degree Course in Veterinary Medicine with an improvement in the quality of teaching and management and quality assurance processes that require constant monitoring. There must be a greater awareness among DVMSS staff members of the importance of quality-related processes, their monitoring and constant corrective actions to be undertaken in order to make the DVMSS organisation more and more in line with European standards and with the process, now inevitable of quality assurance. Furthermore, it is necessary to consolidate and extend relations with the productive realities of the territory in an ever greater way, making cyclical meetings with regional and local bodies essential for the training in the local and national territory of veterinary doctors graduated in the DVMSS program. Finally, there is a need for a greater demand for integration of Departmental skills in territorial management initiatives, projects and programs concerning research topics related to integrated health between the environment, humans and animals.

Area 2. Finances

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

Global financial process - UNISS is a Public University that consists of 10 Departments, and it is funded by MUR, which provides the main amount of resources for financial maintenance ("Fondo di funzionamento ordinario, FFO). Each year MUR states the FFO amount delivered directly to the UNISS central administration for the institutional activities and University functioning, including expenses for teaching, research, and non-teaching staff, and for the ordinary maintenance of university structures. A triennial programmatic decree has provided that FFO is assigned to each Italian University on the basis of: a) previous resources amount transferred (about 25%) to the University; b) the student "costo standard" (about 30%), a reference cost attributed to the individual students enrolled within the normal duration of the study courses, defined considering the type of course, the size of the university, and the different economic, territorial, and infrastructural contexts in which it operates the University; c) performance indicators assessment (30% for 2022), related to research evaluation results, recruitment quality, and performance related accomplishment to programmatic objectives); d) other indicators and balancing quote Students' fees cannot exceed 20% of the FFO and represent the second income item [RAS](#) is the third contributor for UNISS. The Italian law conferred to the Sardinian region a special status, which provides margins of autonomy in relation to the central state and peculiar competences, especially on the

management of economic resources. Additional public funding (i.e. MUR or other Italian Ministries, EU agencies), collected by the UNISS central administration and assigned to DVMSS after overheads retained (5% if it is allowed by contract specification of the project for the reporting of expenses). Other income DVMSS income resources are: a) revenues from clinical and diagnostic services (VTH, diagnostic laboratories not included in the hospital, etc.); b) private funds (i.e. Fondazione Banco di Sardegna); e.g., research projects in 2021 (€ 366,666) and 2022 (€ 220,000) have been funded; c) Revenues from private commissioned research contracts, from pharmaceutical companies, directly managed by DVMSS.

For the 2019-2021 period, UNISS assigned a quota of FFO to Departments, considering as a basic amount that was 70% of total endowment that was assigned in 2016; on the residual 30% of total endowment assigned in 2016, a reward quota was applied, calculated as a weighted average of the ISD teaching indicator (*0.51) and the ISRC research indicator (*0.49). ISD indicator is defined on: a) number of regular students weighted by their standard cost; b) indicators provided by UNISS performance objectives consisting of regular students that acquired more than 40 AECs at 1st year and regular graduates that acquired at least 12 ECTS in international student program exchange. The ISRC indicator was calculated considering: a) quality of research products, on the basis of the 2014-2019 ANVUR evaluation; b) fundraising from competitive tenders; c) figures in formation on research and recruitment. The amount of FFO quote allocated in DMVSS balance is about €36,000 for 2023 (not considered cleaning expenses). The same issue in 2019-2021 was €28,933 /per year.

UNISS is in charge of part of expenditure: a) costs related to permanent teaching, support, and administrative staff; b) costs due to electricity, warming, telephone, gardening, water and waste management; c) costs for VTH and DVMSS surveillance; d) premises cleaning costs.

These resources were employed for vehicles (used for mobile clinic activities), for their maintenance, and for fuel (only a little amount was used for vehicles for student transport, due to expenditure limits imposed by Law 160/2019 Art. 1, paragraphs 590 to 602, that hampers car buying or long term car rental); personal protective equipment and disposable; consumables, and overheads. UNISS transfers a variable quote of the student fee that is related to the student number and other criteria that could differ in different years. In 2019-2020 years the amount was about € 51,000 per year, while in 2021 there was no transfer for this issue. These resources are employed for costs related to professors and supply teachers contracts, for feeding teaching animals of the DMVSS, disposable and personal protective equipment, and teaching-related activities, such as informatics and multimedia devices maintenance. UNISS resources could be also transferred on a non regular basis, e.g. for COVID-19 related contrast measures (in 2020, €50,000) or related to extraordinary interventions or to MUR objective driven program (€25,000 for PRO-TRE in 2022). UNISS transfers to DMVSS the large part of two School of Specialization students fees (about €120,000/year), that are also co-financed by UNISS for a total of about €80,000/year in 2019-2021.

Research grants and clinical and diagnostic services represent a source of funding for the VTH. Their annual income is not stable and can vary through the years depending on their performance.

The DVMSS must pay a margin to UNISS on revenues as overhead. The percentage withheld by the University is 10% for clinical and diagnostic services and from private commissioned research contracts, and 5% for research grants.

In Italy, the financial year starts on the 1st of January and ends on the 31st of December, and it does not overlap the AY period, spanning from the 1st of November to the 31st of October. According to Italian laws, since 2012 UNISS has adopted a central financial statement ([bilancio unico](#)). The DVMSS is an independent spending centre, but it is entitled to set up its own authorised annual and three-year planning

budgets. The DVMSS administration office can independently administer its FFO quote and funds acquired through research projects, diagnostic and clinical services.

The annual expenditures and revenues of the DVMSS for the last 3 financial years are exhibited in Tables 2.1.1 and 2.1.2.

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

Area of expenditure	2021	2020	2019	Mean
Personnel				
Teaching staff ¹	5,624,448	5,348,339	5,374,488	5,449,092
Support and administrative staff ²	978,270	995,971	983,867	989,919
Research staff ³	723,377	653,206	730,313	702,299
External teaching ⁴	48,088	49,998	40,960	46,349
Operating costs	256,856	220,050	207,018	227,974
Maintenance costs	131,909	144,775	167,799	148,161
Equipment	114,746	109,219	84,531	102,832
Other costs	108,088	77,817	124,459	103,455
<i>Total expenditures</i>	<i>6,899,511</i>	<i>6,502,004</i>	<i>6,469,128</i>	<i>6,511,563</i>

¹ Gross cost of permanent teaching staff

² Gross cost of permanent support and administrative staff

³ Gross cost of temporary research fellowship holders, contract workers, and scholarship workers

⁴ Contract professors and payment of supply teachers

Personnel costs are grouped as follows: 1) permanent teaching staff; 2) support and administrative staff; 3) research staff, comprehensive of temporary research fellowship holders, contract workers, scholarship, PhD students, post-docs, and VTH veterinarians; 4) external teaching, that includes professor and supply teachers. Are excluded from the cost computation the expenditure related to UNISS personnel that serves for other auxiliary activities that are needed for student management and the veterinary training, e.g. student secretariat, student with special needs (e.g. counselling), student welfare and international mobility, and library staff. Short term students' contracts for tutoring and administrative support are paid by UNISS and therefore are excluded.

Operating costs - Consumables, animal feeding, personal safety devices, service for printers, software licence, informatic, and office device maintenance.

Maintenance costs - Cleaning services, vehicle and car maintenance, scientific and diagnostic instruments maintenance. Expenditure related to conditioners, elevators, fire extinguisher, and green area maintenance are excluded from the cost computation.

Equipment - Scientific and laboratory equipment, personal computer, furniture.

Other costs - Services, car insurance and tax, fuel, membership costs, car rental.

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

Revenues source	2021	2020	2019	Mean
Public authorities	5,624,448	5,348,339	5,374,488	5,449,092
Tuition fee (standard students)	-	-	-	-
Clinical and diagnostic services	161,262	165,569	375,728	234,186
Research grants	1,862,457	976,463	1,092,956	1,310,625
Continuing Education	145,903	249,642	133,137	176,227
Total revenues	7,794,068	6,740,013	6,976,309	7,170,130

Public authorities - the large part of resources is provided to VEE by MUR funding for permanent staff salary, Department management, and maintenance (cfr. global process).

Tuition fees - during the 2019/2021 AY a part of the student degree fee was transferred to VEE. The enrolment in each UNISS course is subject to the payment of tuition fees. Every year the University Board sets and possibly revise the guidelines for tuition fees, that depend on income and are quantified according to the equivalent economic situation indicator (ISEE) value of the student's household.

Enrolled students are subject to the payment of:

- All-inclusive UNISS fee;
- Virtual stamp duty;
- Regional tax (ERSU, Regional Agency for the Right to University Study).

Fees differ ([guide for student](#)) according to the status of regular/irregular/repeat student, the teaching commitment for which one has opted (full-time/part-time), the career in the University, disabilities and a huge number of other criteria, according to rules set by Italian law L. 11 December 2016, no. 232. The full regulations for the 2022/2023 AY is reported in [Appendix 19](#).

Clinical and diagnostic services - revenues showed a reduction due to COVID-19 pandemic; clinical services include the VTH activity and pathology and parasitology diagnostic services. VTH services included also agreements with other institutions (e.g. related to public veterinarian health program/interventions for control of stray dogs and/or cats, sanitary management at kennel of Sassari municipality; access availability to an equipped VTH surgery room, for the Committee during some equestrian event). Research projects (e.g. funded by Fondazione di Sardegna or RAS for the Center of Comparative Surgery) improve the opportunity to guarantee for students a research-based educational environment, useful for their training and practical competence acquisition.

Research: The DVMSS teachers and researchers actively participate in grants for research programs funded by national or EU public institutions. MUR, UNISS, and DMVSS policy introduced research quality assessment (ANVUR) and the evaluation of merit criteria in scientific production and fund raising. The objective is to boost and encourage the individual and group initiatives to improve research programs and availability of the essential resources to build a quality research, as a solid foundation for advancement of Veterinary training. A small amount of the resources were provided by UNISS during 2019-2021 as considered by strategic objectives, as extraordinary funding in 2019 and 2020 (respectively accounting for €2,288 and €4,000 per each teaching unit). These funds, as they were provided by UNISS were not available, after enforcement of the limit for spending public resources. The main resources for research are provided by competitive grant funded by MUR (Research Projects of National Interest, [PRIN](#); National Research Plan, [NRP](#); Italian National Recovery and Resilience Plan, [PNRR](#)), the [Ministry of Agriculture](#), the [Ministry of Enterprises and Made in Italy](#), EU ([Life](#), [Marie Skłodowska-Curie Actions](#)), and European Food Safety Agency ([EFSA](#)). Agreements also support applied research projects, funded by RAS (e.g. [Legge 7/2007](#), [Sardegna Ricerche Agency](#)) and other Italian Regions governments. The [Fondazione di Sardegna](#), a private foundation, funded projects directly or through [agreements involving UNISS](#).

Continuing Education - UNISS transfers to VEE a large part of the student fee enrolled in School of specialisation and Master, to support teaching and tutoring activities (cfr. global process).

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

Financial year	Total expenditures	Total revenues	Balance***
2021	6,899,511	7,794,068	894,557
2020	6,502,004	6,740,013	238,009
2019	6,469,128	6,976,309	507,181

***Total revenues minus total expenditures

Other utilities and expenditures incurred by UNISS

Expenditures incurred by UNISS in the last three financial years are given in Table 2.1.7.

Annual expenditures incurred directly by UNISS during the last 3 financial years (in Euros)

UNISS had in charge the cost of water, electricity, telephone service, heating, gardening, and Disposal of hazardous waste. During the 2019-2021 period all the premises cleaning costs for DMVSS and VTH were supported by transfer of FFO from UNISS (about €131,000/year). From 2022, due to UNISS changing in cleaning contract management, a part of the payment for DMVSS premises cleaning (about 50%) are in charge of UNISS. The residual 50% cost, for VTH cleaning, is in charge of UNISS, but from 2022 the resources are transferred to DMVSS (as a part of FFO quote), that is also in charge of the contract management. In the same years 2019-2021 the expenses for disposal of waste management were,

respectively 41,012€, 29.288€, 53.904€. The costs for electricity expenditures incurred directly by UNISS are not shared between DMVSS, VTH and Chemistry Department and total amounts were 244,406€ (2020), 415,314€ (2021). In 2022 there was a remarkable increase in the electric supply cost, which was equal to 727,488€. Water supply expenses were, respectively 1,109.18€ (2020), 2,179.46€ (2022), 1,287.28 € (2022). The gardening maintenance and the warming costs are in charge of UNISS, but they are not available as disaggregated accountancy.

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

The financial management of department funds is entirely run by the VEE. Revenues derived from clinical and diagnostic services are managed through the department centre of cost. The academic staff involved in the specific service prepares the pro-forma invoice for the provided activities to third parties and the DMVSS administration manages the procedure provided by UNISS Regulations ([Amministrazione, Finanza e contabilità](#); [Regolamento per la gestione delle attività di autofinanziamento](#)); specific expenditure chapters allows the expenditures necessary to maintain the clinical activities and services. Clinical services may also negotiate commercial contracts (e.g., agreements for stray animals management with the Health Ministry veterinary services), that are approved by the Department Council and managed by the VTH and the person in charge of the contract. Revenues for Clinical research activity are managed by the academic staff in charge of the project.

A further contribution to support clinical research is the DMVSS Comparative Surgery Center, which represents a connection with Human Medicine research and training, previously obtained €300,000 funding by RAS ([2016](#)).

Degree of autonomy of the VEE on the financial process - In accordance with the UNISS statutes and the Italian law, the VEE has financial, administrative, and negotiating autonomy, in the terms and within the limits provided for by the Administration, Finance, and Accounting Regulations and the General Regulations of the University, and in compliance with the accounting principles relating to the bilancio unico of the UNISS. The DMVSS is a responsibility centre, coordinates the available resources and guarantees its efficient use, promoting research and teaching activities, as well as to foster relations with the local territory. Funds deriving from commercial activities or contracts, or research projects. are managed by the principal investigator or the person in charge of the contract.

A constraint to the autonomy of the UNISS, and as a consequence to DMVSS, is actually imposed by limits for containment public expenditures introduced by law 160/2019, article 1, paragraphs 590-602. Starting from the year 2020, the Universities cannot make expenses for the purchase of goods and services for amounts higher than the average value entered in the approved balance for the financial years 2016, 2017 and 2018. Are excluded from these limits all expenses related to projects and funds provided by other institutions for specific purposes (e.g. visiting professor programs that are funded by RAS). A note of the Economy and Finance Ministry provides that the energy and ticket meal costs for support staff should be excluded from the expenditure limit calculations in 2023.

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

Ongoing and planned major investments - The major in progress investments made by UNISS are: refurbishment of teaching lab (€500,000); adaptations of the dissection and necropsy rooms; adaptation of

classrooms to the students comfort; refurbishment of the DMVSS buildings for compliance to firefighting; renovation of the new teaching farm “La Crucca” (€1,800,000) ([Appendix 22](#)); construction of the Mediterranean Centre for Disease Control (MCDC) Research Centre buildings and facilities (Biosafety Level 3) (€1,300,000) ([Appendix 21](#)). To improve VTH diagnostic equipment DMVSS provided to acquire high-performance echotomography device, equipped with 5 transducers; integrated digital archive with various image storage technologies; 4K laparoscopic column complete with accessories and software. In new 2022 DMVSS changed the software for the management of clinical cases at VTH (Dr. Veto, Alcyon, customised for students training purposes); see standard 4.4.

There are also investments projected, eventually co-financed by UNISS, that intend to participate to MUR call, in order to acquire part of the resources that are needed for infrastructural adjustments of DVMSS buildings, aimed to improve energy sustainability (€6,000,000). During COVID-19 pandemic UNISS supported the implementation of three teaching rooms with remote teaching and assessment tools (€30,000). Specific budget for digital and computer device improvement was allocated (€50,000, including individual protection devices), avoiding any charge on staff.

Prospected expenditures and revenues - Following the increasing trend of human resources recruitment (academic, clinical, and support staff), a growth in the investments on the DVMSS is expected. The recruitment of new clinical staff will improve VTH performances, thus leading to an increase of the revenues. The acquisition of new academic and research staff will boost the ability to raise funds.

Funds deriving from the National Recovery and Resilience Plan (PNRR) after the COVID-19 pandemic are expected to be allocated, to UNISS first and then to the DVMSS.

In addition, the RAS has approved a three-year funding plan to sustain the DVMSS and the VTH activities and development (such as the 24/7 service) and will transfer about €400,000/year to the department.

Budget decision-making process - The administrative, accounting, and financial management of DVMSS is set by UNISS regulations and national legislation. The DVMSS is in charge of the VMDP. The DVMSS works with administrative and accounting autonomy, whose head is the DVMSS director. The administrative secretary manages the administration of the DVMSS. The VTH is not independent, and its administration falls under the responsibility of the DVMSS head. The VEE makes its voice heard (in constant dialogue with the UNISS and other institutions) through the Director, the Administrative Secretary, and their delegates. The Department Council approves the Integrated Strategic Plan, a three-year planning document that defines the objectives and goals of the planning of teaching, research and third mission activities. Moreover, in this document is defined the staff recruitment plan, that takes into account the UNISS planning and the available resources. The three-year planning is subject to periodic checks and reviews, normally on an annual basis. The Department Council also deliberates on the resource, facilities, and equipment allocation, the need for investments, clinical, and teaching staff, and, upon the proposal of the Director, approves the [planning and reporting documents](#).

The DVMSS council meetings are programmed on a [monthly basis](#). All minutes are accessible in the [intranet](#) to the representatives that send their reports to the students and the support staff. The planning process also involves students and support staff, whose representatives participate in the DMVSS council. Research projects are developed independently by the single researchers and principal investigators that plan the activities and coordinate the research and support staff.

The VTH does not have administrative autonomy and its management relies on the DVMSS establishment and academic board, but represents a cost centre to which costs and revenues from both transfers and income from contracts, agreements and paid services are allocated. The allocation of the resources is done according to the planned costs and a specific allocation plan, which is discussed and approved by the VTH Council and the DVMSS board. [2] The [fee schedule](#) for VTH services (under review) is approved by the Department Council on the proposal of the VTH Management Committee. Income distribution and allocation procedures are governed by the [internal regulations](#) of the Department of Veterinary Medicine[3]. The administrative office of the department places the orders both by using the electronic market for public administration (MEPA) or following direct procedures (orders up to €40,000.00).

Comments on Area 2 - The VEE mainly depends on public funding, which is not sufficient to cover the expenses. Due to the limited number of students that can be enrolled, and considering the cost of the practical activities, the veterinary medicine course is one of UNISS most expensive degree courses. The resources are also insufficient to cover the 24/7 clinical service and to acquire new equipment for students' practical activities. The Department's operational capacity is directly linked to the academic staff capability to attract funds through services and research funds obtained through competitive calls.

Moreover, the Italian legislation has a complex set of rules to limit public spending that University must take into account when preparing the bilancio unico. In 2018-2020 period UNISS exceeded the public spending limits* on external contracts and services. As a consequence, since the 2021/2022 AY UNISS is subjected to a budgetary surveillance regime and imposed to define limits on individual departments. This implies the inability of DVMSS to self-finance certain projects and services such as the VTH, which are in extreme difficulty post-COVID-19. For 2023, UNISS has set the DVMSS maximum spending limit to €45,291.31 (actually under review), which must include all expenses (transport, animal management, and external contracts to support the fulfilment of ESEVT indicators). This amount is clearly insufficient with respect to the realistically foreseeable current expenditure needs, also in consideration of the significant increase of some operating costs with respect to the three-year reference period (2016-2018). Furthermore, extra income (deriving i.e. from clinical and diagnostic services or Specialisation courses fees) cannot be reinvested to fund teaching or clinical activities, nor the VTH. This extremely difficult situation can only be managed through the external support of the DVMSS and the UNISS, and this is why the Magnificus Rector and the DVMSS Head moved forward to obtain support from the Sardinian Region. RAS has approved a fund of €400,000 for three years, and the DVMSS is working to find other solutions that can replace the direct academic support of the University.

*UNISS must define a spending limit for goods and services purchase; this limit must not exceed the average value incurred for the same purposes in the previous three-year period (Law 160/2019 Art. 1, paragraphs 590 to 602); only expenditures derived from specific projects or activities with public or private fundings and costs incurred for energy expenses and meal vouchers do not contribute to the definition of spending limit (Ministry of Economy and Finance circular n.26 of 11/11/2021 and n. 42 of 12/07/2022).

Suggestions for improvement in Area 2 - Actions should be taken to increase the fundraising capability of academic staff in terms of services and research grants, such as increasing the external visibility to attract private sponsors. A long/medium term strategy could provide the introduction of spin-off companies, reducing the percentage withheld by the UNISS for commercial activities. The DVMSS visibility should be also increased at international level, through international staff exchanges, or other initiatives, increasing its involvement in European and international project networks. It would be also desirable to further increase the range of services provided to the local community and to increase the commitment of the academic staff to engage external stakeholders.

Area 3. Curriculum

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

Educational aims and general strategy - The educational objectives of the Degree Course in Veterinary Medicine (VMDP) are to provide students with the scientific foundation, technical-practical skills, as well as cultural background required for the veterinary profession. The main purpose is the training of the veterinarian, who deals with both animal and human health from a One Health perspective. These objectives are constantly updated to meet the expectations of the stakeholders and to ensure the constant learning and development of scientific knowledge. Graduates of the master class must have the following skills: - a fundamental theoretical understanding gained from the basic sciences and its subsequent professional application; - the ability to recognize and assess the health, disease, and well-being of single animals and farms, both domestic and wild animals, including aquatic organisms and anthroozoonosis aspects, and to interpret them in the context of basic scientific knowledge, physiopathology, and pathologies of organs and apparatus, as well as to prepare medical and surgical interventions suitable for removing the state of disease; - knowledge of epidemiology, diagnosis, prophylaxis, therapy and control of infectious and parasitic diseases of animals and to design implement and control veterinary public health plans; - to manage and control the production chains of food of animal origin, understanding the production and transformation process and critically evaluate, hygiene, quality and alterations of foods of animal origin affecting human health; to manage genetic selection plans, breeding techniques, reproductive efficiency and all the aspect concerning nutrition and feeding, detecting and critically assessing the impact of animal breeding on the environment; written and oral knowledge of at least one European Union language, in addition to Italian (English) ([degree course](#)). The VMDP provides a methodological and cultural foundation for lifelong learning as well as the methodological basis in the biomedical research field, to prepare students to deal with post-graduate training courses (PhD, Master, and Specialization school). The curriculum is divided into 5 years (10 semesters) and allows for the acquisition of 300 ECTS credits in total, with 1 ECTS credit corresponds to 25h. The course is divided into three phases: the first phase is focused on the acquisition of basic science knowledge; the second phase consists of characterising and professionalising subjects that include animal production, clinical science, food safety and quality (FSQ), and veterinary public health (VPH); and the last phase is professional practical training (PPT), which can be carried out inside the DVMS or in national or foreign affiliated external establishments. PPT is meant to provide specific professional and practical knowledge under appropriate supervision. This last phase also includes external practical training (EPT).

To attain these competences, students must acquire the following knowledge (the minimum legal ECTS credits in brackets are according to the Ministerial Degree n. 270/2004):

Veterinary basic science (66 ECTS credits – minimum legal 58 ECTS). Based on the study of Anatomy – including histology and embryology (22 ECTS); Physiology – including ethology and endocrinology (20 ECTS); Physics and Statistics (6 ECTS); Zootechnical and Genetic improvement (6 ECTS); Biochemistry – including molecular biology (12 ECTS);

Characterizing activity (171 ECTS – minimum legal 130): based on the study of Animal Nutrition and Husbandry (21 ECTS); Infectious and Parasitic Diseases – including parasitology, avian pathology, microbiology, immunology, epidemiology, and public health (34 ECTS); Veterinary Pathology and Inspections – including pathological anatomy, food hygiene and technology, practical works (in place where slaughtering and processing food of animal origins occurs, including meat, milk, fish, eggs and

honey), food safety legal issues and hazards (39 ECTS); Clinical subjects (Internal Medicine, Surgery and Obstetrics) – including pharmacy and toxicology, therapy, lab diagnostics, behavioural disorders, veterinary legislation, forensic medicine, deontology, anaesthetics, radiology, andrology, reproductive disorders and artificial insemination (72 ECTS); Informatic Technologies (IT) (5 ECTS);

Integrative subjects (12 ECTS – minimum legal not defined). Based on the study of Rural and Business economy (5 ECTS), Zoology and Botany (5 ECTS); Avian Anatomy and Physiology (2 ECTS);

English language (3 ECTS – minimum legal not defined);

Elective subjects (8 ECTS – minimum legal not defined);

Professional Practical Training (PPT and EPT) (30 ECTS – minimum legal 30 ECTS);

Final Degree Dissertation (10 ECTS).

In the final dissertation, students present the original results obtained during research work carried out during an internship period, under the supervision of an academic tutor (thesis supervisor). The internship period is divided into 250 hours (1 ECTS = 25 hours), with 100 hours dedicated to practical activities and 150 hours dedicated to individual study. This period may be carried out partially or totally within the DVMSS or at research institutions, within public or private health service organisations with agreement, and under the responsibility of the thesis supervisor. The final thesis aims to develop the student's skills in dealing with research and/or application issues. It consists of experimental research (experimental thesis) or the analysis and elaboration of bibliographic sources (compilation thesis), to be presented orally in front of a commission with the aid of IT support. Since AY 2021/2022, 7 ECTS of activities called "Orientamento", each of 1 ECTS, were included, partially in clinical subjects (Internal Medicine, Surgery, and Obstetrics) and partially in non-clinical subjects (Physiology, Pathologic Anatomy, Food Inspection, and Animal Nutrition), which correspond to 25h of practice each without any theoretical activity. These activities were designed as Additional Educational Activities, which required the participation of a teacher who supervised the hands-on activities. However, there was the objective difficulty of obtaining a punctual scheduling of the activities from teachers that made it hard to carry out efficiently. To overcome these inconveniences, it was decided to integrate these activities within its own teaching course, in order to enhance its efficiency and to make the activities more coordinated with the curriculum. In the current 2022/2023 AY, some Orientamento activities became part of the clinical rounds as specified below and in Table 5.1. The degree program is designed to provide the ESEVT Day One Competences (DOC), established by the European Coordinating Committee on Veterinary Training (ECCVT) and adopted by the EAEVE. Each teaching module is accompanied by its own Syllabus, designed according to national and European regulations. Each Syllabus provides detailed information on programs and training and specifies the day-one competencies (DOC) that will be achieved. The attainment of learning outcomes is verified through exams at the end of each subject. The current program has been running since 2009, according to Ministerial Decree No. 270 of October 22, 2004. The DVMSS Council is responsible for the design and management of the program and receives input from different stakeholders on suitably plan meeting days and through the Department JTSC and the Quality Assurance Committee (QAC) of the degree course, which is also responsible for annual monitoring activities and cyclic revision; PPT and EPT are monitored by a dedicated internship committee. A review of the curriculum is currently underway (it will be effective in the 2023/2024 AY), following the suggestions and observations given by stakeholders and social partners to better frame the knowledge and skills of the modern veterinarian to current needs. This revision includes the reorganisation of some ECTS to allow the inclusion of some topics that, although previously covered, need a specific and well-defined space (e.g. animal welfare, bio safety, professional communication, management of the veterinary clinics, etc.). This revision is also oriented towards a more rational organisation of the ECTS, avoiding that teaching modules belonging to the same integrated course are delivered in different semesters so that students may acquire the final credits more effectively.

Legal constraints and degree of autonomy - The current curriculum is regulated by the Ministerial Decree No. 270 of October 22, 2004, by the Italian Law no. 17/2010 (Requirements for study courses), by the EU Directive 78/1027/EEC, by the Italian Law no. 264/1999 (Rules on access to university courses), by the Ministerial Decrees of October 4th, 2000 (Scientific-Disciplinary Sectors) and November, 28th, 2000 (Determination of the classes of specialist degree) and according to EU Directive 2005/36/EC (Recognition of professional qualifications) amended by EU Directive 2013/55/EU. The 300 ECTS credits needed to get the degree in Veterinary Medicine are distributed over 5 years (10 semesters) with an average annual workload of approximately 60 credits, distributed over a maximum of 30 exams, according to Italian legislation. Also, PPT/EPT activities, which allot a total of 30 ECTS credits, must be completed before graduation. The degree of autonomy of the VMDC to modify the curriculum is quite wide, even if the national regulations impose various constraints. The legislation defines a minimum of credits to be attributed to the different classes of disciplines; however the DVMSS Council can make different adjustments based on the number of credits to be attributed to each subject; the methods of supplying each subject: in a single (monographic) discipline, or including two or more teaching modules (as “integrated” courses); the ratio between face to face (lectures and practical) activities and individual study to be defined for each subject; the distribution of the workload per ECTS credit in terms of time to be dedicated to the different learning activities (such as lectures, seminars, supervised self-learning, hand-on activities, etc.). Moreover, the DVMSS Council defines the elective activities (8 ECTS credits per year), decides the amount of ECTS credits to be assigned to the final graduation thesis work, regulates practical training activities and final thesis dissertations, and defines criteria for assessments in learning outcomes (exams).

Table 3.1.1 Curriculum hours in each Academic Year taken by each student⁽¹⁾

Academic Year	A	B	C	D	E	F	G	H
Year 1	343			74	10	5	25	457
Year 2	430	4		63	70	32	16	615
Year 3	404			87	36	85	8	620
Year 4	429	4		36	72	166		707
Year 5	169			11		113		293
PPT					375	375		750
Electives ⁽²⁾								64
Total	1.775	8		271	563	776	49	3.506

A: lectures; B: seminars; C: supervised self-learning; D: laboratory and desk-based work; E: non-clinical animal work; F: clinical animal work; G: others (tutorial, multimedia, visits); H = total.

⁽¹⁾ The 16h course on safety and biosecurity in working spaces, compulsory for 1st semester students (without ECTS acquisition), is not included in the Table. Moreover, the minimum total of 250h spent in Internship and for preparing the graduation thesis are not included in the Table.

⁽²⁾ The elective subjects are different each year, so that in the Table is specified only the total amount of the hours for a 5-years cycle. For a more detailed specification of the type of activity for each subject, see Table 3.1.5

Identification and correction of curricular inconsistencies - The curriculum is constantly monitored and corrected for inconsistencies, thanks to the integrated work of various committees that discuss updates with students first, then with stakeholders. These committees include: JTSC, the QAC, the Department-Territory Committee. For the consultation, following are the Social Partners: Experimental Zoo Prophylactic Institute (IZS) of Sardinia; Sardinian Local PA Authority; Autonomous Region of Sardinia; Research Agris Agency and Porto Conte Researches (a Regional agency for scientific research, experimentation and innovation in the agricultural, agro-industrial and forestry sectors, biomarker discovery, diagnostic systems and applied biotechnologies for food and health); Regional Federation of Veterinary Orders; Sardinian Regional Breeders Association, and several practitioners involved in companion and livestock animals. The JTSC

and the QAC are specifically charged with identifying and proposing corrective actions for curricular overlaps, redundancies, omissions and lack of consistency.

Each teaching subject has a published Syllabus that is developed by the teacher responsible for each teaching module and by the one in charge of the integrated course. The [DMVSS website](#) contains syllabuses that define learning outcomes, DOC acquired, student assessment, and criteria. At the end of each teaching module, and in any case before taking the related exam, students must evaluate the courses in terms of teaching quality, didactic work load, teacher's availability for further explanations, quality of the support material, provision of basic knowledge, overlaps and consistency with other teaching subjects, usefulness of itinerant assessment, general organization of the course, suitability of classroom and equipment and so on. Finally, before graduating, students have to fill out a [final form](#) with general suggestions and improvements. These student assessment questionnaires also include an “open” comment section, where students can freely add suggestions. Using the student assessment questionnaires, both the Department JTSC and the QAC perform a continuing critical evaluation of the effectiveness of the course, with the goal of resolving and filling the identified gaps. The observations and the possible solutions are reported to the VMDC by the Degree Course President (DCP). The recent activation (starting from the 2021/2022 AY) of the Semester Coordinator figure allowed for a more detailed management of surveys conducted by students of different years, through a more direct dialogue with the teacher in charge for each semester, which encourages students to provide effective feedback for the current semester and to comment about organizational aspects for detecting specific needs or critical issues that should be considered and corrected, eventually. A procedure for claims is currently in progress and will be in effect starting from February 2023. In particular, this procedure will allow students and staff to highlight specific course-related problems either in [tracking mode](#) or [anonymously](#).

Table 3.1.2 Curriculum hours taken by each student (excluding PPT)

Subjects	A	B	C(2)	D	E	F	G	H
Basic subjects	96			16				112
Medical physics	15			3				18
Chemistry (inorganic and organic sections)	30			5				35
Animal biology, zoology and cell biology	26			3				29
Plant biology	10			2				12
Biomedical statistics	15			3				18
Basic science	831	4		191	27	60	8	1121
Informatics technology	35			15				50
Anatomy including histology and embryology	137			31	12	5		185

Physiology	122			14	4	4		144
Biochemistry	30			5				35
General and molecular genetics	32			6				38
Pharmacology, pharmacy and chemotherapy	64			15		5		84
Pathology	160			23	3	33	8	227
Toxicology	27			7		2		36
Parasitology (and parasitic diseases)	78			30		9		107
Microbiology	23			10				33
Immunology	23			10				33
Epidemiology	13			5				18
Information literacy and data management								
Professional ethics and communication	24			11				35
Animal health economics and practice management	25			5				30
Animal ethology	19	4			4			27
Animal welfare*								
Animal nutrition	19			4	4	2		29
Clinical sciences	579			24	48	345		996
Obstetrics, reproduction and reproductive disorders	124					66		190
Diagnostic pathology	107			22	38	13		180
Medicine	66					27		93
Surgery	92					40		132
Anaesthesiology	25					11		36

Clinical practical training in common animal species						125		125
Preventive medicine	40			2	10	7		59
Diagnostic imaging	33					15		48
Therapy in common animal species	25					11		36
Propaedeutics of common animal species	67					30		97
Animal production	160			13	60	2	16	251
Animal production including breeding, husbandry and economics	100			6	16	2	16	140
Herd health management	60			7	44			111
Food Safety and Quality, Veterinary Public Health and One Health Concept	95	4		27	53			179
Veterinary legislation including official controls and regulatory veterinary services, forensic veterinary medicine and certification	11			15	10			36
Control of food, feed and animal by-products	39				38			77
Zoonoses	4			7				11
Food hygiene and food microbiology	13	4		5				22
Food technology	28				5			33
Total	1761	8	0	271	188	407	24	2659

A: lectures; B: seminars; C: supervised self-learning; D: laboratory and desk-based work; E: non-clinical animal work; F: clinical animal work; G: others (tutorial, multimedia, visits); H = total.

⁽¹⁾Not as mandatory activities, but as a deepening and strengthening opportunity, a self-learning area that engages some subjects is currently active on the DVMSS website.

⁽²⁾Additional 33 total hours of English Language are taken by each student. Furthermore, additional 16 compulsory hours on safety and biosecurity in working spaces (without ECTS acquisition) are taken at 1st semester. The minimum total of 250h spent in Internship and for preparing the graduation thesis are not included in the Table.

*Animal welfare is currently being treated both in a dedicated elective course and as a transversal topic in various disciplines with hours specifically dedicated to different aspects but are difficult to quantify (physiological bases of stress, well-being in the farm, well-being in transport and in the pre-slaughtering stages, laboratory animals, etc.). The current revision of the curriculum provides for the activation of a course specifically dedicated to this topic, in addition to the specific references within the courses of different disciplines.

Table 3.1.3. Practical rotations under academic staff supervision (excluding external practical training - EPT)

Types	List of practical rotations (Disciplines/Species) - under academic supervision	Duration in hours	Year of program	
	Practical lessons within the curriculum hours			
Intramural clinics	Clinical sciences			
	Obstetrics, reproduction and reproductive disorders	66	4th/5th	
	Diagnostic pathology	13		
	Medicine	28		
	Surgery	40		
	Anaesthesiology	11		
	Diagnostic imaging	15		
	Therapy in common animal species	11		
	Propaedeutics of common animal species	30		
	TOTAL	214		
		Clinical rounds		
		Animal management (intramural)	6	1st
	Clinical training at the VTH - companion animals	26	2nd, 3rd	
	Clinical training at the VTH - exotics	10	3rd, 4th, 5th	
	TOTAL	470		
	Clinical rounds			
Ambulatory clinics, herd health management	Ambulatory clinics - municipal kennel	7	3rd, 5th	
	Mobile clinics - horses, ruminants and pigs	29	4th, 5th	
	Necropsy	6	3rd, 5th	

	TOTAL	42	
	Practical lessons within the curriculum hours		
FSQ and VPH	Veterinary legislation including official controls and regulatory veterinary services, forensic veterinary medicine and certification	25	
	Control of food, feed and animal by-products	41	
	Zoonoses	7	
	Food hygiene and food microbiology	5	
	Food technology	10	
	TOTAL	88	
Electives	Basic science	2	
	Clinical science	20	
	Animal production	4	
	Food Safety and Quality, Veterinary Public Health and One Health Concept	8	
	TOTAL	34	

VTH = Veterinary Teaching Hospital; FSQ = Food safety and Quality; VPH = Veterinary Public Health.

Table 3.1.4 Curriculum hours taken as electives for each student (last two years)⁽¹⁾

Subjects	A	B	C	D	E	F	G	H
Basic subjects	4	12						16
Basic science	6				2			8
Clinical science	15	5			4	16		40
Animal production	14	6			4			24
Food Safety and Quality, Veterinary Public Health and One Health Concept	31				8		1	40
Total	70	23	0	0	18	16	1	128

A: lectures; B: seminars; C: supervised self-learning; D: laboratory and desk-based work; E: non-clinical animal work; F: clinical animal work; G: others (tutorial); H = total.

⁽¹⁾Each subject is composed of 1 ECTS credit = 8h of face to face activities, for a total of 8 ECTS credits per student during the 5 years course.

Table 3.1.5 Optional courses proposed to students (not compulsory) (last two years)

Subjects	A	B	C	D	E	F	G	H
Scientific communication and public speaking		8						8
Anatomy of fish, reptiles and cetaceans	6				2			8

Animal welfare	8							8
Genetics of dog and cat diseases	4	4						8
Elements of food rationing in animals of zootechnical and veterinary interest	2	6						8
Use of GIS tools in the study of infectious Diseases	8							8
Viral zoonoses	8							8
Veterinary mycology	7						1	8
Reproduction in dairy cattle	3	5						8
Abdominal ultrasound of dogs and cats	4					4		8
Behavioral pathology of dogs and cats	4				4			8
Emergency medicine in small animals						8		8
Large animal anaesthesia and surgery in field conditions	4					4		8
Identification of the main fish species of commercial interest in the Mediterranean Sea					8			8
Infectious diseases in honeybees	8							8
Clinical and dietary nutrition of pets	4				4			8
Total	70	23			18	16	1	128

A: lectures; B: seminars; C: supervised self-learning; D: laboratory and desk-based work; E: non-clinical animal work; F: clinical animal work; G: others (tutorial); H = total.

Core clinical exercises/practical/seminars before starting the clinical rotations - Before starting PPT and EPT activities, students carry out the following preparatory activities, organized in groups and consisting of practical activities coherently planned in all the years of the curriculum, including non-clinical animal work, laboratory and desk-based work, and simulations on anatomical preparations and animal models (dummies). Moreover, some teachers of the 1st, 2nd and 3rd years give/spend part of practical training hours of their courses at the VTH, associating some clinical activities with the specific objectives of their course that are then carried out by students in so-called "clinical rounds". Clinical rounds (described in detail below) are the way in which during the post-pandemic period, the VEE has reorganized some of the "Orientamento" activities, consisting of hands-on activities, beyond the normal hours of clinical practice provided in the course of clinical teaching. The [Syllabi](#) of all teaching modules are available.

1st year - Veterinary anatomy A and B: the dissection of animals, identification and dissection of non-pathological organs, use of animal models (dummies). Part of practices are spent at VTH to perform clinical examination of the eye and ear; students during medical examinations can try to palpate the explorable lymph nodes and verify ideal sites for intramuscular, subcutaneous, intravenous and possibly intracardiac inoculations; examination of the urinary system (also by catheterization or cystocentesis) and genital system (e.g. during castration, show the stratigraphy of the testicular envelopes or in the female the ligaments and any coatings of the ovary (ovarian bag); for embryology module assist and possibly carry out pregnancy diagnosis through clinical and/or instrumental examination, in order to monitor the degree of growth and development of the conceptus and its vitality during the different stages of pregnancy. **Safety and biosecurity training course:** beginning from the 2021/2022 AY, students are required to attend a training course on safety and biosecurity in working spaces without acquiring ECTS credit. This 16h training course is compulsory for the 1st year students, and it includes a final multiple-choice test to ascertain the acquisition of knowledge. Before engaging in any activity in laboratories, clinics, livestock farms, or abattoirs, each teacher provides additional specific relevant information on safety and biosecurity issues during the teaching courses. **2nd year - Physiology, ethology and animal welfare:** some practical hours are spent at

the VTH to observe: the ethological approach to dogs and cats during the clinical visit, recognizing the main signs of fear, stress, pain and techniques to approach frightened pets; recording of the set of natural, physiological and pathological behavior of an hospitalized animal; acquisition of the necessary skills for cardiac and respiratory function detection, vital functions detection, understanding of renal function parameters. Direct observations on animal behavior in several conditions; human-animals communication; how to approach injured or sick animals safely and evaluation of welfare. Other practices include restraint for biological collection and laboratory analysis of body fluids in different species (blood, semen, rumen fluid, urine); laboratory analysis for hormonal assays, induction and synchronization of ovarian activity in sheep. **General Zootechnics and Genetic improvement, Animal husbandry and Animal Nutrition and feeding** include breeding and farm management of production animals (cattle, sheep, goats, pigs, horses, poultry, and rabbits); identification of zoognostic regions and biometric measurements; nutritional assessment, including the body condition scoring technique (BCS); species- and animal-specific (breed, category, attitude) estimation of nutritional requirements; feedstuffs, feed evaluation and feeding management of food producing animals and pets; feed label assessment; formulation of a daily ration for pets and large animals. Moreover, a number of the practical hours of those disciplines are spent in the VTH, aimed to associate clinical practice with non-clinical subjects through the acquisition of skills relating to the evaluation of the nutritional status of pets, the acquisition of the skills necessary for the compilation of the health book and the medical record, and the correct signaling, breed recognition, and correct wording of the coat colors and patterns. **3rd year - General pathology; Pathological anatomy 1 and Pathological anatomy 2:** collection and processing of samples for histopathological examination; examinations of organs and viscera; post-mortem examination of pests, livestock animals and avian species; develop and perform necropsy practices in several animal species (dog, cat, poultry, rabbit, pig, small and large ruminants, equids); students are also trained on recognition of macroscopic lesions from slaughterhouse so that they can identify and describe general injury patterns in several organs. Some practical hours of **General Pathology** are spent in VTH aimed to observe signs of acute and chronic inflammation, wound repair and scarring processes. **Parasitology and Parasitic diseases:** some practical hours are dedicated at the VTH with the purpose of gaining the competence to put parasitic diseases within a broader context, getting at clinical and laboratory diagnostics to the formation of diagnosis, prophylaxis and therapy. Acquisition of knowledge on the morphology and identification of parasitic specimens and/or their forms of propagation preparatory also for the course of Parasitic Diseases, through isolation and macro and microscopic recognition of the identified ectoparasites; obtaining biological samples for parasitological analyses (removal of scabs from skin lesions, blood samples, lymph node biopsies and coprological samples). **Pharmacy and Toxicology:** practical activities dedicated at the VTH with the goal to acquire knowledge and methods for compiling and issuing the electronic prescription; the importance of the posology and therapeutic response to drug administration (active ingredient, dosage used, route of administration) evaluating the clinical changes; recognizing the clinical signs of the main poisonings in animals; recognizing the differences between the therapeutic effect and the toxic effect. In the event that there is a case of poisoning during the shift: description of the case including the decontamination techniques and/or the application of pharmacological and / or antidotal treatments. The student must acquire knowledge on the therapeutic use of antibiotics used in clinical practice, the routes of administration, any useful associations, therapeutic indications and contraindications. **Infectious Diseases:** rules of biosecurity measures adopted in case of suspicion of an infectious disease in food producing animals, and in dogs and cats at VTH; environmental disinfection rules and infection control. Anamnesis and epidemiological investigation. Main clinical signs of infectious disease in food producing animals, and in dogs and cats at VTH, diagnostic processes and therapeutic tips. **4th year - Semeiotics, laboratory diagnostics and medical pathology:** containment, anamnesis and physical examination on common animal species; instructions on filling out the electronic medical record; correct management of biological samples for haematology and transfusion medicine; general principles in clinical biochemistry; microscopic examination of cellular blood; etiopathogenesis and clinical signs of diseases of common animal species. **Obstetrics 1 and 2:** large and small animals andrology and reproduction technologies; clinical examination of the male and female reproductive system; artificial insemination and diagnosis of pregnancy in farm

animals and horses; semen collection, evaluation and storage; principles of reproductive system surgery. **Surgical pathology, surgical semeiotics and Radiology:** physical and instrumental examination, symptoms and clinical signs interpretation, and application of the main diagnostic methods to be used in a correct diagnostic approach aimed at diagnosing the most common diseases of surgical interest. Acquisition of skills to develop, interpret and report principal methods of diagnostic imaging. **5th year - Surgery clinics,** containment, anamnesis and physical examination on common animal species; operative medicine and anesthesiology: use of surgical instruments and execution of the most common surgical suturing techniques, assess and manage pain; perform sedation; general and regional anaesthesia. **Internal Medicine:** internal medicine and therapy in pets and large animals (study, diagnosis, and treatment of conditions affecting internal organs and systems), legislation, professional ethics, protection, animal welfare, and Zoo-anthropology. **Core clinical rotations and emergency services** - In order to provide students with appropriate clinical training before graduation, the DVMSS ensures an adequate amount of practical activities in each teaching module (with a teacher/student ratio of 1/10-12 for non-clinical work and 1/5-8 for clinical and laboratory work). Moreover, the DVMSS has prepared three different sections of the curriculum in which students approach the veterinary profession and develop DOC, in addition to practices included in each teaching course: clinical rounds, PPT and EPT. Clinical rounds consist of 141h of hands-on activity that ranges from basic animal management at first year to Equine, Ruminants and Exotic animals medicine to mobile clinics at 4th and 5th year, organized in shifts at the VTH and other locations, before starting PPT/EPT activities, and beyond the normal hours of practice provided in the course of clinical teachings (see AREA 5). A tutorial for students and a short procedure defining timing and methods of these activities are available on the [DVMSS YouTube channel](#), and on the [DVMSS website](#), respectively. **Hands-on activities in clinical rounds:** starting from the 1st semester of the 1st year, students are gradually introduced to perform hands-on activity through a step by step approach that begins with participation in the daily management activity on livestock animals housed in the paddocks of the department. Before the start of the morning educational activities (around 08:00 am), the 1st-year students are organized in shifts of two and follow the activities of cleaning the boxes, making up the litter, distribution of food for 1h/student in the course of the 1st semester and for 5h/student in the course of the 2nd semester. In the 2nd year, the clinical rounds take place at the VTH. They are organized in shifts of 1-2 students for a total of 33h/student during the 3rd semester and 3h/student in 4th semester of the curriculum for activities on companion animals. VTH organizes activities for emergency room and hospitalization in part on Saturday or Sunday (1 student per 12 h-shift) and in the morning (2 students for a 4 h-shift) and evening (2 students for a 4 h-shift). Students, supervised by the VTH staff and supported by students of the 5th year, are trained to manage hospitalized animals and to collect complete signaling and history of the patients. Clinical rounds also include manual skills on animal models, simulations on dummies, organs or cadavers in order to acquire confidence with VTH equipment, tools and medical or surgical procedures, before practising on living patients. During the 3rd year, activities are organized in 7h per student in the 5th semester and 17h per student in the 6th semester of the curriculum: VTH (including Saturday or Sunday activities; 1 student for a 11h shift and 2 stud for 3h in the evening), municipal kennel (presenting an agreement with the DVMSS; 5-6 students for 4 h-shifts), practice on exotic pets (4-5 students for 3h shifts) and necropsy (4-5 students for 3h shifts). In coherence with their course year and the skills they acquire as their clinical competencies increase, always under the supervision of the VTH staff, students perform, in part or totally, clinical examinations, evaluate recorded data and the patient's anamnesis, plan possible diagnostic examinations, participate in the compilation of the drug prescription, and edit the clinical report. Moreover, they are trained to inform the owners about the condition and the management of the patient. During the 4th year, clinical rounds consist of 25h/student all in the 8th semester, involving activities (including emergency room visit and hospitalizations) in obstetrics clinics (5-6 students for 4h), internal medicine (5-6 students for 4h), surgery (5-6 students for 4h), exotics (5-6 students for 4h), mobile clinics (5-6 students for 4h) and wilds (5-6 students for 5h). In the 5th year, there are 50h/student in the 9th semester which are fully occupied and focused on Friday or Sunday night activities at the VTH (1 student for a 12h shift), Saturday or Sunday morning activities at the VTH (1 student for a 12h shift), and extramural clinical activities on ruminants and pigs (2-3 students for 4h), horses (2-3 students for 3h), reproduction in horses (2-3 students for 3h),

mobile clinics (2-3 students for 3h), municipal kennel (4-5 students for 3h), wild animals (2-3 students for 4h), exotic animals (2-3 students for 3h) and even necropsies (2-3 students for 3h).

PPT and EPT clinical activities: during the 5th year, students who have passed the preparatory exams (Pathology and Surgical Semeiotics and Obstetrics Clinic 1 for the *Surgery and Obstetrics and Gynecological area*; and Pathology and Internal Medicine for the **Internal Medicine, Prophylaxis and Avian Pathology area**) can start the PPT and EPT in the clinical, surgical and obstetric areas (15 ECTS total credits, 375 total hours, 90 total days). PPT/EPT activities are carried out in small groups (1-3 students) under supervision of academic staff or a referent as follows: **Internal medicine:** 5 ECTS credits, 125h, 30 days: clinical visits and intensive care following cases of medical competences in pets, horses and farm animals; **Avian pathology:** 2 ECTS credits, 50h, 12 days: clinical visits and management in avian medicine; **Surgery:** 4 ECTS credits, 100h, 24 days: diagnostic imaging, surgery, anaesthesia, emergency and intensive care following cases of surgical competences in pets, horses and farm animals; **Reproduction:** 4 ECTS credits, 100h, 24 days: reproduction management, clinical visits and intensive care following cases of reproductive competence. During the 375h of clinical PPT and EPT activities, students are involved in the management and care of the hospitalized patients and the internal medicine, intensive care unit, as well as surgical and obstetric-gynaecological emergencies of all patients admitted at the VTH or at external structures as described for EPT activities, divided in day and night shifts, even in holidays and weekends. With the Inter-Ministerial Decree No. 652 (July 7, 2022), new regulations regarding the subjects and evaluation of the PPT are currently being defined, which will also change the wording in Practical Evaluation Training and involve various changes in the performance of the final exam. Currently, there is not yet enough information to define the details of these changes, but it is likely in the near future, there will be structural changes in the organization of the PPT, oriented towards the evolution of the veterinary degree into an "Enabling Degree". **Teaching in slaughterhouses and in premises for the production of food of animal origin** - The DVMSS is equipped with teaching processing units for dairy and meat products that allow the student to acquire the main techniques underlying the production of cheese and fermented sausages and teaching labs devoted to supervised practical training in food inspection and food hygiene. However, the main part of the practical activities and the PPT are carried out in external slaughterhouses and food processing establishments. Essential basic training on food inspection and hygiene is provided through two integrated courses, scheduled in the 7th and 8th semesters of the curriculum, respectively: Food industries and quality control of foods (9 ECTS) and Inspection, control and certification of foods of animal origin (9 ECTS). Food industries and quality control of foods provides basic knowledge and definitions on quality, hygiene and safety of food products. The integrated course is divided into 4 teaching modules: Food Industries and inspection of products of animal origins (5 ECTS); Food legislation (1 ECTS); Food safety and hygienic management of food production (2 ECTS); and Food microbiology laboratory (1 ECTS). It provides for the acquisition of knowledge relating to the hygiene legislation of food of animal origin, the analysis of labelling according to EU and national legislation on commercial product packaging, and visits to dairy product establishments where students observe the productive chain interacting with the internal quality manager and the veterinarian. A further practical activity is focused on the work project HACCP (9h), performed and discussed under the guidance of the teacher. Inspection, control and certification of foods of animal origin (9 ECTS credits). The integrated course is divided into 4 teaching modules: Inspection and control of fish products (2 ECTS); Inspection of meat products, eggs and honey (2 ECTS); Inspection and control of fresh meat (2 ECTS); Practical work in slaughterhouses (2 ECTS) and 1 AEC of "Oriented activities" corresponding to 25h/student of practical activity. The course provides skills in the field of inspection of fresh and processed meat, eggs, honey and fish products applied to the production and marketing stages. Practical activities take place in slaughterhouses, cutting laboratories, cured meat factories, dining halls, honey extraction establishments and fish products establishments (such as shellfish purification and dispatch centers). Students are trained to understand phases of animal

slaughtering, ante- and post-mortem inspection, inspections of carcasses and organs under the supervision of academic staff and official veterinarians; evaluation of the structural, functional and hygienic requirements of the slaughterhouses and meat cutting laboratories; assessment of the structural, functional and hygienic requirements of the shellfish purification and dispatch centers; identification of Mediterranean fish, mollusks, and crustaceans and sensory evaluation of fish products freshness. A common thread of all the topics of the above courses is the assurance of a high level of safety for human health. The management of the risk resulting from the consumption of food of animal origin is addressed considering the complex system of interaction between animal and human health (One Health). Students are guided to understand One Health issues through the presentation of cases and practical examples. To ensure adequate learning training on food hygiene and VPH, a formal agreement with the local health authority has been reached, allowing students to visit slaughterhouses and food processing establishments during EPT (at least the mandatory 36h). These activities (2-4 students per group) are supervised by the VPH veterinarians and verified by the academic staff (see “Description of the organization, selection procedures and supervision of the EPT” for more details).

Organization of the Integrated Courses of Food Hygiene

Integrated course of Food industry and quality control (9 ECTS) first semester of 4th year

Module	ECTS	Theoretical classes (hours)	Practical activities (hours per student) *	Topics of the practical activities (hours per student)
Food industry and inspection of food of animal origin	6	39	28	Evaluation of physical-chemical parameters (pH, aw and gas composition of the head space in packaged food) of food (2) at VEE Teaching Lab
				Basic food microbiology procedures: samples preparation and scalar dilutions (2) at VEE Teaching Lab
				Compliance of raw milk to the criteria for total bacterial count (2) at VEE Teaching Lab
				Compliance of raw milk cheese to the criteria regarding the coagulase positive staphylococci enumeration (2) at VEE Teaching Lab
				Compliance to the criteria regarding <i>Enterobacteriaceae</i> for pasteurized milk and of <i>Escherichia coli</i> for cheeses made from milk or whey that has undergone heat treatment (2) at VEE Teaching Lab

				Compliance of ready-to-eat food to the criteria regarding <i>Listeria monocytogenes</i> (2) at VEE Teaching Lab
				Official controls and traceability in the cow milk production chain (7) at cow milk farms and dairy processing establishments
				Official control and technologies in a cheese-making plants (5)
				Official controls at sheep primary production (4)
Food legislation	1	11	0	
Food safety and hygienic management in food production	2	13	9	Cleaning and disinfection procedures of food premises (4) at VEE pilot plant
				Simulation (work-project) on applying HACCP principles (5) at lecture hall

Integrated course of Inspection, control and certification of food of animal origin (9 ECTS) second semester of 4th year

Module	ECTS	Theoretical classes (hours)	Practical activities (hours per student) *	Topics of the practical activities (hours per student)
Practical works in slaughterhouse	2	12	10	Virtual slaughterhouse simulator at multimedia room: introduction (2,5)
				Application of the post mortem inspection at necropsy room (2,5)
				Official controls at ungulates slaughterhouse and hygienic requirements evaluations (5)
Inspection and control of fish products	2	12	10	Identification of fish, molluscan and crustacean for consumption (6) at Food inspection laboratory of the VEE
				Freshness evaluation and suitability of fish, molluscan and crustaceans for consumption (2) at Food inspection laboratory of the VEE

				Prerequisites, good hygienic procedures, official controls and technologies in a bivalve molluscan purification centre (2)
Inspection and control of fresh meat	2	14	8	Quality parameters of fresh meat (colour of fresh meat from beef, sheep and poultry (2) at Food inspection laboratory of the VEE
				Beef commercial cuts (4) at Food inspection laboratory of the VEE
				Pig, sheep, goat, poultry and rabbit meat cuts (2) at Food inspection laboratory of the VEE
Inspection of meat products, eggs and honey	2	11	11	Prerequisites, good hygienic procedures, official controls and technologies at the meat products pilot plant of the VEE (5)
				Prerequisites, good hygienic procedures, official controls and technologies for honey (3)
				Prerequisites, good hygienic procedures, official controls and technologies in a catering business at University canteen (3 h)
Career guidance activities (“Orientamento”)	1	0	25	Official controls at rabbits slaughterhouse (3)
				Official controls at poultry slaughterhouse (5)
				Supplementary practical activity on post mortem inspection with case studies (5) at multimedia room
				Supplementary practical activity on official controls at slaughterhouse with case studies (5) at multimedia room
				Food establishment risk classification (2) at

				multimedia room
				Virtual slaughterhouse simulator at multimedia room: enforcements of the acquired knowledge (5)

*all the practical activities carried out during the Integrated courses are mandatory and are carried out by academic staff (teacher with the help of junior staff)

Electives - Students must acquire 8 elective ECTS during the course of 5-year. They may choose from a range of subjects proposed by the DVMSS teachers (see Table 3.1.5 for the last two years' proposals). Activities offered from the other degree courses can be chosen if they are consistent with the training objectives of the study program and approved by the DVMSS Council. Each year, the subjects receiving highest "approval ratings" are selected by students, which is done to express their preferences with an online survey. The Didactic Manager draws up a call to allow students to make their choices: the subjects for the following AY are activated by the month of May, based on the number of preferences (more than 3 votes) obtained from each proposal. At the end of the elective course, the corresponding ECTS credit is awarded after a verification exam and a vote assignment. Moreover, students can get part of the elective ECTS credits by attending professional seminars or courses under a teacher's supervision. Seminars and courses can be considered elective subjects if they have a duration equal or greater than 8 certified hours and only after the presentation of a report on the activities carried out. After the evaluation (with a grade assignment) of the report by the reference teacher, a specific commission (Didactic Committee) evaluates the congruency of the activities carried out with the training objectives of the learning course. Finally, the request for the ECTS credit acquisition is authorized during the department council ([LINK](#))

Description of the organization, selection procedures and supervision of the EPT - External Practical Training (EPT) consists of compulsory training activities organized outside the DVM, under the direct supervision of a non-academic person (e.g. a practitioner). A minimum amount of time must be spent on EPT activities for each PPT area, as described in the 3.5 substandard. The external structures could be national or foreign (Erasmus Program) universities, private or public, based on the specific area, as listed in the [PPT Rules](#). In order to allow EPT for students, it is necessary to verify whether the private or public establishment has an agreement with the DVMSS. Only organizations that comply with national safety standards law and are associated with learning goals are approved. The learning objectives are constantly monitored by the internal supervisor of the EPT activities and by the teachers responsible for each area. If students intend to carry out the activities in a non-affiliated structure, after the authorization of the referent teacher of the area, they can request to stipulate a new [agreement](#). Each student must complete their EPT activity in two distinct booklets: the paper booklet (diary) which requires the signature of the external tutor, and the [online booklet](#). The EPT activities will in any case be evaluated by the reference teachers of each area, as specified below. At the end of the EPT period, the external tutor provides an evaluation on the student's initial preparation and commitment and eventually proposes suggestions on improving the preparation. Following the evaluation of the external tutor, and checking the diary and the activities carried out, the academic tutors for each of the 4 areas, formulate an overall judgement for her/his area of competence, in the personal booklet (and eventually certifying the skills on the logbook). In the event that in one of the 4 areas the training objectives have not been achieved, the PPT/EPT period of PPT must be repeated ([PPT evaluation procedure](#)). The PPT/EPT rules are constantly updated; the relative committee is sensitive to any suggestions coming from the JTSC and will be able to adapt te rules contained, if necessary. The entire PPT/EPT period must be concluded within one year. PPT in Food Inspection includes only EPT activities (175h distributed in 42 days), available at [Annex 4](#) of the PPT rules. Out of the total EPT, some

of them are mandatory (36h) and consist of coaching the official control activity at establishments for food processing, marketing and consumption (at least 8h); official control and traceability procedures (at least 4h); official control in slaughterhouses (at least 18h); official control at establishments for meat cutting, grinding, preparation and production of mechanically separated meat (at least 6h). Also PPT in Zootechnics includes only EPT activities as better described in substandard 3.5.

Logbooks used to ascertain the achievement of each core practical/clinical activity - The basic practical activities necessary for reaching the learning objectives are provided to students associated with the individual teaching modules and during PPT/EPT activities. The different skills acquired are recorded in a personal student logbook, where all the practical activities delivered in each teaching module are reported. The logbook which has been recently restructured and expanded to include all the DOC is distributed to students during the 1st semester of the 1st year. The first logbook version dates back to 2010/2011 AY and was specifically intended for the practical activities on live animals. Some little changes and updates have been made in the next few years until the recent change carried out in 2022 which led to the current logbook completely restructured based on the EAEVE Committee's suggestions. The logbook is divided into 5 subject areas: Basic subjects; Animal productions and Zootechnical sciences; Pre-clinical and Animal health disciplines; Clinical disciplines; Food safety and Public Health area. Students receive the logbook at the beginning of their training course (1st semester) by the Didactic Manager and it must be returned to the same secretariat at the end of the training course (in particular at the end of the PPT/EPT carried out in the 5th year). After practical activity, performed during the learning course and PPT having gained the specific skill aimed at acquiring the DOC, students get the teacher's signature in the corresponding space of the logbook page. Logbook must be completed before graduation. Practical skills acquired during PPT have to be entered in the same manner as described above by the student and verified by the teacher referent for that activity. In case of EPT activity, carried out under external tutor supervision, the academic tutor (who is the teacher referent for that activity) has to verify the acquisition of the specific skills according to the procedures already defined for the PPT. Finally, the academic tutor has to certify the skill acquisition by signing the logbook in the specified box. At the end of the entire learning course (including PPT), students have to return their logbook to the Didactic Manager (at least 7 days before graduation) in order to access the graduation session. The AQ Committee is in charge of checking logbook completeness and can stop the graduation of students who do not have the logbook properly filled out. To allow students to learn about their responsibilities and duties in filling out the logbook, a QR Code has been inserted on the first page, which links to a descriptive video in which a student clearly explains what to do. The entire procedure and instructions are available at ([LINK](#)).

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

Objectives of the programme -The DVMSS validates through different tools and processes that the study programs meet the objectives of properly training a veterinarian. Each year, the annual form of the degree course in Veterinary Medicine (SUA-CdS – available in Italian on the [UNISS](#) and [MUR](#) websites) summarizes the study program's goals, its expected learning outcomes, and the produced qualification. The

SUA-CdS is a crucial document that allow to verify, assess and review the learning outcomes through the design, management, self-assessment, implementation of the curriculum using relevant data to reveal training objectives, teaching pathway and quality, learning outcomes, roles and responsibilities associated to the management of the QA system of the degree course. The program's qualification complies with the European and Italian laws (see substandard 3.1), following the training standards of the European accreditation system, established as a result of the EEC Directives 78/1026 and 78/1027. The degree course is designed to provide the DOC established by the ESEVT. The achievement of learning outcomes is verified through exams at the end of each subject. The current program has been active since 2009, pursuant to Ministerial Decree No. 270 of 22 October 2004. The single teaching units' learning objectives line up with the ESEVT DOC, reported in the Syllabi, that are organized according to Dublin Descriptors (available on [Self-studenti](#)). An in-depth review of the Syllabi was conducted in the 2019/2020 AY starting from the EAEVE Committee suggestion and subsequently discussed in Degree Course and the DVMSS Councils. These meetings allowed us to update information on teaching modules, reducing redundancies among subjects, and better balancing the time required for each topic. Quality of learning is focused on 'problem-solving' competences that allow the student to acquire specific 'evidence based' knowledge and skills. The educational objectives of the course are aimed at providing students with the cultural background, basic knowledge and practical skills necessary to carry out the profession of veterinarian in all relevant sectors. The fundamental purpose is to build the figure of the Veterinary Surgeon who deals with animal health, while also keeping in mind the concept of One Health, in which the human health has close contacts with animals through the consumption of food of animal origin, while contributing to the protection of the environment. These objectives are constantly updated to meet the needs of stakeholders, and to ensure the constant learning and development of scientific knowledge. The attendance at the curricular activities is mandatory for at least the 33% of the theoretical lessons and for the 100% of the practical activities. There are a few small exceptions. The student can miss up to 20% of practical work if he/she have a good reason (like a doctor's appointment, an accident, therapy, a sick child, or a death in the family), or if he/she need to take part in the Councils of the Department or of the Degree Course (for the student representatives). Practical activities must be attested on the logbook (see 3.1.9) and certified by the teachers who gave them or the external tutors (during EPT). All students are required to take the safety course in the 1st year. The course consists of 4h of [basic online courses](#) and 12h of face to face lessons scheduled in the 1st semester of the curriculum. Further requirements are needed to assure efficiency in the level of learning: for admittance to 3rd year, it is necessary to acquire 60 ECTS and have passed the exam of Biochemistry and Anatomy B. If students do not have the required ECTS, they must enrol again in the 2nd year as a repeater; for 4th year, it is necessary to have obtained 90 ECTS. If the students do not have the required ECTS, they must enrol in the 3rd year as a repeater. It is not possible to enrol as a repeater in the other years of the course.

To promote an academic environment conducive to learning, teaching methods are characterised by a balanced teaching load, which allows students to constantly learn and know-how to acquire competences by applying knowledge and understanding, making independent judgements, and using professional communication. For this purpose, practical activities are carried out in small groups (5-6 students for lab and clinical activities and 10-12 for non-clinical activities), so promoting a close contact between students and teachers, thus creating an environment conducive to learning, encouraging dialogue and student exposure to a comfortable environment. This proximity predisposes students to freely contact the teacher during student reception hours (listed on the teaching page on the platform) to ask for clarification, when necessary. Every year, at least 8 exam sessions are guaranteed for each teaching course, plus another two extraordinary sessions at the discretion of the single teacher. At the beginning of each AY, the exam calendar is shared in the platform, and students are encouraged to arrange exam scheduling independently. Exam sessions are open to the public, and students are encouraged to attend the exam that their colleagues

are taking to assess their own skills. To encourage independent study, free access to different types of teaching material (computers, library resources, VTH clinical case database, archives of diagnostic images, X-ray, magnetic resonance imaging, microscope slide, mammalian teeth and dental tables for age estimation, etc.) is always guaranteed. A [self learning area](#) is currently available, and we anticipate that in the near future, various teaching ways will be enriched with these tools. The curricular process provides the methodological and cultural basis for lifelong learning, making the new graduates ready to attend postgraduate training courses (PhD, Master, Specialization Schools). The DVMSS Council and the VMDC are responsible for the continuous improvement of the training, activities and services offered; therefore, in the context of QA, they carry out activities aimed at achieving the established training objectives. The DVMSS Council is responsible for the design and management of the program and receives input from different stakeholders on suitably planned meeting days and through the JTSC and the QAC, which is also responsible for annual monitoring activities and cyclic revision; PPT/EPT are monitored by a dedicated internship committee. The VMDC decides on the educational organisation of the study program and ensures the quality of the educational activities, makes proposals for the organisation and teaching assignments, considering the requirements necessary for the sustainability of the educational offer. The structure supporting the quality assurance process of the study program, aimed to develop adequate procedures for detecting and monitoring the results of the training activities and services offered. The detail structure is as follows:

The Degree Course President (DCP) is responsible for organising the QA of the degree program itself and carries out the several function related to QA of the Degree Course within the framework of the common practices established by the University Quality Presidium, and by the DVMSS, through the definition of the objectives to be achieved; the identification and implementation of the actions that permit to achieve the objectives; the use of credible methods for verifying their effective achievement.

The DCP is the guarantor of the initiatives carried out by the QAC, organising and verifying the updating of the information contained in the SUA-CdS, the performance of the QA procedures for teaching activities, the surveys of the students' opinion, undergraduates, and graduates; evaluating the effectiveness of the improvement interventions and their consequences. The organisational structure of the QAC is currently coordinated by the Deputy President and is composed of further 5 members: the DCP, the Didactic Manager (as unit of competent technical administrative staff with tasks of support to QA activities, including the organisation and management of information flows), one student and other two component chosen within the teaching team. The head of the QAC has organising and relationship tasks with the teaching staff to verify the performance of the QA procedures. The QAC is responsible for managing the review process and drafting the annual monitoring form (SMA) and the cyclic report, according to the ANVUR model, and provides support to the QA process of study courses throughout the year. The DVMSS guarantees the presence of another tool involved in the QA process: the JTSC. The DVMSS JTSC is composed of 6 teachers - even from different degree courses within the Department- and 6 students elected among the representatives. This committee is responsible for monitoring the educational offer and the quality of teaching, and is coordinated by a teacher chosen among the members of the Commission itself. The main task of the JTSC is to draw up the annual report. The JTSC also has to: - carry out continuous monitoring of the training and the quality of teaching; - monitor student service activities from teachers and technical-administrative staff; - identify indicators for evaluating the results of the training offer; - make proposals for improving the quality of the degree course. These entities make their contribution in identifying the needs and critical issues and proposing possible solutions ([link](#)).

Standard 3.3: Programme learning outcomes must:

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

The degree course's primary goal is to prepare aspiring vets with the essential information and practical abilities they need to enter the field on day one, as defined by [Italian legislation](#) throughout MUR. Further detailed knowledge and abilities required to perform the veterinary profession are developed in compliance with EU Directives 2013/55/EU and 2005/36/EC, as described in depth in substandard 3.1. As described in substandard 3.2, each year the SUA-CdS, define the objectives, learning outcomes, and the obtained qualification. The annual management of this document ensures a constant reviewing and assessment of the learning outcomes guaranteeing the update in objectives, teaching quality and profiles. All the annual updates at the SUA-CdS are discussed during the VMDC, so that all the teaching staff members can suggest improvement and insights, so cooperating in the drafting of a document accepted and agreed by everyone. After discussion and approval by the DC Council, the SUA-CdS is sent for publication. Since the publication of the DOC list annexed to Zagreb 2019 SOP, the Internal EAEVE Committee started a revision process which led to the updating of all the Syllabi of the teaching modules, aimed to specify the DOC achieved. At the same time, the revision of the logbook allowed to update this document too (see Substandard 3.1.9), also with the inclusion of the DOC in each provided practical activity, and as a list in the final pages to allow the student to independently verify those achieved and in which fields. Moreover, the list of DOC has been included in the guideline for the new Syllabus, available among the [Department's Operative Procedures](#) for a better understanding and dissemination at all levels. All these changes and updates were first driven by the Internal EAEVE Committee and then adopted by the DVMSS Council. Currently the degree course is improved and better focused on providing students with the complete set of DOC (that are considered core part of the learning outcomes) by theoretical and practical lessons and PPT. These improvements are visible also in the SUA-CdS, in which are listed the general learning outcomes, declined as Dublin's Descriptor. At the [elearning](#) web-platform, students can find specific information regarding all the teaching courses: contents, useful materials for the study, suggested textbooks, programs, slides of the lessons carried out. The first lesson of each teaching unit is dedicated to describing course contents and planning, the learning outcomes and the examination procedures; all these aspects are evaluated in the questionnaires filled out by the students.

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

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

- **identify and meet training needs for all types of staff, maintaining and enhancing their competence for the ongoing curriculum development.**

Committee for curriculum structure - Inputs for the management of the core curriculum come from different parts, and all are adequately received and analysed. Thanks to the different committee in charge. Several inputs and suggestions come every year from the meeting with the social partners (practitioners, veterinarians of the national health service, managers of activities frequented by students and vets, etc) who give their contribution to a constant updating of the professional figure of the veterinarian. The process of curriculum development involves various internal commissions, as specified below, and involves both DVMSS Council and VMDC for a long time before final approval. The **JTSC** is a well-structured committee that collects, discusses, evaluates suggestions, and drafts proposals for the improvement of the curriculum quality (see substandard 3.2). This committee is responsible for monitoring the educational offer and the quality of teaching (Article 42 of the Statute and Article 24 of the University Didactic Regulations, University Guidelines). Minor adjustments are addressed directly in the short term; for example, in case of overlapping of programs reported by students in the quality questionnaires, they are directly implemented through the communication of the students' findings to the teachers concerned and an open discussion among them in which the real existence of overlaps is verified and resolved if necessary. The **Department/Territory committee** deals with the acquisition and sharing of feedback from stakeholders (private and public professional figures of several fields of expertise, animal production companies and trade associations), information, and proposals for improving research, teaching and the third mission, in order to satisfy needs and expectations coming from the professional and socio-economic context. Inputs also come from **EAEVE Committee**, which, in its continuous monitoring and verification activity of the standard required by EAEVE, proposes adjustments with a view to constantly adapting the course to current needs. These proposals are discussed in DVMSS Council and, in case, give the start to the needed adjustments. The **PPT Committee**, deals with all the aspects related to EPT and PPT; in its activity this committee identifies potential deficiencies also related to ESEVT Day One Competences and proposes corrective actions that are adopted by the DVMSS Council, often with the preliminary opinion of the JTSC. The **QAC** deals with all aspects of quality assurance within the Degree Course, through acquiring the students' and neo-graduates' opinion, analyzing weaknesses and strengths of the Degree Course and proposing possible correction, necessary for the SMA and Cyclic Report drafting. Starting from all the inputs collected a revision of the current curriculum is at present ongoing; this revision already from the next academic year will lead to the redefinition of some integrated courses with a view to making the training path more rational and efficient. All the Italian Veterinary Medicine establishments are governed by the same [MUR regulation](#), in charge of university administration and scientific and technological research. In order to ensure homogeneity and reliability in veterinary education, the curriculum of the VMDC fulfils both with European Directive 2005/36 and national norms assuring the necessary qualification for the practice of the veterinary profession (DM 509/1999, as amended by DM 270/2004 and DM 16/3/2007).

Standard 3.5: External Practical Training (EPT) is compulsory training activities organised outside the VEE, the student being under the direct supervision of a non-academic person (e.g. a practitioner). EPT cannot replace the core intramural training nor the extramural training under the close supervision of academic staff (e.g. ambulatory clinics, herd health management, practical training in FSQ and VPH). Since the veterinary degree is a professional qualification with Day One Competences, EPT must complement and strengthen the academic education inter alia by enhancing student's professional knowledge.

All the information about EPT, including its extra-university location, conventions, documents, rules, forms for individual training projects, etc., are available at [LINK](#). For the clinical areas, EPT consists of at least 2 weeks (10 working days) of clinical activity to be spent in one or more facilities outside the DVM. Therefore, each student must complete at least 10 days of EPT activity in two booklets: both in paper format (dairy) to have the signature of the external tutor, and in the online form, which can be accessed from the link [Libretto EPT](#). The possible clinical external structures can be: - National universities; - Foreign universities (Erasmus programs); - Private clinics with agreement; - Public structures with clinical activities. The activities to be carried out in the clinical areas includes 3 subjects/periods, as follows: 1) During the Internal Medicine period, students focus on physical examination, differential diagnostic approach (with the use of collateral laboratory investigations and instrumental), therapeutic and prophylactic interventions. The student has also to carry out practical activities in the avian prophylaxis and pathology and have to acquire skills in ethics and animal welfare; 2) During the surgery period, the student has to carry out activities in the field of general surgical techniques and methods, emergency surgery, general and local anaesthesiology techniques, and principles of intensive care; 3) During Obstetrics and Gynaecology period, the student has to carry out activities in the management of reproduction in different animal species, with particular attention to pathophysiology, diagnostics, andrological and obstetric-gynaecological clinic and neonatology, techniques to optimize reproductive potential, with medical and surgical therapy of the reproductive trait and mammary system, and biotechnologies applied to reproduction. Practical Training in Animal Production (200h distributed in 48 consecutive days, for a total of 8 ECTS) involves nutrition and feeding of animals; evaluation, safety and traceability of animal feed; morpho-functional evaluation, selection, animal welfare, animal identification methods. It can be carried out as internal training, under the direct supervision of the academic teachers involved in Zootechnical subjects, but it is usually performed entirely as EPT. The possible external structures in which the Zootechnical EPT may be carried out are: the Area C of the Local Health Company for the veterinary assistance (ASL Area C); the IZS, some regional structures (as AGRIS Sardegna, LAORE, Forestry Authority, Wildlife recovery and breeding centres). For a more extensive and complete preparation students are encouraged to carry out the activities at least in 2 distinct structures and/or under the supervision of two distinct tutors (in addition to the academic tutor, responsible for the Animal Production area). Students are required to write a detailed daily report on the activities performed, which must be approved by the tutors. The evaluation and the approval of the training period follows the same rules explained below at the end of the EPT period. Practical training in FSQ includes only EPT activities: 175h distributed in 42 days for a total of 7 ECTS (Substandard 3.1.8). EPT takes place in either public or private affiliated structures. The training in food hygiene consists of a mandatory period of minimum 36h (over a training period of 10 days) of coaching at the veterinary service of the official control authority (ASL area B and C). Students' practical training objectives during the official veterinarian coaching are reported in the documentation contained at [LINK](#). Minimum mandatory activity include mentoring with official control veterinarian in the following activities: 1) official control at food establishment (food processing, marketing and consumption) for at least 8h; 2) official control of traceability procedures, labelling and food withdrawal/recall for at least 4h; 3) official control at slaughterhouses (ante-mortem and post-mortem inspection of at least 5 food animals

of at least 3 different species) for at least 18h; 4) official control at meat sectioning and preparation establishment for at least 6 hours. The rest of the EPT (139h over a period of 32 days) could be conducted at choice of the student at the veterinary service, and other public or private structures (e.g. food establishment; public or private laboratory). In this case students practical training objective can be flexible according to the hosting establishment and should include one or more of the following: hygiene management; identification and traceability procedures; labelling, food business operator compliance to food law; GHP and HACCP procedures; food technology; packaging technologies; laboratory analysis; by-products and waste management; employees training programs; regulated certifications; quality assurance. Official control veterinarians are qualified as tutors while other practitioners (quality assurance managers) qualification should be evaluated based on their professional curriculum. At the end of EPT the achievement of the student's objective will be certified by the tutor signing the Annex 4 form (for mandatory activities) and a daily activity booklet. The evaluation and approval of the training in food hygiene and PH is performed by DVMSS Food hygiene teachers that evaluate the Annex 4 form and the daily booklet. If the objectives are not achieved and the evaluation is not sufficient, the student must repeat the EPT in food hygiene and PH.

DOC are clearly reported in each individual training project, both for clinical and non-clinical topics. In all the subjects, at the end of the EPT periods, the external tutor expresses an evaluation on the student's initial preparation and commitment and proposes suggestions on improving the preparation. Following the evaluation of the judgments reported, the teacher responsible for her/his area of competence, formulates an overall judgement to be reported in the personal booklet.

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

Fields of practice	Minimum duration (weeks)	Year of programme	
Production animals (pre-clinical)	6 w	5	Tirocinio zootecnica
Companion animals (pre-clinical)	2 w	5	Tirocinio zootecnica
Wildlife avian species (clinical)	9 hrs + 2 w	1, 2, 5	Rounds + tirocinio pat aviare
Companion animals (clinical)	48 hrs	2, 5	Rounds città di SS
FSQ and VPH	7 w	5	

The students must also perform 325 hrs (13 weeks - comprises within the hours devoted to tirocinio, 5th year) of practical clinical training divided in surgery (100 hrs), internal medicine (125 hrs) and obstetrics (100 hrs).

These hours can be performed as PPT - under academic supervision or as EPT - under non-academic supervision depending on the planning agreed by the student and the supervisors of the 3 disciplines (internal medicine, surgery and obstetrics). For these reasons, these hours have not been inserted in table 3.1.3 nor 3.5.1

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

EPT providers - A formal procedure has been carried out to assess all the aspects related to PPT as well as EPT ([EPT evaluation](#)). The teacher responsible for her/his area of competence, evaluates the judgments received by the student from the external tutor and formulates an overall judgement for the area of competence, which is reported in the booklet/diary. The overall judgement for each area and all the documentation supporting this judgement (daily diary, written report countersigned by the external tutor, overall judgement of the external tutor and completed logbook) are delivered to the teacher responsible for that area, who in turn sends them to the Didactic Manager. If even a unique reference teacher for the 4 areas of competence certifies that, based on the judgments obtained, the defined educational objectives, or part of them, have not been achieved and acquired, the ECTS are not assigned and the PPT period relative to that area must be repeated. The PPT of the 4 areas must be concluded within 365 days from its start. The DVMSS guarantees that trainees are covered by an insurance policy for accidents during the performance of the activities, as well as for civil liability and for any damages to people and /or property that they may inadvertently damage during the same activities. The policy is renewed every five years (the current one is active until 2023). Also, conventions with the external structures are constantly renewed and the updated list is available at the usual [link](#).

Standard 3.7: Students must take responsibility for their own learning during EPT. This includes preparing properly before each placement, keeping a proper record of their experience during EPT by using a logbook provided by the VEE and evaluating the EPT. Students must be allowed to complain officially and/or anonymously about issues occurring during EPT. The VEE must have a system of QA to monitor the implementation, progress and then feedback within the EPT activities.

Responsibilities of students during EPT activities - Students are responsible for the EPT documentation. The first step is the planning of the activities. Students have to make arrangements with the teachers responsible for each area and with the external tutors (for EPT) and then draw up a training project for each area, filling the specific model ([link](#)). The acquisition of the needed competences is verified through the evaluation of the documentation presented by students (daily diary or written report countersigned by the external tutor on letterhead and completed logbook) showing the daily activities accomplished by the student and the opinion expressed by the tutor in the appropriate form (Annex 6 of the PPT rules, "Evaluation form for institutions and companies"). The PPT Committee prepares an annual monitoring of the internship activities carried out by students, evaluates any non-conformities, and prepares proposals for corrective action. The annual monitoring report will be sent to the QAC of the Degree Course, to the VMCD for the definition of the different strategies to be undertaken. The PPT Committee is composed of a coordinator (delegate of the DVMSS Head), one referent for each area (Internal Medicine and Avian pathology area; Surgery and Obstetrics; Zootechnics; FSQ), a referent for students, and the Didactic Manager. Referees have the responsibility of PPT/EPT organisation for their area of competence, drafting of the final judgement for their area of competence for each student, signing the students dairy and logbook. Students can expose any complaints at any time, by accessing claim procedures, using the appropriate forms available on the DVMSS website either in [tracking mode](#) or [anonymously](#).

Comments on Area 3 - The main goal of the VMCD curriculum is to provide future veterinarians with the knowledge and skills necessary to carry out the profession of veterinary surgeon in an efficient and capable way. To achieve this objective, in recent years, the programme has been adapted and fixed to meet the

constant evolution of the work market, also considering national requirements and ESEVT standards. Particular emphasis on increasing stakeholder consultation has been placed, implementing the number and composition of committees involved in the QA process, receiving also the inputs from EAEVE Committee, in its continuous monitoring and verification activity of the standard required by EAEVE. Stakeholder consultations have started a general renewal process that are applying starting from year 2022/2023 AY and which schematically consists of: redistribution of some ECTS to meet the need of integration with some topics not yet permanently included in the curriculum, such as animal welfare, communication, economic management of the veterinary structure, aquaculture, beekeeping, antimicrobial resistance, One Health; some teaching modules have been moved and placed in a different semester/year according to a more rational acquisition of ECTS by students (e.g. some teaching modules belonging to a unique integrated course, were previously distributed over different semesters, so slowing students ECTS acquisition, and have now been brought together); some courses have been moved from a year to another to streamline the curriculum; the activities called “Orientamento”, have been transformed into normal ECTS for better management and a more functional organisation of the activities. Since 2019 and in following years, a number of improvements have been implemented, including the revision of the syllabi with the explicit description of the teaching and assessment methodologies, as well as the DOC acquired in line with the ESEVT SOP. Renovation also included a logbook with a more detailed description of the activities performed in each subject and the specific indication of the acquired DOC; additionally, an online version of the logbook is currently under consideration, which we hope to make operational in the coming years. Since the 2022/2023 AY, to increase each student's exposure to hands-on activities, practices called “Clinical Rounds” have been better defined, well planned and distributed along the 5-year program, starting from the 1st semester of the 1st year and including livestock management, clinical activity on exotics, reproductive management and clinics in horses, Emergency Room and VTH shifts (including nights and holidays), extramural activities with non-academic staff, etc. Some changes have been made in order to optimise PPT, defining, beginning with the 2020/2021 AY, a minimum of EPT activities and better defining the responsibility and evaluation methods both in non-academic and university environments. On the basis of national Inter-Ministerial Decree No. 652 (July 7, 2022), more adjustments and regulations are anticipated in the near future, however there is insufficient information available at this time. By implementing these changes, we seem to have considerably improved the curriculum, allowing efficient student preparation, but the real impact of these changes will be valuable in the next few years.

Suggestions for improvement on Area 3 - Due to the worldwide pandemic and the lack of funding for universities, the last few years have brought a variety of challenges that have yet to be completely resolved. The DVMSS curriculum might still benefit from the particular and structural action aimed at further improving students' activities, such as to implement the availability of dummies, animal, organ models and periodically replacing those already present due to wear. Enhancing extramural practices: many extramural practices didn't take place due to a number of factors including: lack of vehicles to transport students to the extramural activity; health restrictions still in progress in access to private facilities; funding limitations that do not provide for adequate planning and execution of the needed travels. Enhance the intramural practices: many intramural practices in VTH cannot perform optimally due to a low caseload, as a consequence of lack of medical staff and equipment (e.g. laboratory) (see area 5). To increase the number and tools of the teaching laboratories, and of dedicated technical personnel, in order to enhance lab practices in several subjects. Funds for teaching: insufficient funds and lack of funds properly addressed to teaching (purchase of consumables, of personal protective equipment, etc.) with consequent adaptation of the single teacher to the activities allowed by his own resources (if available). Teachers' training: lack of a well-defined teachers' training path, dedicated to new teaching techniques, the use of technological tools, with more attention to students with disabilities. Soft skills: lack of teaching of transversal (soft) skills also offered by the Career Service of UNISS dedicated, for example to problem solving, time management, team working, and CV preparation. Ministerial PPT changes: current absence of clear and unambiguous information about the change in the PPT/EPT activities, which currently does not allow the activities to be planned in time and adequately.

Area 4. Facilities and equipment

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

General description - The VEE lies in the Monserrato quarter, in the southern periphery of Sassari, close to the highway n. 131 (the chief North to South route of Sardinia, starting in the harbor of Porto Torres and ending in the harbor of Cagliari). The city of Sassari is about 35 km away from the closest airport of Alghero (Fertilia, AHO international airport) and 20 km far from the harbor of Porto Torres (national and French/Spanish ferry lines).

The DVMSS develops within a broad green area in the [Via Vienna](#) Campus, together with the Departments of Chemistry and Pharmacy, Mathematics, Physics and Natural Sciences. The area is easily reachable by urban public transport means ([ATP](#), Lines 6 and 22 [here](#)) which stop and leave every half an hour from the nearest stop to the Campus, in Vienna square. Moreover, bicycle and pedestrian lanes also reach the Campus. The large and quite green area of the Campus offers high quality places for study and leisure, available to students and personnel who can benefit from sheltered tables with benches. Users can connect their personal devices to the internet by logging in the UNISS-mobile or [EDUROAM](#) Wi-Fi with their own institutional credentials. The Campus borders are fenced with railings and two large automatic gates (one way, entrance and exit, respectively) open from 07:00 a.m. to 08:00 p.m. (Mon-Fri). During the closing hours, personnel can access at any time for research purposes by using individual remote control devices. Both the main entrance and exit are equipped with continuous recording cameras for access control and surveillance. Moreover, the Campus is fully illuminated and a surveillance service is assured for the whole area during the night hours, for safety reasons. Clients can access the VTH via a dedicated entrance which is located nearby the IZS ([Appendix 3](#)), whereas students and staff access the VTH directly from the Campus. Indications on fast track to the 24H service of the VTH are clearly displayed on panels in via Vienna street, indicating the shortest route to find veterinary clinical assistance and triage. The closest guest house for students (one of the three of Regional Body for University Studies ERSU for UNISS) is 15 minutes away on foot, meanwhile the closest UNISS canteen is at about 20 minutes walking distance and can also be reached by urban bus line 6. The DVMSS location is strategic for its closeness to the IZS (only 3 minutes walking) and the Horse Race Center (HRC, brown line, 5' minutes walking) of Sassari ([Appendix 3](#)). Moreover, the Teaching farm is located in the southward extension of the Campus, immediately in the back of the main DVMSS building ([Appendix 3](#)). Teaching activities of the VEE take place entirely in the Vienna street Campus, with the exception of farm visits and on-call mobile clinical activities, within extra-mural activities (Mobile Clinic). On site VTH and intra-mural facilities for poultry, rabbits, cattle, sheep and goats, horses and donkeys are carried out in the neighbouring Teaching farm ([Appendix 3](#)). The whole area of VEE ([Appendix 3](#)) comprises 5 different sections over a surface of about 9500 m² of the Campus ([Appendix 3](#)).

Main Building (MB) includes the Department's administrative and Head offices, all classrooms, teaching facilities and laboratories, the main library, study areas for students (student hubs), offices for lecturers, administrative and technical staff, as well as laboratories for teaching, practical training with dummies, organs and animals. Research activities are carried out by the complex units of disciplines of Veterinary Anatomy, Zoology, Physiology, Parasitology, Pharmacology, Animal Productions, Animal Pathology, Infectious Diseases, Food Hygiene, Internal Medicine, Clinical Reproduction, and Clinical Surgery. In addition, demonstrative small plants with laboratories for cheese-making and meat processing are also present. The Whale Museum ([Museo della Balena](#)) is located in the MB and hosts the zoological collection of the Department with both autochthon and exotic animal species. In addition, the DVMSS MB hosts the [Prevention and Protection Service](#) (Servizio Prevenzione e Protezione, SPPIs) of UNISS. On the whole,

the MB occupies an area of 12,462.20 m². Details are reported in ([Appendix 3](#)). The MB develops into three main bodies, two wings and a central one ([Appendix 3](#)).

- Wing 1 (eastern wing): it houses the VEE's head office with the Teaching Manager, and administrative personnel of the Director. Administrative personnel and meeting rooms are present, including the main Council Hall with 120 seats and an Assembly Hall (80 seats). The ground floor houses the magnetic resonance imaging (MRI) service. In the same wing, the Administration Office of the Department hosts the whole administrative staff. The offices, laboratories and teaching rooms are also present in this wing.
- Central body: It is mainly composed of offices and laboratories, with study rooms at each floor equipped with long desks and a minimum of 6 chairs per floor (over three floors). The connection to the UNISS Wi-Fi net is constantly available. The old facilities of the Clinical disciplines were once hosted on the ground floor, whilst now re-organized to serve as research centers and laboratories. Teaching/experimental plants for cheese-making and meat processing are present, along with the parasitology and microbiology teaching laboratory.
- Wing 2 (western wing): It houses offices and research laboratories of Physiology, Biochemistry, Pharmacology, Zoology, and Anatomy disciplines along with the teaching laboratories for the basic subjects (physiology and biochemistry) in the basement, close to the student hall, a very large space organized for individual studying. The student hall is equipped with tables and chairs and a Wi-Fi system. The first floor of the building hosts the Whale Museum; on demand visits can be booked by emailing to the technicians responsible for access management and guiding the visit. The anatomic collection (organs, bones, and models for self-learning) is located in a large room on the fourth floor.
- The VTH: It encompasses facilities for small animals (SA) and large animals (LA) hospitalization, isolation units, classrooms for clinical teaching, surgical rooms and the intensive care unit. The VTH is built into four sub-buildings (A, B, C) and partially in the buildings E and F. Animal shreds (A, B, C and E).
- The VEE Teaching Farm (TF): It belongs to UNISS (about 2 hectares). It is a fully run departmental teaching unit. The DVMSS is responsible for the health of all animals kept in the farm, namely 11 dairy cows/calves, 30 sheep and 5 goats, 3 horses and 5 donkeys, 4 hens and 1 roaster, 10 couples of partridges, 2 rabbits and 1 sow. The premises are located in the back area of the MB.
- Extra-mural facilities, such as private clinics, farms, breeding centers, slaughterhouses, fish markets, food processing industries, shelters, and sanitary kennels are also used for training activities. The main sites are reported in Table 4.1.1, while the complete list is available at a dedicated [DVMSS webpage](#).

Table 4.1.1. Main extra-mural facilities used for teaching and areal distance from the VEE

Training area	Extra-mural facilities - Link to Maps	Distance (km)
Municipal dog kennel	Canile Comunale Località Acchettas "Funtana Sa Figù"	5.8 km
Stud	AGRIS-DIRIP Horse center	40 km
Training and stabled horses	AGRIS-DIRIP Tanca Regia	78 km
Sanctuary of donkey	Ortueri Donkey Sanctuary "Mui Muscas"	116 km
Sheep and cattle	AGRIS-Bonassai "Istituto Zootecnico-Caseario"	18 km
Wildlife	Wildlife Rescue Center of Bonassai (FORESTAS)	18 km

Strategy and programme to maintain and upgrade facilities and equipment – The VEE buildings are the same visited by the EAEVE Board in 2013 (see Area 2 for details). Maintenance and upgrading of the Campus facilities are under the responsibility of the [UNISS Building Management Unit](#). Its infrastructures are planned and maintained by the [UNISS Digital Infrastructure Management Unit](#). Maintaining/upgrading facilities (fire compartmentation, renovation of the building layout, air conditioning upgrading, insulation of the building) started in late 2020 and went through until the COVID-19 pandemic. Work will probably be still in progress throughout the year 2023. The intervention aims at the maintenance and accomplishment of anti-fire requirements of building, and replacement/conversion to low energy consuming electricity and

heating systems. The Teaching Farm management is under the DVMSS Dean's responsibility. A Committee of DVMSS members is in charge of monitoring and managing the work of technical staff caring for animals hosted in the Teaching Farm. **Compliance with relevant legislation** – The compliance of physical facilities with all relevant legislation is the responsibility of UNISS, in particular, as said above, the Building management unit and the Digital infrastructure management unit. Furthermore, high standards of safety and biosecurity are ensured by the Prevention and Protection Service (SPPIS) that periodically verifies all instruments and is in charge to organize mandatory inspections of all lifting equipment and trolleys, compressors, X-ray equipment, hoists, fire extinguishers, etc. The three offices work together to ensure full compliance to the national legislation. According to the Italian Law no. 81/2008 on health and safety in work and teaching places, all the structures can be inspected at any time by the competent VPH authority, without notice. **Operational policies and procedures communication** – The VEE implemented a course on biosecurity and animal handling that ends with a test that students must sit during the first year, before entering laboratory activities and clinical rotations; the course includes laboratory, slaughterhouse, necropsy room, radioprotection and breeding facility security training. Full details related to both students, staff and visitors are provided in 4.9.

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

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

Teaching facilities - A short description of the facilities for teaching activities (lecturing and practical training) is reported in the tables appended below. Table 4.2.1 reports the building code and room letter used for **lecturing**, all of which are fully equipped with video projection systems, microphones and sound amplifications, and access to the UNISS network, to allow remote virtual lecturing. All computers are equipped with the Microsoft Teams® for virtual class creation, especially used during the SARS-Cov-2 pandemic. Table 4.2.2 shows **groupwork** rooms: premises located in the Campus belong to the DMVSS and the Library System (Sistema Bibliotecario di Ateneo, SBA, see Area 6), used as study rooms, for internal meetings, seminars, and exams. Table 4.2.3 shows premises for **practical work**, like teaching laboratories, the pre-clinical skill lab, the self-learning corner of Animal Nutrition, the microscopy room, and the Anatomical collection of normal Anatomy Preclinical practical work takes place also in the **research laboratories** (Table 4.2.4) and diagnostic facilities, while clinical practical work takes place mainly in the VTH (see Table 4.3.2 and Table 4.3.3), in the Teaching Farm or in extra-mural facilities during EPT. Supporting activities to teaching and practical education, include facilities and equipment to carry out research, experiments and diagnostic methods to accomplish innovative requirements for thesis dissertation and practical training in 66 laboratories with different fields of specialization.

Table 4.2.1. Premises for lecturing (classroom location, surface area and available seats)

Site/Building code	Room code (square meter)	Seats (n.)
Wing 1	Aula A (65)	50
Wing 1	Aula A bis (34)	30
Wing 2	Aula B (130)	115
Wing 2	Aula C (159)	182
Wing 2	Aula D (157)	123
Wing 2	Aula E (58)	42
Wing 2	Aula E bis (58)	42
Wing 2	Aula F (158)	100

Table 4.2.2. Premises for group work (location, surface area and available seats)

Site/Building code	Room code (square meter)	Seats (n.)
Wing 2	Student hub (68)	60
Central Area	Common area 1 st floor (31)	10
Central Area	Common area 2 nd floor (34)	10
Wing 1	Common 1 st floor (32)	10
Wing 1	Common 2 nd floor (32)	8

Table 4.2.3. Premises for practical work (location, surface area and available seats)

Site/Building code	Room code (square meter)	Seats (n.)
Wing 2	Informatics (74.5)	21
Building A	Internal room VTH	25
Wing 2	Laboratory 1 (basic sciences) (60.6)	20
Central area	Laboratory 2 (microbiology and parasitology) (83)	15
Wing 2	Microscopy (59)	25
Building E	Dissection (50)	16
Building E	Necropsy (160)	32

Premises for study and self-learning – SBA facilities, the library of the former FVMSS, was founded in 1982 as a centralized Faculty Library. In April 2012 the two libraries of the newborn Departments of Veterinary Medicine and Chemistry and Pharmacy were unified in a single organization named “*Library of Chemistry, Pharmacy and Veterinary Medicine*”; the former library of the FVMSS has now moved to the Teaching Pole of the Campus, in the big building immediately on the left of the main entrance to the Campus, (2 minutes’ walk) from the VEE. The library is located on the ground floor without architectural barriers to allow all customers to access the building and facilities. Before 2020, the Library offered 185 seats, but in accordance with Uniss Protocol for COVID-19 control, it currently offers 76 seats and the place can be booked via the [App Affluences](#). Admission is checked by staff in the reception area. The joint Library occupies a total area of 783.19 m², of which 639 m² are accessible to users. The user area is divided into five rooms. The first room is a reception area equipped with the self-check loan and lockers, whereas, the other four rooms are used to study and are equipped with open shelves. Customers can access from personal devices to the Eduroam Wi-Fi and UNISS-mobile by using their own credentials. Students and staff have an opportunity to rent paper books for free for a limited period of time (one month). The Library is open from Monday to Friday from 08:30 a.m. to 07:50 p.m. In August, the Library closes for two weeks (yearly vacation established by the Athenaeum), meanwhile for the rest of the month it opens from 08:30 a.m. to 01:30 p.m.. During Christmas holidays the Library closes for one week. Detailed description of learning resources including library organization and offer as well as self-learning spots is provided in AREA 6. **Catering, canteens** – No services are currently active in the via Vienna campus. There are, however, automatic machines for delivery of coffee, food and beverages. Sassari is a “University Campus” and students easily reach the University [canteen](#) and all other [services](#) (Bus Line 6, 5 minutes and ticket discount to UNISS students; on foot, 20 minutes walking distance). In the study room, there is a microwave oven available to students to heat their own meals. **Locker rooms** – A locker area for students is present in building D. **Leisure** – Premises include leisure areas with tables in the garden. **Toilets and showers** – Toilets, washing/showers are located all over the DVMSS buildings. **Offices and research labs** – Offices in the DMVSS for academic staff, PhD students, hired veterinarians, technicians and administrative support staff are present. Research laboratories list are summarized in table 4.2.4 in [Appendix 20](#).

Standard 4.3: The livestock facilities, animal housing, core clinical teaching facilities and equipment used by the VEE for teaching purposes must: be sufficient in capacity and adapted for the number of students enrolled in order to allow safe hands-on training for all students; be of a high standard, well maintained and fit for the purpose; promote best husbandry, welfare and management practices; ensure relevant biosecurity and biocontainment; be designed to enhance learning.

Livestock facilities, animal housing, core clinical teaching facilities and equipment - Healthy animals – The VEE hosts different animal species, kept in the Teaching farm, right in the back of the main building. Animal management (AM) activity is part of Clinical Rounds (practical training of students) and it is

mandatory for the first year students to get familiar with animals kept in the teaching farm (see AREA 3 and 5).

Equines: The VEE owns 2 mares and a filly. Mares graze in different plots of about 200 m² each and the filly grazes with the mother on pasture throughout the year, and are sheltered in individual boxes. The major part of teaching activities on horses is carried out thanks to the agreement between the DVMSS and the Dipartimento per la Ricerca e l'Incremento Ippico ([DIRIP](#) of AGRIS). Regional facilities keep on average 30 stallions (Su Padru, Ozieri, SS, 40 km away) and 15 mares ([Tanca Regia](#), Abbasanta, OR, 78 km away), used for hands-on practical training. In the TF the first field plot hosts the barn to store hay bales and straw. It is open on three sides and possesses a fenced part for storage of feeds and equipment, useful for the farm personnel. In the other two plots of the TF (~200 m² each), a small family of donkeys is also housed (jack, jenny and two fillies) plus another jenny in another plot, dedicated to the recovery of animals. The agreement between the Sanctuary of Sardinian Donkey of the Park in Ortuero (NU, 116 km away) and the DVMSS allows hospitalization and then keeping the animal for complete recovery in the TF the sanctuary hosts. Such an agreement has a dual purpose. On one hand, the VEE provides medical assistance and consultation to the Park of Ortuero where on average 70 donkeys live, on the other, teaching activities are implemented for students that can approach the animals.

Poultry: in one stable, 4 hens and a rooster are kept on a flat floor with straw bedding material close to perches, collective nests and basic equipment for feeding and watering. The roof is partially covered and the cages are equipped with wire net. The maximum capacity of poultry is 25 birds.

Ruminants: the DVMSS owns 11 cows/calves kept in a free-stall system. Post-graduate and undergraduate students are taught practical training in the farm to acquire from basic skills (approach to the animal, biosafety and protection, hygiene protocols, breed morphology, animal behavior, nutritional status, digestive functions, 5 vital assessment) to clinical examination procedures (blood sampling, general and special clinical examination, ultrasound and other diagnostic activities). On the pasture, a small flock of sheep (on average 30 ewes and one or two muttons) is kept for teaching activity. Sheep are sheltered and have free access to grazing in plots destined to small ruminants of the teaching farms, in open air, equipped with mobile feeders with shelter (hay feeder) and water provision. Mobile fences are present to move animals manually. **Laboratory animals** – A Laboratory Animal Facility (LAF) is set up in building D, (Department of Veterinary Medicine, Pharmacology and Toxicology Sector) The LAF accomplished the requirements of the Italian Ministry of Health for housing of small rodents [rats and aquatic organisms as models for experimental protocols (authorization number 19/2017-UT of 22/09/2017)]. **Comparative Surgery Research** - The Comparative Surgery Research Center (CSRC) is located on the ground floor of Wing 1, (Surgery Section). The CSRC accomplished the requirements of the Italian law for animal experimentation (Legislative Decree 4th March 2014 , n. 26) as models for translational research and high formation courses for Physicians (MD) and Veterinarians (DVM) experimental protocols (authorization number DGSAF 0003801-P-16/02/2015.). **Hospitalized animals** – The total capacity of animal hospitalization (SA and LA) at the VTH is summarized in Table 4.3.1. And 4.3.3 displayed in [Appendix 3](#) (VTH buildings A, B, C, E and F).

Table 4.3.1. Places available for hospitalization in the VTH and animal species that can be accommodated

Premise	Building code	Room code	n. of animals	Species
Dogs hospitalization room	A	2	10 cages	Dogs
Critical care	A	5	5 cages + 1 incubator	Dogs/cats
Cat hospitalization room	A	6	5 cages	Cats
Suspected infectious hospitalization room	A	18	4 cages	Dogs/cats
Infectious hospitalization room (isolation unit)	A	19	10 cages	Dogs/cats

Facilities and equipment for clinical activities – The VTH is composed of Buildings A, B, C, and partially of Buildings E and F. The VTH fully develops on the ground floor. The VTH is completely dedicated to clinical activities including teaching and research. One classroom is also present in building B. Clinical facilities are described in Table 4.3.2 and Table 4.3.3. The relevant equipment to carry out

clinical activities is composed of basic equipment and modern machinery for diagnostic and therapy (as detailed in the biosecurity manual for correct and safe use by operators). Along with such facilities there are service rooms (changing rooms with lockers and showers for academic and technical staff, storage rooms, etc.). Internal medicine and Therapy, Surgery and Anesthesiology, Clinical gynaecology and Obstetrics and Diagnostic imaging, Emergency and Critical Care and Hospitalization are all provided in the above-mentioned buildings. Clinical facilities for SA are listed in Table 4.3.2 in [Appendix 20](#).

Table 4.3.3. Clinical facilities for LA in the VTH (location; planimetry and detailed description available in [Appendix 3](#))

Building code	Premise	Room code (n.2, species)
E	Visiting room	N. 1 equine (12 right)
E	Visiting room	N. 1 bovine (13 right)
E	Hospitalization small ruminants	N. 1 box (4 left)
F	Hospitalization LA	N. 2 boxes (4 left)
Paddock	Hospitalisation Equine	N. 4 box

Table 4.3.4. Places available for hospitalization in the isolation unit (building C,)and animal species that can be accommodated (location; planimetry available [Appendix 3](#))

Building code	Premise	Room code	animals (n.)	Species
C	Infectious hospitalisation room (isolation unit)	1	1	Equines
C	Infectious hospitalisation room (isolation unit)	2	1	Large ruminants
C	Infectious hospitalisation room (isolation unit)	3	1	Large ruminants
C	Infectious hospitalisation room (isolation unit)	4	1	Exotic animals
C	Infectious hospitalisation room (isolation unit)	5	1	Small ruminants
C	Infectious hospitalisation room (isolation unit)	6	1	Small ruminants
C	Infectious hospitalisation room (isolation unit)	7	1	Dogs/cats
C	Infectious hospitalisation room (isolation unit)	8	1	Dogs/cats
C	Infectious hospitalisation room (isolation unit)	9	1	Dogs/cats

Building code	Premise	Room code
C	Box equine	1
C	Box large ruminants	2
C	Box large ruminants	3
C	Box exotic animals	4
C	Box small ruminants	5
C	Box small ruminants	6
C	Box dogs/cats	7
C	Box dogs/cats	8
C	Box dogs/cats	9
C	Entry	10
C	Dressing room	11
C	Restrooms	12
C	Decontamination shower	13
C	Room control	14
C	Feed warehouse	15
C	Exit	16

Facilities and equipment for diagnostic services including necropsy

The Clinical Analysis Laboratory service is open Mon-Fri from 09:00 a.m. to 02:00 p.m. and also serves the Emergency room and Intensive Care Unit and the 24/7 service. It processes samples for haemato-biochemical exams generally used in the clinical management of cases of the species most frequently presented to the VTH (dog, cat, horse, and cattle). The service also manages other specific exams on biological samples like urine and body fluids. Other exams are carried out thanks to the agreements with a number of national and international reference laboratories. The service of blood and plasma transfusion was operative until 2020, but after COVID-19 pandemic the service was suspended due to budget constraints and lack of dedicated staff.

The Nutrition Desk has been active since 2018 but suspended the activities during the pandemic due to sanitary reasons, when the whole DMVSS was locked down. One day a week consultancy is given upon appointment for nutritional clinical assessment and dietary recommendations on SA and LA (both client

owned and from agreement with third parties). The ND is located in the Building A of the VTH and laboratories are in the MB, central area, second floor. They are used for consultancy and teaching. The ND hosts the Regional Observatory of feline pancytopenia. Training of students for internship acknowledgement by the College of Veterinary and Comparative Nutrition (ECVCN) of the EBVS is also offered. **The Necropsy service** provided diagnostic pathology support for all users, including the VTH. The service is now suspended for low budget reasons. When working, necropsies were performed on numerous species including pets, farm animals, birds, reptiles, amphibians, laboratory animals, and zoo and marine animals and fish. Necropsies for VTH cases used to be concentrated in the morning to provide highest teaching value for the students in the building. They also trained veterinary students and PhD students through valuable hands-on, case-based educational experience. Services also included the evaluation of samples submitted by veterinarians who have performed necropsies at their local practices (field necropsy) and forwarded samples to the laboratory for diagnostic evaluation. Evaluation of fresh tissue samples also included gross and microscopical examination of organ samples from regional slaughterhouses. The service was in conjunction with those of bacteriology, virology, parasitology, and toxicology and included interpretation of the results by the coordinating pathologist. The service was in conjunction with those of bacteriology, virology, parasitology and toxicology and included interpretation of the results by the coordinating pathologist. **Parasitology and Parasitic Disease diagnostic service:** VTH activities are also supported by the fully equipped parasitology and molecular parasitology laboratories. The service is provided both to external and internal customers asking for parasitic examination of different types of samples (blood, feces, skin, swabs). Laboratories are located in the MB, central area, first floor. The parasitology diagnostic service also offers the chance for internship and residency programmes both for the European College of Small Ruminant Health Management (ECSRHM) and the European Veterinary Parasitology College (EVPC) of the EBVS.

Facilities and equipment for other services - Pet behavior medicine service is located in the MB, central area, ground floor and opens on the front of the MB, close to the parking area, where also dedicated stalls are reserved for customers with disabilities. The service is primarily devoted to rehabilitation of animals with behavioral disorders, but also to the training programmes of dogs for particular purposes (chasing-, rescue-, military-, and pet therapy-dogs) as well as to pet therapy (mainly dogs, horses, and donkeys) for children and adults who need assisted therapy with animals.

Premises used for the practical teaching of FSQ & VPH – In order to ensure that students receive adequate training in FSQ and VPH, the VEE has established agreements with plants where food inspection can be carried out for teaching, such as slaughterhouses, fish markets and food processing plants and with the Local Health Authorities in charge for the official control in the Region of Sardinia. During the practical rotations and EPT students visit different slaughterhouses, students observe the workflow required for a hygienic condition alignment of processing from the live animal, through carcass inspection, to meat cuts (Reg. EC no. 853/2004). All the visits are conducted together with the official veterinarian inspector of the competent authority, who describes official activities, in accomplishment with current legislation (Reg. EU no.625/2017, 624/2019, 627/2019). Abattoirs, Meat Processing Plants, Cheese making factories, Fish market and transforming plants are listed in the [VEE website](#).

Standard 4.4: Core clinical teaching facilities must be provided in a veterinary teaching hospital (VTH) with 24/7 emergency services at least for companion animals and equines. Within the VTH, the VEE must unequivocally demonstrate that standard of education and clinical research are compliant with all ESEVT Standards, e.g. research-based and evidence-based clinical training supervised by academic staff trained to teach and to assess, availability for staff and students of facilities and patients for performing clinical research and relevant QA procedures. For ruminants, on-call service must be available if emergency services do not exist for those species in a VTH. The VEE must ensure state-of-the-art standards of teaching clinics which remain comparable with or exceeding the best available in the private sector. The VTH and any hospitals, practices and facilities (including EPT) which are involved with the curriculum must meet the relevant national Practice Standards.

Clinical teaching facilities and equipment - organization and management of the VTH – Facilities for clinical activities are used to carry out teaching, consultation and veterinary assistance to owners/farmers as primary goals. Instruments employed for external consultations of medical, surgical and obstetrics clinical cases for conventional domestic species are provided. The VTH used to be open 24/7 in the pre-pandemic all year round and offered emergency room services for dogs, cats, and equines. During the recent post-pandemic period the VTH re-opened Mon-Fri from 09:00 a.m. to 02:00 p.m. for general and specialist consultations. The 24/7 emergency room and hospitalization services are assured for stray cats as well as for dogs hosted in the municipal kennel (agreement with the municipality of Sassari), and horses. For ruminants, pigs, and wild animals on-call service is available 24/7 through the mobile clinic. Clinical activities cover the fields of internal medicine (Monday to Friday), cardiology (Monday to Friday), SA reproduction (Monday to Friday), surgery (Monday to Friday), orthopaedics (Monday to Friday), imaging diagnostics (Monday to Friday), anaesthesiology (Monday to Friday), exotic animals (once a week), oncology (once a week, not working at present due to budget constraint), emergency and critical care (24/7 only for municipality of Sassari and horses), LA (on call).

The VTH Committee includes members of the academic staff representatives of the three main clinical areas (Internal Medicine, Surgery, Reproduction) and one representative of the Specialistic Support Services (Parasitology, Anatomopathology and Nutrition), the VTH Director, the deputy director and the Administrative official responsible of the Department. The VTH Director chairs the meetings and also takes the final responsibility for running the clinical activities. These are organized in three associated services and four support services with EBVS specialists:

1. Internal medicine (cardiology, gastroenterology, nephrology, neurology, endocrinology, dermatology, clinical analysis, ultrasonography);
2. Surgery (abdominal, thoracic, orthopaedics, video endo-surgery), anaesthesiology, diagnostic imaging and ophthalmology, Comparative surgical center;
3. Reproduction (neonatology, andrology, obstetrics and reproduction);
4. Emergency room, Critical care and hospitalization;
5. Parasitology and molecular diagnostics (2 EBVS specialists, ECSRHM and EPVC);
6. Anatomic Pathology and histopathology diagnostics (1 EBVS specialist, ECVP);
7. Nutrition Desk, for clinical nutrition and dietetics (1 EBVS specialist, ECVCN).

All patients (SA and LA) presented to the VTH are recorded in the digital system of the clinical services, with all animal clinical and owner data. A fully digital flow is managed through a dedicated software ([Dr. Veto, Alcyon](#), customized for the purposes of the VTH) for appointments and medical records, reachable from every clinical visit room and from staff offices and students (portable device). The new SW was definitely adopted in 2022 after a transition of historical datasets to allow students of the 3rd, 4th and 5th year to have a personal account and with customer ID and PW to access the clinical information and study the clinical cases, as well as to acquire competence of how to record data of a visit. The previous SW in force since 2012 was dismissed for obsolescence and non supporting student learning needs. The individual clinical record can be updated automatically with reports imported from the equipment of the laboratories. On patient discharge, the SW generates the invoice to the administration. Rates charged for clinical services

and consulting are established by the DVMSS Committee and aligned with current rates adopted in other veterinary clinics. Students are involved in clinical activities in a progressive way and share the daily activities of the hospital during the whole 4th and 5th years. However, practical activities start progressively for the 2nd year students and years ahead, who start to take part in activities running in the VTH, for a basic amount of hours per week in both semesters. Some clinical activities are meant for research and evidence based clinical innovative practices, so that training students of the last years can use data for their thesis dissertation. Clinical activities running within the VTH and during mobile clinic interventions are managed in a QA framework that includes procedures aimed at meeting ESEVT standards (See Area 3). The VEE meets the National Practice Standards.

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

Diagnostic and therapeutic equipment - The VTH is equipped with instruments and facilities with three purposes, as it is used for teaching students, to report and describe observational clinical research, and to provide clinical assistance. Students rotating in the different clinical services have access to the visiting rooms, critical care room, laboratories and operating surgical rooms, thereby using spaces and instruments to get herewith the academic staff. The VTH is well supported with high standard equipment for clinical examination and surgery, as commonly performed in general practice, in addition to diagnostic imaging, endoscopy, and laboratory equipment. Such instruments are routinely used for teaching during practical sessions and rotations, and students participate and assist in surgical and diagnostic procedures. Operating room cameras are available for recording and/or projecting real-time surgery during lectures (See Area 3). Overall, the design of clinical rotations and the mandatory PPT programme ensures that all students have access to available diagnostic and therapeutic facilities and a variety of patients of different species. As detailed in Area 3, after formalities have been completed following the communicated procedure, students can start PPT clinical training. During the PPT, students are engaged in the management of hospitalized animals and in intensive care activities at the VTH (See Area 3).

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

Isolation facilities - The isolation unit for companion animals, equines, and farm animals, is present within the VTH. The isolation unit for equines and farm animals is located in a well-defined area separated both structurally and functionally from the other VTH facilities by a dedicated pathway (building C). The isolation unit for companion animals is at present located in a well-defined room separated structurally and functionally from the other VTH rooms (building A). There is also a suspect-infection room for the management of suspected infectious animals (building A). Details about number, size and species are reported in Table 4.3.1. Access to both isolation units requires the use of individual protection devices and disinfection materials. Specific protocols are in place in the isolation units to enforce optimum biosecurity and prevent dissemination of pathogens between stalls and from the isolation facilities to the remainder of the Campus. All waste material is treated as "hazardous special waste" with separate collection and disposal.

The isolation facilities are intended for the isolation of patients with suspected/confirmed infectious diseases that can be potentially transmitted to other animals or to humans (zoonosis). The rooms/boxes/stalls have cleanable non-porous surfaces, including walls and flooring. Sanitized water

buckets and feeders are present and dedicated equipment (wheelbarrows, pitch forks, etc.) and dedicated medical equipment are present. They are used only in the isolation barn and disinfected after each use. New blocks are going to be built up close to the building C. Such new building (for which work started in the month of January 2023) will host the Mediterranean Center for Disease Control (MCDC) and will be located in the paddocks surrounding (see comments at AREA 4).

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

Mobile clinic for large animals - The theoretical and practical 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 2nd (Animal Productions), 3rd (Microbiology, Parasitic Diseases, Epidemiology, and VPH), 4th (Medicine Pathology, Reproduction Technologies, Reproduction Pathology), and 5th (Veterinary Internal Medicine and Surgery) years. In clinical rotations, students are trained in Herd Health Management and practical skills, e.g. transrectal palpation, pregnancy diagnosis by ultrasound, blood, ruminal fluid and milk sampling, surgical activities as well as herd data analyses during their visits to both the Teaching Farm and the private farms joining the Herd Health Management service. All students have opportunities to volunteer at the Teaching Farm. Herd Health Management service of the VEE is run by academic staff and aims to help farmers in improving the health of their animals and supervising the students in the herd health related activities. The service is especially focused to solve common internal medicine disorders and carries out surgical interventions on cattle. The service is available to clients and farmers who call for specific problems (i.e., abortion, high mortality rate in calves, lameness, high somatic cell count, etc.). Client visits are part of practical rotations, each visit is preceded by a phone interview with the farmer in order to better organize the visit and communicate to the students who join the academic supervisor in the farm visit. Mobile clinic service is provided with either academic staff-or DVMSS-owned vehicles depending on the number of students involved (i.e. car). Vehicles can be fully equipped with: 1) drugs, medical and surgical material; 2) one handy ultrasound apparel with different probes; 3) a portable digital radiologic instrument.

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

Transports - The VEE owns the following vehicles: one bus for 8 students + 1 driver; one mobile clinic service car (4 seats + 1 driver). The DVMSS has no other vehicles for the transportation of live animals, other than a horse trailer, which moves to or from the VTH in case of need. In all other cases live animal transportation is organized by owners/farmers. All DVMSS owned vehicles operate in compliance with current regulations dealing with the qualification of individual drivers, vehicle insurance, periodic revision, seasonal use of winter tires, disinfection and cleaning.

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

Area operating procedures and communication -As previously described, changes in facilities, equipment, and biosecurity procedures are mostly performed within the UNISS framework of activities, in which the DVMSS plays a central role.

Facilities: as stated before, maintenance and upgrading of the Campus facilities are the responsibility of the [UNISS Building Management Unit](#). Technical interventions on infrastructures are planned and maintained by the Digital infrastructure management unit. The DVMSS can convey its need to the mentioned unit both as a formal request or by indicating the need for maintenance of specific structures. The decision for building of new facilities is the responsibility of UNISS Administration Council and Senate that approve a triennial plan related to the entire Campus. **Equipment:** purchase and maintenance of the safety and biosecurity equipment is under the responsibility of UNISS (chemical hoods, fire extinguishers, etc.); teaching, research and service equipment is responsibility of the DVMSS. As described in paragraph 4.1, for maintaining/upgrading current equipment and/or acquiring new ones, a specific procedure is in place in the VTH: the VTH Director is in charge to ensure full functionality and upgrade on equipment in order to guarantee workplace health and safety and quality of services/research. The director receives proposals from the Operative Unit coordinators and collects all the information for discussion and decision within the VTH Committee. The same applies to DVMSS needs (the DVMSS Dean being in charge to manage the process) through the Administration area of the Department. In fact, prior to getting to the VEE's head, each request follows the procedure to purchase goods or services through the Administration, and requests of technical support have a dedicated procedure processed through the UNISS website. **Biosecurity:** procedures for biosafety in the Department, are enclosed in the Biosecurity Manual ([Appendix 8](#)) prepared, with the collaboration of the DMVSS Department Dean and all Research and Teaching Managers (RARs and DARs), by the DMV Biosafety Committee-Working Group. The document was approved by the University's SPISS. The Biosafety Committee is chaired by the EAEVE Commission Coordinator (CCE), coordinated by the DMVSS Laboratories Manager (DVM-LM) and composed of DMVSS Graduate Technicians (TL-DMV). The Manual with all its annexes is given to the Biosafety Referents (RB) of each sector, coordinated by the SVM-LM. Each sector is provided with signals for immediate display of the safety regulations to be observed. Moreover, each RB prepares a specific biosafety document related to his or her sector in which the following are listed: description of the spaces designated for laboratories, safety rules and behavior in the use of spaces and instrumentation, proper handling of samples, special waste and emergencies procedures. In addition to these, the flow of students and staff is included in the specific biosafety document of teaching laboratories. The RB of each sector is responsible for informing the staff, students and all those who have access to the laboratories about these behavioral norms. He/she provides the manual, supervises the application of the norms, and verifies through a questionnaire the knowledge of the norms to be applied, under the supervision of the Biosafety Working Group. The manual provides application provisions and procedures on safety and biosafety to be applied in the DVMSS for the purpose of occupational health and safety protection. It is intended for all in-service personnel (teachers and technical administrative staff), and for students, undergraduates, trainees, thesis students, PhD students, postdoctoral fellows, assignees and contract workers, who need to be aware of the possible risks associated with the teaching and research activities they perform in the Department. The [Biosecurity manual](#) is presented to 1st year students in the [Biosecurity course](#).

Comments on Area 4 - The isolation unit for Large Animals will be remodelled during 2023 for the creation of the [Mediterranean Center for Disease Control](#) (MCDC) by UNISS, a research hub that aims to promote and coordinate education, interdisciplinary research, and third-mission activities in order to prevent diffusion of pathogens from Countries of the Mediterranean area of Africa and Asia in Europe. MCDC aims to establish Mediterranean-wide pathogen surveillance programs, and to promote the study of infectious causative agents of disease impacting Veterinary and Public health, zoonosis, endemic animal and human diseases (also non infectious). MCDC will include Biosafety level 3 (BSL-3) Lab and will be raised in the green areas in front of isolation for Large Animals. Students will have the possibility to perform some training in the center, mainly related to infectious disease and parasitology. The Center will

also allow the VEE to collaborate more with public and private bodies and to deepen its research field. The MCDC was financed with 1,3 millions of euros by the Government of Sardinia and UNISS and the executive project is provided in [Appendix 21](#).

A new student hub is planned to be realized within 2023, by converting some space from the former clinics. For transportation of larger groups of students (e.g to extra-mural facilities) 25- to 50-seats buses could be rented from private companies in the pre-pandemic. At present, students move with their own cars or with academic staff cars. Thus, DVMSS has the necessity to implement its own means of transport to ensure the transport of all students to the EPT activities. One means for transport of SA and LA is missing.

The new teaching farm project was conceived by DVMSS before 2010. In 2011 the RAS decided to sign an agreement with the VEE to give in concession for 30 years the farm, about 60 hectares of agricultural land, the large part that can be used for pasture. UNISS also received a 1.8 mln € fund to renovate the buildings. The original project was conceived to develop a teaching farm in La Crucca site, to be managed in house by DVMSS. The VEE, while awaiting to define the call for the project award, adopted an interim solution to manage the agricultural land. Following a public call for tenders, in 2017 a social cooperative was in charge of the farm management. The DVMSS received in turn part of the hay harvested (about 12,000€/year), which is used for the animals of the teaching farm, kept in the paddocks of the DVMSS. The cooperative also activated collaborations with clinicians for the health management of the animals owned by the social cooperative. The call for the farm buildings renewal was published in 2019, and in 2020 the contract was entrusted. Due to the continuous increase of costs for renewal interventions and provided to manage the teaching farm, the project was reviewed in 2021. The perspective is to finalize the building renewal within 2023. Additionally, it is forecasted to entrust the farm management to a private company, which will give access to the students for practical training. The project is provided in [Appendix 22](#).

Suggestions for improvement on Area 4 - Acquire means of transportation for academic staff and students to extra-mural activity. Increase contract agreements with practitioners to support 24/7 activities of the VTH.

Area 5. Animal resources and teaching material of animal origin.

Standard 5.1: The number and variety of healthy and diseased animals, cadavers, and material of animal origin must be adequate for providing the practical and safe hands-on training (in the areas of Basic Sciences, Clinical Sciences, Pathology, Animal Production, Food Safety and Quality) and adapted to the number of students enrolled. Evidence must be provided that these data are regularly recorded and that procedures are in place for correcting any deficiencies.

Global strategy - The VEE provides the theoretical knowledge and practical skills needed to enter the profession the first day after graduation. To achieve this goal, theoretical lectures are followed by adequate practical training using animals or material of animal origin, in the areas of basic sciences, clinical sciences, pathology, animal production, PH, and FSQ.

In order to ensure adequate resources for animals and animal material for practical training, the VEE regularly monitors ESEVT indicators by having personnel responsible for each indicator who should periodically provide a detailed report to the academic staff. Moreover, several agreements with third parties, such as veterinary professionals, public kennels, and health organisations have been signed, and animal-derived materials for practical training are provided from abattoirs and private farms.

The practical clinical activities are carried out at the VTH, Municipal Kennel of Sassari (of which the VTH is responsible for sanitary assistance) and VEE teaching farm. Additionally, several agreements with public (ie: Agris, IZS, Agenzia Regionale Forestas, Comune di Ortueri) and private institutions (ie: Veterinary clinics, FSQ companies) are done to increase the contact and interaction of students with different species and several clinical cases. The VEE staff also includes veterinary practitioners for the clinical training of students. Starting from January 2023, six contracts with practitioners are active only for practical training;

three contracts for equids, one for ruminants and pigs, one for exotic animals, and one for necropsy support. In addition, in early 2023 two additional calls have been published and will be operative soon. External practitioners, before working with students, take a Self-Learning Course with a final test on European standards, DOC, Assessment of students, logbook, etc. The course is available in the [Self Learning area](#) of the website. To facilitate practitioner training, two Podcasts have been developed by the VEE and are available on the most common platforms (ie: [Spotify](#), [Anchor](#)). External practitioners enrolled by the VEE also provide the tutoring and evaluation to the students and fill the clinical case management software. The students provide periodic feedback on teachers through questionnaires that are monitored by the JTSC.

Biosecurity is a priority for the VEE in training students with animals and material of animal origin. So the [first year](#) students receive a course on Biosecurity and safety and are evaluated with a final exam. In the last part of the course, the Biosecurity Manual of the VEE ([Appendix 8](#)) is explained and introduced to the students.

The first lesson of each subject is usually dedicated to train students on specific biosecurity issues related to the discipline, with particular emphasis on Parasitic and Infectious zoonosis, since Sardinia is an endemic area for several of these diseases ([Appendix 11](#)). In addition, when students use a laboratory or move to the paddocks, ambulatories, or farms to carry out the practical training, they are informed by the RRAs (Responsibles for Research Activities), RDAs (Responsibles for Didactic Activities) and BRs (Biosafety Referent) (see chapter 4 of SER sub-section 4.9) about the Biosafety, receiving the Department's biosafety manual. Each facility contains a biosafety summary poster for immediate display of the safety regulations to be observed (see chapter 4 of SER sub-section 4.9). In paddocks where large animals with particular nutritional management is required, posters emphasise that any feeding out of the nutritional plan is forbidden. This is required in particular when special dietetics conditions need to be satisfied where tailored nutritional plans are prescribed under the responsibility of the Nutrition Desk, according to the clinical conditions of animals assessed by the clinicians of the VTH. In accordance with animal welfare and operator safety, the paddock referent creates a special document for paddock biosecurity and correct handling of animals. Furthermore, the referent supplies this document to the Veterinary Medicine Department-Laboratory Manager (DVM-LM) and supervises the application of the norms, and verifies through a questionnaire the knowledge on the norms to be applied, under the supervision of the Department's Biosafety Working Group.

How students receive the appropriate core clinical training before graduation - The main aim of the VEE is to ensure the acquisition of DOC by providing students with appropriate clinical training before graduation as a starting point for entering the veterinary profession. In addition to the curricular subjects, there are three different sections of the curriculum in which students approach the veterinary profession and mature DOC: Clinical Rounds, PPT, and EPT, as detailed in Area 3. **Clinical rounds** are the way in which, in the post-pandemic period, the VEE has re-organized what is known as the "Orientamento" with a total of 141h for the clinical training of students. During the clinical rounds, students undergo specific training - exclusively practical and hands-on - under the supervision of academic staff and/or veterinary practitioners enrolled by the VEE. The aim of VEE in designing the clinical rounds was to introduce students to hands-on activities from the 1st year. This pathway was specifically designed to introduce students to things they can gradually understand. For example, in the first year they will be part of "animal management" (ie: cleaning stalls and paddocks; foot care; hygiene condition; feedstuff and water check) under the supervision of support staff at the teaching farm, looking after the animals on a daily basis and learning how to handle animals. In the 2nd year, they participate in VTH rotations, supervised by academic, junior, and support staff, but also given tasks side by side with 5th year students, appropriate to their level of knowledge and experience. In the 3rd year, students also begin their training at the [Municipal Kennel](#), managed by the municipality of Sassari but under the supervision of academic staff. This experience offers a wide range of clinical cases that are completely different from those the students are exposed to at the VTH. They also start doing rotations at VTH. In the last two years (4th and 5th), in addition to the VTH rotations, other subjects are added, like clinical activities in exotic animals and two more rotations in the necropsy room. The latter was added in 2022 to compensate for the limited student activities during the pandemic. During clinical rounds in VTH, each student participates in the treatment of hospitalised patients at the VTH under

the supervision of a veterinarian, which includes restraining animals, performing clinical assessment, participating in the performance of instrumental examinations (ultrasound, X-ray, diagnostic laboratory tests, etc.), monitoring patients, administering medications, performing dressings and medications, caring for and feeding patients, and compiling medical records. During consultation, students are mainly dedicated to compiling the medical record, fixing patients, clinical examination and participating in the discussion of diagnostic and therapeutic procedures performed on each patient. Students also spend some time at the Wildlife Rescue Centre of the [Agenzia Regionale Forestas](#) in Bonassai (SS), focusing on wild and synanthropic species (mainly avian species). Clinical rounds are also conducted extramurally with contracted veterinary practitioners. Finally, students do their Mobile Clinic experience with the academic staff outside the VEE. The mobile clinic activities are carried extramurally and supervised by academic staff. The **Mobile Clinic** activity is part of the clinical rounds involving 4th- and 5th-year students, and it is organised in order to ensure an equal number of activities to all students: each visit outside is scheduled to last 3-4 hours and to be attended by a variable number of students (n. 2 to 5). During mobile clinic, students perform general and particular examinations of gastro-enteric, respiratory, cardiocirculatory, urinary, reproductive and cutaneous systems, as well as visits for lameness and minor surgeries (e.g. neutering or prolapse reduction) on ruminants, horses and pigs. They have the opportunity to see the clinical activities in the field, both planned and emergencies, which reflect the veterinary reality of the territory. After each clinical rotation, each student registers the observed clinical cases and submits their activities in a cloud database. In addition to the mandatory outings during clinical rounds, students can increase their hours on a voluntary basis in agreement with academic staff.

The organisation of clinical rounds is summarised in the table below:

Year	Semester	Hours per student	PPT/EPT	Activities
2nd	I	12	EPT	Clinica Città di Sassari - night shift
2nd	I	12	EPT	Clinica Città di Sassari - day shift
2nd	I	9	PPT	VTH - day shifts
2nd	II	3	PPT	VTH - day shifts
3rd	I	4	PPT	Ambulatory clinics - municipal kennel
3rd	I	3	PPT	VTH - day shifts
3rd	II	11	PPT	VTH - day shifts
3rd	II	3	PPT	Necropsies - IZS
3rd	II	3	PPT	VTH - exotics
4th	II	4	PPT	Mobile clinics - equids
4th	II	4	PPT	Mobile clinics - ruminants and pigs
4th	II	4	PPT	Mobile clinics - pigs/equids

4th	II	4	PPT	VTH - exotics
4th	II	4	PPT	Mobile clinics
4th	II	5	EPT	Wildlife clinical activity (Forestas)
5th	I	24	EPT	Clinica Città di Sassari - night shifts
5th	I	4	PPT	Mobile clinics - ruminants and pigs
5th	I	6	PPT	Mobile clinics - equids
5th	I	3	PPT	Mobile clinics
5th	I	3	PPT	Ambulatory clinics - municipal kennel
5th	I	4	EPT	Wildlife clinical activity (Forestas)
5th	I	3	PPT	Necropsies - IZS
5th	I	3	PPT	VTH - exotics
		141		

To ensure equitable education in each group, students are exposed to comparable activities. These are planned on the basis of different topics and species, so that the activity of each group is proposed by the teachers to ensure fair comparability and homogeneous distribution of animals and cases. In addition, by recording their activities in the [logbook](#) and recording system (5.4), students can demonstrate that they have received adequate clinical training before graduation and reached DOC. Finally, in the 5th year, students improve their clinical training by participating in PPT and EPT for small animals (SA) and large animals (LA) at the VTH (14 ECTS). During the shifts, students expand their knowledge and improve their hands-on experience in clinical disciplines, such as internal medicine, surgery, anaesthesia, diagnostic imaging, obstetrics, gynaecology and reproductive medicine, and emergency and intensive care medicine, as described in AREA 3.

Welfare of animals - used for educational and research activities - The VEE provides adequate training to students on animal welfare and also in the ethology course in the second year, where students learn to recognize stress indicators and approach animals correctly in the field of animal ethology, both theoretically and practically. Given the importance of the topic, in the recent revision of the Curriculum, animal welfare was moved from “elective” to mandatory discipline. The teaching farm inside the VEE provides healthy animals for student training and the use of these animals is strictly regulated by a procedure that takes care of animal welfare. In particular, a register of teaching animals for the respect of animal welfare during training has been implemented. The Register must be completed every time practical procedures are carried out for educational purposes on educational animals. Pursuant to the 2014 Italian law, n. 26, Implementation of Directive 2010/63/EU on the protection of animals used for scientific purposes, procedure means: “Any use, invasive or non-invasive, of an animal for experimental or other scientific purposes with known or unknown results, or for educational purposes, which may cause the animal a level of pain, suffering, distress or permanent harm equivalent to or greater than that caused by the insertion of a needle in accordance with

good veterinary practice". Responsibility for monitoring and managing animal welfare belongs to the teacher who organises practical activities on educational animals. All teachers who organise practical activities on teaching animals must complete an [online form](#) two days before the activity and verify that there are no other concomitant activities on animals ([Appendix 9](#)). In the case of concomitant activities or activities scheduled on the same day, the teacher is required to contact his/her colleagues and to find a solution in compliance with animal welfare (ie: rescheduling practical activity, or by using other animals not involved or manipulated earlier). The VEE is attempting, whenever possible, to replace or reduce the use of live animals with model, dummies or simulators, and refine current procedures by relieving the stress caused on animals by the practical for teaching, e.g., forbidding the repetition of manual invasive/stressing procedure on the same animal. The VEE has a delegate for animal welfare that periodically lays down a report on welfare status of teaching animals and proposes new solutions following PDCA management. A Central University Ethical Committee oversees and provides advice on activities that use animals for research and/or teaching purposes that have the "Organismo preposto al benessere degli animali" (OPBA) of the Ministry of Health [as reference at national level](#). The VEE believes in the "never the first time on a live animal" principle; however, by January 2023 the VEE doesn't have a Skill lab for training students before being in touch with live animals. A [project for a Skill Lab](#) is currently in progress and two potential funding sources have been identified and submission is expected within 2023. In the meantime, the VEE has developed a compensation procedure for avoiding invasive practice being made on live animals that are detailed in [appendix 10](#).

Table 5.1.1. Cadavers and material of animal origin used in practical anatomical training
Species AY* AY-1 AY-2 Mean

Species	Material	2021/2022	2020/2021	2019/2020	Mean
Cattle	Cadaver	0	0	0	0
	Organ	64	0	3	22.3
Small ruminants	Cadaver	2	0	0	0.66
	Organ	209	3	40	84
Pigs	Cadaver	0	0	0	0
	Organ	71	0	2	24.33
Companion animals	Cadaver	12	9	10	10.33
	Organ	10	2	3	5
Equine	Cadaver	0	0	0	0
	Organ	15	0	0	5
Poultry & rabbits	Cadaver	6	3	6	5
Aquatic animals	Cadaver	50	0	0	16.66
Exotic pets	—	0	0	0	0
Others (specify)	—	0	0	0	0

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

Species	2021-2022	2020-2021	2019-2020	mean
Cattle	6	3	2	3.66
Small ruminants	52	54	54	53.33
Pigs	1	2	2	1.66
Companion animals	0	0	0	0
Equine	9	7	5	7
Poultry	12	8	8	9.33
Rabbits	2	3	3	2.66
Exotic animals	0	0	0	0

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

Species	2021-2022	2020-2021	2019-2020	mean
Cattle	4	1	0	1.7
Small ruminants	3	1	1	1.7
Pigs	0	2	0	0.7
Companion animals	689	483	356	509.3
Equine	23	16	14	17.7

Poultry and rabbits	21	3	0	8
Exotic animals	9	0	4	4.3

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

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

Species AY* AY-1 AY-2 Mean

Species	2021-2022	2020-2021	2019-2020	mean
Cattle	308	153	284	248.3
Small ruminants	251	3	75	109.6
Pigs	187	186	160	177.7
Companion animals	68	29	0	32.3
Equine	157	29	54	80
Poultry & rabbits	7	0	1	2.7
Exotic pets	4	0	2	2
Others (wild boars)	10	8	9	9

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

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

Species	2021-2022	2020-2021	2019-2020	mean
Cattle	90%	90%	90%	90%
Small ruminants	90%	90%	90%	90%
Pigs	90%	90%	90%	90%
Companion animals	80%	85%	82%	82%
Equine	20%	20%	20%	20%
Poultry	100%	100%	100%	100%
Rabbits	100%	100%	100%	100%
Exotic animals	100%	100%	100%	100%

Table 5.1.6. Cadavers used in necropsy

Species AY* AY-1 AY-2 Mean

Species	2021-2022	2020-2021	2019-2020	mean
Cattle	1	0	0	0.33
Small ruminants	11	0	0	3
Pigs	6	0	0	2
Companion animals	42	0	0	14
Equine	10	0	0	3.33
Poultry and rabbits	18	0	0	6
Exotic animals	0	0	0	0
Others	21	0	0	7

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

Species AY* AY-1 AY-2 Mean

Species	2021-2022	2020-2021	2019-2020	mean
Cattle	2	0	0	0.67
Small ruminants	2	2	4	2.67
Pigs	1	0	2	1
Poultry	1	0	2	1
Rabbits	2	0	1	1
Aquatic animals	0	0	0	0
Others	0	0	0	0

Table 5.1.8. Number of visits in slaughterhouses and related premises for training in FSQ Species AY* AY-1 AY-2 Mean

Premises	2021-2022	2020-2021	2019-2020	Mean
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Slaughterhouse (domestic ungulates)	2	0*	0*	0.66
Poultry slaughterhouse	0*	0*	0*	0
Meat cutting plant	0*	0*	0*	0
Meat processed plant	0*	0*	1	0.33
Milk and dairy plants	0*	0*	2	0.66
Milk production farm	1	0*	2	1
Shellfish farming and depuration plants	0*	0*	0*	0
Honey processing Plant	0*	0*	1	0.33
Eggs packaging and Egg products processing Plant	0*	0*	0*	0
Pilot Plant of Food Processes (intramural)	1	0*	0*	0.33
Food Laboratory (ISO/IEC 17025:2018 Certified)	0*	0*	1	0.33

*During the 2019/20, 2020/21 and 2021/22 academic years, theoretical and practical classes were conducted online due to the Covid 19 pandemic. Alternative teaching methods such as videos, pictures, case studies, etc. were used. The software "Virtual Slaughterhouse Simulator" was used for the training of the students upon a special licence granted by developers (the software is not in commerce). While the software cannot be considered a substitute for the practical activities, it is a useful tool to provide basic knowledge on many aspects such as slaughtering procedures, structural, operational and hygienic requirements in slaughterhouses, day-one skills related to ante- and post-mortem inspections and many others.

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

Cadavers and material of animal origin for training in anatomy - Organs and cadavers used in the anatomy courses are listed in Table 5.1.1. Organs free of gross injury are provided by locally contracted slaughterhouses for anatomy training. In addition, dead, non-infectious animal carcasses from the VTH are used for anatomy training. The anatomical dissection room is equipped with freezers where organs and animal carcasses are stored in appropriate plastic boxes and registered in the VTH database (if cadavers). In addition organs and 3D resin models are used to reinforce the training. Osteology lectures are given in the osteology laboratory, where skeletons and bones of various domestic animal species are on display. The osteology lab is also used by students themselves to practise the studying of bones. Training in histology and anatomy also takes place in the histology laboratory, which is equipped with light microscopes and is used for hands-on training in small groups on histological specimens of various animal species. **Cadavers and material of animal origin for training in pathology** - Visceral organs of various domestic and food producing animals (calves, equines, pigs, sheep, goats, etc.) are obtained from several regional slaughterhouses (SHs). Organs are stored at +4°C or at -20°C in disposable biosecurity plastic bags until use and the material includes equal percentages of organs (heart; lungs; mediastinal lymph nodes; liver; spleen; kidneys). All biological material (tissues, organs) and hazardous wastes are disposed of by a specialized contract company, according to national legislation. Organs are mainly used during Anatomic Pathology-I course (3rd year, I semester) which is mainly based on practical activity. Anatomic Pathology-I includes practical gross examination (identification, interpretation, and classification of lesions) followed by a tentative morphological diagnosis with references to possible etiologies of both animal organs or, when classical lesions are not available from slaughterhouse organs, pictures of the main pathologies of companion and food-producing animals. **Monitoring and revision efforts for a variety of animals and animal-derived materials** - Periodically, the person responsible for the ESEVT indicators refers the data to the Department of Veterinary Medicine Council which suggests corrective actions if necessary. Actions are then monitored through the PDCA management plan. In 2022, several actions were taken to improve the ESEVT indicators, especially for necropsies.

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

Organization and management of the external sites and student involvement – the VEE has [several agreements with external sites](#) (e.g. farms), the full list of which can be found in appendices. External sites are mainly used for practical teaching and training in the following areas: genetics, husbandry techniques,

animal breeding, animal welfare, nutrition, and hygiene. Mobile Clinic service is also carried out in farms without agreement (on-call services). **Municipal Kennel:** The DMVSS has a formal agreement with the Municipality of Sassari for the health management of the Municipal kennel, about 10 km away from the campus. It hosts an average of 200 dogs, kept in balance by new entries and exits (adoptions and deaths) that increase and diversify intramural activities on canine species. Students attend the kennel in the 3rd and following years, either during clinical rotations or during several disciplines of the degree program or for research programs (final dissertation). Students, supervised by a teacher or a member of the junior staff, see and participate in kennel veterinary activities, different from those of the VTH: healthcare management, diagnosis and prophylaxis of infectious and parasitic diseases, diagnosis and therapy of medical and surgical pathologies, management of behavioural problems in order to facilitate adoption, spaying/neutering. To perform other types of surgery or for critical and emergency cases, dogs are transported to the VTH and students participate in clinical activities at VTH. **Agris Su Padru & Tanca Regia site farms:** Extra mural activities on equine species are supported by the agreement yearly renewed with the Department of Equine Research and Production (DIRIP) of the Agency for Research in Agriculture of the Autonomous Region of Sardinia (Agris). DIRIP carries all the activities related to the organization of reproduction and breeding during the mating season, along with producing, raising, conditioning and training foals and young horses destined to different equestrian disciplines, through various sectors of sport horse competitions (jumping, endurance, CCE, flat racing). Two farms of DIRIP are available to students for practical training, with the support of personnel working onsite, adjunct to the academic teacher: hands-on practical activities can be carried out in both farms both on breeding stallions (in the Su Padru center, which holds the stud book of stallions and where both private client-owned and stallions, property of the autonomous region of Sardinia, are kept) and mares and foals (in Tanca Regia, where pregnant/lactating mares are raised along with foals destined to equestrian disciplines, which are evaluated according to the sport attitude and approach to the rider/horse interaction). In view of the crisis in the public sector, despite the presence of a significant number of breeding stallions in the last season, about a hundred mares were fertilised at the Centre. Fresh and frozen semen sold to breeders by DIRIP supported the field work of veterinary practitioners which increased AI practice directly in private farms. The horse production appears to be fragmented in the distribution on the territory and horse breeders tend to raise a limited number of mares and foals. Such an occurrence witnesses the breeder's choice to limit mare movements and rely on veterinarians upon calls to the single horse stable. In Su Padru and Tanca Regia students can practise on stallions, mares and foals for several disciplines of the VM DP, starting from the 2nd year with Animal Nutrition. Beyond the practical training within the different subjects of the teaching programme, students can also spend research periods to follow experimental protocols of trials on field and projects running under the supervision of academic mentors for thesis dissertation. Stud stallions kept in Su Padru facilities range between 25-30 horses throughout the year, both during the mating as well as the non-mating seasons. During the mating season (February-June), stallions serve at an average of twice/three times a week. Most stallions are of high genealogy and are past champions, retired from horse race/competitions, which are used as semen donors for artificial insemination. Students can practice on the activities of stallion management and thanks to the enclosed laboratories and technicians, practice on how to evaluate semen quality. Management (keeping, feeding, and training) of stallions, is also on the list of acquired competences. The consistency of mares is variable: 10 mares are the property of the Autonomous Region of Sardinia, but the client-owned mares can also be presented for the service (artificial insemination and stable) by renting a box along with the management by the personnel of the DIRIP. That way, in Tanca Regia the number of mares (and consequently of foals) can range in number, from a minimum of 10 mares (with foal) to a potential maximum of 20 (with foals). Weanlings and yearlings can be available to students for practical training, to get familiar with management, feeding and training. The Tanca Regia farm is also one of the main grounds of the regional fair for 2-year, 3-year, and 4-year-old horses. In addition, it hosted the international jumping tour twice in the last 10 years, the most recent in July 2022. Both in Su Padru and Tanca Regia, students can practise in well-equipped horse centres, with modern and historical facilities, indoor and outdoor working areas, laboratories and tools, and acquire competences on field, where common stable activities are routinely run. The DIRIP also offers the chance to take part in experimental trials aiming at ameliorating

horse's health, welfare and performance, in cooperation with the researchers of the DIRIP and under the supervision of the academic mentor for thesis dissertation. **Donkey Sanctuary of Ortueri** (Municipal Park "Mui Muscas"): The sanctuary of the Sardinian donkey is located in the Mui Muscas park of the municipality of Ortueri. An agreement with the DVMSS is running since 2021. The sanctuary hosts an average of 70 donkeys of different ages, kept within the limit of the park, under the control of the municipal personnel. The cooperation with the Department has advantages for both sides, aiming at the valorization of the animal resources and protection of the sanctuary. The DVMSS takes part in the partnership with the supply of medical, surgical and managerial support, by both upon direct request of intervention and within the development strategies of valorization of the park, through the support to the service of onotherapy and animal assisted intervention. The sanctuary offers the availability to students and academic staff to carry out practical training hands-on in different subjects of the UNISS VMDP, such as Animal Nutrition, Parasitology, Physiology, Medical and Surgical clinics. **Bonassai - Forestas** - The Wildlife Rescue and Farming Center (CARFS) or the Regional Forestry protection agency (FORESTAS) supports the practical training of activities within the teaching programme of veterinary medicine of UNISS. The CARFS staff accounts specialist Veterinary Surgeons in clinics of wild and exotic animals and technicians with special skills in wildlife handling and keeping. Students of the course of Veterinary Medicine can rely on the presence of terrestrial mammals as well as marine animals. Chiefly, several wild avian species are kept, most of which were rescued and hospitalised and lifelong kept in the case of physical inability to be released back into the wild. A permanent farm of Sardinian partridges is also present, which contributed to improve the population of this wildbird at regional level, threatened until recently (2017) and now under the least concern of the IUCN list of endangered animal species. The partridge farm consists of an average of 70 breeding couples. Moreover, the CARFS possesses a hatchery facility and chicks are raised and farmed for restall within the farm, or for restocking. Practical training of avian pathology, parasitology, animal ethology, and Clinical Rounds are carried out. Students can train hands-on, under the supervision and guidance of the sanitary directors and other qualified personnel of CARFS staff. The CARFS also cooperates with academic staff in several local and national research projects and in particular in different LIFE projects. Students can, therefore, be involved in several experimental activities, trials and protocols for thesis dissertation, under the supervision of an academic mentor. **Bonassai - AGRIS** - The Institute for dairy animal breeding and improvement (IZC-Bonassai) is a branch of AGRIS of the Autonomous Region of Sardinia. The IZC-Bonassai supports the practical training of the students starting from the second year of the UNISS VMDP. Such an agreement has been running for several years, both with teaching and research purposes. In particular, the IZC-Bonassai is an extended highly specialised experimental farm, where dairy sheep, cattle and goats are reared for experimental purposes, mainly focusing on genetic improvement, feeding and reproduction. The genomic typing of resistance traits in sheep and goats to Scrapie were characterised and selected by the researchers of the IZC-Bonassai, thus offering valuable support to farmers at regional and national levels for the fight against small ruminant spongiform encephalopathy. Animal resources are mainly represented by Sarda sheep and goat breeds. Also Sardinian x Brown cattle are raised. Occasionally, beef cattle are also present, in particular Charolaise heads. The IZC-Bonassai offers cooperation for teaching, practical training and research activities, through highly specialized staff and modern facilities, animal resources (around 200 sheep and goats, 15-20 cattle over the last years), and modern laboratories to DVMSS students and its academic staff. **Teaching Farm "La Crucca"** - The practical activities on food producing animals used to be carried out in the Teaching Farm La Crucca in past academic years. However, those past teaching practices drop out of the three year period of the upcoming evaluation by the EAEVE Board. It is mentioned here because the concession to use (as explained in comments to Area 4), accounts the teaching farm among the facilities under reorganisation, which will additionally allow the practical training of students attending the next AYs, in the near future. The teaching farm La Crucca will allow practical activities on different livestock species (See comments to Area 4 and [Appendix 22](#)), at 10 km from the DVMSS.

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

Nursing care skills and nursing procedures - From the 2nd year of study, students are introduced to and taught nursing skills. In the courses of physiology, ethology, animal nutrition and animal welfare, students acquire knowledge about the proper handling of farm and domestic animals. They learn, for example, how to muzzle a dog, how to tame a cat or dog and how to place them properly on a visiting table. In the 2nd and 3rd year, students have the opportunity to visit several farms (including dairy and beef cows, small ruminants and pigs) and dog kennels to observe management and practice handling these animals. Furthermore, in their 4th and 5th years, students work with animals in a clinical setting with companion animals, horses and ruminants. They participate in all regular VTH events, including emergency and clinical nursing. Students will graduate with these nursing skills: proper patient handling, safe handling and restraint techniques, hospitalized animal care (including monitoring and health checks, feeding, cleaning and managing animals), drug administration (tablets, injections, fluids), biosecurity procedures, operating room management, biological samples collection (urine, blood and other) and basic analytical techniques. Nursing care skills are taught by academic staff, members of the junior staff and members of the support staff. **Group size for hands-on training of all students** - Students are organized into small groups according to the type of hands-on practical activity and the place where exercises are carried out (e.g., Basic sciences, Pre-Clinical sciences, Clinical Sciences). Usually groups are constituted of 10 students except for Clinical Sciences where normally the training is organized in groups of 5-8 students to facilitate hands-on activity. To carry out some extramural activities, groups consist of 2-3 students (e.g. horses clinical activity). Junior and support staff assist the academic staff in the training process of students on models, organs, carcasses, and live animals. **Hands-on involvement of students in clinical procedures** – The organization in small groups helps students in developing teamwork skills and allows their involvement in clinical procedures. Regarding SA, students actively participate in everyday VTH activities, taking part in all the procedures to which each patient is subjected. Therefore, they acquire knowledge about internal medicine, obstetrics, anesthesia, surgery, practicing with hospitalized patients and emergency room cases. Moreover, students are involved during the visit of patients in front of the owners, so they can develop communication skills with the clients. Students actively take part in the collection of medical history data and physical examination, are involved in diagnostic and therapeutic (medical and/or surgical) approach, and follow-up, using problem-oriented approach. Also, in case of critical decisions, as euthanasia, students are involved in the decision making process. Regarding large animals, students visit farms and participate in herd health management. Moreover, they are involved in necropsies, and diagnostic and laboratory tests. During necropsies, students are trained for analysis of post-mortem findings considering the animal anamnesis. Before starting clinical training activities, students are trained on biosecurity, biosafety, and animal handling. **Procedures to allow students to deepen their understanding of the clinical case and its management** - In order to improve their autonomy and the critical understanding of the case management, during clinical activities students are involved, by the academic staff, in the debate regarding the clinical cases. Teachers stimulate students with questions about the etio-pathogenesis of detected clinical signs and laboratory findings. Therefore, they contribute actively in the decision about the differential diagnosis, treatments plans, and management strategies for pain. Teachers encourage students to share and compare their ideas and, moreover, they suggest to deepen how they should manage the clinical cases using resources present in literature.

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

Clinical case management and record system - The management of clinical cases was carried out from 2012 until the end of 2021 using a customised management software specifically designed to track students' activities on animals in the VTH and outside. In 2021, the software proved to be outdated and was no longer easy to implement as it had to be completely rebuilt, at a cost of €30,000 and more than a year of back-office work. Therefore the VEE decided to buy the licence for another software, this time a commercial product, [Dr. Veto](#) by [Alcyon](#), is used by over 600 veterinary clinics in Italy. Like many other management softwares, it was developed mainly to help doctors in their daily work rather than to keep track of students' activities. However, the collaboration with the company was very fruitful and led to the release of a version of the software specifically designed for VEE, in which a special interface for the student activities was created and published. In addition, since the first year, every single student receives training [within the syllabus of informatics](#) and is then registered with a personal account in the database, acting like a veterinarian in the clinic under the supervision of the staff. The record system is meant for academic and administrative staff as well as students and is available on various PC wards in VTH through a personal account. Students have the ability to view each patient's medical record and evaluate all instrumental examinations performed. Students can also create the medical record by entering the patient's medical data and formulate a diagnosis. However, the files created by the students must be validated by the doctors working at the VTH. Finally, students can drop images and videos of clinical cases in the cloud, which is linked to the software, and view them afterwards.

The software is constantly evolving and it is planned to develop a new version in 2023 that will include the automatic calculation of ESEVT indicators, allowing everyone to monitor the indicators in real time. Necropsy reports are also recorded in the Dr. Veto management software and each record contains the animal's data, pictures and gross pathological findings; histological, virological, bacteriological and parasitological examinations are also recorded when necessary and available.

From October 2019, all clinical training activities conducted outside the clinic (e.g. Mobile Clinic) will be recorded in a cloud database (i.e., [Google Sheets](#)).

Comments on Area 5 - The DVMSS constantly monitors its ESEVT indicators and after realizing that some of them were below average, implemented several strategies to address these deficiencies, even though the budget is limited for the reasons explained in AREA 2. Summing up, starting from 2021/2022 AY (the first full year after pandemic) the VEE has:

- reorganized the “Orientamento” and created a new space for clinical practice called Clinic Rounds to increase the exposure of students to clinical cases. In addition, the following contracts with external veterinary practitioners were also activated: 3 for Equids; 2 contracts for Ruminants and Pigs; 1-contracts for exotics; 1 contract for necropsy; 1 contract for a dedicated Tutor for Clinical Rounds organization. The Mobile Clinic was also included in Clinical Rounds and became mandatory for all students. Finally, the VEE stipulated agreement for sending its students in several external facilities, and in particular: 1 agreement was activated with IZS for necropsy; 1 agreement with Forestas was activated for clinical cases on wildlife; 1 agreement with Sardinian Donkey Park of Ortuero for clinical activity and management; 1 agreement with Agris for clinical activity on Horses and ruminants. The strategy of VEE is to continue in this way. We are aware that this is not enough, but the management of VEE is working together with the Rector and the administration of the Uniss to raise more funds to strengthen this strategy in the next years and to fulfil the ESEVT indicators.

Suggestions for improvements in Area 5 - ESVET clinical indicators (I8, I9, I10, and I11) show an insufficient number of patients seen intra-murally. To improve these numbers, it is necessary to relaunch the VTH by increasing services such as 24/7 emergency service, specialist visits, improving the administrative management of the VTH, and renewal of the medical equipment. Above all, new clinical veterinary staff should be hired for the services of anaesthesia, internal medicine, operating room, laboratory and diagnostic imaging. It would also be necessary to increase the number of clinical veterinary staff under annual contract in the following main components: (i) External veterinary staff to guarantee the specialist clinical services (dermatology, oncology, neurology, endoscopy, exotics, ruminants, swine and equine medicine and surgery) and the 24/7 emergency service and (ii) Junior staff such as PhD students to support the clinical research activities. It is also strongly necessary to hire administrative staff dedicated to the VTH to guarantee its administrative efficiency and to renew the medical equipment such as electromedical devices in order to keep the VTH up to date. Finally, a concrete motivational plan would be very useful to increase the involvement of the teaching staff in dedicating themselves to the VTH. For hiring new clinical veterinary staff, our department has recently presented to UNISS a three-year [RP](#) (2023-2025). To advance the restructuring project and deal with a partial resolution of the underlined problems, VEE is pursuing several strategies in the short, medium and long term. As described in detail in AREA 2, the financial situation of UNISS and, therefore, of VEE is quite complex due to the ban imposed by the Italian government. Therefore, most of the strategies of VEE in finding adequate funding to support VTH activities are mainly based on finding external funding agencies. In this context, in 2022, the management of VEE, together with the Rector of UNISS, drafted a project for the extension of VTH services, approved by the Regional Government of Sardinia, which provides 370.000 euros per year from 2023 to 2025 (total amount 1.110.000 euros) for the VTH H24/7 activity as well as other services described in the project ([Appendix 24](#)). Furthermore, the VEE with its Rector has worked with the Government of Sardinia Health Department to obtain the contract for the sanitary management of stray animals of all Sardinia region and to support the veterinary assistance service. Stray dogs and cats are a big problem in Sardinia, described in Annex 11. It would be a great change for our students to improve their DOC and for the VEE to increase the ESEVT indicators. For several years, the VTH has provided a medical assistance service for stray dogs and cats rescued in the municipality of Sassari and neighbouring municipalities, thus contributing to the fight against stray dogs. This kind of service could be extended to the whole region in order to increase the VTH cases useful for student training and at the same time increase the economic availability. The VEE is also preparing a project for a new skills lab to be presented to several ONGs for funding in mid-2023. The Necropsy ESEVT indicators don't meet the ratios as well: COVID-19 pandemic caused a slowdown in the activities of the teaching hospital which was the main reservoir that supplied the corpses (I19). Moreover, in 2021 the teaching activities did not resume immediately in a consistent way in the presence of continuous outbreaks of covid19 and the government safety provisions. In 2022, re-establishing the network of contacts was not easy and this led to difficulty in finding a suitable case study and the related biological material for the exercises. Indicators I20 and I22 were also affected due to the difficulties in travelling and accessing companies following health restrictions. In 2022, with the resumption of normal teaching activities, the greatest difficulty was restoring the network of contacts with farmers and field veterinarians. The degree course in 2022 has activated corrective actions to increase the number of corpses to be used in exercises. The actions can be summarised in four points: 1) agreements with chicken and rabbit companies; 2) in November 2022, an agreement was reached with the [IZS in Sassari](#) ([Appendix 23](#)), which performs necropsies daily and is only a 2-minute walk from the Campus. Students will start to frequent this facility from the 2nd semester (agreement provided in [Appendix 23](#)); 3) More hours to be reserved for necropsies scheduled with the clinical rounds in 3rd and 5th year and into the 5th year internship; 4) contract of a tutor to support the teachers for teaching activities on necropsies.

Area 6. Learning resources

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

The Uniss University Library System, ULS - The Library of Chemistry, Pharmacy and Veterinary Medicine is part of the the Uniss **University Library System (ULS;** “[Sistema bibliotecario di ateneo, SBA](#)”) that connects all the UNISS library facilities and resources. ULS was created in 2000 and consists of 13 libraries that offer 1,700 seats and hundreds of cable and wireless internet connections. ULS aims at supporting the knowledge needs of the UNISS community through a coordinated network of back and front office services. The ULS vision and services are described in detail in the Service Charter, “[Carta dei Servizi](#)”.

Briefly, ULS aims to:

- Promote and spread technical and scientific knowledge;
- Support teaching and research activities;
- Create a great library for a great University via:
 - The selection, acquisition, organisation and prompt availability of technical and scientific information in different formats;
 - Promoting the use of online resources;
 - Fully qualified staff in a user-friendly and technically updated environment;
 - Integrating the competencies and services of the different Uniss establishments.

The ULS aims and activities are set by the UNISS Library Committee, ULC (“[Commissione di Ateneo per le Biblioteche](#)”, CAB) which constantly monitors that the services of the ULS and each Library comply with high-quality standards. The committee is composed of lecturers (including one from the DVMSS), library staff and student representatives. Furthermore, resources, services and staff of the ULS are managed by the Library Services Coordination Office (“[Coordinamento Servizi Bibliotecari, CSB](#)”). **Electronic access to learning resources: UniSSearch** - Access to all ULS resources and services is granted via [UniSSearch](#), a single and secure digital portal that can be accessed either from or outside UNISS facilities, using individual credentials. UniSSearch can be used to search the bibliography, including both print and online books/periodicals included in the UNISS collection, as well as to loan books. A [detailed guide](#) on how to access and use UniSSearch is also available. First year veterinary students gain competencies on ULS as part of the informatics course “[Elementi di informatica e tecnologie digitali](#)”.

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

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

On site academic library: the Library of Chemistry, Pharmacy and Veterinary Medicine - The [Library](#) of Chemistry, Pharmacy and Veterinary Medicine was opened in 2018, when the Libraries of the three Departments were merged. The joint Library is located in via Vienna 2, in the “Complesso didattico della ex Facoltà di scienze matematiche, fisiche e naturali”, on the ground floor; the building stands at walking distance of 2 minutes from the DVMSS. The joint Library occupies a total area of 783.19 m², of which 639

m² are accessible to users, while the rest are storerooms mainly used for previous editions of books and hard copy periodicals. The user area is divided into five rooms. The first room is a reception area equipped with the self-check loan and lockers, whereas, the other four rooms are used to study and are equipped with open shelves. Before 2020, the Library offered 185 seats, but in accordance with the UNISS Protocol for COVID-19 control, it currently offers 76 seats and the place can be booked via the [App Affluences](#). Admission is checked by staff in the reception area. [Wireless](#) coverage is available in the entire campus and the Library is equipped with 7 computers for users, a multi-function printer (all connected to Internet), an enlarger for visually impaired, and 28 electric sockets for laptops. Seven tables, each equipped with a canopy and two sockets, are located outside the building and are widely used by the students, thanks to the mild and dry weather. The building is surrounded by a garden with olive trees, thus providing a quiet and high quality study environment.

Opening hours and days - The Library is open from Monday to Friday from 08:30 a.m. to 07:50 p.m. In August, the Library closes for two weeks (yearly vacation established by the UNISS), meanwhile for the rest of the month it opens from 08:30 a.m. to 01:30 p.m.. During Christmas holidays the Library closes for one week.

Staff and qualifications - The Library of Chemistry, Pharmacy and Veterinary Medicine is presently managed by a Director and two full-time [staff](#) members; all of them are fully-qualified librarians. On average, 22 students work part-time per year with mainly customer reception duties. [IT assistance](#) is provided by UNISS, when required.

Annual budget and Library administration - The Library Services Coordination Office (“Coordinamento Servizi Bibliotecari”, CSB) manages the general budget of all UNISS libraries and services. In addition, the Library of Chemistry, Pharmacy and Veterinary Medicine receives an additional annual budget that is mainly spent to purchase hardcover books. The budget assigned to the Library to acquire new monographies is €10,500.00 for the 2019/2020 AY, €23,987.00 for the 2020/2021 AY, and €22,500.00 for the 2021/2022 AY. Costs of online subscriptions to periodicals and ebooks, staff, and premises maintenance are covered by UNISS and not included in these budgets. The Library Technical-Scientific Committee, LTSC (“[Commissione Scientifica della Biblioteca](#)”) is composed of four lecturers (two of them are from the DVMSS), the Library Director, one librarian, and two students. The Library Director manages the budget in accordance with the LTSC indications. Indeed, the LTSC supervises the Library activities, evaluates new purchases for both hard copy and electronic format books, periodicals and databases.

Members of the UNISS community can propose the purchase of books or periodicals by filling in an [online form](#). In addition, students can contact the LTSC to suggest changes and improvements via their representatives.

Subsidiary libraries in the Department of Veterinary Medicine - Subsidiary libraries are present in the DVMSS, they host collections of historical books and non-recent journal collections in printed form. After contacting the senior lecturers of the section, students and staff can have access to these collections and study in the library. The main subsidiary libraries are located in the Anatomy, Physiology, Food Inspection, Animal Production, Pathological Anatomy, Obstetric Clinic, Parasitology, Surgical Clinic, and Infectious Disease sections.

Students’ room and other study areas - In addition to the main and subsidiary libraries, the DVMSS offers spaces that do not require a silent environment, where students can discuss, interact and conduct group assignments. The student room is located on the ground floor of DVMSS building (Wing 2, please see Chapter 4), it consists of two rooms equipped with air-conditioning, Wi-Fi, and lockers. It offers 40 seats and 19 electric sockets. Furthermore, wide tables are located in the halls on each floor of the building and two tables, each equipped with a canopy and two sockets, are located in front of the building.

IT facilities and e-learning platform - A computer room is available in the DVMSS, offering 20 computers connected to the cable internet. The classroom is mainly used during the IT, statistics, and pharmacology courses, but it can be booked for other lectures, if needed. Wi-Fi is available in the entire campus; any device can be connected to UNISS-mobile by accessing the net through individual UNISS credentials. Visiting students and staff have internet access via Eduroam (Education Roaming). Guidelines

on UNISS-mobile and Eduroam are available at [Servizi WIFI - Eduroam | Università degli Studi di Sassari](#) and [IT assistance](#) is provided upon request. Until 2021, the main elearning platform was [Moodle](#), whereas starting from the 2022/2023 AY a new platform named [E-uniss](#) has been created for the whole UNISS community. Information on the academic calendars (lectures and exams), study programs and regulation of the courses are available to all viewers, whereas access to detailed contents is granted after logging-in, thus providing a secure learning tool for both lecturers and students. These contents include handouts of lectures and practicals, teaching videos and photos, exercises and tests and up-to-date information on the courses via an interactive forum (i.e. topic of each class, calendar variations). User guides for the staff and students are available at [E-uniss](#). Assistance is also provided by the IT staff upon request. The software Microsoft Teams has been widely used during the COVID-19 pandemic for lectures, exams and meetings. Both Moodle and Teams usage has been implemented in the daily routine and are presently used to improve the learning experience by providing novel input to the traditional lectures and to allow prompt interaction between lecturers and students when face-to-face meetings are not feasible. Free Office and Microsoft licences (5 for PC/laptops and 5 for other devices) are available for UNISS students and staff.

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

Number of books and periodicals, services and software - The ULS offers 60,000 online periodicals; among these, there are 20 e-journals that are specifically included in the Veterinary collection. In addition, during 2021 the ULS has subscribed to the EDRA digital platform that grants access to more than 80 ebooks in Italian on medical, veterinary, agricultural, and pharmaceutical topics; access is granted via UniSSearch. The Library collection consists of 11,976 hard copy books and 8 printed journals. Books are classified using the Dewey Decimal Classification System. Textbooks recommended by lecturers for the exam preparation are available in several copies (ranging from 3 to 15) and books are available for consultation on open shelves. Following the recommendations of the previous EAEVE visit, the number of books in their original language has been increased, such books are frequently used by foreign students who attend the Department as part of the Erasmus+ program, as well as by PhD students. Books can be booked online with UniSSearch and procedures are detailed in a [tutorial video](#). More information on loaning procedures are available on: [Servizi | Università degli Studi di Sassari](#). The number of yearly loans was 2,991 in 2019, 1,231 in 2020 and 1,093 in 2021, respectively. The main software for bibliographic research is UniSSearch, but other resources are available such as NCBI Pubmed, Scopus, and Web of Science. In 2021, UNISS has subscribed to the Journal of Visualised Experiments, [JoVE](#), in the areas of Biology, Medicine, Immunology and Infection, Basic Biology Series, Clinical Skills Series, and Chemistry. This is a multidisciplinary video resource that offers videos for both teaching and research. Several DVMSS lecturers and researchers have attended the presentation seminars and are using this tool to have access to up-to-date scientific contents for both teaching and research purposes. Other softwares such as [Kahoot](#) and [Wooclap](#) are widely used during classes and on self-learning to test one's knowledge by simulating mock exam question/answers and to stimulate student interaction. Scientific data repositories that display clinical cases are also often used, such as [histological](#) and [macroscopic pathological cases](#). A “Virtual slaughterhouse simulator” is used to train undergraduate and graduate students on correct slaughtering procedures and food inspection; the software is used during lectures of the course "Practical works in slaughterhouses" with the lecturer supervision and autonomously by students using a pc located in the Section of Inspection of Food of Animal Origin for self learning.

The DVMSS official [Social accounts](#) (Facebook, Instagram, and YouTube) offer contents weekly, aimed at reaching students of all levels, from prospective to postgraduate ones. Videos, tutorials, and posts on how to access the Veterinary Medicine Degree Programme and the other DVMSS undergraduate courses, international scholarships (student mobility program for studies and traineeship, Erasmus+ and Ulisse) as

well as on Specialization Schools and PhD positions are promptly online. To fasten communication among staff and students, the Communication Committee opened an official WhatsApp group called [MEDVET](#). MEDVET supports institutional communication by boosting relevant information that are published on the website, on the elearning platform or sent by email. Several lecturers and student representatives are among the administrators; all veterinary students can log in through a QR code. Finally, an Institutional Research Information System ([IRIS](#)) consisting of an open catalogue with all research products published by UNISS scholars is available for the students with tutorials and user guides.

Internal study resources - The DVMSS offers several areas where students can learn autonomously. Access to these facilities is granted in specific hours or upon request to the lecturer by email. The Syllabus of the module Special Zootechnics 1, Integrated Course of Special Zootechnics contains the topic relating to age estimation in the main species of veterinary interest, mainly through the examination of teeth. Students are allowed to the hall located on the 3rd floor of the gate E, where they can study anatomical preparations of the distal extremities of mandibular bones, mainly from horses, cattle and small ruminants. There are around 50 preparations for each of the above species; The section of Anatomy of Domestic Animals (“Anatomia degli Animali Domestici”, 4th floor) offers a wide collection of skeletons and bones of domestic and wild animals, as well as more than 40 anatomical models comprising the entire animal and several systems (i.e. respiratory, gastrointestinal, reproductive, urinary tract etc.). Histological and cytological slides of non-pathological tissues and organs are also available for self-learning. During renovation works, these self-learning areas were unavailable, thus a selection of bones had been moved to a classroom that could be accessed by students. The area was re-opened in January 2023.

The self-learning corner of Animal Nutrition (two seats, per 1h) allows students to train on Body Condition Scoring (BCS) on an artificial dog rib cage model (1-5 score), with different fatness and muscular conditions, before approaching a live animal. A personal computer (desktop) is also available with a screen where BCS is estimated in different species. A Kahoot quiz (self-learning with random questions) is available and reachable with personal mobile devices with QR-code scanner. Moreover, a collection of feedstuffs for animals (livestock, exotic and domestic pets) is available. Individual QR-code of single feedstuffs provides descriptions of the main nutritional traits and mode of use in animal feeding.

Clinical Case Management software - In 2022, a commercial software named [Dr. Veto](#) was purchased from Alcyon. Dr. Veto is a veterinary practice management software which, among other features, archives patients records and clinical cases and students’ clinical activities carried out at the VTH. The DVMSS offers an individual subscription to all students, who are also trained to use Dr. Veto by Alcyon staff as part of the informatics course “[Elementi di informatica e tecnologie digitali](#)”. To enhance clinical learning, the software has been customised to guarantee student access to complete datasets, similar to staff. Dr. Veto will be used to: 1) train students to practice work daily and to clinical reasoning; 2) allow students to follow the complete medical history of the patients 2) create a clinical case repository for research (i.e. retrospective studies) and continuing education; and 3) enhance the VTH organisation. **Clinical Skill Lab** - Regrettably, the DVMSS does not have a Clinical Skill lab, nonetheless the DVMSS personnel are fully aware of the “never the first time on a live animal” strategy. This is confirmed by the fact that several lecturers use alternative models and procedures to train students on invasive procedures by using non-animal models, detailed in [Appendix 10](#). Further, a committee is currently writing a project to set up a Skill Lab; two potential funding sources have been identified and submission is expected by 2024.

Comments on Area 6 - Positive comments on the Library and ULS services have been received from students by direct interaction with Library staff and with the LTSC. The Library opening times and seats appear adequate and access to book loans is flexible thanks to the online booking procedure. The Library is luminous and spacious and the building is surrounded by a garden with olive trees, thus providing a quiet and high quality environment to study. The Library staff members assist users on bibliographic research providing information on the main online resources, as well as on printed books and periodicals. Access to all online sources via UniSSearch represents a user-friendly tool to access reliable scientific knowledge. There is an ongoing process for the study and complete development of the Skill Lab and a platform specifically designed for students to host digital learning resources. The [DVMSS website](#) is part of a

general layout designed almost 10 years ago from [UNISS](#) and under control of the Governmental agency [CINECA](#). As a result, the layouts are clearly outdated and do not reflect modern communication and, above all, are not "student-oriented". Indeed, the website was designed mainly as an institutional front office rather than for communication with students. In addition, UNISS has set up an internal platform called [E-uniss](#), which was supposed to be dedicated to students and where plenty of educational material has been placed. However, it is not publicly accessible, which limits, for example, the monitoring of the contents (in this case also for quality assurance agencies such as EAEVE, which do not have access to these areas).

To solve these problems, internal resources have been found and a [second website](#) was created by [MTN company](#) and will be accessible online from 15.02.2023 ([temporary link to the website in progress](#)). The website will be under construction for the next few months, but most sections have already been completed. The new website has been designed to put students at the heart of the project. There are three main menus (1) "I nostri corsi", (2) "servizi per gli studenti" and (3) "Dopo la Laurea". The first section is dedicated to "Orientamento", for secondary school students who need information about VEE courses and also how to apply and study in Sardinia. The second section is a large area where our students can find all the information about the organisation of training and also practical guides.

Particular attention has been dedicated to communication, avoiding formal and academic language, being more direct and using mainly visual communication. Indeed, several videos and tutorials have been created for students, as well as podcasts; and all contents are also communicated not only in the website, but also in the VEE social network profiles ([Instagram](#), [Youtube](#), [Facebook](#), [Spotify](#), [Anchor](#)), which are among the most updated in Italy, and where the students are constantly engaged. [Local section of IVSA](#) and students have been also included in the "making of" and several sections, such as Self Learning of the website, have been implemented upon their specific request. The last section of the new website is dedicated to services and possibilities after graduation, with emphasis on PhD and MSc schools. In the future the VEE will therefore have two websites: one ([the old one](#)) that will continue to be consistent with UNISS website and CINECA rules, and another one ([the new one](#)) fully dedicated to undergraduate and graduate students with a multimedia interface. To implement this novel tool, the new website will be presented to students during lectures and via the DVMSS communication channels. In the next future, the [E-uniss](#) section will be replaced by: 1) putting most of the contents online; 2) leaving "reserved material" in EVET but creating a profile for QA external monitoring.

Suggestions for improvement in Area 6 - Since students generally use their own laptops, they have requested to increase the number of electric sockets in the Library. Due to the pandemic one study-room had to be converted to a storeroom dedicated to book quarantine. Should this room be opened to the public, it would provide 36 seats and 12 sockets. The UNISS webpage is only partially available in English, and limited information on the Library services is translated. Enhancing the UNISS English website, including the Library pages may be useful for the foreign students and may increase UNISS attractiveness for students and researchers. Courses on the use of electronic resources and services and on how to conduct bibliographic research on reliable databases would be useful for both undergraduate and graduate students.

Area 7. Student admission, progression and welfare

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

The main repository for all the educational information necessary for the student's life-cycle is the [University of Sassari \(UniSS\)-Degree in Veterinary Medicine \(DVM\) website](#). Future VMDP students approach the University and find a constantly updated list of enrollment information about educational programs in the so-called "[Manifesto dello Studente](#)". Enrollment and orientation timetables and selection criteria and processes are published every year on the MUR, UNISS, and DVMSS websites. Detailed

information on the course programme can be found in the [“Self studenti”](#) section and can be accessed online with personal credentials. The general academic calendar is yearly deliberated by the Academic Senate, whereby each Department organises its activities accordingly. DVMSS [class timetables](#) are communicated in advance and students can access these online. Progression and graduation exam criteria are described at: [Regolamento Carriere Studenti – aa 2022/2023](#). International mobility opportunities can be found at: [Internazionale | Dipartimento di Medicina veterinaria](#). State exam criteria can be found at: [Veterinario | Università degli Studi di Sassari](#). Information on the didactic objectives and structure of the VMDP, Campus equipment and facilities, as well as QA issues, is provided annually in a document (Scheda SUA-CdS,) drawn up by the Quality Assurance Committee (QAC) of the Course. The document is available for prospective students at [SUA CdS | Dipartimento di Medicina veterinaria](#). One of the main objectives of the UNISS VMDP is to transfer comprehensive information to future secondary school students on admission procedures, orientation activities about both University’s educational facilities and degree programmes. This comprehensive information is made available to motivate future students interested in the VMDP by providing them more information. The action is carried out mainly through two directives: the first and the most important, concerning the participation of the Department in the [UNISCO project](#) through the coordination and participation in a preparation course for the entrance tests, for the students of classes III, IV, and V of secondary schools. The purpose of this initiative is to provide general information on programmed number courses, in-depth analysis of the subjects related to the selection process, advice on methods to be used for preparation and tips on how to approach the entrance test. The second initiative, through the participation of the DVMSS to the so-called “Giornate dell’Orientamento”. Every year UNISS disseminates information about admission guidelines and educational facilities. Such activities are also advertised on a dedicated webpage that is accessible from the [UNISS home page](#). In the framework of UNISS orientation events, an information desk service managed by DVMSS staff is available for future students, providing first-hand information on the Veterinary Medicine programme. Information desk staff comprises teachers, support staff and student representatives. Information concerns admission test criteria, class timetables, career perspectives and guided tours of the campus facilities. The DVMSS has also given its availability to welcome students who, by agreement, wish to autonomously visit the campus facilities. At the beginning of the AY, the DVMSS organises a "reception day" for first year students (the so-called “matricole”), on-course, part-time and off-course students and new graduates in Veterinary Medicine, the so-called [“Giornata di accoglienza e informazione delle matricole, iscritti e neolaureati del CDLM in Medicina Veterinaria”](#). The contents of the course are illustrated and information material is distributed (study plan, location of classrooms, contacts). In particular, first year students are given suggestions on how to deal with the training course and the main difficulties at the entrance. In recent years, the “reception day” has become an important opportunity for discussion and exchange of opinions on the perspectives and the future of the Veterinary profession. All students and ex-alumni are invited to participate in this event. In this regard, classes are suspended for the whole duration of the event. High representatives of the National Veterinary world, such as the Presidents of the National Federation of Italian Veterinary Orders (FNOVI) and National Insurance and Veterinary Assistance Institution (ENPAV) are usually invited to join the "reception day". Lastly, a collection of orientation sessions on the VMDP curriculum is available on the DVMSS [YouTube channel](#).

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

In Italy, access to the VMDP is regulated, for each University and for each AY, by numerical programming of student quotas (EU and non-EU) by the Ministerial Decree of MUR. The maximum number of students that each department considers admissible to the first year, is proposed by the Department to MUR on a yearly basis, entering several data (e.g. number of lectures hall, teaching, scientific and support facilities for practical activities and training, etc.) in a centralised database, based upon the “Educational potential” of the DVMSS. MUR considers and evaluates these data in order to determine the final number of students

admissible to the first year. In the current AY (2022/2023), 56 students were admitted to the UNISS VMDP, 50 of which were EU citizens, 6 non-EU citizens residing abroad under the provisions of Art.26 L.189/2002, 1 of which was a Chinese student. Numbers reported in the following tables come from a DVMS implemented internal database on students' admission, progression and welfare. In recent years, most Veterinary Medicine courses in Italy have suffered a remarkable reduction in the number of new veterinary students. When considering the last three years, the number slightly decreased from 48 in the 2019/2020 to 47 in 2020/2021, and 2021/2022 AYs (see Table 7.2.1).

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

Type of students	2021-2022	2020-2021	2019-2020	Mean
Standard students	47	47	48	47.3

*transfer students are also included

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

Year of programme	2021-2022	2020-2021	2019-2020	Mean
1st year	47	47	48	47.3
2nd year	49*	53*	59*	53.6*
3rd year	42*	53*	33*	42.6*
4th year	42	25	29	32
5th year	25	29	27	27
Off-Course	28	37	37	34
Total	233	244	233	236.6

*repeating students are also included

The total number of students graduating annually at the Establishment decreased in the last AY 2021-2022, especially in respect to AY 2020-2021 and 2019-2020 (see Table 7.2.3).

Table 7.2.3. Number of veterinary students graduating annually*

Type of students	2021-2022	2020-2021	2019-2020	Mean
Standard students	12	35	23	23.3

*Only LM/42 students have been considered

The percentage of students graduating in +3 or more years remained stable at 3-4% in the 2019/2020 and 2020/2021 AYs and decreased to 1% in the 2021/2022 AY (see Table 7.2.4).

Table 7.2.4. Average duration of veterinary studies*

	% of students who graduated on			Mean
	2021-2022	2020-2021	2019-2020	
+ 0	0	21	14	11.6
+ 1 year	1	8	6	5
+ 2 years	0	2	0	0.6
+ 3 years or more	1	4	3	2.6

*Only LM/42 students have been considered

Table 7.2.5. Number of postgraduate students registered at the VEE

Programmes		2021-2022	2020-2021	2019-2020	Mean
Interns		1	1	0	0.66
Residents		4	4	4	4
PhD Students	Doctoral School in Veterinary Science	12	10	8	10
Post-Doc		37	42	57	63.3
Masters		0	0	0	0
Specialisation Schools	Total students (enrolled on the 1st, 2nd and 3rd year)	85	75	78	79.3
	Students enrolled on the 1st year	30	28	28	28.6

Standard 7.3: The selection and progression criteria must be clearly defined, consistent, and defensible, be free of discrimination or bias, and take into account of the fact that students are admitted with a view to their entry to the veterinary profession in due course. The VEE must regularly review and reflect on the selection processes to ensure they are appropriate for students to complete the program successfully. If the selection processes are decided by another authority, the latter must regularly receive feedback from the VEE. Adequate training (including periodic refresher training) must be provided for those involved in the selection process to ensure applicants are evaluated fairly and consistently.

Selection criteria - To be admitted to the VM DP, students must have a diploma of secondary school or other equivalent qualification obtained abroad and pass the entrance test. A description of admission requirements is regularly published on [UNISS website](#) and [DVMSS website](#). There are no restrictions regarding the type of secondary education achieved. A basic knowledge of subjects such as Biology, Chemistry, Physics and Mathematics is an important prerequisite. Students from secondary schools in which these subjects are not given primary importance, usually report problems in following these topics during the first year of course. MUR formulates the national entrance test and sets its date, starting time and duration. Therefore, the entrance test takes place simultaneously at all the Italian locations of the DVMSS courses. All students must pre-register on-line at: <https://www.universitaly.it/>. Subjects and programs are indicated with a special ministerial announcement every year. The entrance test currently consists of a written test with 60 multiple choice questions of General Culture and Logic, Biology, Chemistry, Mathematics, and Physics. The test duration is 100 minutes. For each question, five options are reported; among them, candidates must check only one, discarding wrong, arbitrary, or less likely conclusions. The evaluation includes: 1.5 points for each correct answer, minus 0.4 points for each wrong answer and 0 points for each answer not given. Candidates are ranked and enrolled according to the number set for the course by the MUR. Vacancies are filled by scrolling through the ranking list until the programmed number is reached for EU and non-EU students. Non-EU students who have submitted a formal request under the terms and conditions prescribed by the Ministerial provisions must also pass the proof of knowledge of Italian Language. Students who passed the entrance test, but received a score lower than 50% for the questions in Biology and/or Chemistry and/or Physics and/or Mathematics, should be admitted with an “educational debt”. This lack of preparation must be corrected before the first-year exams. In order to compensate for any shortcomings of the students of the first year for an adequate performance of the university training course, the UNISS has organised specific supplementary and support training activities relating to Mathematics and Text Comprehension, the so-called “[Obblighi Formativi Aggiuntivi](#)” (OFA). The DVMSS procedure is available online. In order to participate, students must register through the following online [form](#).

Policy for disabled and ill students - Students with disability certificates or Specific Learning Disabilities (SLD) are suitable for special admission measures, compensatory tools and dispensatory measures. Detailed information is available [online](#).

Composition and training of the selection committee - Although the national entrance test is managed exclusively at the MUR level, an internal selection Commission composed by DVMSS Teaching staff is nominated annually by the UNISS Rector (upon DVMSS proposal) to assure that selection procedures are

correctly carried out. **Appeal process** - Students not enlisted in the national ranking list may appeal to the Regional Administrative Court (TAR) against MUR selection criteria. **Advertisement of the criteria and transparency of the procedures** - As reported above, admission criteria and procedures are published every year on MUR, UNISS and DVMSS websites. **Description of the admission procedures for full fee students (if different from standard students)** - Not applicable.

Adaptation of the number of admitted students to the available educational resources - As reported above, before submission to MUR, the annual DVMSS proposal concerning the educational potential is approved by the DVMSS Council following a preparatory phase. A formal procedure is in place to determine the number of students admitted to available resources both in terms of facilities and teachers, to offer quality teaching and training to the students. Briefly, the Quality Assurance Management Commission (QAMC) yearly monitors all degree courses of the DVMSS including the VMDP. In its annual report, also considering ESEVT indicators (where number of undergraduates or students graduating annually are used for calculations) the QAMC identifies potential issues and makes recommendations to the VMDP. Furthermore, the QAC of the VMDP annually produces a monitoring report where among indicators a specific one is related to the ratio between staff and students' number.

Prospective number of new students for the next 3 academic years - For the 2023/2024 and 2024/2025 AY, the objective of the DVMSS is to improve its attractiveness with a special focus on the new generations of Sardinians, born and resident abroad, with the opportunity to rediscover, during their university education, their home territory, strengthening ties with the island and its millenary traditions of Sardinia. Thanks to the "[Back to the roots](#)" project, students who are the sons and daughters of Sardinians living abroad and who enrol in one of the [63 Bachelor's or Master's degree courses](#) offered by the 10 Departments of the UNISS, subject to assessment of their eligibility for university studies in accordance with current legislation, can take advantage of online attendance of lectures and take exams via the Microsoft Teams platform and of subsidised taxation in application of what is already provided for in the University Regulations for foreign students living abroad.

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

Policies and procedures dedicated to applicants with disabilities -UNISS offers support to students with disabilities and SLD available [online](#). Most infrastructures are free of architectural barriers and are equipped to host students with disabilities. Rooms equipped for students with special needs are available at the Student's Hall. Within the University library Network, specific tools are available for students with disabilities, such as enlarger software to support reading, internet access point with Braille keyboard and computers with voice recorder. Furthermore, all students can take advantage of the listening desk created to support psycho-physical well-being. SLD refers to a group of learning difficulties namely Dyslexia, Dysorthography and Dysgraphia, and Dyscalculia, which concern reading, writing, and calculation, respectively. Students with SLD may need didactic support to adapt to study methods and assessment in accordance with Italian Law 170/2010 and Ministerial Decree no. 5669/2011 and the annexed guidelines, without modifying learning objectives. A specific UNISS Commission, integrated by internal and external experts, is in charge of students with disabilities and SLD issues, with the general aim to improve the UNISS inclusiveness. The main objectives are to: 1) promote the reception, integration and, therefore, the study path of students in handicap situations, disability, psycho-physical discomfort in various forms; 2) attract the interest of both teaching and technical staff to the problems of students with disabilities and SLD; 3) promote actions aimed at improving the accessibility of the premises (reserving spaces for their presence in classrooms), places of study and life (residences, canteens, laboratories, recreational centres and sports); 4) carry out a specific study for the search for solutions that relate to university life of students in situations of handicap, disability, psycho-physical discomfort, such as adaptation of the schedules of lessons and exam sessions; 5) identify fair, inclusive, and respectful solutions for the dignity of all people studying at

the UNISS regarding access to services, the completion of administrative practice, the protections offered by the university and the payment of tuition fees. The total exemption from the payment of tuition fees is provided if the disability is equal to or greater than 66% (pursuant to L.104 art.3 co.1, see appendix 19-tuition fees). The financial contribution for applicants having a high degree of motor, sensory and/or mental disability is also granted, in accordance with the procedures established under the regulation put to point from the [Commission for the problems of students with disabilities or with SLD](#). Students with SLD can assess personalised support, compensatory tools, and dispensatory measures, which are granted in accordance with the Law 170/2010, considering the specific difficulties of the students and the specific subject of study. The department identifies a Delegate for disability and specific learning difficulties who assists students and teachers for mediating action, advice, information, and support. Dispensatory measures and compensatory tools are envisaged for SLD students in the various phases of the university career. During the university course, SLD students can request, through the Delegate, facilitations regarding teaching, such as the possibility of recording the lesson and obtaining materials and slides of the lessons in advance or at the end of the course. Furthermore, the student can request, well in advance, to be able to take advantage of dispensatory measures during the exam session (possibility of dividing the exam into several partial exams, favouring oral rather than written exams, etc.) and of compensatory tools (use of concept maps, use of calculators, etc.). In order to benefit from the services and assistance, the student has to provide a medical certificate with the diagnosis of disability in accordance with the Italian Law 104/92 or an SLD certificate in accordance with the Italian Law 170/2010. The SLD certificate must be issued by the National Health Service or by a private accredited health-care structure and not older than three years or issued after reaching the age of 18 years. In the department website there is a [section](#) dedicated to students with disability and specific learning difficulties. In this section you can find legislations and useful links and procedures that students must apply to take advantage of the compensatory tools and the dispensatory measures of educational flexibility.

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

Progression criteria and procedures for all students - The requirements for progression are regulated in the curriculum and made available to the students on the [DVMSS website](#). Students can be categorised according to the position in their career as follows: a) on-course students: all those regularly enrolled at the university who have passed a specific number of exams and of ECTS enabling their admission to the following year; b) part-time students: all those who opt for a double-duration training course compared to the normal duration of the course (for justified reasons of work, family, health, or for other valid reasons). They agree with the University for a number of ECTS to be acquired in a year less than 60 (the 'norm' for the on-course student) and, with a reduced commitment, and also get a reduction in tuition fees; c) off-course students: all those which have not acquired the necessary ECTS for obtaining the degree within the normal duration of the course. Off-course students have no attendance obligation. After completing the 5th year, they are enrolled in 5th +n year. Students can convey their needs through their representatives in the Joint Teachers-Students Committee (DVM-JTSC) and the DVMSS Council. Students enrolled in the VMDP must attend at least 70% of teaching activities (including lectures and practical activity) within each course in order to sit the course exam/s. In order to verify that the relevant learning outcomes (normally specified in the syllabi as composed by knowledge, skills, and behaviours) have been acquired, a written/practical/oral exam is administered to students at the end of each subject (see Area 8 for details). According to the teaching regulation of the VMDP, in some specific cases students are also expected to

complete propaedeutic courses before being able to sit an examination. Information concerning exam timetables is available online for the entire upcoming AY. Venues are available in the system that students use to register to sit exams. Student enrolment to the following AY automatically takes place upon payment of fees until the 5th year. Students will be able to graduate upon completion of all subjects included within their study plan, including PPT.

Remediation and support for students who do not perform adequately - The current [UNISS teaching regulation](#) provides for the “loss of student status” that students enrolled or transferred to our University starting from the 2013/2014 AY, if they do not acquire any credit among those provided for by their course of study and within the term of 5th academic year of enrolment as out of course. The loss of student status involves the closure of the university career. Acquired ECTS, on request, can still be certified for any subsequent consideration. The ‘loss of student status’ applies directly to the occurrence of the conditions provided for without the need for prior objection to the interested parties. Within the deadline for loss of student status, students can opt for switching to another ongoing course of study at the University, with request for validation of the exams taken, to be presented to the Competent study course council that assesses the non-obsolescence of disciplinary contents and the year of course to which the student is admitted. Students who have passed all the exams and are in debt only for the degree exam do not incur forfeiture, and can access to the thesis defence whatever the time elapsed since the last exam. The lapsed student is given the upper secondary school qualification back, if delivered at the time of registration. Students receive support from the [Tutoring Service](#): each teacher takes responsibility for 1st year students, as deliberated by the VMDC on a yearly basis. In addition, students encountering issues and not performing adequately can receive additional support and advice on how to overcome problems and improve their performance by the Didactic Manager. Furthermore, whenever necessary, students may meet with their teachers and/or the DCP during their office hours or by appointment. Also, a Peer Tutoring Service is provided from students to their peers.

Advertisement to students and transparency - Advertisement to students and transparency criteria and procedures are permanently available on institutional webpages as [UNISS website](#) and [UNISS Teaching Regulation](#).

Rate and main causes of attrition - Dropout rates showed a fluctuating trend in the three-year period under consideration: 6 in the 2019/2020 AY, 15 in the 2020/2021 AY, and 5 in the 2021/2022 AY. Explicit dropouts were prevailing mainly due to personal reasons.

Assessment and revision of admission procedures and criteria - As mentioned above, admission procedures and criteria are not directly under the DVMSS domain and are decided and communicated by the MUR. As described in Standard 7.3, the DVMSS proposes a number of students to be enrolled but the final decision rests with the MUR. Admission criteria for years other than the first one (transfers from other VMDEs in Italy or in a foreign country) are annually established by the DVMSS, the number of available places is based on dropouts ([link](#)). VMDE admission exam procedures/criteria are communicated every year on the institutional websites, far in advance of the admission test date. Following the admission test, candidates are given individual protected passwords to access VMDEs national ranking lists. Progression criteria, and services to students are planned, implemented, monitored and revised by the DVMSS Council as final decision body. Students are involved in the process as their representatives participate in all the pertaining committees. The DVMSS Council adopts ameliorating or corrective actions by implementing inputs obtained from different bodies: 1) the DVMSS Teaching Committee (TC) is the major internal body on assessment of teaching quality and services offered to students. The TC analyses the results of teaching assessment questionnaires and together with the CDP analysis corrective actions identified by lecturers where critical issues have been pointed out. The TC also deals with the preliminary phase of adaptations of the degree programme related to curriculum changes, students’ progression, and welfare (whose inputs may be produced by the JTSC); 2) the QAMC deals with all the aspects related to DVMSS both intra and extra-mural; identifies potential deficiencies related to ESEVT DOC and proposes corrective actions that are adopted by the DVMSS Council with or without the preliminary opinion of VMDC; 3) the Department-Territory Committee (DTC) brings the training course closer to the needs of the labour market and collaborates in defining the needs of stakeholders; monitors the adaptation of the curriculum based on

previously provided indications and evaluates the effectiveness of employment outcomes. The DTC also proposes corrective actions that are adopted by the DVMSS Council with or without the preliminary opinion of the VMDC. Actions related to organisational aspects, going from the class schedule implementation and continuing adaptation (changes due to absence of teachers due to personal or institutional impediments) to the grouping of students for practical activities, communication of activities related to teaching and assessment of teaching quality, are performed by the Year Coordinators. The full document, yearly updated, containing information on the educational offer is the [SUA-CdS](#) that, as mentioned, is intended to be the unitary place in which to bring together and rationalise information regarding the activity and quality control of study courses, for the benefit of University, students, and families. Monitoring activities are performed at different levels: 1) the DVMSS Council discusses and approves the Annual Monitoring Document (SMA) provided by the [QAC](#). The QAC uses the information contained in various documents (student's teaching assessment questionnaires, Review Group reports, SUA-CdS), data obtained from the University Statistical Office, as well as specific indicators (e.g., ESEVT indicators in the case of the VMDP) to produce an annual document that analyses all the DVMSS curricula and proposes corrective actions when needed; 2) UNISS annually checks the DVMSS reports by means of the UNISS Quality Presidium (QP) and provides reviews and comments through the University Independent Evaluation Unit annual report. Revision activities are again performed by the DVMSS Council by discussing and approving the [Cyclical Review Report \(CRR\)](#) drafted by the QAMC every five years (next one foreseen in 2023). After approval, the report is first submitted to UNISS and then to the ANVUR. Corrective and/or improvement actions are identified in case of mild to severe criticism.

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

Mechanisms for the exclusion of students - The main exclusion criteria includes tuition fee related reasons and is described in [UNISS teaching regulation](#). Students who are not up to date with the payment of fees for all years of registration will not be able to continue their career and, consequently, will not be enabled to: a) take exams; b) take the degree exam; c) obtain transfer to another University; d) make the transition to another degree course; e) obtain certifications; f) apply for student collaboration activities; g) apply for participation in international mobility projects; h) apply for scholarships or awards; i) submit other applications related to the position of student; l) exercise representation in collegiate bodies. Moreover, UNISS students enrolled until the 2012/2013 AY are automatically excluded if they have not taken exams or have not acquired ECTS for 8 consecutive academic years in the year of the last exam or the year of the last enrolment active and ongoing, if more favourable. Students enrolled or transferred to our VMDP starting from the 2013/2014 AY forfeit the status of student if they do not acquire any ECTS among those provided for by the course of study by the end of 5th academic year of enrolment as an off-course. The exclusion involves the closure of the university career. ECTS, on request, can still be certified for any subsequent consideration. **Appeal processes** - Management of appeal processes related to career progression is described in detail in the Exam Policy document (see AREA 8).

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

Service available for students - Support services for students are provided both by UNISS and DVMSS. A section of the UniSS website is dedicated to [student services](#). The Student Administration Office follows students in all the administrative tasks throughout their studies and keeps the students' academic careers up to date, from matriculation to graduation. Students can find information on enrolments in bachelor's, master's, and single cycle master's degrees; enrolments in subsequent years and individual courses; internal passages from another course of study; transfers from/to another University; issue certifications; fees; applications for degrees; interruption of studies. Moreover, students may find complete information on University educational offer, admission competitions, student secretariats, international offer, right to study, postgraduate, internships, placement, libraries, extra and recreational activities in the ["Self studenti"](#) section. Updated information on classes schedule, exams calendar, and room occupation can be found in the students' [Web Agenda](#). In order to better manage all these support services, students have been encouraged to download the mobile application ["APP Uniss.orario"](#). A specific Student Orientation Service, managed by the guidance students (tutor 400 hours), is designed for future students and currently enrolled students. This information and support service has been realised through the skills developed by the students themselves during their university experience, which proposes, to anyone who needs it, a space to welcome and support students, particularly as regards practical support, the suggestions and useful information that facilitate the progress of their career at the University of Sassari. Students may seek support regarding [online orientation](#). Administrative procedures that are relevant to the students career can be found [online](#). The UNISS Guarantee Committee (the so-called ["Comitato Unico di Garanzia – CUG"](#)) works to ensure that people (teachers, students, technicians, administrators, collaborators, research fellows etc.) have equal opportunities to promote their own development and that of the entire university community, without discrimination on gender, age, sexual orientation, ethnic origin, disability, religion, or language. The [Counseling and Psychological Support Service](#) promotes and develops the well-being of students, through consultancy and supports actions aimed at making the course of studies an experience that enhances the potential of each student. The Service accompanies students in a path of personal and social growth, promoting the recognition of the meaning of their experiences in study and everyday life. Several counselling services for women victims of gender violence are available: [The Gender Equality Plan \(G.E.P.\) Group](#) is a strategic and operational tool of the UNISS that detects gender differences and discrimination within the academic institution (in communication and language, recruitment, resource retrieval, work organisation, senior figures, and role distribution) and aims at the inclusion of a gender perspective in research and academia through the development of rules, actions and practices aimed at eliminating discrimination and enhancing the role of women. The Advanced Research Center on Gender Inequalities and Opportunities ([A.R.G.IN.O](#)) spreads a culture of equal opportunities, promotes the study of cultures of difference and the main reasons for inequality or violation of human rights, such as in the case of gender-based violence, as well as enhances awareness actions both within the academic world and in the civil society. [The Victimology and Prevention of Violence Clinic](#) is a clinic, both psychiatric and psychological, with direct access. The Unit is responsible for constantly deepening the professional preparation of operators, and also organises training courses for all those professionals who will deal with the victims of violence, or with the actors involved (law enforcement, municipalities, educational institutions, associations). Moreover, the telephone number 1522 is active 24/7, and is always available for women victims of violence. At the DVMSS level, the Didactic Manager provides useful information to students on the courses of study of the DVMSS. Moreover, [orientation services](#) are available online and at an on-site guidance desk available on a daily basis, which provides specific information on administrative practices (renewal of enrolment, recalculation of fees, renunciation of studies) and teaching (use of moodle online platform, study plan), difficulties in accessing the University and Department services, problems of various nature encountered in the course of study. Moreover, as reported above, 1st year students receive support from the [tutoring service](#) provided by DMVSS teachers and the Didactic Manager. The [Library of Chemistry, Pharmacy and Veterinary Medicine](#) supports teaching and research for chemical, pharmaceutical, medical-veterinary and natural sciences. It provides reading rooms with 185 seats, 8 computers connected to the university network to consult the library/interlibrary catalogue of electronic periodicals, databases and ebooks; wireless connection and further services (e.g loan, document delivery,

self-service photocopying of available material, literature search procedures, etc.). Students are strongly encouraged to use the mobile application "[Affluences App](#)" to book their seat or loan/return appointments. A system of study rooms, the so-called "Student Hubs" are available for study activities. All the study rooms are equipped with Wi-Fi, and are made safe through alarm systems and control devices. On-demand counselling for disabled students (including SLD) is provided by the dedicated [Delegate](#). All first-year students are expected to attend a [course on general safety](#), consisting of 4 propaedeutic hours online and 12 specific hours in presence. Individual and collective outdoor study spaces are available. Free wireless internet connection is also available. Indoor and outdoor sports facilities for students are managed by the University Sport Centre of Sassari ([CUS Sassari](#)). CUS Sassari promotes an intense sports and basic activity in multiple disciplines aimed at university students, teachers and technicians and a technically more advanced activity within the National Sports Federations to which it is affiliated. Facilities are available for free and guided activities of UNISS students and extend for three hectares immersed in the green and quiet countryside of the neighbourhood of San Giovanni, just outside the city of Sassari. The [CUS CARD](#) is available for students, Erasmus students, teachers and employees. A broad availability of residency and hospitality services is available to students: [Ospitalità per gli studenti | Università degli Studi di Sassari](#). The University residence system, the "Casa dello Studente", offers the opportunity to the students to be housed in one of its university residences located in different areas of the city, mainly near the several University Departments. The main university residence is located in the Sassari city centre, at only 1.5 km from the DVMs. The University residence system is managed by ERSU Sardinia, the Regional Agency for the Right to University Study of Sardinia). The housing service is awarded by competition to students meeting merit and income requirements for scholarships. Accommodation is available for eleven months a year, with closure in August coinciding with the interruption of university activity. Part of the accommodations in the University residence system is reserved for Erasmus students and is equipped to accommodate students with disabilities. The University guesthouse, the so-called "Foresteria", offers 12 rooms, for a total of 18 beds, in the two apartments located in the Sassari city centre. The accommodation at the "Foresteria" is reserved for students and teaching staff from other Universities, in transit for short periods of time (max 3 months) and for reasons of study and/or research as well as for exchange programs. Moreover, thanks to an agreement between the UNISS and the Municipality of Sassari, the so-called "Territorial Agreement Tenants-Owners", students can rent accommodation in the city, with regular lease, at a very advantageous price compared to market prices and with the guarantee of essential services standards and proximity to university facilities. The catering service is guaranteed in the Sassari city centre with two directly managed canteens located in via dei Mille (about 450 seats) and in via Padre Manzella (about 150 seats), managed by ERSU Sardinia. The service is available for teaching staff, employees, students, Erasmus students, and students from other universities who are in the city for study purposes. The University Recreation Club ([CRUS](#)) is a non-profit association, which finalises its activities to the cultural, recreational, artistic, and sporting interests of teaching staff, employees, and students by promoting their direct participation in the management of leisure activities from the service, strengthening bonds of cohesion and harmony between its members and the common sense of "institutional belonging". The UNISS encourages CRUS activities by providing proper premises, spaces, equipment, and services for institutional purposes and activities planned by the association. The UNISS has collected several applications from businesses, cultural institutions, non-profit organisations and associations, sports facilities and language schools, interested in offering discounts, exclusive promotions, and incentives for UNISS students. Requests of new applications are addressed, in addition to cultural institutions, organisations, and non-profit associations, to the following sectors: clothing, nutrition, health care, cars, motorcycles, engines and cycles, stationers and bookshops, professional development, optics and photography, aesthetics, wellness, services to the person, technology, landline and mobile network, tourism and leisure, travel and transport. The applications already connected are available at [Sconti e agevolazioni per studenti UniSS | Università degli Studi di Sassari](#) (the list is constantly updated). Several [students' associations](#) play an important role in the aggregation and involvement of students in the university life. The associative realities are formed by students belonging to the various courses of study and to all university departments. In 2018, the so-called "[FORUM](#)" was born, which brings together different

associations and aims to become a point of reference for students, especially for new members. Every year, the “FORUM” organises a large student party, the so-called "Universitari in Piazza" which is usually held in May. The party includes exhibitions and workshops that are open to the general public, as well as street food, music concerts, and sport events for both students and the whole UNISS staff. Among UNISS student associations, [IVSA Sassari](#), the association of students of Veterinary Medicine, deserves a special mention. IVSA Sassari is part of a network of both national (IVSA ITALY) and international (IVSA GLOBAL) associations. The aims of the IVSA Sassari are: to improve the quality of knowledge in the veterinary field, to encourage exchanges with other EU and non-EU IVSA associations, to give students the opportunity to know new realities, to create a network of students around the world, to attract the interest of associates regarding issues that go beyond veterinary medical skills.

Resolution of student grievances - Student grievances are firstly received by the Didactic Manager and the Department Management through the proper [online form](#), and are then forwarded to the competent bodies (e.g. JTSC, DVMSS council, the Internship Committee). The management of student grievances is dependent on severity and context and is treated according to the UNISS public service charter. Complaints are confidential and are tracked and processed to allow a better resolution of the grievance. However, students can make detailed anonymous grievances and eventually attach useful documentation through a specific [online form](#), which is periodically reviewed by the Didactic Manager and the Department Management.

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

Students communicate their opinions, feedback and requests to the DVMSS mainly through their [delegates](#) participating to the DVMSS Council and to the Department committees. The Education Evaluation Questionnaire is one of the most important tools in the quality assurance process of curricula. Every year, DVMSS students must fill out, exclusively online, an anonymous evaluation questionnaire about the lessons of their degree course. In order to complete the teaching evaluation questionnaire, the students need to connect to the [“Self Studenti” platform](#) and follow instructions detailed in the [“Vademecum questionario studenti”](#). Each student must evaluate each individual course before the final examination and the evaluation can be filled out approximately when 2/3 of the lessons of the course have been carried out. Further information on this survey can be found at the following [link](#). The results are made available to individual teachers, the Department Head and the Didactic Manager through the platform SISValDidat. In addition, aggregated data are made public annually at the following [link](#). The synthesis of collective feedback on all courses provided by the students is submitted to the DVMSS council to highlight strengths and weaknesses of the corresponding didactic semester and to discuss possible improvement strategies. As reported above, complaints, comments, and suggestions can be submitted by students at any time, by completing the [online form](#) or the [anonymous form](#). Students feedback is firstly managed by the Didactic Manager and the Department Management and is presented for discussion to the competent bodies (e.g. JTSC, DVMSS Council, Internship Committee). Further actions at UNISS level may be decided and implemented thereafter.

Comments on Area 7 - As experienced by several Italian Universities until now, the introduction of the numerical programming of student quotas (EU and non-EU) on a national basis, has definitely extended the conclusion of student enrolment procedures at DVMSS. As a consequence, some students may be matriculated at the end of their first curricular semester. Delayed enrolments may result in incomplete participation in programmed practical lessons. However, it is important to note that in recent years, a reversal of the trend about the provenience of matriculated students has been reported. As a matter of fact,

the number of Sardinian students is slowly increasing. This is very important because it is believed that Sardinian students are more motivated to study at UNISS, thus reducing the number of transfers by students approaching the cities of residence. It is, therefore, desirable that a greater number of Sardinian students placed in more advantageous positions, will be reflected in a faster national ranking flow, with a consequent reduction in both matriculation time and the number of students who enter late in their first curricular semester. These results confirm the importance of orientation and tutoring services and that cooperation between UNISS and the DVMSS is essential to achieve the best outcome, possibly strengthening it. A major concern shown by newly matriculated students is about learning difficulties experienced throughout their first semester or year. Strengthening the tutoring project has been performed in the new website dedicated to students, realised in January 2023 and detailed in AREA 6 comments. The DVMSS is planning for spring 2023, in partnership with the local section of IVSA, a cycle of meetings on Stress prevention in the veterinary profession with experts like [Alessandro Schianchi](#) (Veterinary and Psychologist) dedicated to students and staff (academic, support, and junior staff).

Suggestions for improvement in Area 7 - Delayed enrolment of newly matriculated students results in a relevant increase in the total number of enrolled students and in the number of students graduating every year. These numbers may impact negatively on specific ESEVT indicators. Scheduling the majority of practical lessons towards the end of the first curricular semester, should be a suggestion to compensate for it. Nevertheless, the Board of Directors of VEE should put more pressure on MUR to anticipate admission test dates and enhance timing of enrolment procedures. Moreover, some critical issues related to the structure of the admission test and to the unsatisfactory balance between the proportion of general knowledge questions which prevailed over those of biology, should be resolved. More effort in orientation activities to first year students should be designated to improve their personal skills in time management and organisation and study methodology.

Area 8: Student assessment

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

Student's assessment strategy - The assessment procedures are outlined in didactic forms ([syllabi](#)), developed by each professor responsible for a given module/course in compliance with DVMSS and university regulations. The syllabus also includes prerequisites for each single exam/module (if any). Annually, syllabuses are monitored and reviewed at departmental level by the VMDC and by the JTSC. Additionally, syllabi are monitored at university level by the University Quality Assurance Committee and the Evaluation Nucleus (QAC, EN) through periodic [document analyses and dedicated audits](#). Exam schedules are established by the SCT together with the student representatives, then forwarded to the department teaching manager, considered and reviewed by the JTSC, and eventually approved by the VMDC. The [exam schedules](#) are ideally published every year by the 30th of September, or in the worst case scenario before the first exam session (December to January) in a specific area of the DVMSS website dedicated to didactic schedules. The [University teaching regulations](#) include detailed sections dedicated to students' rights and responsibilities (art 48, page 42) as well as exam organization and schedules (art 34, page 29). Briefly, the exam schedule for veterinary course consists of 3 ordinary exam periods (6 exam sessions) that do not overlap with classes and ensure the completion of theoretical and practical topics, as well as 2 special exam periods (1 exam session during each class, December and April). Exam sessions must be at least 14 days apart for each exam period. Lecturers can modify exam dates, provided that there are reasonable motivations and that changes are promptly communicated by the teaching manager to students both via official forms and unofficial networks. There are no limits on the number of times a student may take an exam, however, after the exam has been registered, students are not allowed to retake it.

Methodologies for student's assessment - According to Italian law, each teacher adopts its own exam procedures, consistent with the [University teaching regulation](#), provided that they allow students to achieve ordinary outcomes defined by the Dublin descriptors.

Theoretical knowledge - Students are evaluated mostly orally, with extensive discussion allowing evaluation of their theoretical knowledge, critical thinking and associative abilities. In particular, the exam board is composed of at least two professors which verifies:

- knowledge specific to the Course;
- abilities in specific communication and use of an adequate scientific lexicon;
- approach, handling, and methods applicable to a practical test.

The oral exam generally lasts approximately 20 to 60 minutes, depending on the subject and the number of modules for each exam. Alternatively, lecturers may adopt a written test (a multiple choice questions test, an open ended questions test, or a combination of both). In some cases, the oral exam and written test are combined.

Practical pre-clinical skills - During each course, dedicated practical activities are major in course to acquire preclinical practical skills. Also, supervised work, written reports, and seminars are used in practical activities, which are reported in the student's personal logbook and signed by the supervising teacher who is in charge of any given course.

Pre-clinical practical skills are also assessed during the final oral or practical exam. The logbook also reports day-one competences and registers the premises (VTH and others) where activities are carried out under the supervision of the academic staff.

Practical clinical skills - Clinical practical skills are acquired through activities in the clinical courses (IV-V year students), and assessed during the final oral or practical examination and also during clinical rounds (I-V year students). The [logbook](#) is used to record activities. Students are required to prepare daily written reports which are used to assess clinical practical skills, both for activities carried out under the supervision of the academic staff and by EPT.

Soft skills - Students develop soft skills through lectures tailored to include student presentations (individual or in small groups), usually facilitated by a PowerPoint. During the different years of the curriculum, some disciplines encourage activities to improve soft skills, such as, reviewing scientific literature and articles, supervised self-learning, and preparation of presentations (using PowerPoint or other tools), which are evaluated by the class and the teacher. These kinds of activities promote the acquisition of oral and written skills and cross competences. In addition, the student's final thesis is organized to promote soft skills development through the production of a written dissertation and a viva.

- Course on [Communication and Public Speaking 2021](#) (video);

- Training programme for teachers, support and junior staff, [Training for Teach in Vet](#) (Training course to support effective teaching) basic and advanced levels, 2023.

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

The VEE must properly document the results of assessment and provide the students with timely feedback on their assessments.

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

Assessment process

1) Ensuring advertising and transparency of assessment criteria and procedures: assessment criteria and procedures of each module/course are detailed in the syllabus. The syllabus relative to each academic year after being reviewed by the DVMSS teaching committee and by QAC are published on the DVMSS website before the commencement of the AY. Each lecturer explains assessment methods and criteria at the beginning of each course. In order to ensure maximum transparency of the assessment process, procedures and outcomes are verified by a board of at least two subject matter experts (exam commission). PhDs,

stakeholders, etc., may also be part of the exam board as experts ([cultori della materia](#)). Students evaluate whether the assessment criteria/procedures are clearly explained at the beginning of any given course through an anonymous evaluation form, by answering the following question: “Were the exam criteria/procedures clearly and appropriately defined?” [Results](#) are collectively published online on the university website;

2) Awarding grades, including explicit requirements for barrier assessments: a total score of 30 is given to each exam. In order to pass, students must get 18 out of 30. In the case of multiple tests (e.g., ongoing tests, the final test), the pondered media value is used to calculate the final grade. Students who fail are encouraged to enhance their specific knowledge and receive adequate support in this regard. Students may also decline a grade in order to retake an exam and improve their grade. Exam requirements and rules are listed on the specific syllabus. The learning plan, including prerequisites, is reported on the DVMSS and UNISS websites

3) Post-assessment feedback and student guidance for improvement: after communicating exam results, the lecturer explains learning deficiencies and recommends necessary improvements. Furthermore, teachers are also available during office hours for any clarifications and suggestions for improvements. The office hours are published online and readily available in the specific syllabus. Individual tutors (DVMSS academic staff), are allocated to the students in the first year and communicated to students by the department teaching manager. Individual tutors may offer support for general learning skills such as study methods, internships, the final dissertation, career arrangements, progression and mobility programs (e.g., Erasmus, Ulisse);

4) Appealing: any student who reports incongruences or disagreements with board assessment and exam criteria/procedures may bring the matter to the attention of the JTSC and/or the DCP. Subsequently, DCP investigates the issue and opens a discussion with the relevant exam board. In the event that the issue cannot be addressed, the DCP will convene a new examination board with additional expert members.

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

Description of the process - The assessment method, including the number of exam sessions and the interval between two calls, is provided by VMDC, based on the [University teaching regulation](#), and is published on the DVMSS website through the exam schedule. The assessment criteria/procedures are provided by teachers according to their specific subjects and published through the syllabus on the DVMSS website. Teachers are responsible for updating [procedures](#), in light of any amendments suggested by stakeholders. Implementation, assessment, and revision activities can be reported by students or teachers to the lecturer responsible for the specific semester and finally to [JTSC](#), which reports to the VMDC for final approval.

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

Student achievement certification - Achievement of learning outcomes is certified for each teaching course by lecturers which input grades obtained by students in the ESSE3 system. In addition, the lecturer signs a student's logbook to attest that he or she has met the desired learning outcomes for each course. All regulations concerning the system implemented to certify students' achievement of learning outcomes are included in the general regulations document of the VMDP ([link](#); [link](#)). Approximately 90% of the final grade for a degree is determined by exam scores. The final evaluation of students, certified by a degree certificate, is supported by the evaluation of the written thesis and of the viva, for a maximum of 10 points.

Following the thesis presentation and discussion, the final assessment ensures that the learning outcomes have been achieved. In the student logbook, DOC acquired during practical activities performed in different teaching courses and during the Tirocinio are reported.

Strategy to encourage students to take an active part in the learning process - Using various strategies, participation of students in the learning process is stimulated. First, they are encouraged to play an active role by critically evaluating the training process using the [questionnaires](#), which are available at the university website. The annual student evaluation of teaching activities can be found at [link](#). In addition, tutoring services provide students with the opportunity to express their concerns and suggestions on improving the course.

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

Strategy to encourage students to take an active part in the learning process - Both theoretical and practical competencies required in the VM DP are in agreement with the ESEVT DOC and are periodically reviewed by DCP. As indicated earlier, the ESEVT DOC are assessed daily during lessons and exams through oral discussions, multiple-choice/open-ended questions, and practical assessments.

The ESEVT DOCs are also evaluated on the occasion of a state exam certifying qualification for the veterinary profession. Meetings with the evaluation board lead to development of critical evaluation of the minimum level of competencies to be acquired by students. At the beginning of first year, students receive a personal [logbook](#) ([Appendix 7](#)).

Comments on Area 8 - The assessment strategy established by the DVMSS in general is intended to ensure that students get skills and knowledge in compliance with European and Italian Ministry for University and Research requirements and to foster steady advancement. This requires both monitoring by individual departments and by the university quality control. Although this process is monitored at the veterinary course and department levels, the university appears to be able to identify problems related to this topic but does not conduct systematic monitoring of the effectiveness of solutions proposed by the individual courses, resulting in a lack of external monitoring. In addition, students can individually report potential issues, which are constantly monitored by the department and veterinary course actors, such as the teaching committee and the lectures responsible for semesters (see above), but the anonymous, programmed assessment of a student is not yet fully developed in this regard.

Suggestions for improvement in Area 8 - Developing a readily accessible internet database of student careers might be a useful tool for enhancing the effectiveness of monitoring and may facilitate in identification of a problem. If this is also implemented at the university level, the process of external monitoring might be improved significantly. Efforts should be increased to identify potential causes of careers delay and, in particular, to assess the efficacy of actions, potentially through scheduled yearly plenary meetings with the participation of students and department and university quality actors.

Area 9. Academic and support staff

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

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

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

Global strategy in order to ensure that all requested competencies for the veterinary program are covered and that staff is properly qualified and prepared for their roles - The strategy to ensure that all required competences for the veterinary curriculum are covered follows national regulations and it is the responsibility of the DVMSS Council to allocate courses to teachers each year according to their scientific area of expertise. The DVMSS establishes its policy for the recruitment and promotion of academic staff by a specific procedure that is drafted in the [Recruitment Plan](#) (RP), as an applicative document of the Department [Strategic Plan](#) (SP) of the VEE, the [Recruitment Plan](#) (RP), as described also in Area 1 and present in [Appendix 6](#). Non-academic members included in the teaching staff, are selected among practitioners with relevant professional experience, who applied and won the position issued in a [public call](#) on the website of UNISS, in accordance with the [University Regulation on recruiting procedures](#). The support staff is recruited by the UNISS Central Administration, on the basis of professional attitudes, skills, and the degree of autonomy required for the position. The [Department Council](#) promotes and supports collaboration with external institutions, via teaching initiatives, training meetings and professional education for [lifelong learning programs, events and initiatives](#). The UNISS, in order to provide newer and more efficient tools, to improve operational efficiency, and to facilitate the collaboration in teaching, research, and administration, has agreed with the Education Transformation Agreement between the [Conference of Italian University Rectors](#) (CRUI) and Microsoft Corporation® as part of the [Microsoft Partners in Learning](#). Thanks to this agreement, Office 365 PRO PLUS, which includes both the latest versions of Microsoft software and services in the cloud, the software package is available free of charge to all students and staff members. In the last years, UNISS and the DVMSS organised several events and courses for staff training, some of which were suitable also for students.

In 2019, the DVMSS organised the “[Communication as Motivation tool of the teacher and student](#)” Training course for teachers and students. The course was offered to all teachers and recommended to beginners and lecturers who have received a negative assessment by the students. In the same year a course entitled “[The System of Quality Assurance in the University and in the DMV](#)”, about Description of the Assurance Quality System in ANVUR and AVA systems was also offered; the course consisted of 11 meetings intended to develop the issues of QA in different areas, specifically dedicated to the technical staff involved as teaching support, the reference staff, the [JTSC](#), students, administrative staff, VTH staff, and the VTH Director. In 2021, a training course about “Specific Learning Disorder (SLD) and University for academics staff” was delivered asynchronously and followed by a departmental meeting on 18 July 2022 on [Students with disabilities and SLD](#). In the last period, considering the increasing importance of e-learning resources, UNISS has made available several courses, such as tutorials specifically dedicated to the use of e-learning tools. These courses concern teaching on MOODLE platforms for synchronous teaching as well as Microsoft Teams or Google tools. The DMVSS, from December 2022, in compliance with Standard 9.11 of the EAVE SOPs, which establishes that the VEE is committed to the planning and implementing of educational activities to promote quality and innovation in didactics, has co-organized with the Departments of Veterinary Medicine of Naples and Messina an online course named “[Training for Teach in Vet](#)”, a training course to support effective teaching for teachers, support and junior staff. The [course](#) is available free of charge via e-learning on the Microsoft Teams platform, and is divided into two tracks: basic and advanced level. The scientific communication and public speaking course for students, academics, juniors and support staff is provided by the DMVSS and has now started its third edition ([I ed.](#)), ([II ed.](#)), ([III ed.](#)). The course is given in remote format via the Zoom platform and streaming to achieve the highest dissemination possible. The DMVSS has developed two [podcasts for the Self Learning of Academic, Support and Junior Staff](#) as well as students with the aim of facilitating further education through

such modern communication tools. The [Podcasts](#) (available on [Anchor](#) and [Spotify](#)) focus on the European Accreditation pathway, explaining how the entire EAEVE evaluation process is run, and reported in a friendly way available to beginners, and then on the behavioural standards of the Department's lecturers. Both Podcasts can be deepened through the handout already available in the Self Learning area. The course is strongly recommended to all staff members, especially to newly recruited RTD-A and -B lecturers, while it is compulsory and clearly established in the call to hire contract lecturers, supporting practical teaching for ESEVT indicators. Managers, academics, and students are also trained on security and safety, according to [art. 37 Legislative Decree 81/08](#), through courses regularly provided by the [Prevention and Protection Service](#). All [procedures](#) are duly communicated to the teaching staff (both academic and support staff) during the DMVSS Council meetings and published on the DMVSS website. The VEE is increasing its engagement in Social media, updating its official social channels ([Facebook](#), [Instagram](#), and [YouTube](#)) and maintaining the contents for institutional purposes, to increase transparency, and awareness of its activities, and to increase the students and staff interaction. Moreover, the use of social media can enhance the visibility of Department initiatives and events. The Department has published on the official YouTube channel a tutorial section accessible for staff and students called [#How2Vet](#). For all DMVSS academic staff, a [self-learning training course](#) is available, consisting of three vastly articulated chapters on course characteristics, EAEVE accreditation, and teacher ethics standards. As reported in Table 9.2.2, to date more than 76% of the academic staff is represented by personnel graduated in Veterinary Medicine.

Standard 9.2: The total number, qualifications and skills of all staff involved with the programme, including teaching staff, 'adjunct' staff, technical, administrative and support staff, must be sufficient and appropriate to deliver the educational programme and fulfil the VEE's mission. A procedure must be in place to assess if the staff involved with teaching display competence and effective teaching skills in all relevant aspects of the curriculum that they teach, regardless of whether they are full or part time, residents, interns or other postgraduate students, adjuncts or off-campus contracted teachers.

The large part of the academic staff is recruited with full-time positions as full or associate professors, meanwhile residual positions are covered by fixed-term researchers (type A or B) and non-academic teachers. During the 2021/2022 AY, the academic staff in veterinary training was 68.5% FTE (Full-Time Equivalent) (see Table 9.2.1). Almost all of the permanent teaching staff is affiliated to the DMVSS, while the rest are lecturers from other UNISS departments or external (see Appendix 1). Most of the teachers hold a PhD and/or postgraduate qualifications, while three Professors and one Junior staff (PhD candidate) possess the EBVS specialist degree from different College. The number of highly qualified staff members of the DMVSS sustains all the teaching courses of the teaching programme and ensures that all different subjects are given, meanwhile warranting continuous coverage of all core courses of the veterinary curriculum, from basic sciences to clinical professional subjects.

Academic staff involved in the veterinary curriculum is composed of 40% women and 60% men. Additional non-academic teaching staff recruitment is financially sustained by ordinary and additional department specific funding and are selected on the basis of professional experience (including previous training) and skills, matching with the profile needed for the open position. Non-academic staff is mainly recruited to support practical training activities for small groups of students in clinical rounds and PPT. Support staff involved in the veterinary program includes both research support staff in force at DMVSS and in part laboratory technicians involved in the VEE. 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 were not included. For academic and support staff numbers, please see Table 9.2.1 and 9.2.3 respectively.

An increase in the number of FTE academic and support staff is expected to occur over the next three years as detailed in the [RP](#) (see next section).

The staff progression and the recruitment of new professionals could be even faster than expected, thanks also to the economic incentives and growth opportunities provided by the Italian Government National Recovery and Resilience Plan ([PNRR](#)).

Every year, UNISS assigns a variable number of “staff points” to each Department; the staff points are a surrogate of the budget necessary for staff recruitment. The staff points number depends on MUR allocation of funds and on several local parameters (e.g. fulfilment of research and teaching goals, student population size, and the expected academic turnover). The Department allocation of the staff points is discussed among the DVMSS Board, which is in charge of identifying the personnel needs (academic and technical research staff) and of evaluating new position requests of the different sectors, taking into account the DVMSS planning documents. In fact, every three years, the DVMSS Council drafts the [RP](#) (according to the three-year [SP](#), that defines the recruitment and promotion policy) yearly updated according to the staff needs, the turnover, the teaching load, balance across staff levels and their harmonious distribution across disciplines. The DVMSS Board submits a proposal to the Department Council for discussion. In case of approval by DVMSS, the recruitment procedures are definitely approved by the UNISS Academic Senate. In accordance with the autonomy recognised to universities, recruitment procedures for academic careers, both for teaching and technical-administrative staff, are managed directly by the universities through competitive public calls. The prerequisite to apply for the position as assistant professor (fixed-term researcher positions A and B, corresponding to junior and senior assistant professor, respectively) is the PhD level of education; for permanent positions (associate or full professors) candidates must obtain the National Scientific Qualification (minimum requirement to apply for the national evaluation is the acknowledgement of 2 out of the three medians of scholar achievements which vary according to the scientific disciplines, the curriculum vitae, quality and relevance of publications, and other scientific achievements) prior to access to open competitive calls. The non-academic teaching staff, mainly represented by practitioners who assist in the activities of the PPT, is recruited through an open call for applications and is administered by the DMVSS. Recruitment must also meet the objectives identified by the UNISS Gender Equality Plan (GEP) of the University of Sassari which aims to develop a three-year plan of positive actions, in order to promote gender balance in research groups, decision-making processes, research and innovation.

In compliance with Legislative Decree No. 33/2013, for the transparency of administrative process, UNISS Administration publishes data and minutes of public calls on the website; information and documents required by the regulations are online for a period of 5 years.

The VEE is committed to keeping the teaching staff up-to-date through training initiatives (see Standard 9.1). The University adopts instruments to assess the quality of research and teaching, administrative and technical activities and services. The Evaluation Nucleus (EN) implements [procedures](#) aimed at the evaluation of activities, structures, and personnel, in order to promote and acknowledge the merit and the improvement of departmental organisational skills as well as performance and achievements of individual commitment within the organisational activities inside the University. QA assessment procedures are extensively described in several Areas of this SER (see standards 1.4, 1.6, 31, 3.2, 7.2, 8.1, 8.1, and 10.4).

Table 9.2.1 Academic staff of the veterinary programme

Type	2019/2020	2020/2021	2021/2022	mean
Permanent (FTE)	55	51.5	52.5	53

Temporary/Type A/B (FTE)	9	11	13	11
External (FTE)	3	2	4	3
Tot (FTE)	67	64,5	69,5	67

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

Type	2019/2020	2020/2021	2021/2022	mean
Permanent (FTE)	76.4%	76.7%	77.1%	76.7%
Temporary (FTE)	77.8%	81.8%	76.9%	78.8%
External (FTE)	100%	100%	25%	75%

Table 9.2.3. Support staff of the veterinary programme

Type	2019/2020	2020/2021	2021/2022	mean
Permanent (FTE)	31	30	28	29.6
Temporary (FTE)	2	2	2	2
Total (FTE)	33	32	30	31.6

Table 9.2.4. Research staff of the VEE

Type	2019/2020	2020/2021	2021/2022	mean
Permanent (FTE)	15.5	9.5	8.5	11.2
Temporary (FTE)	9	11	13	11
Total	24.5	20.5	21.5	21.2

Selection, recruitment, and training of the support staff - As said above, UNISS carries out a three-year prospective plan which allows the reassessment of goals each year, in view of the recruitment capacity based on funds assigned by the [MUR](#), following unpredictable constraints of economic-financial sustainability, or due to changes in the organisational and regulatory context. Beside academic staff, UNISS also analyses the support staff needs, thus planning the recruitment in the integrated activity and organisation plan ([PIAO](#)), in compliance with the legislation and ministerial provisions in force. Furthermore, the Athenaeum plans and defines the staff allocation to teaching, research, technical-administrative support services, and Library Staff ([PTAB](#)).

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

According to Italian [law no. 240/2010](#), the permanent academic staff includes full and associate professors; Type A (untenured) and Type B (with tenure-track) researchers hold temporary positions. Law establishes a 350h commitment per year for full-time professors for teaching, tutoring, and learning assessment, and 250h for part-time professors. Further reductions are envisaged for professors involved in challenging institutional activities and roles. Full and associate professors should also perform a minimum 120h of teaching/year; type B researchers should perform at least 60h of teaching/year, while type A researchers are not required to formally participate in university education but may be assigned up to 60h per year. According to national laws (No. 240/2010, art. 6), full-time teaching staff are not allowed to practise private professional activity or other forms of private work, with the exception of occasional services, such as consultations, as long as there is no conflict of interest and it does not interfere with institutional duties. Conversely, part-time staff members can perform private professional activity, as long as there is no conflict of interest or forbidden competition against UNISS or DVMSS, and it does not interfere with institutional

duties. Part-time staff salary is reduced proportionally to the working hours. As established by Law No. 240/2010, the economic progression of academic staff in the Italian system is related to the year of recruitment and tenure. Every two years, the MIUR has adopted a system of economic progression based on scientific production. Technical staff are evaluated annually by the supervisor (full professor) of their scientific field, and this evaluation is subsequently endorsed by the director of the department. Also in this case, economic progression is assessed on the basis of the achievement of the assigned objectives. The [Annual Monitoring Form \(SMA\)](#), drawn up annually by the Study Courses (CdS), provides a brief critical commentary on the quantitative indicators calculated by ANVUR on attractiveness, student career, internationalisation, adequacy of teaching, satisfaction and employability of graduates. UNISS and DVMSS are committed to improve teaching and research skills of both academic and non-academic staff, by organising seminars, courses, and events, as described above.

In general, the teaching load is compatible with research and the Third mission (see AREA10). For the assessment of work-related stress risk (Legislative Decree 81/2008), no longer as an emerging risk, but "concrete", which can affect transversally any work sector. In this context, all UNISS employees are periodically subjected to a questionnaire to [evaluate stress](#) and burnout. In order to achieve an improvement in performance in line with the University's strategic objectives, the Department monitors research products, using criteria in line with those developed by ANVUR, and the scientific production of individual lecturers through bibliometric indicators (JCR, Scopus, ISI). However, the VEE in 2019 created a system to analyse and monitor academic staff research products (see AREA10) and the consequent index (indicatore unico) is used to determine progression of academic staff, together with several other parameters. Initiatives are in place to promote the participation of lecturers in working groups that can improve their productive efficiency, also through the organisation of meetings between DVMSS and other Departments researchers. Another point of potential improvement is the promotion of multidisciplinary research, encouraging interdepartmental collaboration in the distribution of resources in design and experimentation.

Standard 9.4: The VEE must provide evidence that it utilises a well-defined, comprehensive and publicised programme for the professional growth and development of academic and support staff, including formal appraisal and informal mentoring procedures. Staff must have the opportunity to contribute to the VEE's direction and decision-making processes. Promotion criteria for academic and support staff must be clear and explicit. Promotions for teaching staff must recognise excellence in, and (if permitted by the national or university law) place equal emphasis on all aspects of teaching (including clinical teaching), research, service and other scholarly activities.

The DVMSS aims to achieve its developing targets with the 2023-2025 programming, considering the Department Regulations: balance in size and composition of the staff of the various SSDs; promotion of merit measured in teaching, research, and the contribution given to the department by the SSDs, through the assumption of the responsibilities and coordinating functions. It is appropriate here to consider that a comprehensive view is provided by means of the adoption of recruitment criteria established by the UNISS "[Rules for the Calling of Professors and for the recruitment of researchers on fixed-term contracts](#)". Such criteria encompass the basic objectives of the Department: the contribution to teaching, accounting teaching commitment; engagement in research, the productivity index and the citation parameters, measured differently according to each SSD standards and with an assessment of the actual impact on scientific production; the role as principal investigator in competitive projects; indicators related to significant project management skills; the organisation and coordination of courses, teaching and departmental structures; additionally, in SSDs where the clinical assistance is offered, evaluation also accounts time spent in the commitment within the VTH. It is emphasised that teaching requirements have

a significant weight, subject to having ascertained scientific production; Teaching activity also requires efficient coordination of different activities characterised by high commitment and assumption of responsibility. Vertical promotion from one professorship level and forward (e.g. from associate professor to full professor) takes place through a public call to apply for the position, followed by the evaluation by a specially appointed examination commission (members are officially nominated through rectoral decree). As already mentioned, competitive selection procedures can only be open to participants qualified by the NSF. Horizontal promotion for academic staff, i.e. moving from one economic level to another, within the same category is based on merit. It is biennial and is legislated by Law No. 205 of 27 December 2017 (Budget Law 2018), in Article 1, paragraph 629. On 18 April 2018, by R.D. no. 1404, the "Regulations on the economic progression of permanent professors and researchers - ex art. 8 - Law no. 240 of 30 December 2010" was issued, amended by R.D. no. 385 of 04 February 2022. Each year, an internal call for applications is published by UNISS and all staff members who are eligible for the two-year promotion may submit an application using a prescribed [form](#). Support staff members are only eligible for horizontal progression if they have held an economic position for at least two years, and they are evaluated annually by the DVMSS Manager for individual performance. Academic and support staff take part in national and international scientific meetings where they interact with peers and update their knowledge. Many [scientific societies](#) have the objective to improve teaching and education. Regarding tutoring procedures, all academic staff are part of a teaching group and/or depending on the discipline, involved and operating generally under the supervision of one or more academic senior professors. Academic and support staff collaborate and work under the guidance of one or more senior members of the VEE in a collaborative environment of mutual training exchange.

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

The quality of teaching assessment through the [questionnaire](#) is one of the most important tools to the quality assurance process of teaching courses. Every year, students enrolled in study courses at the University of Sassari are required to fill in, exclusively online, an anonymous questionnaire for the evaluation of the courses of their degree program (see Standard 9.2). According to the law 370/1999 art.1 c.2 and 3, the EN, by 30 April of each year, an annual report must be drawn upon the opinions of the enrolled students regarding quality of teaching activities. In view of the AVA system, the EN oversees the survey process and assesses its effective management by the University's QA bodies. The University of Sassari has joined the [SISVALDIDAT project](#), in order to facilitate consultation and analysis of the data collected through the survey and to encourage their dissemination outside the institutional context as well, favouring transparency to the social stakeholders. The questionnaires can be accessed to screen the teaching course or the academic staff, at this [link](#). Access [instructions](#) and a [consultation guide](#) are available. The JTSC, which is part of the University's quality assurance system, analyses the results of the questionnaires and monitors the teaching quality, through evaluations, audits, and statistical surveys of the teaching and service activities of lecturers as expressed by attending students and establishes the indicators for interpreting results. On such a basis, proposes corrective measures to the Department Council aimed at the improvement of the organisation of teaching activities. The [DVMSS Council](#) is the body in charge of identifying needs and making proposals for the recruitment and progression of academic staff. This is a very important body in which representatives of all the subject areas taught in the veterinary graduation programme take part in. The participation of the whole academic staff and representatives of the support staff in the DVMSS Council ensures that information is shared and acted upon. It also allows members to share suggestions for changes. DVMSS policy and strategic objectives are headed to the Integrated Strategic

Plan (usually updated every three years); the operative objectives belong to a triennial development plan, that includes the management and assessment of targets; finally, the DVMSS Council manages and agrees upon resource allocation to personnel positions within the triennial Recruitment plan. All decisions, contents and documents are defined with the contribution of different DMVSS Committees, discussed by the Department JTSC, and formally approved by the Department Council. [Final documents](#) are sent to the Rector and General Director of the UNISS and also submitted to stakeholders during the annual meeting for criticisms and suggestions, finally published on the department's website.

Comments on Area 9 - The number of academic staff in DMVSS and the FTE are to be considered adequate with respect to the number of students, however the staff dedicated at the VTH is undersized and this leads to an important work overload of individuals. In order to manage stress due to work overload and to prevent burnout the DVMSS is planning for spring 2023 in partnership with local section of IVSA a cycle of meetings with experts like [Alessandro Schianchi](#) (Veterinary and Psychologist) in this field dedicated to staff (academic, support and junior staff) and to students training. A decrease of the number of academic staff in the three-year period could be observed, determined by retirements, which however is somewhat balanced by the recruitment of new researchers (type A and B). The DMVSS academic community is also aware that, on a national comparison, there is still a large gap 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).

Suggestions for improvement in Area 9 - It is hopefully desirable that in the coming years the DMVSS will have to commit to obtaining more funds to hire an adequate number of academic staff and technical staff dedicated to more demanding structures. The department has to enhance the number of external contracts with public and private companies. A very interesting topic that is going to be debated in the near future would be the evaluation of teaching, this will be important both in universities, between departments, and with the MIUR. The focus will be on teaching in career advancement and also training courses that will be set up for updating and perfecting teaching skills.

Area 10: Research programmes, continuing and postgraduate education

Standard 10.1: The VEE must demonstrate significant and broad research activities of staff that integrate with and strengthen the veterinary degree program through research-based teaching.

Research activities in the DVMSS and its contribution to the student research-based veterinary education - Research activity is one of the priority functions of the DVMSS (Table 10.1.1), whose guidelines include:

- Promoting interdisciplinarity and internationalisation through the collaboration, integration and synergy of the different Scientific Disciplinary Sectors (SDS) and the creation of interdepartmental, national, and international networks for the realization of common objectives and projects in order to improve the quality of research and the rationalization of resources;
- Encourage and guarantee the integration of research / teaching in order to enhance scientific research, ensuring an updated and high-quality training offer in line with international standards;
- Pursue objectives that meet the needs and requirements of the territory in which the Department operates for the realization of a didactic and research reference model in the Mediterranean Area.

Indeed, student participation in research is mandatory and takes place during a special training Internship (in Italian: "Internato"). Through this internship, students develop Day One Competences related to the world of scientific research as well as develop important soft skills setting them on a path that will then lead to the formulation and implementation of their degree thesis ([Appendix 16](#)). How it works: professors of the Department periodically publish "[open calls](#)" in which research topics for theses are proposed. These

calls are submitted through an [electronic form](#) on the VEE website by the professors and are published periodically on the department's website ([example](#)) as well as on the official social network profiles of the VEE ([example 1](#); [example 2](#)). Interested students can then contact the professors and submit their applications. An alternative procedure is in place where students can propose an internship topic of their own design to a professor. If the student's request is accepted, an internship "[on demand call](#)" is opened for which the proposing student has a pre-emption. Once the professor has accepted the application proposal, the internship will initiate under the supervision and tutoring of academic, junior, and support staff for the organization of the student's work plan. The internship is carried out within the facilities of the University of Sassari (internal internship) or at public or private bodies with agreements or otherwise authorized (external internship), under the guidance of a VEE supervisor and with the possible support of a supervisor and / or an external tutor. The internship period can also be carried out within foreign institutions through international mobility programs ([Erasmus+ traineeship/Ulisse](#)). In any case, the mobility as well as the attendance of different structures must be approved by the professor ([Appendix 17](#)). The internship period includes a minimum compulsory duration totalling 250 hours (1 CFU = 25 hours) of which 100 for practical activities and 150 for individual study. The final exam encompasses the discussion of a final dissertation (graduation thesis) in front of a commission. In the final dissertation, students present original results obtained during their research work carried out in the context of the internship period. The final investigation aims to help students develop skills in dealing with research and / or application issues. It must consist of a project and / or the development of an application that offers innovative solutions with respect to the state of the art or from the analysis of bibliographic sources. Results are to be presented orally in an effective way, possibly with IT support. At the end of the studies, candidates are required to fill in a course [evaluation questionnaire](#), which will be used by the QA and Joint Commissions to evaluate corrective measures or initiatives in order to improve the training activities of the Degree Course. The questionnaire is available in the forms section and must be completed before the discussion of the graduation thesis ([Appendix 13](#)).

Table 10.1.1. List of the major funded research programmes in the VEE which were ongoing during the last year prior to the Visitation (2022).

Ongoing research projects	Grant/ year €	Duration (yrs)
LIFE19 NAT/IT/000732 – LIFE Safe for Vultures – First step to the restoration of the vulture guild in Sardinia	1,876,992.00	6
LIFE19 IPE/IT/000015 “Integrate Management and Grant Investments for the N2000 Network in Umbria”	741,000.00	7
MammalNet - Crowdsourcing: Engaging communities effectively in food and feed risk assessment - Exploring the collaborative model” OC/EFSA/ AMU/2018/02	15,250.00	2
e.INS Ecosystem of innovation for next generation Sardinia – spoke APPare: smart and secure livestock farm APPLications to boost data-driven innovation along the food chain	1,734,000.00	3
New perspectives for the exploitation of female reproductive potential in mammals: from the recovery of the untapped natural ovarian reserve to the generation of oocytes and granulosa cells from mesenchymal stem cells (InfinitEGG)	139,026.00	3
GOODMILK Migliore qualità del latte ovino e caprino per il miglioramento tecnologico, nutrizionale e sensoriale dei prodotti lattiero-caseari, con particolare riferimento al ruolo delle frazioni proteiche del latte	43,886.70	2
SHEEVA: sviluppo di modelli cellulari per lo delle alterazioni fisiopatologiche degli epitelii indotte da infezione virale nell'ovino	183,333.34	3
Gli animali da compagnia come serbatoio di zoonosi parassitarie: un approccio one health, dalla clinica alla prevenzione	183,333.34	3
RNA m6A methylation during ovine oogenesis and embryo preimplantation development: relations with gene expression regulation and oocyte developmental competence	20,000.00	n/a
Studio sulle modificazioni post-traduzionali della tubulina nei neuroni della corteccia prefrontale del cane giovane e anziano attraverso l'analisi confocale. un modello alternativo per lo studio dell'invecchiamento cerebrale dell'uomo	20,000.00	2
Impiego della valutazione ecografica del diametro della guaina del nervo ottico (ONSD) e del rapporto ONSD/diametro del globo oculare per la diagnosi e monitoraggio di ipertensione endocranica nel cane e nel gatto	20,000.00	2
Effetto della sottanutrizione in gravidanza sullo sviluppo ovarico delle figlie nel modello bovino	20,000.00	2
Epidemiologia e approcci sperimentali per il controllo della parassitosi da Oestrus ovis negli animali e nell'uomo	19,666.67	2
Challenge trials for the in-feed treatment of the gill monogenean parasites of the gilthead seabream Sparus aurata L., 1758	18,333.33	2
Valutazione della funzione miocardica mediante tecniche ecocardiografiche innovative basate sull'utilizzo dello speckle tracking: aspetti anatomo-funzionali del ventricolo sinistro nel cane sano	14,000.00	2
Study on molecular profiles in COCs cells to search for fertility markers using sheep ovary as model	508,000.01	2
“Urbanization of a top predator: are wolves and humans adapting to life together?” tender WWTF Environmental Systems Research 2020 Urban Regions	129,770.00	4
ENETWILD - Progetto su acquisizione di dati sulla presenza e abbondanza di fauna selvatica di interesse per la possibile	199,329.00	7

trasmissione di patogeni		
Accordo operativo di collaborazione con l'Ente Parco Nazionale delle Foreste Casentinesi progetto di ricerca "Uso della telemetria satellitare nel lupo a fini conservativi e gestionali nel Parco Nazionale delle Foreste Casentinesi"	48,000.00	2
Accordo di collaborazione tecnico-scientifica con l'Ente Parco Nazionale Dolomiti Bellunesi progetto di ricerca "Studio del rapporto preda-predatore nel Parco Nazionale delle Dolomiti Bellunesi"	150,000.00	3
LEGGE 7 "Biodiversità animale della Sardegna: studio integrato della componente endemica"	110,000.00	3
Contratto per progetto "Analisi della variabilità genetica di Patella ferruginea nella AMP di Tavolara-Punta Coda Cavallo" nell'ambito del LIFE 15NA NAT/IT/000771 RE LIFE	24,508.00	2
LIFE20 NAT/IT/001122 PINNA: Conservation and re-stocking of the Pinna nobilis in the western Mediterranean and Adriatic sea	450,951.00	4
"Wild boar-domestic pig interface" nell'ambito del progetto «NovPath» - New forms of organization for pathosystems management	16,000.00	1
Sperimentazione clinica secondo il protocollo relativo allo "Studio epidemiologico sulle principali endoparassitosi degli equini in Italia"	14,700.00	1
Convenzione nell'ambito del Programma di Sviluppo Rurale Sardegna 2014-2020 – Sottomisura 16.2 "Sostegno a progetti pilota e allo sviluppo di nuovi prodotti, pratiche, processi e tecnologie"	73,000.00	n/a
Gestione sanitaria del canile comunale di Sassari: valutazione dell'incidenza e monitoraggio clinico delle patologie presenti	60,000.00	1y 6m
Gestione proattiva del lupo in Veneto attraverso catture e telemetria satellitare	240,000.00	6
Incidenza e monitoraggio clinico delle patologie traumatiche dei cani e dei gatti vaganti del territorio comunale di Sassari	30,000.00	1y 6m
Accordo di ricerca tra enti ai fini dello svolgimento di indagini sul comportamento di esemplari di orso bruno marsicano e camoscio bruno con l'Ente Parco Nazionale d'Abruzzo Lazio e Molise	22,000.00	2
Attività finalizzate allo studio e eradicazione della specie Procambarus fallax forma virginalis	21,000.00	2
Rapporto preda-predatore: un caso di studio sulla dieta del lupo in relazione alla presenza di ungulati ed altre specie preda nel PNFC	20,000.00	1
Contratto di collaborazione nell'ambito della valorizzazione della banca dati faunistico-ambientali del Parco e dell'impostazione del nuovo progetto biodiversità-clima 2018-2021	12,000.00	1
Attività su stime di popolazione, monitoraggio degli ungulati selvatici e sistemi di controllo demografico per il riequilibrio faunistico e la conservazione	25,000.00	2
Convenzione commerciale con l'Associazione Cacciatori Trentini per incarico di studio e ricerca sulle condizioni fisiche e le performance riproduttive del capriolo in Provincia di Trento	60,000.00	3
Differenziamento genomico nella popolazione autoctona di cinghiale di Castelporziano	12,000.00	1
Sviluppo di un programma di studio dell'antibiotico resistenza in microrganismi isolati da formaggi a latte ovino della regione Sardegna	8,000.00	n/a
Valutazione dell'impatto degli ungulati selvatici sulla comunità vegetale. Attività di pascolo/brucatura e interazione tra specie	6,000.00	n/a
Allestimento di un saggio ELISA per la diagnosi sierologica di echinococcosi cistica negli ovini	556,211.00	2
Studio delle alterazioni indotte dalla crioconservazione dell'oozite e utilizzo di molecole naturali per il miglioramento della competenza allo sviluppo embrionale dopo crioconservazione	50,000.00	3
Influenza della dieta e dell'età sulla diversità e composizione della comunità microbica simbiotica dell'apparato digerente dei ruminanti	67,000.00	3
Gli animali da affezione come sentinelle di problematiche sanitarie emergenti: sviluppo di approcci innovativi diagnostici e terapeutici	103,000.00	3

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

Students of the Veterinary Medicine course are repetitively educated on the importance of evidence-based medicine and scientific research. Students are guided in performing bibliographic search, applying scientific methods and research techniques, and writing scientific papers. The main course of action used to reach these goals is: 1) compulsory thesis program, that includes an experimental part or a critical review of a specific topic; 2) case studies providing examples of how the scientific method is applied for the advancement of knowledge in veterinary practice are shown during lectures; 3) participation in research-oriented events, such as the [Researchers' Night](#), workshops, seminars and conferences; 4) writing scientific abstracts and/or papers related to their graduation theses; 5) the opportunity to attend an optional course entitled [Scientific Communication and Public Speaking](#); 6) the opportunity to establish contacts for research and practical clinic programmes during their theses and [pre-professional training](#) (on a voluntary basis).

Standard 10.3: The VEE must provide advanced postgraduate degree programmes, e.g. PhDs, 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.

Veterinary Continuing Medical Education (VCME) is mandatory in Italy and requires professionals to acquire 50 CME per year by attending accredited courses and taking a final MCQ exam. The postgraduate practical VCME is traditionally offered by external institutions (private and state scientific institutions) mainly due to the heavy burden of prior and practical academic teaching involved. Veterinary schools mainly deal with undergraduate courses and [postgraduate research programs](#), including: scholarships for young researchers (veterinarians under 29 years of age who graduated less than 2 years earlier), doctoral programs (structured 3-year research programs leading to a doctoral degree), internships (in rotation on small animals and specialized veterinary pathology) and National Schools of Specialization. The DVMSS also organizes seminars, workshops, and short courses ([Appendix 14](#)).

Schools of specialization: At the DVMSS, there are two [schools of specialization](#) (Table 10.3.1):

1) School of specialization in Animal Health Breeding and Livestock Production

Access is governed by an annually published call and 15 Veterinary Doctors are admitted to the School. At the end of the three-year training, the title of Specialist in Animal Health Breeding and Zootechnical Productions is acquired.

The course has a duration of 3 years, for a total of 180 credits. Teaching activities, each year, include:

- About 170 hours of theory, concentrated in the first months of the academic year, and with an attendance obligation of at least 75%. It is possible to follow theoretical lessons through distance learning in telematic or blending mode;
- About 230 hours of practical teaching activities to be carried out in presence. Training activities are, for the most part, held at the facilities of the NHS and other affiliated bodies in the study area chosen by the specializing students, and in small part under the guidance of teachers of the School (*work project, simulations of case studies, exercises, laboratory etc.*).

The training objectives of this school consist of deepening the knowledge of the Graduate in Veterinary Medicine in various areas such as the pathology, diagnosis, and prophylaxis of infectious and parasitic diseases of domestic animals. Particular attention is given to the prevention of zoonoses and associated health risks. The students also deepen their knowledge of breeding techniques, nutrition, well-being, and ethology. Lastly, expertise in the management of veterinary drugs, problems related to drug resistance, environmental contaminants in the production chain, and the improvement of animal production and their quality characteristics, respecting and safeguarding the environment is gained.

2) School of specialization in Food Inspection

Every year, 15 veterinarians are admitted to acquire the title of Specialist in Inspection of Food of Animal Origin. Graduates of this specialization school are professionals with technical, scientific, and professional skills in specific fields such as preventive veterinary medicine, health education, hygienic and sanitary management of food production, food safety, risk analysis, organization of health services, epidemiology, and food sector legislation. The course has a duration of 3 years, for a total of 180 credits. During this time, Specialist in Inspection of Food of Animal Origin, acquires and matures skills in management and control of food safety, organization of the processes of the agri-food chain, organization of procedures and tools of official control, voluntary certifications and basics of quality assurance. The contents of the lessons vary according to different topics for each year and are divided into:

- 200 hours / year of theoretical teaching activities to be carried out remotely or in a blended mode: on Thursday evening and Friday morning and evening;
- 200 hours / year of practical teaching activities to be carried out in presence, part in the classroom (work projects, simulations of case studies, exercises, etc.) and part at the NHS and other food production facilities (support, document analysis, evaluation of self-control plans). All practical activities are concentrated in the first months of the academic year. Great importance is given to the

support of a tutor from the Competent Authority (SSN) with whom students follow inspection activities in several slaughter plants and cutting laboratories, as well as food preparation and administration exercises (for a total of at least ten different facilities). The School of Specialization obliges students to minimally attend 75% of the planned teachings in order to achieve the defined training objectives.

Table 10.3.1. Number of students registered for postgraduate clinical training (Specialization school).

Training:	2019/2020	2020/2021	2021/2022	Mean
Specialization School in Animal Health Breeding and Livestock Production	15	15	15	15
Specialization School in Food Inspection	15	15	15	15
Total	30	30	30	30
Residents: EBVS disciplines				Tot
ECSHRM				1
EVPC				2

PhD courses: the DVMSS offers a [PhD course in Veterinary Sciences](#) (Table 10.3.2).

Educational program: The course is organized in two curricula: “Animal reproduction, pathology, production and well-being” and “Production, quality and safety of food of animal origin”. The PhD course provides students with teachings, seminars, workshops, and coaching that enables them to obtain a PhD degree. The PhD training program is formulated and expressed in research credits (CFR). CFR are acquired mainly through publications, presentation of works at conferences, work and research activities, participation in summer schools, seminars related to specific research topics, and disciplinary and interdisciplinary training activities. One CFR corresponds to: 1) 25 hours of project work, internship, student tutoring (max 2.5 x thesis); 2) 8 hours of teaching activities by the PhD student; 3) lectures and courses lasting between 5 to 8 hours (if lasting less than 4 hours: 0.5 CFR). At the end of the three-year course, PhD students must have acquired 180 CFR for the acquisition of the doctoral title in Veterinary Sciences. The teaching activities organized by the PhD course in Veterinary Sciences are carried out by highly qualified researchers from either the University of Sassari or other universities or research centers. Each curriculum will offer courses for a minimum of 4 CFR per year. Brief description: The PhD program offers research training activities in various fields, extending many scientific sectors of Veterinary Science. The aim of the PhD course in Veterinary Science is to develop research projects focused on updating and improving veterinary practices, including the subjects such as: animal anatomy and physiology; animal production; animal reproduction; animal pathology, parasitology, parasitic and infectious diseases; clinical science; safety and quality of food of animal origin. Research topics include: anatomy, physiology, and biotechnology applied to the reproduction of livestock animals and pets; livestock management systems, animal feeding, and animal welfare; domestic and wild animal nutrition and safety of feedstuffs; pathology and anatomical pathology; parasitic and infectious disease, including zoonosis; new diagnostics, surgical and obstetrical procedures in the treatment of animal disease (including stem cell, reparative, and growth factors therapy); internal medicine; pharmacology and toxicology; food safety and food quality assurance in the whole production chain, including raw, fresh, and processed food products. PhD students learn to apply biomedical research methods to veterinary sciences, food safety, and livestock production. Activities are carried out in laboratories, clinics, and all facilities available at the DVMSS. All PhD students are followed and guided in the development of their research project by a tutor. The doctoral program promotes internationalization through research periods abroad, the preparation of co-tutoring agreements with foreign researchers, the stipulation of agreements with foreign universities and research institutions, and the presence of researchers belonging to universities and research institutions located outside the national territory within the teaching staff. The doctoral program aims to train and produce qualified researchers in the various disciplines of the Veterinary Sciences through multidisciplinary scientific and cultural training transferred also through the provision of highly qualified specialized courses. Expected employment and professional opportunities: PhD students in Veterinary Sciences learn to work in fields of university and industrial research, in national and foreign organizations, and companies engaged in research and innovation activities in the field of livestock and small animal breeding, putting their knowledge of

reproduction techniques, prevention and treatment of diseases, animal welfare, animal production, and food production techniques to good use.

Table 10.3.2. Number of students registered for postgraduate research training.

	2019/2020	2020/2021	2021/2022	Mean
PhD in Veterinary Sciences				
Curriculum in Production, Quality and Safety of Food of Animal Origin	4	5	5	4.7
Curriculum in Animal Reproduction, Pathology, Production and Well-being	4	5	7	5.3
Total	8	10	12	10
Fellowships, Research contracts, Scientific consultants				
	57	42	37	45.3

Master: The DVMSS offers a Master's in Emergency Medicine and Intensive Care of Small Animals (MUTIPA). The last edition was held in 2019/2020 (Table 10.3.3).

The main goal of this Master's is to offer a targeted, multidisciplinary, and high-level specialist path aimed at obtaining professional skills in the field of emergency medicine and intensive care of small animals.

Particular emphasis is given to the practical preparation of the professional, with:

- A total of 324 hours dedicated to practical activities, divided into cadaver lab, real clinical cases, practice on mannequins, laboratory practice, interactive teaching;
- A practical stage (375 hours, 120 of which are with tutors), dedicated to practicing in national and/or international structures with special agreements.

The Master's is divided into modules.

A total commitment of 1500 hours is required to achieve the certification, equal to 60 credits divided as follows:

- 10 for frontal teaching activities;
- 27 for ECTS practical activities: cadaver lab, clinical cases, laboratory, interactive teaching, guided study, or other;
- 15 for the internship;
- 3 for supplementary teaching activities;
- 5 for the final exam.

Table 10.3.3. Number of students registered for other postgraduate programmes (Master).

Programme	2019/2021	Mean
Master in Emergency Medicine and Intensive Care of Small Animals (MUTIPA)	16	16

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

Courses	2019	2020	2021	2022	Mean
Seminars/Workshops	41	8	21	3	18.2

Prospective number of students registered for post-graduate programs in the next 3 academic years

The number of students enrolled in postgraduate programs is expected to increase, in particular the PhD candidates. This is due to the national program PNRR (Piano Nazionale di Resistenza e Resilienza), which is offering an increasing number of Ph.D. grants available in the next year.

Laboratories and facilities at the disposal of postgraduates, trainees of the Schools of specialization, and PhD students:

The DVMSS has the following research laboratories: 1) Food microbiology, chemistry, and rheological analysis of food; 2) Microbial identification; 3) Molecular biology; 4) Analysis of products of animal origin; 5) Analysis of nutritional biochemistry and metabolic profile; 6) Parasitological analysis; 7) Embryology, histology, and cell culture; 8) Endocrinology, hematology, and clinical biochemistry. Clinical research activities are carried out in the University Hospital and affiliated clinics, while other research, focused on animal nutrition and production, as well as on animal breeding and welfare, is carried

out in the respective departments of the teaching facilities and in other research agencies and centers, such as AGRIS Sardinia, FORESTAS, private farms, the Center for Comparative Surgery of the University of Sassari, and at the Laboratory of Veterinary Pharmacology and Toxicology at the University of Pisa. Research activities concerning the Safety of Food of Animal Origin are conducted at the following research laboratories of the DVMSS: Food Microbiology, Molecular Identification and Typing of Pathogens, Food Chemistry and Pilot Plants. Additionally, specific research activities can be carried out within public research institutes and food establishments, providing agreements.

Specialists of the European College: There are 4 [EBVS specialists](#) from different European Colleges among the academic staff of the DVMSS. Prof. Antonio Scala and Prof. Antonio Varcasia (Diplomates of both the [ECSHRM](#) and the [EVPC](#)), Prof. Giovanni Pietro Burrai (Diplomate of the [ECVP](#)) and Dr. Marco Fantinati (Diplomate of the [ECVCN](#), with Prof. Maria Grazia Cappai who completed a Residency at the [ECVCN](#) in 2021 from the University of Veterinary Medicine of Zurich). At the moment three residents are present in the VEE: Dr. Sebastian Mignacca of the [ECSHRM](#) college, tutored by Prof. Antonio Varcasia, and Dr. Silvia Carta (resident) and Dr. Francesca Nonnis (intern) of the [EVPC](#) college (Internal), tutored by Prof. Antonio Scala. The VEE is also officially registered and accredited by the EVBS as a residency facility for the [ECSHRM](#) since 2013 (the only facility present in Italy). Internships for the European College of Veterinary and Comparative Nutrition ([ECVCN](#)) can be offered to postgraduate students, although no accredited residency programme can be run at the moment in accordance with the rules of the College, requiring the Department to be EAEVE Accredited.

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

The DVMSS research programme evaluation takes place on 3 levels:

- National: defined by the [ANVUR](#) quality assurance programme;
- University: coordinated by the [Vice-Rector for Research](#);
- Internal: by the [DVM Research Committee](#) (RC).

[ANVUR](#), the National Agency for Evaluation of University and Research, assesses the quality of academic research and other public bodies through the VQR program using mainly bibliometric parameters (from SCOPUS and Web of Science) on selected publications of the research/department staff. The assessment concerns a period of 4 years (the last one in 2015-2019) and takes place every 4 years. The final report, published by the Agency, includes university, departmental, and SDS rankings. The Research Quality Assessment (VQR) reports of 2015-2019 were discussed at the university level and in the DVMSS in the presence of student representatives. The internal standards of the research organization are set by the [DVM Research Committee](#) (RC). At present, the RC has 8 members, one representative for each of the listed scientific areas: CS 07/H1, 07/H2, 07/H3, 07/H4, 07/H5, 07/G1, 05/E1, 05/B1. On average, the RC meets every 3 months and promotes research through: (a) annual funding allocations of research staff to the department following the evaluation of research projects (quality and potential impact of the proposal, applicant's bibliometric indexes) and monitoring of the quantity and quality of the scientific output (in particular for postdoctoral RTD-A and RTD-B positions); b) coordination of actions aimed at the continuous updating of institutional (personal website of the MIUR database) and online (ORCID, SCOPUS, Web of Science) repositories containing all the staff's research products; (c) identification of actions in favor of inactive staff members (low number/quality publications). The results of the research activity are summarized in SUA-RD (Single Annual Departmental Research Sheet), a self-assessment document based on a standard form provided by ANVUR. See also [Appendix 5](#) for the most relevant peer-reviewed publications, and [Appendix 15](#) for a list of the research areas of DVMSS. In this context, the research activities in the VEE provide opportunities for student training in particular within the PhD School. Indeed, PhD topics and scholarships are defined on the basis of ongoing projects and active research lines in the DVMSS ([Appendix 18](#)).

Comments on Area 10 - The DVMSS considers research and postgraduate practical teaching activities a relevant part of its education programs. The doctoral school is generally considered to be well organized and has been ranked as one of the university's best doctoral programs based on its curriculum, internationalization, participation of all active staff members, and transparency. With regard to research, all undergraduate students are encouraged to participate in and experience several research activities, in particular during their last two years of the degree course. This builds a strong network between undergraduate students, PhD students, professors, and their research. As a result, a significant number of our graduates attend postgraduate programs, including doctoral programs.

Suggestions for improvement in Area 10 - There is room for improvement in the aspects managed by the DVMSS: increase the number of internship and residency programs; increase the number of trainees on a voluntary rotation basis through advertising posts on the VEE website and informing external stakeholders; increase the number of agreements and contracts for carrying out internships with external subjects.

ESEVT Indicators – Sassari VEE					
Name of the Establishment:		Dipartimento di Medicina Veterinaria - Università degli Studi di Sassari, Italy			
Name & mail of the Head:		Prof. Enrico Pietro Luigi De Santis - vetpres@uniss.it			
Date of the form filling:		20 December 2022			
	Raw data from the last 3 full academic years	2019/20	2020/21	2021/22	Mean
1	n° of FTE academic staff involved in veterinary training	67	64.5	69.5	67.0
2	n° of undergraduate students	233	244	233	236.7
3	n° of FTE veterinarians involved in veterinary training	52	50.5	51.5	51.3
4	n° of students graduating annually	23	35	12	23.3
5	n° of FTE support staff involved in veterinary training	33	32	30	31.7
6	n° of hours of practical (non-clinical) training	995	986	995	992.0
7	n° of hours of clinical training	659	633	941	744.3
8	n° of hours of FSQ & VPH training	454	465	454	457.7
9	n° of hours of extra-mural practical training in FSQ & VPH	74.5	0	56	43.5
10	n° of companion animal patients seen intra-murally	356	483	689	509.3
11	n° of ruminant and pig patients seen intra-murally	1	4	7	4.0
12	n° of equine patients seen intra-murally	14	16	23	17.7
13	n° of rabbit, rodent, bird and exotic patients seen intra-murally	4	3	30	12.3
14	n° of companion animal patients seen extra-murally	0	29	68	32.3
15	n° of individual ruminants and pig patients seen extra-murally	528	350	756	544.7
16	n° of equine patients seen extra-murally	54	29	157	80.0
17	n° of visits to ruminant and pig herds	21	2	35	19.3
18	n° of visits of poultry and farmed rabbit units	4	2	5	3.7
19	n° of companion animal necropsies	0	0	42	14.0
20	n° of ruminant and pig necropsies	0	0	16	5.3

21	n° of equine necropsies	0	0	10	3.3
22	n° of rabbit, rodent, bird and exotic pet necropsies	0	0	39	13.0
23	n° of FTE specialised veterinarians involved in veterinary training	2	3	3	2.7
24	n° of PhD graduating annually	8	10	12	10.0

Name of the Establishment:		Dipartimento di Medicina Veterinaria - Università degli Studi di Sassari, Italy			
Date of the form filling:		20 December 2022			
Calculated Indicators from raw data		Establishment values	Median values ¹	Minimal values ²	Balance ³
I1	n° of FTE academic staff involved in veterinary training / n° of undergraduate students	0.283	0.15	0.13	0.157
I2	n° of FTE veterinarians involved in veterinary training / n° of students graduating annually	2.200	0.84	0.63	1.570
I3	n° of FTE support staff involved in veterinary training / n° of students graduating annually	1.357	0.88	0.54	0.817
I4	n° of hours of practical (non-clinical) training	992.000	953.50	700.59	291.410
I5	n° of hours of clinical training	744.333	941.58	704.80	39.533
I6	n° of hours of FSQ & VPH training	457.667	293.50	191.80	265.867
I7	n° of hours of extra-mural practical training in FSQ & VPH	43.500	75.00	31.80	11.700
I8	n° of companion animal patients seen intra-murally / n° of students graduating annually	21.829	62.31	43.58	-21.751
I9	n° of ruminant and pig patients seen intra-murally / n° of students graduating annually	0.171	2.49	0.89	-0.719
I10	n° of equine patients seen intra-murally / n° of students graduating annually	0.757	4.16	1.53	-0.773
I11	n° of rabbit, rodent, bird and exotic patients seen intra-murally / n° of students graduating annually	0.529	3.11	1.16	-0.631
I12	n° of companion animal patients seen extra-murally / n° of students graduating annually	1.386	5.06	0.43	0.956
I13	n° of individual ruminants and pig patients seen extra-murally / n° of students graduating annually	23.343	16.26	8.85	14.493
I14	n° of equine patients seen extra-murally / n° of students graduating annually	3.429	1.80	0.62	2.809
I15	n° of visits to ruminant and pig herds / n° of students graduating annually	0.829	1.29	0.54	0.289
I16	n° of visits of poultry and farmed rabbit units / n° of students graduating annually	0.157	0.11	0.04	0.112
I17	n° of companion animal necropsies / n° of students graduating annually	0.600	2.11	1.40	-0.800
I18	n° of ruminant and pig necropsies / n° of students graduating annually	0.229	1.36	0.90	-0.671
I19	n° of equine necropsies / n° of students graduating annually	0.143	0.18	0.10	0.043
I20	n° of rabbit, rodent, bird and exotic pet necropsies / n° of students graduating annually	0.557	2.65	0.88	-0.323
I21*	n° of FTE specialised veterinarians involved in veterinary training / n° of students graduating annually	0.114	0.27	0.06	0.054

I22 *	n° of PhD graduating annually / n° of students graduating annually	0.429	0.15	0.07	0.359
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¹ Median values defined by data from Establishments with Accreditation/Approval status in May 2019

² Recommended minimal values calculated as the 20th percentile of data from Establishments with Accreditation/Approval status in May 2019; ³ A negative balance indicates that the Indicator is below the recommended minimal value

* Indicators used only for statistical purpose

Comments on ESEVT indicators:

The following ESEVT Indicators turned out to reach a final negative balance over the years monitored in this SER:

Indicator I8 relates to the number of companion animal patients seen intramurally that sets below the minimum requirements. This result is the consequence of the dramatic shrink in VTH activities due to the COVID-19 pandemic and to the progressive reduction in academic and non-academic staff and to the lack of medical equipment. It should be noted that during the Covid19 pandemic lectures were done remotely and PTTs were conducted in the regions of residence (many students do not reside in Sardinia). This condition led to many clinical cases running in the VTH unattended by students.

Indicator I9 relates to the number of ruminants and pigs seen intramurally that sets below the minimum requirements. The causes are the same as reported for indicator I8. It's also crucial to underline that farmers and herders of Sardinia are reluctant to hospitalise or to conduct those animals to the VTH, due to transportation costs. For such reasons, a higher number of ruminants and pigs are reached and visited extra-murally.

Indicator I10 related to the number of equine seen intramurally that sets below the minimum required. The causes are the same as reported for indicator I8. Additionally the Covid-19 pandemic has caused a significant decrease in the various equestrian disciplines, at all levels, in the commitment of breeders and in the handling of animals which have led to a significant decrease in activities. To meet the minimum requirements of activities on equine clinics the Department activated 3 contracts with practitioners to increase the practical training of students to extra-mural equine clinical cases.

Indicator I11 relates to the number of rabbit, rodent, bird and exotic patients seen intramurally which turned out to set below the minimum requirements. During the former two academic years activities suffered from the lack of specialist in exotic medicine. In 2022, a new agreement was started up with a veterinary specialist in exotic animals. This was a corrective measure that allowed to record an increase in the number of exotic patients ten folds in the AY 2022/2023.

Indicator I19 - the Covid 19 pandemic caused a slowdown in the activities of the teaching hospital which was one of the main sources of cadavers for necropsy. Moreover, in 2021 the teaching activities could not be given in person in a constant manner for the continuous positivity to Covid-19 new cases and the governmental sanitary rules. In 2022 the re-establishment of the network of contacts was not easy and finding suitable clinical case studies was hard task, along with biological material for the necropsy.

Indicator I20 and I22 - Reasons leading to the negative balance of this indicator share the same background of the very difficult conditions described earlier for other indicators. Moreover in this case, difficulties in travelling and in accessing companies was rendered harder due to health saving restrictions. In 2022, with the restart of normal teaching activities, the greatest difficulty turned out that of re-establishing the network of contacts with farmers and farm practitioners

Suggestion for improvement of ESEVT indicators:

It is crucial to reactivate 24 Emergency and critical care services and to increase specialised clinical services that would attract more clients. Another important step will be the renewal of agreements with the Regional Government of Sardinia and Municipality of Sassari for stray animals. The low indicators for ruminants and pigs seen intramurally can be addressed creating awareness campaigns to farmers and herders about the services of VTH or compensating outside. Regarding the necropsy indicators several corrective actions to increase the number of corpses have been activated: 1) agreements with chicken and rabbit farms; 2) [agreement](#) with the IZS for necropsy with students; 3) More hours scheduled within the

clinical rounds in 3th and 5th year and into the 5th year Tirocinio; 4) Contracted practitioner to support the academic staff for practical activities on necropsies (see AREA 5).

The VEE periodically will continue to monitor the indicators to correct those that are not in compliance.

Glossary

AGRIS: Sardinian Regional Agency for scientific research, experimentation and technological innovation in the agricultural, agro-industrial and forestry sectors	ICQA: Internal Committee Quality Assurance
AMR Degree Course Annual Monitoring Report	IRIS: Institutional Research Information System
ANVUR: Italian National Agency for the Evaluation of Universities and Research Institutes	IT: Information Technology
ASL: Local Public Health Authority	IZS: Zooprofylactic & Research Institute
AY: Academic Year	JTSC: Student-Staff Joint Teaching Committee
CC: EAEVE Commission Coordinator	LA: Large Animals
CIQA: Committee on Internal Quality Assurance (of EAEVE)	LAORE: Regional Agency for rural development and agrotechnique programming
CMR: Monitoring and Review Committee	LTSC: Library Technical-Scientific Committee
CSB: Library Services Coordination Office	MIUR: Italian Ministry of Education, University and Research
CSER: Consultative SER	MUR: Italian Ministry of University and Research
DGP: Degree Course President	ND: Nutrition Desk
DIRIP: AGRIS Equine Research and Breeding Department	OIE: World Organisation for Animal Health
DOC: Day One Competences	PDCA: Plan, Do, Check, Act management method
DVM-LM: Department of Veterinary Medicine - Laboratory Manager	PH: Public health
DVMSS: Department of Veterinary Medicine of Sassari	PhD: Doctor of Philosophy
EAEVE: European Association of Establishments for Veterinary Education	PPS: Prevention and Protection Service
EBVS: European Board of Veterinary Specialisation	PPT: Professional Practical Traineeship
ECCVT: European Coordination Committee on Veterinary Training	QA: Quality Assurance
ECOVE: European Committee of Veterinary Education	QAC: Quality Assurance Committee
ECSRHM: European College of Small Ruminant Health Management	QAMC: Quality Assurance Management Commission
ECTS: European Credit Transfer System	QIEC: Quality Independent Evaluation Committee
ECVCN: College of Veterinary and Comparative Nutrition	REC: Research Education Credits
ECVP: European College of Veterinary Pathology	SA: Small Animals
EN: Evaluation Nucleus	SER: Self Evaluation Report
ENQA: European Network for Quality Assurance in Higher Education	SLD: Specific Learning Disorders
EPT: External Practical Training	SOP: Standard Operating Procedure
ERSU: Regional Agency for the Right to University Study	STS: Scientific and Teaching Subjects
ESEVT: European System of Evaluation of Veterinary Training	SUA-CdS: Degree Course Single Annual Report
ESG: Standards and Guidelines for Quality	SWOT: Strengths, Weaknesses, Opportunities, Threats
EVF: European Veterinary Federation	TM: Third Mission
EVPC: European Veterinary Parasitology College	ULC: Uniss Library Committee
FSQ: Food Safety and Quality	ULS: University Library System
	UNISS: University of Sassari
	UniSSearch: A digital portal that grants acces to all resources and services of the ULS
	URCS: University Recreation Club of Sassari
	VCME: Veterinary Continuing Medical Education
	VEE: Veterinary Education Establishment
	VEE's Head: The person who officially chairs the above described VEE, i.e. Rector, Dean, Director, Head of Department, President, Principal
	VMDC: Veterinary Medicine Degree Council
	VMDP: Veterinary Medicine Degree Programme
	VPH: Veterinary Public Health
	VQR: Evaluation of Research and Third Mission

FTE: Full-Time Equivalent
GA: General EAEVE Assembly

VTH: Veterinary Teaching Hospital

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Note: Appendices are provided as supplement of this Self-Evaluation Report, however they have already been stored in the [VEE website](#) and you'll find them linked in text. In the back cover and in Appendix 25 there are several QR that are linked to several videos realised by the VEE.



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